



# TO OUR SHAREHOLDERS

In 2017, we made Integra LifeSciences an even stronger company.

We completed two transformative acquisitions to solidify our global leadership position in neurosurgery and regenerative technologies. We launched a number of new products, made significant investments in our R&D capabilities, improved our supply chain management and maintained our focus on operational excellence. We invested in our sales channels to create specialization and achieve greater focus in addressing our customers' needs. By year-end, we passed the \$1 billion revenue milestone.

These accomplishments strengthened our market position in key segments and enabled us to continue to deliver value to our shareholders.

In 2017, we finished the year financially strong, with increased organic growth from our base business and solid performance from our recently acquired businesses. Total revenues for 2017 were \$1.19 billion, an increase of \$196.2 million, or 19.8 percent, over the prior year.

The Codman Specialty Surgical segment, which contributed 61 percent of our revenues, grew 13.9 percent to \$720.3 million versus the prior year. We attribute this growth to revenue contributions from the Codman Neurosurgery acquisition, the global launch of CUSA® Clarity ultrasonic tissue ablation system, and growth in our dural access and repair franchise.

The Orthopedics and Tissue Technologies segment grew 30.1 percent to \$467.9 million versus a year ago, primarily driven by revenue contributions from the Derma Sciences acquisition, strong performance in our regenerative technologies franchise – including our private-label business – and growth in our ankle and shoulder product portfolios.

These encouraging results demonstrate we can achieve our goals by executing on clear strategies, capitalizing on our strengths, and maintaining a relentless focus on growth.



### STRATEGIES TO DRIVE GROWTH

In 2017, we evolved our strategy to focus on four key pillars that will sustain growth in the long-term — build an execution-focused culture, achieve relevant scale, improve speed and agility, and become a leader in customer excellence. Throughout the year, we prioritized our strategic initiatives in these areas.

Last year, we completed the acquisitions of Derma Sciences, Inc. and the Codman Neurosurgery business of Johnson & Johnson to increase our scale and improve our competitive positions in advanced wound care and neurosurgery.

The acquisition of Derma Sciences in February 2017 doubled the size of our outpatient wound care sales channel and expanded our portfolio to include market-leading products such as MediHoney® and the TCC-EZ® total contact cast system. This acquisition has enabled us to offer clinically and economically differentiated products for clinicians and patients.

In October 2017, we completed the Codman Neurosurgery acquisition, the most transformational acquisition in our company's history, which allowed us to offer a comprehensive neurosurgery product portfolio and expanded our international sales channel so we can enter new markets around the world. To take advantage of the strong heritage of the Codman name, we renamed our Specialty Surgical division as Codman Specialty Surgical to benefit our other franchises and enhance our competitive position.

Another core focus is executing on research and development and new product introductions to sustain our long-term growth. In 2017, we achieved significant milestones in R&D and successfully launched more than seven regenerative products — a company record. Additionally, we introduced our largest electromechanical product, CUSA® Clarity system, which has been well-received by our customers worldwide. We also enhanced our orthopedic product portfolio, launching Titan™ Press-Fit Reverse for shoulder arthroplasty to treat humeral fractures, and commercially expanding the Cadence® Total Ankle System in the United States and Europe. Both products are strong growth drivers for us.

In addition to introducing new products, we funded studies to gather economic data and clinical evidence in support of our existing products. For example, we began postmarket studies in the United States and Europe for the Cadence ankle to evaluate two-year implant survivorship in patients. We believe these studies will ensure market access and improve reimbursement.

### INVESTING IN OUR FUTURE

Throughout the year, we continued to invest in our business and lay the foundation for even greater success in the coming years. We made significant investments in our facilities, most notably opening the Center of Orthopedic Excellence in Austin, Texas, underscoring the importance of the orthopedic segment to our overall business. We completed the expansions of our Collagen Manufacturing Center in Plainsboro, New Jersey, and our instrument manufacturing facility in Saint-Aubin, France. Operationally, we advanced our key goals around manufacturing automation, quality improvements and supply chain management.

On the commercial front, we expanded our global sales channels across our business segments and aligned our sales teams to further strengthen our customer relationships. We also advanced many customer experience initiatives, investing in technologies, tools and training for our customer-facing colleagues to strengthen our position as a supplier of choice.

Internationally, we began creating the commercial infrastructure to support our sales organization and maximize our opportunities. We expanded our offices in Tokyo, Japan, and Shanghai, China, to accommodate growth in the Asia Pacific region. We plan to build on the success of our professional education programs to drive ongoing customer appreciation of our growing portfolio of medical technologies globally.

We have always believed having the right people with the right skills, aligned with our values, is critical to our long-term success. Throughout the year, we made progress on our organizational priorities to attract, develop and retain strong talent. We further developed our leaders through the manager training program we launched a few years ago. Last year, we welcomed more than 1,300 new colleagues to our organization, including more than 700 colleagues from Derma Sciences and Codman Neurosurgery.

We also made significant progress in driving our goals for diversity and inclusion. In 2017, we created the Women's Leadership Council, consisting of our senior female leaders, who are tasked with determining ways to attract and retain female talent, advance the development of women into leadership roles, and increase cultural awareness of the value of diversity and inclusion. Integra believes a talented and inclusive workforce is essential to sustaining a competitive and successful organization.

Finally, we expanded our executive leadership team with the appointment of Michael McBreen as president of the international business. Mike's experience and knowledge of Codman Neurosurgery will be a strong asset as we continue to integrate this business. Additionally, earlier in 2018, we added Sravan K. Emany as treasurer and head of investor relations. Sravan's solid experience in managing financial and strategic issues for complex organizations will help us drive greater shareholder value.

### A WORD OF THANKS

We are proud of our accomplishments in 2017 and believe our results provide a solid foundation for the future. Our investments in our sales channels, combined with a strong pipeline of new products, registrations, and clinical and economic data, are expected to drive faster organic growth globally.

I want to express our appreciation to the many people who contributed to our success last year.

I thank our shareholders for investing in our company. We will continue to demonstrate your confidence in us is well-placed.

I thank our customers for your trust in us. Be assured we remain committed to bringing high quality medical technologies, so you can provide exceptional care to your patients and enable them to live healthier and more productive lives.

Finally, I thank the 4,400 talented colleagues throughout Integra for their hard work and outstanding contributions to our success. In particular, in the aftermath of Hurricane Maria, we were inspired and motivated by the outpouring of support across Integra for our Puerto Rico-based colleagues. It is this spirit of giving and compassion for others that makes Integra a special company.

With the support of our shareholders, the trust of our customers and the talent of our colleagues, we remain committed to bringing transformative healthcare products and solutions to millions of people around the world. Of all our accomplishments, making a difference in the lives of patients serves as the inspiration that will drive greater success in the years to come.



Sincerely,



Peter Arduini
President and CEO

# **BOARD OF DIRECTORS**



Peter J. Arduini
President and
Chief Executive Officer,
Integra LifeSciences



Keith Bradley, Ph.D.
former Professor of International
Management and Management
Strategy, Open University and
Cass Business School, U.K.,
and Chair, Compensation
Committee



Stuart M. Essig, Ph.D.

Managing Director, Prettybrook
Partners, LLC, and Chairman
of the Board



Barbara B. Hill
Operating Partner,
NexPhase Capital



Lloyd W. Howell, Jr.
Chief Financial Officer and
Treasurer, Booz Allen Hamilton



Donald E. Morel, Jr., Ph.D. former Chief Executive Officer, West Pharmaceutical Services, Inc.



Raymond G. Murphy former Senior Vice President and Treasurer, Time Warner Inc., and Chair, Audit Committee



Christian S. Schade
President and Chief Executive
Officer, Aprea Therapeutics, and
Chair, Finance Committee



James M. Sullivan former Executive Vice President of Lodging Development, Marriott International, Inc., and Chair, Nominating and Corporate Governance Committee

# **MANAGEMENT TEAM**





ORTHOPEDICS AND TISSUE TECHNOLOGIES

- Represented 39 percent of global revenues in 2017
- Global leader in regenerative technologies, including skin substitutes and products to treat burns

The Orthopedics and Tissue Technologies (OTT) segment provides products and solutions that address soft tissue, nerve, and tendon repairs, as well as reconstruction in the hand, wrist, elbow, shoulder, ankle and foot.

Integra is a pioneer and global leader in regenerative technologies. Our Integra® Dermal Regeneration Template was the first product approved by the FDA to regenerate dermal tissue. Since then, we have built our expertise in regenerative medicine to accommodate a broad range of specialties, including wound reconstruction, plastic and general surgery. Our regenerative products have been used successfully in more than 10 million procedures worldwide. These products are used to provide treatment for acute wounds such as burns, chronic wounds including diabetic foot ulcers, surgical tissue repair including hernia repair, peripheral nerve repair and protection, and tendon repair. The OTT business segment also includes private-label sales of a broad set of our regenerative and wound care technologies, serving other medical technology companies that sell to end markets, primarily in orthopedics, spine, surgical and wound care.

In early 2017, we acquired Derma Sciences, a leading provider of acute and chronic wound care products. This acquisition contributed to OTT's growth in 2017, doubling the U.S. outpatient advanced wound care sales team and broadening the base portfolio of products to prepare, treat and protect wounds. It also has created opportunities for expansion in the plastic and reconstructive surgery segments.

# Seeking better quality of life.



For the past two years, Shelley Meyers was missing out on the things she loved the most – walking the dog, riding her bike and going on her paddleboat. Chronic ankle pain limited Shelley's life, particularly her involvement in family activities.

Diagnosed with arthritis, the doctor gave her several options to address the constant pain. Of the choices presented, Shelley opted to undergo total ankle reconstruction. She believed it was the best option for her to regain quality of life. The surgeon used Integra's Cadence® Total Ankle System, modeled after the human anatomy and replicating the natural ankle, providing the ability to reproduce the ankle's natural movement. The Cadence system has garnered positive feedback among its users for advancements in implant and instrument design, along with a streamlined surgical technique. It incorporates several features to accommodate various patient anatomies, reduce potential clinical complications, and address common challenges associated with ankle arthroplasty.

"Making the decision to undergo total ankle reconstruction surgery was the best thing I ever did," said Shelley. "I am starting to enjoy life again and I know it will only get better from here."

Additionally, in 2017, OTT successfully launched a record number of regenerative products. These new products include SurgiMend® MP and SurgiMend® PRS Meshed Collagen Matrix, Revize® / Revize®-X Collagen Matrix, Integra® Dermal Regeneration Template Single Layer "Thin" in Europe, along with new sizes of PriMatrix® Dermal Repair Scaffold and Omnigraft® Dermal Regeneration Matrix. The availability of new regenerative technology solutions provides surgeons with a variety of options to address their most complex procedures.

The OTT division launched several orthopedic products, including the Titan™ Press-Fit Reverse for shoulder arthroplasty to treat humeral fractures. In addition, we expanded the commercial availability of Cadence® Total Ankle System, our recent ankle prosthesis developed in partnership with world-leading foot and ankle surgeons. We also began postmarket studies in the United States and Europe for the Cadence ankle to evaluate two-year implant survivorship in patients. Last year, a leading trade publication recognized the Cadence ankle as one of the top 10 innovations in podiatry.

In 2017, Integra opened its Center of Orthopedic Excellence in Austin, Texas. The new 56,000-square foot facility, incorporating a product development lab, training area, and workspace, is an investment in the business and our people, designed to provide an enhanced work environment to promote collaboration and teamwork among our employees. We envision this center of excellence as one of Integra's hubs for innovation, attracting leading orthopedic surgeons from all over the world.

In the last several years, we have made significant investments in our channel expansion in the United States. Most recently, to drive sustainable growth, we established four dedicated sales channels to create greater focus and specialization within our call points. We have a specialized sales organization of directly employed sales representatives, as well as specialty distributors, organized based on their call point. Our extremity orthopedics sales representatives call on surgeons who treat extremity orthopedic disorders, including osteoarthritis, rheumatoid arthritis, wrist, ankle and shoulder arthroplasty, and other conditions requiring foot or hand reconstruction. In addition, we sell our shoulder products through a network of specialized sales agents who call on shoulder surgeons. Our wound reconstruction acute (inpatient) sales representatives call on surgeons performing procedures in limb salvage, trauma, wound reconstruction and burns, while our advanced wound care sales representatives call on physicians who treat chronic wounds in the outpatient wound care clinic setting. We also have a dedicated surgical reconstruction sales team with differentiated products focused on plastic and reconstructive surgery, and hernia procedures. Finally, we have a distributor network focused on biologics.

Outside the United States, we have a direct sales presence, primarily in certain European countries, Australia, New Zealand, and Canada, and have retained distributors and sales agents in other international markets to sell certain product lines.

# On the road to recovery.

In April 2017, Colette Potter, an elementary schoolteacher, noticed a blister on her foot, which progressively worsened over a three-month period and affected her mobility. Colette, who was diagnosed with Type II diabetes more than 20 years ago, sought the expertise of Dr. Eric Lullove, a podiatric surgical specialist.

Dr. Lullove immediately diagnosed her with lower extremity sepsis, with gas gangrene tracking all the way through her foot and the lateral side of her leg. "Most diabetic patients with gas gangrene of the leg would be at high risk for a major amputation," said Dr. Lullove. "It was important to get her to emergency surgery to quickly address the source of infection."

After adequate surgical control of her severe infection, Dr. Lullove used PriMatrix® Dermal Repair Scaffold to address the significant tissue loss. Colette continued to receive wound care and repeated applications of PriMatrix as well as revisional surgery to treat osteomyelitis in her heel bone. Additionally, using a combination of the TCC-EZ® casting and tissue regeneration strategies, Colette avoided amputation and has full weight bearing of her foot.

"I am pleased with the progress Colette has made," said Dr. Lullove. "Her lateral leg and foot wounds have completely healed and her heel area, which is the hardest and longest area to heal, has continued to slowly progress towards closure. She is well on her way to recovery and getting back to what she loves, teaching."





# CODMAN SPECIALTY SURGICAL

- Represented 61 percent of global revenues in 2017
- Global leader in neurosurgery

Every day, surgeons rely on Integra products for complicated procedures critical to saving lives. Our broad portfolio of advanced surgical and post-care technologies, and general and specialty surgical instruments cater to an extensive range of specialties, including neurosurgery, neuro-intensive care, and ear, nose and throat, among others.

Our Codman Specialty Surgical (CSS) segment, previously known as Specialty Surgical Solutions, offers global, market-leading technologies, brands and instrumentation. Our product portfolio represents a continuum of care from pre-operative, to the neurosurgery operating room, to the neuro-critical care unit and post-care for both adult and pediatric patients suffering from brain tumors, brain injuries, cerebrospinal fluid pressure complications and other neurological conditions. Additionally, the CSS portfolio includes a range of surgical headlamps and instrumentation, as well as specialty instruments used in acute care surgical centers. CSS also offers valuable services to central sterile processing departments of hospitals with its proprietary asset management software and inventory support.

In 2017, the CSS business segment achieved several notable milestones. The acquisition of Codman Neurosurgery from Johnson & Johnson increased our direct sales force and international presence. This acquisition expanded the product portfolio of our market-leading technologies in dural repair, ultrasonic tissue ablation, intracranial pressure monitoring and hydrocephalus management, while providing a strong research and development pipeline for future growth.

# Making a difference in the operating room.



"It's an amazing advancement I wish we had years ago," said Dr. Gerald Grant, associate professor of neurosurgery at Stanford University Medical Center. For Dr. Grant, CUSA® Clarity has transformed his approach to the removal of fibrous tissue. This new digital platform has an ergonomic design and is easy to operate. He likens the handpiece to a pencil—light enough to reduce hand fatigue, which makes a difference in neurosurgical procedures that can sometimes last up to ten hours.

CUSA Clarity is the only ultrasonic tissue ablation system that combines a tough tissue tip, continuous tissue contact, an ergonomic handpiece, and adaptive power – all in one system. These four integrated components provide a greater than 50 percent increase in the removal rate of fibrous tissue over the CUSA® Excel+ system.

"Neurosurgery is a rapidly changing field and the new CUSA Clarity system is scalable and adaptable to support future enhancements," said Dr. Grant. "For hospitals and the operating team, this is a game changer."

We also announced the publication of a new economic study in the Journal of Health Economics and Outcomes Research. The study demonstrated greater clinical effectiveness of Integra's DuraSeal® dural sealant at preventing cerebrospinal fluid leaks after posterior fossa surgery, compared to fibrin glue. Moreover, this 200-patient study showed that DuraSeal's clinical efficacy versus fibrin glue may help hospitals reduce costs, averaging \$1,666 in savings per patient.

We introduced our next-generation CUSA® Clarity ultrasonic tissue ablation system, which we developed with extensive feedback from more than 150 customers worldwide. Its ergonomic design, including an improved handpiece that provides sustained comfort and precision, has been well-received by neurosurgeons and their operating teams. In our instruments franchise, we acquired an asset management application, providing our sales teams with a comprehensive solution to hospitals for inventory management.

Our broad portfolio of quality surgical instruments, combined with our strong U.S. distribution model, enables us to serve the needs of hundreds of physician, dental and veterinary offices. Moreover, our global commercial network, which includes clinical specialists, a large direct sales force and strategic partnerships and distributors, expands our reach to hospitals, integrated health networks, group purchasing organizations, clinicians, surgery centers and health care providers throughout the world.

### Capitalizing on Opportunities in Japan

Japan is an important market – one that provides many opportunities for us. With our portfolio of products, market development efforts and expanded commercial organization, we believe we are well-positioned to grow our business in this market in the coming years.

The acquisition of Codman Neurosurgery in 2017 enabled us to create a strong direct commercial presence in Japan, allowing us to better focus on addressing customer needs locally. With many new product registrations on the horizon, we can offer important products to our customers.

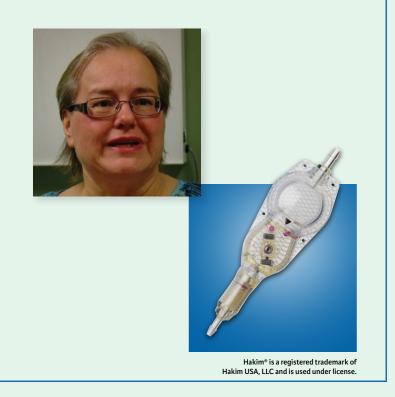
Additionally, we believe in the importance of medical education and helping surgeons understand the capabilities of our products and the valuable support they bring to their practice and patient care. In Japan, we are using a unique simulation device to educate physicians on the role of hydrocephalus valves in the lives of patients. This program has been well-received and we are looking forward to introducing this simulation to our other key markets around the world.

# Getting a life back.

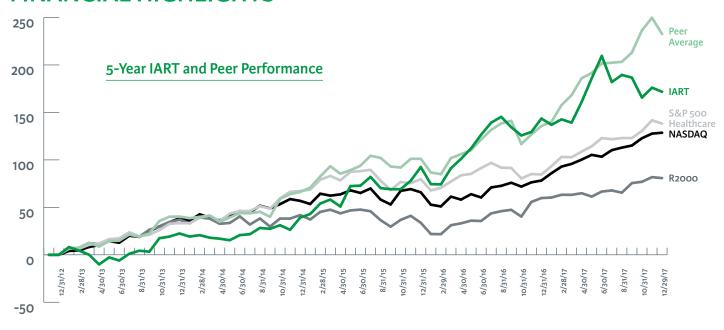
For nearly seven years, Susan Kline experienced unexplained memory problems, cognitive decline, bladder issues, difficulty balancing that led to frequent falls, and eventually, confinement to a wheelchair. She was initially diagnosed with Alzheimer's disease and had no choice but to leave her home to live in a nursing facility.

Through the persistence of a neurosurgeon, further testing revealed Susan had a condition called normal pressure hydrocephalus (NPH), an under-recognized neurological disease with symptoms similar to Alzheimer's disease. After this diagnosis, Susan was fitted with Integra's Codman® Hakim® Programmable Valve. This product has multiple pressure settings that allow the neurosurgeon to make precise adjustments to control intracranial pressure at any time.

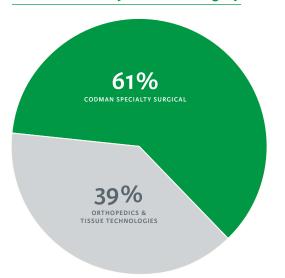
Less than a day after surgery, Susan was out of the wheelchair. Three weeks later, she moved back to her home and regained her independence. "NPH almost robbed me of a life with my children and grandchildren," said Susan. "Today, all those symptoms are gone and I have my life back."



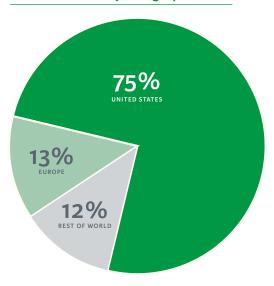
# FINANCIAL HIGHLIGHTS



#### 2017 Revenues by Product Category



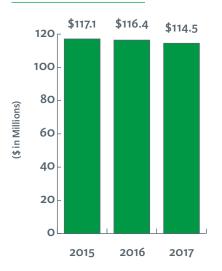
#### 2017 Revenues by Geographic Area



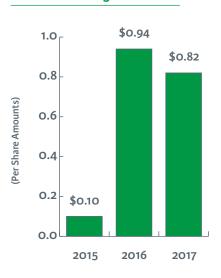
**Total Revenues** 



**Operating Cash Flow** 



**Diluted Earnings Per Share** 



### **UNITED STATES** SECURITIES AND EXCHANGE COMMISSION **WASHINGTON, DC 20549**

	FORM	10-K
(Mark One)		
$\times$	ANNUAL REPORT PURSUANT TO S EXCHANGE ACT OF 1934	ECTION 13 OR 15(d) OF THE SECURITIES
	For the fiscal year ended December 31, 2017	
	TRANSITION REPORT PURSUANT TO EXCHANGE ACT OF 1934	SECTION 13 OR 15(d) OF THE SECURITIES
	For the transition period from to	
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	<b>DELAWARE</b> (STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	51-0317849 (I.R.S. EMPLOYER IDENTIFICATION NO.)
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Interactive Da	ata File required to be submitted and posted pursuant to I	ectronically and posted on its corporate Web site, if any, every Rule 405 of Regulation S-T (§232.405 of this chapter) during the required to submit and post such files). Yes $\boxtimes$ No $\square$
not be contain		t to Item 405 of Regulation S-K is not contained herein, and will e proxy or information statements incorporated by reference in
reporting con		ated filer, an accelerated filer, a non-accelerated filer, a smaller itions of "large accelerated filer," "accelerated filer," "smaller of the Exchange Act. (Check one):
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	(Do not check if a smaller reporting	± • • •
complying wi	ith any new revised financial accounting standards provide	
Act). Yes	□ No ⊠	ll company (as defined in Rule 12b-2 of the Exchange
As of Ju	ine 30, 2017, the aggregate market value of the registr	rant's common stock held by non-affiliates was approximately

**DOCUMENTS INCORPORATED BY REFERENCE:** 

number of shares of the registrant's Common Stock, \$0.01 par value, outstanding as of February 27, 2018 was 78,494,242.

\$3,415.7 million based upon the closing sales price of the registrant's common stock on The Nasdaq Global Market on such date. The

Certain portions of the registrant's definitive proxy statement relating to its scheduled May 17, 2018 Annual Meeting of Stockholders are incorporated by reference in Part III of this report.

#### INTEGRA LIFESCIENCES HOLDINGS CORPORATION

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#### **PART I**

#### **ITEM 1. BUSINESS**

#### **OVERVIEW**

The terms "we," "our," "us," "Company" and "Integra" refer to Integra LifeSciences Holdings Corporation, a Delaware corporation, and its subsidiaries, unless the context suggests otherwise.

Integra, headquartered in Plainsboro, New Jersey, is a world leader in medical technology. The Company was founded in 1989 with the acquisition of an engineered collagen technology platform used to repair and regenerate tissue. Since then, Integra has developed numerous product lines from this technology for applications ranging from burn and deep tissue wounds to repair of dura mater in the brain to repair of nerve and tendon. The Company has expanded its base regenerative technology business to include surgical instruments, neurosurgical products, advanced wound care and orthopedic hardware, through several global acquisitions and by developing products internally to further meet the needs of its customers.

Integra employs approximately 4,400 people dedicated to limiting uncertainty for surgeons, so that they can concentrate on providing the best care for their patients. Integra provides innovative healthcare solutions in more than 130 countries through its nearly 50 offices and its worldwide distribution network.

#### VISION

We aspire to be a multi-billion dollar diversified global medical technology company that helps patients by limiting uncertainty for healthcare professionals. Our customers will recognize us as a leader in specialty surgical applications, regenerative technologies and extremities orthopedics worldwide.

#### **STRATEGY**

Integra is committed to delivering high quality products that positively impact the lives of millions of patients and their families. In 2017, we evolved our strategy to focus on four key pillars: 1) building an execution-focused culture, 2) achieving relevant scale, 3) improving agility and innovation, and 4) leading in customer excellence. We believe that by sharpening our focus on these areas through improved planning and communication, optimization of our infrastructure, and strategically aligned tuck-in acquisitions, we can build scale, increase competitiveness and achieve our long-term goals.

To this end, our executive leadership team has established the following key priorities aligned to this strategy:

Strategic Acquisitions. An important part of our strategy is pursuing strategic transactions and licensing agreements that increase relevant scale in the clinical areas in which we compete. In 2017, we closed the acquisitions of the Codman Neurosurgery business of Johnson & Johnson ("Codman Neurosurgery") and Derma Sciences, Inc. ("Derma Sciences"). Derma Sciences strengthens our leadership position in the advanced wound care segment. Its portfolio of amniotic and placental tissue products complement and enhance our portfolio of regenerative technologies. The Codman Neurosurgery acquisition expands our portfolio of neurosurgery products and establishes us as the world leader in neurosurgery. This acquisition also increased our international footprint, which will enable us to bring our entire portfolio of Integra products to local markets. Heading into 2018, integrating these businesses will remain a top priority.

Portfolio Optimization and New Product Introductions. We are investing in innovative product development to drive a multi-generational pipeline for our key product franchises. Our product development efforts focus on regenerative technologies and other projects with the potential for significant returns on investment. In 2017, we

achieved significant milestones in research and development by successfully launching seven regenerative products and our largest electromechanical product, the CUSA® Clarity. In addition to new product development, we are funding studies to gather clinical evidence to support launches, ensure market access and improve reimbursement for existing products. We also continue to identify low-growth, low-margin products and product franchises for discontinuation and will continue to look at other ways of optimizing our portfolio.

Commercial Channel Investments. With acquisitions, new product introductions and a broader portfolio of products, we have made investments in our sales channels to create specialization and greater focus on reaching our customers and addressing their needs. Internationally, we have increased our commercial resources significantly in all markets and are making investments to support our sales organization and maximize our commercial opportunities. We now have a strong international sales channel that will deliver our current portfolio as well as position us for expansion. In addition, we continue to build upon our leadership brands across our product franchises to enable us to engage hospital systems through enterprise-wide contracts.

Customer Excellence. We aspire to be ranked as a best-in-class provider and are committed to strengthen our relationships with all customers. We strive to consistently deliver outstanding customer service and continue to invest in technologies, systems and processes to improve the way our customers do business with us. Additionally, we expect to build on the success of our professional education programs to drive continued customer appreciation of our growing portfolio of medical technologies globally.

#### **BUSINESS SEGMENTS**

We currently manufacture and sell our products in the following two global reportable business segments: Codman Specialty Surgical and Orthopedics and Tissue Technologies. We include financial information regarding our reportable business segments and certain geographic information under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and in Note 15, *Segment and Geographic Information* to our consolidated financial statements.

#### Codman Specialty Surgical

Our Codman Specialty Surgical business, previously known as Specialty Surgical Solutions, offers global, market-leading technologies, brands and instrumentation. The product portfolio represents a continuum of care from pre-operative, to the neurosurgery operating room, to the neuro-critical care unit and post care for both adult and pediatric patients suffering from brain tumors, brain injury, cerebrospinal fluid pressure complications and other neurological conditions.

The acquisition of Codman Neurosurgery from Johnson & Johnson increased our global direct sales representation and international presence. This acquisition expanded the product portfolio of our world-renowned technologies in dural repair, ultrasonic tissue ablation, intracranial cranial pressure ("ICP") monitoring, hydrocephalus management, and cranial stabilization systems, while providing a rich research and development pipeline for growth.

Rounding out the portfolio is a catalog of surgical headlamps, surgical instrumentation, as well as asset management software and support, and after-market service. With thousands of surgical instrument products, including specialty surgical instruments, we call on the central sterile processing unit of hospitals and acute care surgical centers. Additionally, through a strong U.S. distribution model, we can serve the needs of hundreds of physicians, dental and veterinary offices.

Our global commercial network includes clinical specialists, a large direct global sales force and strategic partnerships and distributors that serve hospitals, integrated health networks, group purchasing organizations, clinicians, surgery centers and health care providers in North America, South America, Europe, Asia Pacific, Middle East and Africa.

#### Orthopedics and Tissue Technologies

Orthopedics and Tissue Technologies products serve some of the fastest growing markets in the medical technology industry and provide solutions that primarily address the needs of orthopedic, plastic, reconstructive and general surgeons. These products focus on addressing soft tissue, nerve, and tendon repairs as well as reconstruction in the hand, wrist, elbow, shoulder, ankle and foot.

We sell regenerative technology products that can be used to provide treatment for acute wounds, such as burns, chronic wounds, including diabetic foot ulcers, surgical tissue repair including hernia repair, peripheral nerve repair and protection, and tendon repair. For extremity bone and joint reconstruction procedures, we sell hardware products, such as bone and joint fixation and joint replacement devices, implants and instruments, which provide for the orthopedic reconstruction of bone in the hand, wrist, elbow and shoulder (Upper Extremity), and the foot, ankle and leg below the knee (Lower Extremity).

The acquisition of Derma Sciences in 2017 gives us relevant scale in outpatient wound care, doubling our sales force in the United States (the "U.S."), and broadening our base of business with advanced products such as Medihoney<sup>®</sup>, weight offloading, and amniotic tissue. It also creates opportunities to further expand our presence in the plastic and reconstructive surgery segments.

We have made significant investments over the last two years with our channel expansion in the U.S. and created four dedicated sales channels to have more focus and specialization within our call points to drive sustainable growth. We have a specialized sales organization composed of directly employed sales representatives, as well as specialty distributors, organized based upon their call point. Our extremity orthopedics sales representatives call on surgeons who treat extremity orthopedic disorders, including osteoarthritis, rheumatoid arthritis, wrist, ankle and shoulder arthroplasty, and other conditions requiring foot or hand reconstruction. In addition, we sell our shoulder products through a specialty distributor network of sales agents who call on shoulder surgeons. Our wound reconstruction acute (inpatient) sales representatives call on surgeons doing procedures in limb salvage, trauma, wound reconstruction and burns, while our advanced wound care sales representatives call on physicians who treat chronic wounds in the outpatient wound care clinic setting. We also have a dedicated surgical reconstruction sales team focused on plastic and reconstructive surgery and hernia procedures with differentiated products. Finally, we have a distributor network focused on biologics.

Outside the U.S., we have a small direct sales presence, primarily in certain European countries, Australia, New Zealand, and Canada, and use distributors in other international markets to sell certain product lines.

This business segment also includes private-label sales of a broad set of our regenerative and wound care technologies. Our customers are other medical technology companies that sell to end markets primarily in orthopedics, spine, surgical and wound care.

#### RESEARCH AND DEVELOPMENT STRATEGY

Our research and development activities focus on identifying unmet surgical needs and addressing those needs with innovative solutions and products. We apply our core competency in regenerative technology to products for neurosurgical, orthopedic and wound applications, and we have extensive programs for our core platforms of orthopedic hardware and electromechanical technologies. We are focusing our research and development efforts on products and clinical studies to generate efficacy and health economic evidence.

Regenerative Technologies. Integra was the first and only company to receive a United States Food and Drug Administration ("FDA") claim for regeneration of dermal tissue and is a world leader in regenerative technology. Because regenerative technology products represent a fast-growing, high-margin opportunity for us,

we allocate a large portion of our research and development budget to these projects. Our regenerative technology development program applies our expertise in bioengineering to a range of biomaterials including natural collagen and human tissues as well as synthetics such as polymers. These unique product designs are used for neurosurgical and orthopedic surgical applications, as well as dermal regeneration, including the healing of chronic and acute wounds, tendon and nerve repair. Our regenerative technology platform includes our legacy Integra® Dermal Regeneration Template (IDRT) products and complementary technologies that we have acquired over the last few years. Our collagen manufacturing capability, combined with our history of innovation, provides us with strong platform technologies for multiple indications. In 2017, we introduced seven new regenerative technology products, including new sizes of PriMatrix® and Omnigraft®.

Orthopedic Reconstruction. We develop fixation and small joint reconstruction implants and instruments for upper and lower extremities to both provide next generation solutions and expand our product portfolio. This portfolio focuses on joint replacement products. Integra already has a strong shoulder portfolio, which includes a total shoulder system and a reverse shoulder. We continue to work on advanced shoulder products and are developing next generation anatomical designs and bone preserving techniques and a pyrocarbon hemi-shoulder product to add to that portfolio. We have a strong differentiated asset that resides in our exclusively licensed pyrocarbon products, and we continue to invest to bring new products to market with this technology, which has shown significantly less wear on bone than traditional metals. In 2017, we launched non-randomized, prospective, multi-center post-market studies in the U.S., Europe and Canada to evaluate 2-year implant survivorship in subjects who received the Cadence® Total Ankle System for primary ankle arthroplasty. We will further evaluate implant survivorship at 5 and 10 years post-operatively.

Electromechanical Technologies and Instrumentation. Because our electromechanical products and instruments address significant needs in surgical procedures and limit uncertainty for surgeons, we continue to invest in approvals for new indications and next generation improvements to our market-leading products. We have several active programs focused on life cycle management and innovation, for capital and disposable products in our portfolio. Our product development efforts are focused on core clinical applications in cerebral spinal fluid (CSF) management, neuro-critical care (NCC) monitoring, electrosurgery and ultrasonic medical technologies. We also work with several instrument partners to bring new surgical instrument patterns to the market, enabling us to add new instruments with minimal expense. Finally, our lighting franchise is among the most dynamic in the industry, and we continue to invest in ongoing development in LED technology.

#### COMPETITION

Our competitors for Codman Specialty Surgical are the Aesculap division of B. Braun Medical, Inc., Medtronic, Inc., Stryker Corporation and Becton, Dickinson and Company. In addition, we compete with many smaller specialized companies and larger companies that do not otherwise focus on the offerings that Codman Specialty Surgical technologies does. We rely on the depth and breadth of our sales and marketing organization, our innovative technology, and our procurement and manufacturing operations to maintain our competitive position.

Our competition in Orthopedics and Tissue Technologies includes the DePuy/Synthes business of Johnson & Johnson, Stryker Corporation, Wright Medical Group, N.V., Smith & Nephew plc, MiMedx Group, Inc., LifeCell Corporation, a subsidiary of Allergan PLC, and Zimmer Biomet Holdings, Inc., as well as other major orthopedic companies that carry a full line of small bone and joint fixation and soft tissue products.

Finally, in certain cases our products compete primarily against medical practices that treat a condition without using a medical device or any particular product, such as medical practices that utilize autograft tissue instead of our dermal regeneration products, duraplasty products and nerve repair products. Depending on the product line, we compete on the basis of our products' features, strength of our sales force or distributors, sophistication of our technology and cost effectiveness of our solution.

#### **GOVERNMENT REGULATION**

We are a manufacturer and marketer of medical devices, and therefore are subject to extensive regulation by the FDA, the Center for Medicare Services of the U.S. Department of Health and Human Services, other federal governmental agencies and, in some jurisdictions, by state and foreign governmental authorities. These regulations govern the introduction of new medical devices, the observance of certain standards with respect to the design, manufacture, testing, labeling, promotion and sales of the devices, the maintenance of certain records, the ability to track devices, the reporting of potential product defects, the import and export of devices, and other matters.

#### United States Food and Drug Administration

Prior to Integra's acquisition of it, TEI Biosciences Inc. received a Warning Letter from the FDA dated May 29, 2015 for promoting the product SurgiMend for breast surgery applications that were not cleared in the 510(k) process and do not have a PMA Approval for the indication. The FDA requested that TEI Biosciences Inc. immediately cease all activities that resulted in misbranding or adulteration of the product in commercial distribution. The FDA also required TEI Biosciences Inc. to cease all violations regarding promotion of the product for an indication that it was not cleared or approved for. TEI Biosciences Inc. responded with a corrective action plan to the FDA and took action to address the issues prior to the completion of the acquisition. The FDA agreed with the corrective action plan and cleared the Warning Letter on August 31, 2017.

The regulatory process for obtaining product approvals and clearances can be onerous and costly. The FDA requires, as a condition to marketing a medical device in the U.S., that we secure a Premarket Notification clearance pursuant to Section 510(k) of the Federal Food, Drug and Cosmetic Act (the "FD&C Act") or an approved PMA application (or supplemental PMA application). Obtaining these approvals and clearances can take up to several years and may involve preclinical studies and clinical trials. The FDA also may require a postapproval clinical study as a condition of approval. To perform clinical trials for significant risk devices in the U.S. on an unapproved product, we are required to obtain an Investigational Device Exemption ("IDE") from the FDA. The FDA may also require a filing for approval prior to marketing products that are modifications of existing products or new indications for existing products. Moreover, after clearance/approval is given, if the product is shown to be hazardous or defective, the FDA and foreign regulatory agencies have the power to withdraw the clearance or approval, as the case may be, or require us to change the device, its manufacturing process or its labeling, to supply additional proof of its safety and effectiveness or to recall, repair, replace or refund the cost of the medical device. Because we currently export medical devices manufactured in the U.S. that have not been approved by the FDA for distribution in the U.S., we are required to obtain approval/registration in the country to which we are exporting and maintain certain records relating to exports and make these available to the FDA for inspection, if required.

#### Human Cells, Tissues and Cellular and Tissue-Based Products

Integra, through the acquisition of Derma Sciences and BioD LLC ("BioD") is involved with the recovery, processing, storage, transportation and distribution of donated amniotic tissue. The FDA has specific regulations governing human cells, tissues and cellular and tissue-based products, or HCT/Ps. An HCT/P is a product containing, or consisting of, human cells or tissue intended for transplantation into a human patient. Examples include bone, ligament, skin and cornea.

Some HCT/Ps fall within the definition of a biological product, medical device or drug regulated under the FD&C Act. These biologic, device or drug HCT/Ps must comply both with the requirements exclusively applicable to HCT/Ps and, in addition, with requirements applicable to biologics, devices or drugs, including premarket clearance or approval from the FDA.

Section 361 of the Public Health Service Act ("Section 361"), authorizes the FDA to issue regulations to prevent the introduction, transmission or spread of communicable disease. HCT/Ps regulated as "361" HCT/Ps

are subject to requirements relating to registering facilities and listing products with the FDA, screening and testing for tissue donor eligibility, and Good Tissue Practice when processing, storing, labeling, and distributing HCT/Ps, including required labeling information, stringent record keeping, and adverse event reporting.

The American Association of Tissue Banks ("AATB") has issued operating standards for tissue banking. Compliance with these standards is a requirement in order to become an AATB-accredited tissue establishment. In addition, some states have their own tissue banking regulations. We are licensed or have permits for tissue banking in California, Florida, New York and Maryland.

National Organ Transplant Act. Procurement of certain human organs and tissue for transplantation is subject to the restrictions of the National Organ Transplant Act, which prohibits the transfer of certain human organs, including skin and related tissue for valuable consideration, but permits the reasonable payment associated with the removal, transportation, implantation, processing, preservation, quality control and storage of human tissue and skin. Our subsidiary, BioD LLC is a registered Tissue Bank and is involved with the recovery, storage and transportation of donated human amniotic tissue.

Amniotic tissue is considered an HCT/P. However, on June 22, 2015, the FDA issued an Untitled Letter alleging that BioD's morselized amniotic membrane tissue based products do not meet the criteria for regulation as HCT/Ps solely under Section 361 and that, as a result, BioD would need a biologics license to lawfully market those morselized products. Since the issuance of the Untitled Letter, BioD and more recently the Company have been in discussions with the FDA to communicate their disagreement with the FDA's assertion that certain products are more than minimally manipulated. The FDA has not changed its position that certain of the BioD acquired products are not eligible for marketing solely under Section 361. In November 2017, the FDA issued the final guidance document related to human tissue titled, "Regulatory Considerations for Human Cells, Tissues, and Cellular and Tissue-Based Products: Minimal Manipulation and Homologous Use" (the "HCT/P Final Guidance"). The HCT/P Final Guidance maintains the FDA's position that products such as the Company's morselized amniotic membrane tissue based products do not meet the criteria for regulation solely as HCT/Ps. In addition, the FDA articulated a risk-based approach to enforcement and, while some uses for amniotic membrane tissue based products would enjoy as much as thirty-six months of enforcement discretion, other high risk uses could be subject to immediate enforcement action. The Company does not believe the uses for its amniotic membrane tissue based products fall into the high risk category. Revenues from BioD morselized amniotic membrane based products for the year ended December 31, 2017 were less than 1.0% of consolidated revenues. See "Item 1A. Risk Factors—Certain of our products are derived from human tissue and are subject to additional regulations and requirements."

#### **Medical Device Regulations**

We also are required to register with the FDA as a medical device manufacturer. As such, our manufacturing sites are subject to periodic inspection by the FDA for compliance with the FDA's Quality System Regulations. These regulations require that we manufacture our products and maintain our documents in a prescribed manner with respect to design, manufacturing, testing and control activities. Further, we are required to comply with various FDA requirements and other legal requirements for labeling and promotion. If the FDA believes that a company is not in compliance with applicable regulations, it may issue a warning letter, institute proceedings to detain or seize products, issue a recall order, impose operating restrictions, enjoin future violations and assess civil penalties against that company, its officers or its employees and may recommend criminal prosecution to the U.S. Department of Justice.

Medical device regulations also are in effect in many of the countries in which we do business outside the U.S. These laws range from comprehensive medical device approval and Quality System requirements for some or all of our medical device products to simpler requests for product data or certifications. The number and scope of these requirements are increasing. Under the European Union Medical Device Directive, medical devices must meet the Medical Device Directive standards and receive CE Mark Certification prior to marketing in the European Union (the "EU"). CE Mark Certification requires a comprehensive quality system program, technical

documentation and data on the product, which are then reviewed by a Notified Body. A Notified Body is an organization designated by the national governments of the EU member states to make independent judgments about whether a product complies with the requirements established by each CE marking directive. The Medical Device Directive, ISO 9000 series and ISO 13485 are recognized international quality standards that are designed to ensure that we develop and manufacture quality medical devices. Other countries are also instituting regulations regarding medical devices or interpreting and enforcing existing regulations more strictly. Compliance with these regulations requires extensive documentation and clinical reports for all of our products, revisions to labeling, and other requirements such as facility inspections to comply with the registration requirements. A recognized Notified Body audits our facilities annually to verify our compliance with the ISO 13485 Quality System standard.

Certain countries, as well as the EU, have issued regulations that govern products that contain materials derived from animal sources. Regulatory authorities are particularly concerned with materials infected with the agent that causes bovine spongiform encephalopathy ("BSE"), otherwise known as mad cow disease. These regulations affect our dermal regeneration products, duraplasty products, hernia repair products, biomaterial products for the spine, nerve and tendon repair products and certain other products, all of which contain material derived from bovine tissue. Although we take great care to provide that our products are safe and free of agents that can cause disease, products that contain materials derived from animals, including our products, may become subject to additional regulation, or even be banned in certain countries, because of concern over the potential for prior transmission. Significant new regulations, a ban of our products, or a movement away from bovine-derived products because of an outbreak of BSE could have a material, adverse effect on our current business or our ability to expand our business. See "Item 1A. Risk Factors—Certain of our products contain materials derived from animal sources and may become subject to additional regulation."

Postmarket Requirements. After a device is cleared or approved for commercial distribution, numerous regulatory requirements apply. These include the FDA Quality System Regulations which cover the procedures and documentation of the design, testing, production, control, quality assurance, labeling, packaging, sterilization, storage and shipping of medical devices; the FDA's general prohibition against promoting products for unapproved or 'off-label' uses; the Medical Device Reporting regulation, which requires that manufacturers report to the FDA if their device may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if it were to recur; and the Reports of Corrections and Removals regulation, which require manufacturers to report recalls and field corrective actions to the FDA if initiated to reduce a risk to health posed by the device or to remedy a violation of the FD&C Act.

#### Other regulations

Anti-Bribery Laws. In the U.S., we are subject to laws and regulations pertaining to healthcare fraud and abuse, including anti-kickback laws and physician self-referral laws that regulate the means by which companies in the health care industry may market their products to hospitals and health care professionals and may compete by discounting the prices of their products. Similar anti-bribery laws exist in many of the countries in which we sell our products outside the U.S., as well as the United States Foreign Corrupt Practices Act (which addresses the activities of U.S. companies in foreign markets). Our products also are subject to regulation regarding reimbursement, and U.S. healthcare laws apply when a customer submits a claim for a product that is reimbursed under a federally funded healthcare program. These global laws require that we exercise care in designing our sales and marketing practices, including involving interactions with healthcare professionals, and customer discount arrangements. See "Item 1A. Risk Factors—Oversight of the medical device industry might affect the manner in which we may sell medical devices and compete in the marketplace."

*Import-export.* Our international operations subject us to laws regarding sanctioned countries, entities and persons, customs, and import-export. Among other things, these laws restrict, and in some cases can prevent, U.S. companies from directly or indirectly selling goods, technology or services to people or entities in certain countries. In addition, these laws require that we exercise care in our business dealings with entities in and from foreign countries.

Hazardous materials. Our research, development and manufacturing processes involve the controlled use of certain hazardous materials. We are subject to country-specific, federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of these materials and certain waste products. We believe that our environmental, health and safety procedures for handling and disposing of these materials comply with the standards prescribed by the controlling laws and regulations. However, risk of accidental releases or injury from these materials is possible. These risks are managed to minimize or eliminate associated business impacts. In the event of this type of accident, we could be held liable for damages that may result, and any liability could exceed our resources. We could be subject to a regulatory shutdown of a facility that could prevent the distribution and sale of products manufactured there for a significant period of time, and we could suffer a casualty loss that could require a shutdown of the facility in order to repair it, any of which could have a material, adverse effect on our business. Although we continuously strive to maintain full compliance with respect to all applicable global environmental, health and safety laws and regulations, we could incur substantial costs to fully comply with future laws and regulations, and our operations, business or assets may be negatively affected. Furthermore, global environmental, health and safety compliance is an ongoing process. Integra has compliance procedures in place for compliance with Employee Health & Safety laws, driven by a centrally led organizational structure that ensures proper implementation, which is essential to our overall business objectives.

In addition to the above regulations, we are, and may be, subject to regulation under country-specific federal and state laws, including, but not limited to, requirements regarding record keeping, and the maintenance of personal information, including personal health information. As a public company, we are subject to the securities laws and regulations, including the Sarbanes-Oxley Act of 2002. We also are subject to other present, and could be subject to possible future, local, state, federal and foreign regulations.

Third-Party Reimbursement. Healthcare providers that purchase medical devices generally rely on third-party payors, including, in the U.S., the Medicare and Medicaid programs and private payors, such as indemnity insurers, employer group health insurance programs and managed care plans, to reimburse all or part of the cost of the products. As a result, demand for our products is and will continue to be dependent in part on the coverage and reimbursement policies of these payors. The manner in which reimbursement is sought and obtained varies based upon the type of payor involved and the setting in which the product is furnished and utilized. Reimbursement from Medicare, Medicaid and other third-party payors may be subject to periodic adjustments as a result of legislative, regulatory and policy changes, as well as budgetary pressures. Possible reductions in, or eliminations of, coverage or reimbursement by third-party payors, or denial of, or provision of uneconomical reimbursement for new products may affect our customers' revenue and ability to purchase our products. Any changes in the healthcare regulatory, payment or enforcement landscape relative to our customers' healthcare services have the potential to significantly affect our operations and revenue.

Data Privacy and Cybersecurity Laws and Regulations. As a business with a significant global footprint, compliance with evolving regulations and standards in data privacy and cybersecurity (relating to the confidentiality and security of our information technology systems, products such as medical devices, and other services provided by us) may result in increased costs, lower revenue, new complexities in compliance, new challenges for competition, and the threat of increased regulatory enforcement activity. Our business relies on the secure electronic transmission, storage and hosting of sensitive information, including personal information, financial information, intellectual property, and other sensitive information related to our customers and workforce.

For example, in the U.S. the collection, maintenance, protection, use, transmission, disclosure and disposal of certain personal information and the security of medical devices are regulated at the U.S. federal and state, and industry levels. U.S. federal and state laws protect the confidentiality of certain patient health information, including patient medical records, and restrict the use and disclosure of patient health information by health care providers. In addition, the FDA has issued guidance advising manufacturers to take cybersecurity risks into account in product design for connected medical devices and systems, to assure that appropriate safeguards are in place to reduce the risk of unauthorized access or modification to medical devices that contain software and

reduce the risk of introducing threats into hospital systems that are connected to such devices. The FDA also issued guidance on post market management of cyber security in medical devices.

Outside the U.S., we are impacted by the privacy and data security requirements at the international, national and regional level, and on an industry specific basis. Legal requirements in these countries relating to the collection, storage, handling and transfer of personal data and, potentially, intellectual property continue to evolve with increasingly strict enforcement regimes. In Europe, for example, we are subject to the EU data protection regulations, including the current EU Directive on Data Protection, which requires member states to impose minimum restrictions on the collection, use and transfer of personal data. A new EU General Data Protection Regulation ("GDPR") that will become enforceable in May 2018 includes, among other things, a requirement for prompt notice of data breaches to data subjects and supervisory authorities in certain circumstances and significant fines for non-compliance. The GDPR also requires companies processing personal data of individuals residing in the EU to comply with EU privacy and data protection rules.

These laws and regulations impact the ways in which we use and manage personal data, protected health information, and our information technology systems. They also impact our ability to move, store, and access data across geographic boundaries. Compliance with these requirements may require changes in business practices, complicate our operations, and add complexity and additional management and oversight needs. They also may complicate our clinical research activities, as well as product offerings that involve transmission or use of clinical data.

#### INTELLECTUAL PROPERTY

We seek patent and trademark protection for our key technology, products and product improvements, both in the U.S. and in selected foreign countries. When determined appropriate, we have enforced and plan to continue to enforce and defend our patent and trademark rights. In general, however, we do not rely solely on our patent and trademark estate to provide us with any significant competitive advantages as it relates to our existing product lines. We also rely upon trade secrets and continuing technological innovations to develop and maintain our competitive position. In an effort to protect our trade secrets, we have a policy of requiring our employees, consultants and advisors to execute proprietary information and invention assignment agreements upon commencement of employment or consulting relationships with us. These agreements also provide that all confidential information developed or made known to the individual during the course of their relationship with us must be kept confidential, except in specified circumstances.

AccuDrain®, AmnioExcel®, AmnioMatrix®, BioDFactor®, BioDFence®, BioDOptix®, BioDRestore™, Bioguard®, BioMotion®, Bold®, Budde®, Buzz™, Cadence®, Capture™, Codman®, Codman Certas®, Codman VersaTru®, CRW®, CUSA®, DigiFuse®, DirectLink®, DuraGen®, DuraSeal®, First Choice®, Hallu®, HeliCote®, HeliPlug®, HeliTape®, HeliMend®, Helistat®, Helitene®, Integra®, IntegraLink®, IPP-ON®, Isocool®, Jarit®, Licox®, LimiTorr™, Luxtec®, MediHoney®, MemoFix®, MicroFrance®, Miltex®, Movement®, NeuraGen®, NeuraWrap™, NuGrip®, Omnigraft®, Omni-Tract®, OSV II®, Qwix®, Padgett®, Panta®, PriMatrix®, PyroSphere®, Redmond™, Ruggles®, SafeGuard®, Salto Talaris®, Subtalar MBA®, SurgiMend®, TCC-EZ®, TenoGlide®, Ti6®, Tibiaxys®, TissueMend®, Titan™, TruArch®, Uni-CP®, Uni-Clip®, Xtrasorb® and the Integra logo are some of the material trademarks of Integra LifeSciences Corporation and its subsidiaries. MAYFIELD® is a registered trademark of SM USA, Inc., and is used by Integra under license.

#### **EMPLOYEES**

At December 31, 2017, we had approximately 4,400 employees engaged in production and production support for warehouse, engineering and facilities, quality assurance, quality control, research and development, regulatory and clinical affairs, sales, marketing, administration and finance. Except for certain employees at our facilities in Austria, Belgium, Brazil, France, Germany, Italy and Mexico, none of our employees are subject to a collective bargaining agreement.

#### FINANCIAL INFORMATION ABOUT GEOGRAPHIC AREAS

Financial information about our geographical areas is set forth under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Geographic Product Revenues and Operations" and in our financial statements Note 15, *Segment and Geographic Information*, to our consolidated financial statements.

#### SOURCES OF RAW MATERIALS

In general, raw materials essential to our businesses are readily available from multiple sources. For reasons of quality assurance, availability, or cost effectiveness, certain components and raw materials are available only from a sole supplier. Our policy is to maintain sufficient inventory of components so that our production will not be significantly disrupted even if a particular component or material is not available for a period of time.

Certain of our products, including our dermal regeneration products, duraplasty products, wound care products, bone void fillers, nerve and tendon repair products and certain other products, contain material derived from bovine tissue. We take great care to provide that our products are safe and free of agents that can cause disease. In particular, the collagen used in the products that Integra manufactures is derived either from the deep flexor tendon of cattle less than 24 months old from New Zealand, a country that has never had a reported case of bovine spongiform encephalopathy, or from the U.S. or from fetal bovine dermis. The World Health Organization classifies different types of cattle tissue for relative risk of BSE transmission. Deep flexor tendon and fetal bovine skin are in the lowest-risk category for BSE transmission, and is therefore considered to have a negligible risk of containing the agent that causes BSE.

#### **SEASONALITY**

Revenues during our fourth quarter tend to be stronger than other quarters because many hospitals increase their purchases of our products during the fourth quarter to coincide with the end of their budget cycles in the U.S. In general, our first quarter usually has lower revenues than the preceding fourth quarter, the second and third quarters have higher revenues than the first quarter, and the fourth quarter revenues are the highest in the year. The main exceptions to this pattern occur because of material intervening acquisitions.

#### **AVAILABLE INFORMATION**

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, (the "Exchange Act"). In accordance with the Exchange Act, we file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission. You may view our financial information, including the information contained in this report, and other reports we file with the Securities and Exchange Commission, on the Internet, without charge as soon as reasonably practicable after we file them with the Securities and Exchange Commission, in the "SEC Filings" page of the Investor Relations section of our website at <a href="https://www.integralife.com">www.integralife.com</a>. You may also obtain a copy of any of these reports, without charge, from our Investor Relations department, 311 Enterprise Drive, Plainsboro, NJ 08536. Alternatively, you may view or obtain reports filed with the Securities and Exchange Commission at the SEC Public Reference Room at 100 F Street, N.E. in Washington, D.C. 20549, or at the Securities and Exchange Commission's Internet site at <a href="https://www.sec.gov">www.sec.gov</a>. Please call the Securities and Exchange Commission at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

#### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

We have made statements in this report, including statements under "Business" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" that constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Exchange Act. These forward-looking statements are subject to a number of risks, uncertainties and assumptions about us including, among other things:

- general economic and business conditions, both nationally and in our international markets;
- our expectations and estimates concerning future financial performance, financing plans and the impact of competition;
- anticipated trends in our business;
- anticipated demand for our products, particularly capital equipment;
- our ability to produce collagen-based products in sufficient quantities to meet sales demands;
- our expectations concerning our ongoing restructuring, integration and manufacturing transfer and expansion activities;
- existing and future regulations affecting our business, and enforcement of those regulations;
- our ability to obtain additional debt and equity financing to fund capital expenditures and working capital requirements and acquisitions;
- physicians' willingness to adopt our recently launched and planned products, third-party payors'
  willingness to provide or continue reimbursement for any of our products and our ability to secure
  regulatory approval for products in development;
- initiatives launched by our competitors;
- our ability to protect our intellectual property, including trade secrets;
- our ability to complete acquisitions, integrate operations post-acquisition and maintain relationships with customers of acquired entities;
- our ability to remediate all matters identified in FDA observations and warning letters that we received or may receive; and
- other risk factors described in the section entitled "Risk Factors" in this report.

You can identify these forward-looking statements by forward-looking words such as "believe," "may," "could," "might," "will," "estimate," "continue," "anticipate," "intend," "seek," "plan," "expect," "should," "would" and similar expressions in this report. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. In light of these risks and uncertainties, the forward-looking events and circumstances discussed in this report may not occur and actual results could differ materially from those anticipated or implied in the forward-looking statements.

#### ITEM 1A.RISK FACTORS

#### **Risks Related to Our Business**

#### Our operating results may fluctuate.

Our operating results, including components of operating results such as gross margin and cost of product sales, may fluctuate from time to time, and such fluctuations could affect our stock price. Our operating results have fluctuated in the past and can be expected to fluctuate from time to time in the future. Some of the factors that may cause these fluctuations include:

- economic conditions worldwide, which could affect the ability of hospitals and other customers to
  purchase our products and could result in a reduction in elective and non-reimbursed operative
  procedures;
- the impact of acquisitions and our ability to integrate acquisitions;
- the impact of our restructuring activities;
- expenditures for major initiatives, including acquired businesses and integrations thereof and restructuring;
- the timing of significant customer orders, which tend to increase in the fourth quarter to coincide with the end of budget cycles for many hospitals;
- market acceptance of our existing products, as well as products in development;
- the timing of regulatory approvals as well as changes in country-specific regulatory requirements;
- changes in the rates of exchange between the U.S. dollar and other currencies of foreign countries in which we do business;
- potential backorders, lost sales and expenses incurred in connection with product recalls or field corrective actions;
- disruption of our operations and sales resulting from extreme weather conditions or natural disasters that damage our manufacturing or distribution facilities, the suppliers and service providers for those facilities, or the infrastructure in the locations of those facilities:
- our ability to manufacture and ship our products efficiently or in sufficient quantities to meet sales demands;
- changes in the cost or decreases in the supply of raw materials, including energy, steel and honey;
- the timing of our research and development expenditures;
- reimbursement for our products by third-party payors such as Medicare, Medicaid, private and public health insurers and foreign governmental health systems;
- the ability to maintain existing distribution rights to and from certain third parties;
- the ability to maintain business if or when we opt to convert such business from distributors to a direct sales model;
- the ability of our new commercial sales representatives to obtain sales targets in a reasonable time frame;
- the impact of changes to our sales organization, including channel expansion in the U.S. and increased specialization;
- peer-reviewed publications discussing the clinical effectiveness of the products we sell;
- inspections of our manufacturing facilities for compliance with Quality System Regulations (Good Manufacturing Practices) which could result in Form 483 observations, warning letters, injunctions or

other adverse findings from the FDA or from equivalent regulatory bodies, and corrective actions, procedural changes and other actions that we determine are necessary or appropriate to address the results of those inspections, any of which may affect production and our ability to supply our customers with our products;

- changes in regulations or guidelines that impact the sales and marketing practices for products that we sell:
- the increased regulatory scrutiny of certain of our products, including products which we manufacture
  for others, could result in their being removed from the market or involve field corrective actions that
  could affect the marketability of our products;
- enforcement or defense of intellectual property rights;
- changes in tax laws, or their interpretations; and
- the impact of goodwill and intangible asset impairment charges if future operating results of the acquired businesses are significantly less than the results anticipated at the time of the acquisitions.

# The industry and market segments in which we operate are highly competitive, and we may be unable to compete effectively with other companies.

There is intense competition among medical device companies. We compete with established medical technology companies in many of our product areas. Competition also comes from early-stage companies that have alternative technological solutions for our primary clinical targets, as well as universities, research institutions and other non-profit entities. In certain cases, our products compete primarily against medical practices that treat a condition without using a device or any particular product, such as the medical practices that use autograft tissue instead of our dermal regeneration products, duraplasty products and nerve repair products. Many of our competitors have access to greater financial, technical, research and development, marketing, manufacturing, sales, distribution, administrative, consulting and other resources than we do. Our competitors may be more effective at developing commercial products. Our competitors may be able to gain market share by offering lower-cost products or by offering products that enjoy better reimbursement methodologies from third-party payors, such as Medicare, Medicaid, private and public health insurers and foreign governmental health systems.

Our competitive position will depend on our ability to achieve market acceptance for our products, develop new products, implement production and marketing plans, secure regulatory approval for products under development, obtain and maintain reimbursement coverage under Medicare, Medicaid, private and public health insurers and foreign governmental health systems, obtain patent protection and to produce products consistently in sufficient quantities to meet demand. We may need to develop new applications for our products to remain competitive. Technological advances by one or more of our current or future competitors or their achievement of superior reimbursement from Medicare, Medicaid, private and public health insurers and foreign governmental health systems could render our present or future products obsolete or uneconomical. Our future success will depend upon our ability to compete effectively against current technology as well as to respond effectively to technological advances and changes in a customer's requirements. Additionally, purchasing decisions of our customers may be based on clinical evidence or comparative effectiveness studies and, because of our vast array of products, we might not be able to fund the studies necessary to gain entry or maintain our position or provide the required information to compete effectively. Other companies may have more resources available to fund such studies. For example, competitors have launched and have been developing products to compete with our dural repair products, extremity reconstruction implants, regenerative skin, neuro critical care monitors and ultrasonic tissue ablation devices, among others. Further, in the current environment of managed care, consolidation among health care providers, increased competition, and declining reimbursement rates, we have been increasingly required to compete on the basis of price. Competitive pressures could adversely affect our profitability. Given these factors, we cannot guarantee that we will be able to compete effectively or continue our level of success in the areas in which we compete.

If there is a determination that the spin-off of SeaSpine is taxable for U.S. federal income tax purposes, then we and our stockholders that are subject to U.S. federal income tax could incur significant U.S. federal income tax liabilities and, in certain circumstances, we could be required to indemnify SeaSpine for material taxes pursuant to indemnification obligations under the tax matters agreement.

On July 1, 2015, we completed the separation (the "Separation") of our orthobiologics and spinal fusion hardware business, now known as SeaSpine Holdings Corporation ("SeaSpine"), from the Company. We received an opinion of Latham & Watkins LLP, tax counsel to us (the "Tax Opinion"), substantially to the effect that (i) the contribution of the stock of SeaSpine Orthopedics Corporation to SeaSpine, together with the internal distribution of the stock of SeaSpine to Integra (collectively, the "internal distribution"), will constitute a reorganization under Sections 355 and 368(a)(1)(D) of the Internal Revenue Code of 1986, as amended (the "Code") and (ii) the contribution of cash from us to SeaSpine (the "cash contribution"), together with the distribution of the stock of SeaSpine to our shareholders (the "distribution"), will constitute a reorganization under Sections 355 and 368(a)(1)(D) of the Code. Based on this tax treatment, the distribution will be tax-free to Integra and its stockholders for U.S. federal income tax purposes (except for any cash received in lieu of fractional shares). The Tax Opinion relied on certain facts, assumptions, representations and undertakings from us and SeaSpine regarding the past and future conduct of the companies' respective businesses and other matters. The Tax Opinion is not binding on the U.S. Internal Revenue Service (the "IRS") or the courts. Notwithstanding the opinion, the IRS could determine on audit that the internal distribution, the cash contribution and the distribution should be treated as taxable transactions if it determines that any of the facts, assumptions, representations or undertakings we or SeaSpine have made is not correct or has been violated, or that the internal distribution, the cash contribution and the distribution should be taxable for other reasons, including as a result of a significant change in stock or asset ownership after the distribution. If the distribution ultimately is determined to be taxable, the distribution could be treated as a taxable dividend or capital gain to our stockholders for U.S. federal income tax purposes, and our stockholders could incur significant U.S. federal income tax liabilities. In addition, we would recognize gain in an amount equal to the excess of the fair market value of shares of SeaSpine common stock distributed to our stockholders on the distribution date over our tax basis in such shares of SeaSpine common stock. Moreover, we could incur significant U.S. federal income tax liabilities if it is ultimately determined that the internal distribution does not qualify as a transaction that is tax-free for U.S. federal income tax purposes.

#### We may be subject to continuing contingent liabilities of SeaSpine following the spin-off.

After the Separation, there are several significant areas where the liabilities of SeaSpine may become our obligations. For example, under the Code and the related rules and regulations, each corporation that was a member of our consolidated U.S. federal income tax reporting group during any taxable period or portion of any taxable period ending on or before the effective time of the spin-off is jointly and severally liable for the U.S. federal income tax liability of the entire consolidated tax reporting group for that taxable period. If SeaSpine is unable to pay any prior period taxes for which it is responsible, we could be required to pay the entire amount of such taxes.

Our current strategy involves growth through acquisitions, which requires us to incur substantial costs and potential liabilities for which we may never realize the anticipated benefits.

In addition to internally generated growth, our current strategy involves growth through acquisitions. Between January 1, 2015 and December 31, 2017, we have acquired 7 businesses at a total cost of approximately \$1.56 billion.

We may be unable to continue to implement our growth strategy, and our strategy ultimately may be unsuccessful. A significant portion of our growth in revenues has resulted from, and is expected to continue to result from, the acquisition of businesses or products complementary to our own. We engage in evaluations of potential acquisitions and are in various stages of discussion regarding possible acquisitions, certain of which, if

consummated, could be significant to us. Any new acquisition could result in material transaction expenses, increased interest and amortization expense, increased depreciation expense, increased operating expense, and possible in-process research and development charges for acquisitions that do not meet the definition of a "business," any of which could have a material, adverse effect on our operating results. Certain businesses that we acquire may not have adequate financial, disclosure, regulatory, quality or other compliance controls at the time we acquire them. As we grow by acquisition, we must manage and integrate the new businesses to bring them into our systems for financial, disclosure, compliance, regulatory and quality control, realize economies of scale, and control costs. If we cannot integrate acquired businesses and operations, manage the cost of providing our products or price our products appropriately, our profitability could suffer. In addition, acquisitions involve other risks, including diversion of management resources otherwise available for development of our business and risks associated with entering markets in which our marketing teams and sales force has limited experience or where experienced distribution alliances are not available. Our future profitability will depend in part upon our ability to develop further our resources to adapt to these new products or business areas and to identify and enter into or maintain satisfactory distribution networks. Further, as a result of our acquisitions of other healthcare businesses, we may be subject to the risk of unanticipated business uncertainties, regulatory and other compliance matters or legal liabilities relating to those acquired businesses for which the sellers of the acquired businesses may not indemnify us, for which we may not be able to obtain insurance (or adequate insurance), or for which the indemnification may not be sufficient to cover the ultimate liabilities. We may not be able to identify suitable acquisition candidates in the future, obtain acceptable financing or consummate any future acquisitions. Certain potential acquisitions are subject to antitrust and competition laws, which laws could impact our ability to pursue strategic acquisitions and could result in mandated divestitures. If we are unsuccessful in our acquisition strategy, we may be unable to meet our financial targets and our financial performance could be materially and adversely affected.

#### Our future financial results could be adversely affected by impairments or other charges.

Since we have grown through acquisitions, we have \$937.9 million of goodwill and \$163.9 million of indefinite-lived intangible assets as of December 31, 2017. Under the authoritative guidance for determining the useful life of intangible assets, we are required to test both goodwill and indefinite-lived intangible assets for impairment on an annual basis based upon a fair value approach, rather than amortizing them over time. We are also required to test goodwill and indefinite-lived intangible assets for impairment between annual tests if an event occurs such as a significant decline in revenues or cash flows for certain products, or the discount rates used in the calculations of discounted cash flow change significantly, or circumstances change that would more likely than not reduce our enterprise fair value below its book value. If such a decline, rate change or circumstance were to materialize, we may record an impairment of these intangible assets that could be material to the financial statements. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Estimates" of this report.

The guidance on long-lived assets requires that we assess the impairment of our long-lived assets, including finite-lived intangible assets, whenever events or changes in circumstances indicate that the carrying value may not be recoverable as measured by the sum of the expected future undiscounted cash flows. As of December 31, 2017, we had \$995.7 million and \$269.3 million of finite-lived intangible assets and property, plant and equipment, respectively.

At December 31, 2017, our trade names had a carrying value of \$245.5 million and decisions relating to our trade names may occur over time. Additionally, we may discontinue certain products in the future as we continue to assess the profitability of our product lines. As a result, we may need to record impairment charges or accelerate amortization on certain trade names or technology-related intangible assets in the future.

The value of a medical device business is often volatile, and the assumptions underlying our estimates made in connection with our assessments under the guidance may change as a result of that volatility or other factors outside our control and may result in impairment charges. The amount of any such impairment charges could be

significant and could have a material, adverse effect on our reported financial results for the period in which the charge is taken and could have an adverse effect on the market price of our securities, including the notes and the common stock into which they may be converted.

# The adoption of healthcare reform in the U.S. and initiatives sponsored by other governments may adversely affect our business, results of operations and/or financial condition.

Our operations may be substantially affected by potential fundamental changes in the global political, economic and regulatory landscape of the healthcare industry. Government and private sector initiatives to limit the growth of healthcare costs are continuing in the U.S., and in many other countries in which we do business, causing the marketplace to put increased emphasis on the delivery of more cost-effective treatments. These initiatives include price regulation, competitive pricing, coverage and payment policies, comparative effectiveness of therapies, technology assessments and managed-care arrangements. The adoption of some or all of these initiatives could have a material, adverse effect on our financial condition and results of operations.

For example, the Patient Protection and Affordable Care Act (the "Affordable Care Act"), which was signed into law in March 2010, includes several provisions that impact our businesses in the U.S. The Affordable Care Act includes provisions that, among other things, reduce and/or limit Medicare reimbursement, require all individuals to have health insurance (with limited exceptions), require detailed disclosure of gifts and other remuneration made to healthcare professionals and impose new and/or increased taxes. Specifically, the law requires the medical device industry to subsidize healthcare reform by implementing a 2.3% excise tax, which commenced on January 1, 2013, on the sale of certain medical devices by a manufacturer, producer or importer of such devices in the U.S. In December 2015, President Obama signed into law The Consolidated Appropriations Act, which included a two-year moratorium on the 2.3% medical device excise tax, with the effect such that medical device revenues earned in 2016 and 2017 were exempt from such tax. On January 22, 2018, President Trump signed into law a funding bill, which extended the moratorium on the medical device excise tax for another two years through December 31, 2019. Unless there is further legislative action during that two-year period, the medical device excise tax automatically will be reinstated for sales of medical devices on or after January 1, 2020. While this two-year moratorium on the medical device excise tax could provide a shortterm benefit to the Company in terms of providing additional monies available to spend on various projects in 2018 and 2019, we are unable to predict what the long-term impact will have on our financial statements and financial performance.

In addition, the Affordable Care Act encourages hospitals and physicians to work collaboratively through shared savings programs, such as accountable care organizations, as well as other bundled payment initiatives, which may ultimately result in the reduction of sales of medical devices and the consolidation of medical device suppliers that hospitals use.

Since the adoption of the Affordable Care Act in 2010, the law has been challenged before the U.S. Supreme Court, and several bills have been and may continue to be introduced in Congress to delay, defund or repeal implementation of or amend significant provisions of the Affordable Care Act. In addition, there continues to be ongoing litigation over the interpretation and implementation of certain provisions of the law. Furthermore, on January 20, 2017, an executive order was issued that, among other things, stated the intention of the administration to repeal the Affordable Care Act and, pending that repeal, instructed the executive branch of the Federal government to defer or delay the implementation of any provision or requirement of the Affordable Care Act that would impose a fiscal burden on any state or a cost, fee, tax or penalty on any individual, family, health care provider, health insurer, or manufacturer of pharmaceuticals or medical devices. On December 22, 2017, President Trump signed into law the Tax Cuts and Jobs Act, which eliminates the penalty for individuals who fail to purchase acceptable health insurance starting in 2019 and will most likely result in the reduction in the number of insured people in the U.S. We cannot predict whether the Affordable Care Act will be repealed, replaced, or further modified, what impact the President's executive order will have on the implementation and enforcement of the provisions of the Affordable Care Act, or what impact the elimination of the penalty and resulting

reduction in the number of insured people in the U.S. will have on the demand and pricing for our products. In addition, if the Affordable Care Act is replaced or modified, we cannot predict what the replacement plan or modifications would be, when the replacement plan or modifications would become effective, or whether any of the existing provisions of the Affordable Care Act would remain in place. As a result, while we are unable to predict the effect of the Affordable Care Act and the various activities surrounding it on our business, financial condition or results of operations, changes to this law, or a new law that replaces it, could materially and adversely affect our business and results of operations.

In addition to the Affordable Care Act, the Medicare Access and CHIP Reauthorization Act of 2015 ("MACRA") repealed the Sustainable Growth Rate formula used to calculate Medicare payment updates for physicians providing services to Medicare beneficiaries. In its place, MACRA introduced the Quality Payment Program ("QPP"), which is a value-based program that focuses on quality and outcomes as a metric for physician reimbursement. The Centers for Medicare and Medicaid Services released its final rules for the QPP in October 2016. The QPP, which impacts more than 600,000 physicians and other practice-based clinicians, represents a fundamental change in physician reimbursement, transitioning from a system that solely rewards volume of care to one that also rewards quality and value of care. While the full impact of QPP on physicians' practices and product selection decisions will not be fully known until payment adjustments go into effect in 2019, 2017 represented the first performance measurement year. The program's increased emphasis on quality and cost of care may encourage physicians to merge practices or seek direct employment with hospitals. This shift could lead to a consolidation of a portion of our customer base, which could have a negative impact on the rate of adoption and utilization of the Company's new and existing products. Although we believe that we are well positioned to minimize any such impact on our business, our inability to address the consolidation trend could materially and adversely affect our business and results of operations.

Other initiatives sponsored by government agencies, legislative bodies and the private sector to limit the growth of healthcare costs, including price regulation and competitive pricing, are ongoing in the markets where we do business. We cannot predict what healthcare programs and regulations will ultimately be implemented at the U.S. federal or state level or elsewhere, or the effect of any future legislation or regulation in the U.S. or elsewhere. That said, any changes that lower reimbursements for our products or reduce medical procedure volumes could have a material, adverse effect on our business, financial condition and results of operations. We continue to monitor the implementation of such legislation and, to the extent new market or industry trends or new governmental programs evolve, we will consider implementing or implement programs in response.

Changes in the healthcare industry may require us to decrease the selling price for our products, may reduce the size of the market for our products, or may eliminate a market, any of which could have a negative impact on our financial performance.

Trends toward managed care, healthcare cost containment and other changes in government and private sector initiatives in the U.S. and other countries in which we do business are placing increased emphasis on the delivery of more cost-effective medical therapies that could adversely affect the sale and/or the prices of our products. For example:

- third-party payors of hospital services and hospital outpatient services, including Medicare, Medicaid, private and public health insurers and foreign governmental health systems, annually revise their payment methodologies, which can result in stricter standards for reimbursement of hospital charges for certain medical procedures or the elimination of reimbursement;
- several foreign countries have implemented reforms of their respective healthcare sectors in an effort to
  reduce healthcare spending, including restricting funding to only those medical technologies and
  procedures with proven effectiveness, and increasing patient co-payments. Governmental health
  systems have revised and continue to consider revisions of healthcare budgets, which could result in
  stricter standards for implementing certain medical procedures, increased scrutiny of medical devices,
  and downward pricing pressure;

- Medicare, Medicaid, private and public health insurer and foreign governmental cutbacks could create downward pricing pressure on our products;
- in the U.S., local Medicare coverage as well as commercial carrier coverage determinations could reduce or eliminate reimbursement or coverage for certain of our wound matrix products as well as other collagen products in most regions, negatively affecting our market for these products, and future determinations could reduce or eliminate reimbursement or coverage for these products in other regions and could reduce or eliminate reimbursement or coverage for other products;
- there has been a consolidation among healthcare facilities and purchasers of medical devices in the U.S., some of whom prefer to limit the number of suppliers from whom they purchase medical products, and these entities may decide to stop purchasing our products or demand discounts on our prices;
- there has been a growing movement of physicians becoming employees of hospitals and other healthcare entities, which aligns surgeon product choices with his or her employers' purchasing decisions, and adds to pricing pressures;
- in the U.S., we are party to contracts with group purchasing organizations, which negotiate pricing for many member hospitals, require us to discount our prices for certain of our products and limit our ability to raise prices for certain of our products, particularly surgical instruments;
- there is economic pressure to contain healthcare costs in domestic and international markets, and, regardless of the consolidation discussed above, providers generally are exploring ways to cut costs by eliminating purchases or driving reductions in the prices that they pay for medical devices, or increasing clinical or economic evidence thresholds for product formularies;
- there are proposed and existing laws, regulations and industry policies in domestic and international markets regulating the sales and marketing practices and the pricing and profitability of companies in the healthcare industry;
- proposed laws or regulations may permit hospitals to provide financial incentives to doctors for reducing hospital costs, will award physician efficiency, and will encourage partnerships with healthcare service and goods providers to reduce prices; and
- there have been initiatives by third-party payors and foreign governmental health systems to challenge
  the prices charged for medical products that could affect our ability to sell products on a competitive
  basis.

Any and all of the above factors could materially and adversely affect our levels of revenue and our profitability.

We are subject to stringent domestic and foreign medical device regulation and any adverse regulatory action may adversely affect our financial condition and business operations.

Our products, development activities and manufacturing processes are subject to extensive and rigorous regulation by numerous government agencies, including the FDA and comparable foreign agencies. To varying degrees, each of these agencies monitors and enforces our compliance with laws and regulations governing the development, testing, manufacturing, labeling, marketing and distribution of our medical devices. We are also subject to regulations that may apply to certain of our products that are Drug/Device Combination products or are considered to be subject to pharmaceutical regulations outside the U.S. The process of obtaining marketing approval or clearance from the FDA and comparable foreign regulatory agencies for new products, or for enhancements or modifications to existing products, could

- take a significant amount of time;
- require the expenditure of substantial financial and other resources;

- involve rigorous and expensive pre-clinical and clinical testing, as well as increased post-market surveillance;
- involve modifications, repairs or replacements of our products; and
- result in limitations on the indicated uses of our products.

We cannot be certain that we will receive required approval or clearance from the FDA and foreign regulatory agencies for new products or modifications to existing products on a timely basis. The failure to receive approval or clearance for significant new products or modifications to existing products on a timely basis could have a material, adverse effect on our financial condition and results of operations.

Both before and after a product is commercially released, we have ongoing responsibilities under FDA regulations. For example, we are required to comply with the FDA's Quality System Regulation, which mandates that manufacturers of medical devices adhere to certain quality assurance requirements pertaining to, among other things, validation of manufacturing processes, controls for purchasing product components, and documentation practices. As another example, the Federal Medical Device Reporting regulation requires us to provide information to the FDA whenever there is evidence that reasonably suggests that a device may have caused or contributed to a death or serious injury or, that a malfunction occurred which would be likely to cause or contribute to a death or serious injury upon recurrence. Compliance with applicable regulatory requirements is subject to continual review and is monitored rigorously through periodic inspections by the FDA, which may result in observations on Form 483, and in some cases warning letters, that require corrective action. If the FDA were to conclude that we are not in compliance with applicable laws or regulations, or that any of our medical devices are ineffective or pose an unreasonable health risk, the FDA could ban such medical devices, detain or seize such medical devices, order a recall, repair, replacement, or refund of such devices, or require us to notify health professionals and others that the devices present unreasonable risks of substantial harm to the public health.

The FDA has intensified its scrutiny of the medical device industry and the government is expected to continue to scrutinize the industry closely with inspections, and possibly enforcement actions, by the FDA or other agencies. Additionally, the FDA may restrict manufacturing and impose other operating restrictions, enjoin and restrain certain violations of applicable law pertaining to medical devices, and assess civil or criminal penalties against our officers, employees, or us. The FDA may also recommend prosecution to the Department of Justice. Any adverse regulatory action, depending on its magnitude, may restrict us from effectively manufacturing, marketing and selling our products and could have a material, adverse effect on our financial condition and results of operations. In addition, negative publicity and product liability claims resulting from any adverse regulatory action could have a material, adverse effect on our financial condition and results of operations.

While we have taken measures to enhance our Quality System, we cannot assure you that future inspections by the FDA and the standards they apply will not result in warning letters for any facility in the future. We are also subject to inspections of our Quality System by regulatory agencies outside the U.S. which could result in the issuance of nonconformance or significant requirements to our Quality System.

The FDA Reauthorization Act of 2017 ("FDARA"), which includes the reauthorization of the Medical Device User Fee Amendments of 2012, as well as other medical device provisions, went into effect October 1, 2017. This includes performance goals and user fees paid to the FDA by medical device companies when they register and list with the FDA and when they submit an application to market a device in the U.S. Under FDARA, this user fee program has been reauthorized through fiscal year 2022. Under the Medical Device User Fee Amendments, or MDUFA III, there are additional requirements regarding the FDA Establishment Registration and Listing of Medical Devices. All U.S. and foreign manufacturers must register and list medical devices for sale in the U.S. All of our facilities comply with these requirements. That said, we also source products from foreign contract manufacturers. From this business practice, it is possible that some of our foreign

contract manufacturers will not comply with these requirements and choose not to register with the FDA. In such an event, we will need to determine if there are alternative foreign contract manufacturers who comply with the FDA Establishment Registration requirements. If such a foreign contract manufacturer is a sole supplier of one of our products, there is a risk that we may not be able to source another supplier.

The FDA issued a final rule on September 24, 2013 to establish a system to adequately identify devices through distribution and use. This rule requires the label of medical devices to include a unique device identifier ("UDI"), except where the rule provides for an exception or alternative placement. The labeler must submit product information concerning devices to FDA's Global Unique Device Identification Database ("GUDID"), unless subject to an exception or alternative. The system established by this rule requires the label and device package of each medical device to include a UDI and requires that each UDI be provided in a plain-text version and in a form that uses automatic identification and data capture technology. If the device is intended to be used more than once and intended to be reprocessed before each use, then there is a requirement for the UDI to be directly marked on the device itself. This regulation has required and may continue to require significant resources and expense to comply with the regulation.

We have complied with the requirements of this regulation for our Class III products by meeting the September 2014 deadline, our Class II implantable products by meeting the September 2015 deadline and for all Class II products by meeting the September 2016 deadline for labeling and entering the data in FDA's GUDID Database. The FDA has extended the deadline for complying with these requirements for medical devices that present a lower risk to patients to September 24, 2022.

The FDA issued regulations regarding "Current Good Manufacturing Practice Requirements for Combination Products" on January 22, 2013. These regulations apply to some of our product lines that have been designated by the FDA as Combination Products. There have been and will be additional costs associated with compliance with the FDA Good Manufacturing Practice Requirements regulations for Combination Products.

In addition, the United States Federal Food, Drug, and Cosmetic Act ("FDCA") permits device manufacturers to promote products solely for the uses and indications set forth in the approved product labeling. A number of enforcement actions have been taken against manufacturers that promote products for "off-label" uses, including actions alleging that federal health care program reimbursement of products promoted for "off-label" uses are false and fraudulent claims to the government. The failure to comply with "off-label" promotion restrictions can result in significant financial penalties and a required corporate integrity agreement with the federal government imposing significant administrative obligations and costs, and potential evaluation from federal health care programs.

Foreign governmental regulations have become more stringent and we may become subject to even more rigorous regulation by foreign governmental authorities in the future, which could have a material, adverse effect on our business, financial condition and results of operations. Penalties for a company's noncompliance with foreign governmental regulation could be severe, including revocation or suspension of a company's business license and criminal sanctions. For example, we are subject to Good Manufacturing Practice regulations for Pharmaceuticals in the EU for certain of our products. These regulations also mandate that manufacturers of medical devices (or those that are considered pharmaceuticals) adhere to certain quality assurance requirements pertaining to, among other things, validation of manufacturing processes, controls for purchasing product components, and documentation practices. There may be additional regulations if such products are considered pharmaceuticals outside the U.S.

In addition, the new European Medical Device Regulation ("EU MDR") passed in the European Parliament on April 5, 2017 and went into effect on May 25, 2017, replacing the Medical Device Directive. The EU MDR is an extensive reform of the rules that govern the medical device industry in Europe. Under this regulation, manufacturers will have three (3) years to comply with a broad set of new rules for almost every kind of medical device. The EU MDR will require changes in the clinical evidence required for medical devices, post-market

clinical follow-up evidence, annual reporting of safety information for Class III products, and bi-annual reporting for Class II products, Unique Device Identification ("UDI") for all products, submission of core data elements to a European UDI database prior to placement of a device on the market, reclassification of medical devices, and multiple other labeling changes.

Under the new EU MDR rules, medical device companies will have to, among other things. do the following:

- provide significantly more clinical evidence to get new products to market and even to keep existing products on the market;
- make changes to product labeling and make certain product data available to the public; and
- conduct product portfolio assessments to determine the impact of the EU MDR on the Company's margins.

Overall, medical device companies can expect longer lead times to obtain product registrations (CE Mark Certification) in the EU and a substantially costlier pathway to compliance in the EU. We are not yet able to determine the costs of complying with these regulations, how the EU will interpret and enforce them, what the timelines for approvals of products will be and the overall effect of the EU MDR on the marketplace. Given the significant additional pre-market and post-market requirements imposed by the EU MDR, the overall impact of these new rules could have a material, adverse effect on the Company's revenues and expenses.

# Certain of our products contain materials derived from animal sources and may become subject to additional regulation.

Certain of our products, including our dermal regeneration products, duraplasty products, wound care products, bone void fillers, nerve and tendon repair products and certain other products, contain material derived from bovine tissue. In 2017, approximately 41% of our revenues derived from products containing material derived from bovine tissue. Products that contain materials derived from animal sources, including food, pharmaceuticals and medical devices, are subject to scrutiny in the media and by regulatory authorities. Regulatory authorities are concerned about the potential for the transmission of disease from animals to humans via those materials. This public scrutiny has been particularly acute in Japan and Western Europe with respect to products derived from animal sources, because of concern that materials infected with the agent that causes bovine spongiform encephalopathy, otherwise known as BSE or mad cow disease, may, if ingested or implanted, cause a variant of the human Creutzfeldt-Jakob Disease, an ultimately fatal disease with no known cure. The World Organization for Animal Health ("OIE") recognizes the U.S. as having a negligible risk for BSE, which is the highest status available.

We take care to provide that our products are safe and free of agents that can cause disease. In particular, we qualified a source of collagen from a country outside the U.S. that is considered BSE/TSE-free. The World Health Organization classifies different types of bovine tissue for relative risk of BSE transmission. Deep flexor tendon and bovine fetal skin, which are used in our products, are in the lowest-risk categories for BSE transmission and are therefore considered to have a negligible risk of containing the agent that causes BSE (an improperly folded protein known as a prion). Nevertheless, products that contain materials derived from animals, including our products, could become subject to additional regulation, or even be banned in certain countries, because of concern over the potential for the transmission of prions. Significant new regulation, or a ban of our products, could have a material, adverse effect on our current business or our ability to expand our business.

Certain countries, such as Japan, China, Taiwan and Argentina, have issued regulations that require our collagen products be sourced from countries where no cases of BSE have occurred, and the EU has requested that our dural replacement products and other products that are used in neurological tissue be sourced from a country where no cases of BSE have occurred. Currently, we source bovine fetal hides from the U.S. and purchase tendon

from the U.S. and New Zealand. New Zealand has never had a case of BSE. We received approval in the U.S., the EU, Japan, Taiwan, China, Argentina as well as other countries for the use of New Zealand-sourced tendon in the manufacturing of our products. If we cannot continue to use or qualify a source of tendon from New Zealand or another country that has never had a case of BSE, we could be prohibited from selling our collagen products in certain countries.

# Certain of our products are derived from human tissue and are subject to additional regulations and requirements.

We manufacture and distribute products derived from human tissue. The FDA has specific regulations governing human cells, tissues and cellular and tissue-based products, or HCT/Ps. An HCT/P is a product containing or consisting of human cells or tissue intended for transplantation into a human patient. Examples include bone, ligament, skin, amniotic tissue and cornea. HCT/Ps that meet the criteria for regulation solely under Section 361 of the Public Health Service Act ("Section 361") are not subject to any premarket clearance or approval requirements but are subject to post-market regulatory requirements.

Some HCT/Ps also meet the definition of a biological product, medical device or drug regulated under the FDCA. These biologic, device or drug HCT/Ps must comply both with the requirements exclusively applicable to Section 361 HCT/Ps and, in addition, with requirements applicable to biologics, devices or drugs, including premarket clearance or approval.

On June 22, 2015, the FDA issued an Untitled Letter alleging that BioD's morselized amniotic membrane tissue based products do not meet the criteria for regulation as HCT/Ps solely under Section 361 and that, as a result, BioD would need a biologics license to lawfully market those morselized products. Since the issuance of the Untitled Letter, BioD and more recently the Company have been in discussions with the FDA to communicate their disagreement with the FDA's assertion that certain products are more than minimally manipulated. The FDA has not changed its position that certain of the BioD acquired products are not eligible for marketing solely under Section 361.

In November 2017, the FDA issued the final guidance document related to human tissue titled, "Regulatory Considerations for Human Cells, Tissues, and Cellular and Tissue-Based Products: Minimal Manipulation and Homologous Use" (the "HCT/P Final Guidance"). The HCT/P Final Guidance maintains the FDA's position that products such as the Company's morselized amniotic membrane tissue based products do not meet the criteria for regulation solely as HCT/Ps. In addition, the FDA articulated a risk-based approach to enforcement and, while some uses for amniotic membrane tissue based products would enjoy as much as thirty-six months of enforcement discretion, other high risk uses could be subject to immediate enforcement action. The Company does not believe the uses for its amniotic membrane tissue based products fall into the high risk category. Nonetheless, we can make no assurances that the FDA will continue to exercise its enforcement discretion with respect to the Company's amniotic membrane tissue based products, and any potential action of the FDA could have a financial impact regarding the sales of such products. Although the Company continues to disagree with the FDA's position, the Company has been considering and continues to consider regulatory approval pathways for its amniotic membrane tissue based products.

# Lack of market acceptance for our products or market preference for technologies that compete with our products could reduce our revenues and profitability.

We cannot be certain that our current products or any other products that we develop or market will achieve or maintain market acceptance. Certain of the medical indications that our devices can treat can also be treated by other medical devices or by medical practices that do not include a device. The medical community widely accepts many alternative treatments, and certain of these other treatments have a long history of use. For example, the use of autograft tissue is a well-established means for repairing the dermis, and it competes for acceptance in the market with our collagen-based wound care products.

We cannot be certain that our new devices and procedures will be able to replace those established treatments or that physicians, the medical community or third-party payors, including Medicare, Medicaid, private and public health insurers and foreign governmental health systems, will accept and utilize our devices or any other medical products that we may develop. For example, greater market acceptance of our wound graft products may ultimately depend on our ability to demonstrate that higher rates of reimbursement are justified because they are an attractive and cost-effective alternative to other treatment options. Additionally, if there are negative events in the industry, whether real or perceived, there could be a negative impact on the industry as a whole.

In addition, our future success depends, in part, on our ability to license and develop additional products. Even if we determine that a product candidate has medical benefits, the cost of commercializing that product candidate, either through internal development or payments associated with licensing arrangements, could be too high to justify development. Competitors could develop products that are more effective, achieve or maintain more favorable reimbursement status from third-party payors both domestically and internationally, including Medicare, Medicaid, private and public health insurers, and foreign governmental health systems, cost less or are ready for commercial introduction before our products. If we are unable to develop additional commercially viable products, our future prospects could be materially and adversely affected.

Market acceptance of our products depends on many factors, including our ability to convince prospective collaborators and customers that our technology is an attractive alternative to other technologies, to manufacture products in sufficient quantities and at acceptable costs, and to supply and service sufficient quantities of our products directly or through our distribution alliances. In addition, unfavorable reimbursement methodologies, or adverse determinations of third-party payors, including Medicare, Medicaid, private and public health insurers, and foreign governmental health systems, regarding our products or third-party determinations that favor a competitor's product over ours, could harm acceptance or continued use of our products. The industry is subject to rapid and continuous change arising from, among other things, consolidation, technological improvements, the pressure on governments, third-party payors and providers to reduce healthcare costs, and healthcare reform legislation and initiatives domestically and internationally. One or more of these factors may vary unpredictably, and such variations could have a material, adverse effect on our competitive position. We may not be able to adjust our contemplated plan of development to meet changing market demands.

Economic and political instability around the world could adversely affect the ability of hospitals, other customers, suppliers and distributors to access funds or otherwise have available liquidity, which could reduce orders for our products or interrupt our production or distribution or result in a reduction in elective and non-reimbursed operative procedures.

Economic and political instability around the world could adversely affect the ability of hospitals and other customers to access funds to enable them to fund their operating and capital budgets. As a result, hospitals and other customers could reduce budgets or put all or part of their budgets on hold or close their operations, which could have a negative effect on our sales, particularly the sales of capital equipment such as our ultrasonic surgical aspirators, neuromonitors and stereotactic products, or result in a reduction in elective and non-reimbursed procedures. The occurrence of those economic conditions could make it more difficult for us to accurately forecast and plan our future business activities and depending on their severity, could have a material, adverse effect on our business, financial condition and results of operations.

#### We may have additional tax liabilities.

We are subject to income taxes in the U.S. and many foreign jurisdictions and are commonly audited by various tax authorities. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. Significant judgment is required in determining our worldwide provision for income taxes. Although we believe that our tax estimates are reasonable, the final determination of tax audits and any related litigation could be materially different from our historical income tax provisions and

accruals. The results of an audit or litigation could have a material, adverse effect on our financial statements in the period or periods for which that determination is made.

#### Our substantial leverage and debt service obligations could adversely affect our business.

As of December 31, 2017, our total consolidated external debt was approximately \$1.9 billion. (See "Amended and Restated Senior Credit Agreement" in Item 7 for a discussion of our debt facility.) We may also incur additional indebtedness in the future. Our substantial indebtedness could have material, adverse consequences, including:

- making it more difficult for us to satisfy our financial obligations;
- increasing our vulnerability to adverse economic, regulatory and industry conditions, and placing us at a disadvantage compared to our competitors that are less leveraged;
- limiting our ability to compete and our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate; and
- limiting our ability to borrow additional funds for working capital, capital expenditures, acquisitions and general corporate or other purposes.

Our debt service obligations will require us to use a portion of our operating cash flow to pay interest and principal on indebtedness instead of for other corporate purposes, including funding future expansion of our business, acquisitions, and ongoing capital expenditures, which could impede our growth. In addition, the Company may attempt to refinance or extend this obligation depending on prevailing market conditions. Our ability to refinance or extend this obligation will depend on our operating and financial performance, which in turn is subject to prevailing economic conditions and financial, business and other factors beyond our control. Any disruptions in our operations, the financial markets, or overall economy may adversely affect the availability and cost of credit to us.

#### It could be difficult to replace some of our suppliers.

Outside vendors, some of whom are sole-source suppliers, provide key components and raw materials used in the manufacture of our products. Although we believe that alternative sources for many of these components and raw materials are available, any interruption in supply of a limited or sole-source component or raw material could harm our ability to manufacture our products until a new or alternative source of supply is identified and qualified. In addition, an uncorrected defect or supplier's variation in a component or raw material, either unknown to us or incompatible with our manufacturing process, could harm our ability to manufacture products. We may not be able to find a sufficient alternative supplier in a reasonable time period, or on commercially reasonable terms, if at all, and our ability to produce and supply our products could be impaired. We believe that these factors are most likely to affect the following products that we manufacture:

- our collagen-based products, such as the Integra Dermal Regeneration Template and wound matrix products, the DuraGen® family of products, our Absorbable Collagen Sponges, Primatrix and SurgiMend products;
- our products made from silicone, such as our neurosurgical shunts and drainage systems and hemodynamic shunts;
- products which use many different specialty parts from numerous suppliers, such as our intracranial monitors, catheters and headlights;
- products that use pyrolytic carbon (i.e., PyroCarbon) technology, such as certain of our reconstructive extremity orthopedic implants;
- products that use medical grade leptospermum honey, such as our Medihoney products; and
- our TCC-EZ® total contact cast system products.

In connection with our Confluent Surgical acquisition in January 2014, we entered into a multi-year supply agreement with an affiliate of the seller to continue to manufacture the acquired surgical sealant and adhesion barrier product lines. Pursuant to a contract we entered in 2015, we anticipate that upon receiving regulatory approval we will transfer manufacturing of these product lines to a third party in 2018.

If we were suddenly unable to purchase products or services from one or more of the companies identified above, we would need a significant period of time to qualify a replacement, and the production of any affected products could be disrupted, which could have a material, adverse effect on our financial condition and business operations.

While it is our policy to maintain sufficient inventory of components so that our production will not be significantly disrupted even if a particular component or material is not available for a period of time, we remain at risk that we will not be able to qualify new components or materials quickly enough to prevent a disruption if one or more of our suppliers ceases production of important components or materials.

Our intellectual property rights may not provide meaningful commercial protection for our products, potentially enabling third parties to use our technology or very similar technology and could reduce our ability to compete in the market.

To compete effectively, we depend, in part, on our ability to maintain the proprietary nature of our technologies and manufacturing processes, which includes the ability to obtain, protect and enforce patents on our technology and to protect our trade secrets. We own or have licensed patents that cover aspects of some of our product lines. Our patents, however, may not provide us with any significant competitive advantage. Others may challenge our patents and, as a result, our patents could be narrowed, invalidated or rendered unenforceable. Competitors may develop products similar to ours that our patents do not cover. In addition, the approval or rejection of patent applications may take several years and our current and future patent applications may not result in the issuance of patents in the U.S. or foreign countries.

# Our competitive position depends, in part, upon unpatented trade secrets, which we may be unable to protect.

Our competitive position also depends upon unpatented trade secrets, which are difficult to protect. We cannot assure you that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets, that our trade secrets will not be disclosed or that we can effectively protect our rights to unpatented trade secrets.

In an effort to protect our trade secrets, we require our employees, consultants and advisors to execute confidentiality and invention assignment agreements upon commencement of employment or consulting relationships with us. These agreements provide that, except in specified circumstances, all confidential information developed or made known to the individual during the course of her relationship with us must be kept confidential. We cannot assure you, however, that these agreements will provide meaningful protection for our trade secrets or other proprietary information in the event of the unauthorized use or disclosure of confidential information.

# Our success will depend partly on our ability to operate without infringing or misappropriating the proprietary rights of others.

We may be sued for infringing the intellectual property rights of others. In addition, we may find it necessary, if threatened, to initiate a lawsuit seeking a declaration from a court that we do not infringe the proprietary rights of others or that their rights are invalid or unenforceable. If we do not prevail in any litigation, in addition to any damages we might have to pay, we would be required to stop the infringing activity (which could include a cessation of selling the products in question) or obtain a license for the proprietary rights involved. Any required license may be unavailable to us on acceptable terms, if at all. In addition, some licenses may be nonexclusive and allow our competitors to access the same technology we license.

If we fail to obtain a required license or are unable to design our products so as not to infringe on the proprietary rights of others, we may be unable to sell some of our products, and this potential inability could have a material, adverse effect on our revenues and profitability.

## We may be involved in lawsuits relating to our intellectual property rights and promotional practices, which may be expensive.

To protect or enforce our intellectual property rights, we may have to initiate or defend legal proceedings, such as infringement suits or opposition proceedings, against or by third parties. In addition, we may have to institute proceedings regarding our competitors' promotional practices or defend proceedings regarding our promotional practices. Legal proceedings are costly, and, even if we prevail, the cost of the legal proceedings could affect our profitability. In addition, litigation is time-consuming and could divert management's attention and resources away from our business. Moreover, in response to our claims against other parties, those parties could assert counterclaims against us.

## If we do not successfully integrate newly acquired businesses into our business operations, including Codman Neurosurgery and Derma Sciences, our business could be materially and adversely affected.

We will need to successfully integrate the operations of recently and pending acquired businesses, including our acquisitions of Codman Neurosurgery and Derma Sciences, with our business operations. The failure to integrate the business operations of the acquired businesses successfully would have a material, adverse effect on our business, financial condition and results of operations. As a result of these acquisitions, we will undergo substantial changes in a short period of time and our business will change and broaden in size and the scope of products we offer. Integrating the operations of multiple new businesses with that of our own is a complex, costly and time-consuming process, which requires significant management attention and resources, including the coordination of information technologies, sales and marketing, research and development, operations, manufacturing and finance functions. The integration process could disrupt the businesses and, if implemented ineffectively, could preclude realization of the full benefits that we expect from these transactions. Our failure to meet the challenges involved in integrating the businesses in order to realize the anticipated benefits of the acquisitions could cause an interruption of, or a loss of momentum in, our activities and could materially and adversely affect our results of operations. Prior to each acquisition, the acquired business operated independently, with its own business, corporate culture, locations, employees and systems. There may be substantial difficulties, costs and delays involved in any integration of other businesses with that of our own. These may include:

- distracting management from day-to-day operations;
- potential incompatibility of corporate cultures;
- · an inability to achieve synergies as planned;
- risks associated with the assumption of contingent or other liabilities of acquisition targets;
- adverse effects on existing business relationships with suppliers or customers, including failure to retain key customers and suppliers;
- failure to retain key employees of our company and of the acquired businesses;
- inheriting and uncovering previously unknown issues, problems and costs from the acquired company;
- delays between our expenditures to acquire new products, technologies or businesses and the generation of revenues from those acquired products, technologies or businesses;
- realization of assets and settlement of liabilities at amounts equal to estimated fair value as of the acquisition date of any acquisition or disposition;
- an inability to integrate information technology systems of acquired businesses in a secure and reliable manner;

- costs and delays in implementing common systems and procedures (including technology, compliance programs, financial systems, distribution and general business operations, among others);
- liabilities that are significantly larger than we currently anticipate and unforeseen increased expenses or
  delays associated with the acquisitions, including transition costs to integrate the businesses that may
  exceed the costs that we currently anticipate;
- · challenges involved with the increased scale of our operations resulting from the acquisitions; and
- increased difficulties in managing our business due to the addition of international locations.

These risks may be heightened in cases where the majority of the former businesses' operations, employees and customers are located outside the U.S. Any one or all of these factors could increase operating costs or lower anticipated financial performance. Many of these factors are also outside of our control. In addition, dispositions of certain key products, technologies and other rights, including pursuant to conditions imposed on us to obtain regulatory approvals, may affect our business operations.

In connection with the acquisition of the Codman Neurosurgery business from Johnson & Johnson, we entered into certain transition services agreements with Johnson & Johnson under which they are providing certain manufacturing, distribution and other services to the Company for up to two years following the closing. Any interruption in, or inability of Johnson & Johnson to provide, these services for any reason could have a material, adverse effect on our business, financial condition and results of operations.

Even if the operations of the businesses are integrated successfully, we may not realize the full benefits of the acquisition, including the synergies, cost savings or sales or growth opportunities that we expect. These benefits may not be achieved within the anticipated time frame, or at all. Additional unanticipated costs could be incurred in the integration of the businesses. All of these factors could cause a reduction to our earnings per share, decrease or delay the expected accretive effect of the transaction, and negatively impact the price of our ordinary shares.

## If any of our facilities were damaged and/or our manufacturing or business processes interrupted, we could experience lost revenues and our business could be seriously harmed.

Damage to our manufacturing, distribution, development and/or research facilities because of fire, extreme weather conditions, natural disaster, power loss, communications failure, unauthorized entry or other events, such as a flu or other health epidemic, could significantly disrupt our operations, the operations of suppliers and critical infrastructure and delay or prevent product manufacture and shipment during the time required to repair, rebuild or replace the damaged facilities. Our Añasco, Puerto Rico plant, where we manufacture collagen, silicone and our private-label products, is vulnerable to hurricane, storm, earthquake and wind damage. In September 2017, Hurricane Maria caused catastrophic damage and disruption to the infrastructure in Puerto Rico, including power, communications, water supply and transportation and to the operations of suppliers and service providers, some of which persists or has not been restored fully. While our Añasco plant sustained relatively minor damage from the impact of this hurricane and is fully operational, our ability to maintain sustainable operations at our Añasco plant depends on the restoration and reliability of the infrastructure and other essential services in Puerto Rico. In preparation for potential power outages, we have invested in diesel-powered generators at this plant to mitigate our exposure. Until such infrastructure and essential services are fully restored, we cannot guarantee that we will be able to sustain operations at full capacity at our Añasco plant. Our Plainsboro, New Jersey facility is vulnerable to hurricane damage. While we believe that our exposure to significant losses from such circumstances could be partially mitigated by our ability to manufacture, store, and distribute some of our products at other facilities, the losses could have a material, adverse effect on our business for an undetermined period of time before the transition is complete and operations resume without significant disruption. Although we maintain property damage and business interruption insurance coverage on these facilities, our insurance might not cover all losses under such circumstances, and we may not be able to renew or obtain such insurance in the future on acceptable terms with adequate coverage or at reasonable costs.

In addition, certain of our surgical instruments have some manufacturing processes performed by third parties in Pakistan, and we purchase a much smaller amount of instruments directly from vendors there. Pakistan is subject to political instability and unrest. Such instability could interrupt our ability to sell surgical instruments to our customers and could have a material, adverse effect on our revenues and earnings. While we have developed a relationship with an alternative provider of these services in another country, and continue to work to develop other providers in other countries, we cannot guarantee that we will be completely successful in establishing all of these relationships. Even if we are successful in establishing all of these alternative relationships, we cannot guarantee that we will be able to do so at the same level of costs or that we will be able to pass along additional costs to our customers.

Further, we manufacture certain products in Europe and our European headquarters is located in France, which has experienced labor strikes and acts of terrorism. Thus far, strikes and acts of terrorism have not had a material impact on our business; however, if either were to occur, there is no assurance that they would not disrupt our business, and any such disruption could have a material, adverse effect on our business.

An experienced third party hosts and maintains the enterprise business system used to support certain of our transaction processing for accounting and financial reporting, supply chain and manufacturing. Currently, we have developed a comprehensive disaster recovery plan for the Company's infrastructure. As we have not fully tested the plan, we have adopted alternative solutions to mitigate business risk, including backup equipment, power and communications. We also implemented a comprehensive backup and recovery process for our key applications. Our global production and distribution operations are dependent on the effective management of information flow between facilities. An interruption of the support provided by our enterprise business systems could have a material, adverse effect on the business.

# We may experience difficulties, delays, performance impact or unexpected costs from consolidation of facilities.

We consolidated several facilities in recent years, and may further consolidate our operations in the future in order to improve our cost structure, achieve increased operating efficiencies, and improve our competitive standing or results of operations and/or to address unfavorable economic conditions. As part of these initiatives, we may also lose favorable tax incentives or not be able to renew leases on acceptable terms. We may further reduce staff, make changes to certain capital projects, close certain production operations and abandon leases for certain facilities that will not be used in our operations. In conjunction with any actions, we will continue to make significant investments and build the framework for our future growth. We may not realize, in full or in part, the anticipated benefits and savings from these efforts because of unforeseen difficulties, delays, implementation issues or unexpected costs. If we are unable to achieve or maintain all of the resulting savings or benefits to our business or other unforeseen events occur, our business and results of operations may be adversely affected.

# We are exposed to a variety of risks relating to our international sales and operations, including fluctuations in exchange rates, local economic conditions and delays in collection of accounts receivable.

We generate significant revenues outside the U.S. in multiple foreign currencies, and in U.S. dollar-denominated transactions conducted with customers who generate revenue in currencies other than the U.S. dollar. For those foreign customers who purchase our products in U.S. dollars, currency fluctuations between the U.S. dollar and the currencies in which those customers do business may have a negative impact on the demand for our products in foreign countries where the U.S. dollar has increased in value compared to the local currency.

Since we have operations based outside the U.S. and we generate revenues and incur operating expenses in multiple foreign currencies, we experience currency exchange risk with respect to those foreign currency-denominated revenues and expenses. Our most significant currency exchange risk relates to transactions conducted in Australian dollars, British pounds, Canadian dollars, Chinese yuan, euros, Japanese yen, and Swiss francs.

We cannot predict the consolidated effects of exchange rate fluctuations upon our future operating results because of the number of currencies involved, the variability of currency exposure and the potential volatility of currency exchange rates. Although we address currency risk management through regular operating and financing activities, and, on a limited basis, through the use of derivative financial instruments, those actions may not prove to be fully effective. For a description of our use of derivative financial instruments, see Note 6, *Derivative Instruments* in our consolidated financial statements.

Our international operations subject us to laws regarding sanctioned countries, entities and persons, customs, import-export, laws regarding transactions in foreign countries, the U.S. Foreign Corrupt Practices Act and local anti-bribery and other laws regarding interactions with healthcare professionals, and product registration requirements. Among other things, these laws restrict, and in some cases prevent, U.S. companies from directly or indirectly selling goods, technology or services to people or entities in certain countries. In addition, these laws require that we exercise care in structuring our sales and marketing practices and effecting product registrations in foreign countries.

On June 23, 2016, the United Kingdom (U.K.) held a referendum in which voters approved an exit from the E.U., commonly referred to as "Brexit." As a result of the referendum, the British government began negotiating the terms of the U.K.'s future relationship with the EU. Although it is unknown what those terms will be, it is possible that there will be greater restrictions on imports and exports between the U.K. and EU. countries and increased regulatory complexities. Similarly, from time to time proposals are made in the U.S. to significantly change existing trade agreements and relationships between the U.S. and other countries, although we cannot currently predict whether or how these changes will be implemented. Changes to trade policy could materially and adversely affect our operations and financial results.

Local economic conditions, legal, regulatory or political considerations, disruptions from strikes, the effectiveness of our sales representatives and distributors, local competition, in-country reimbursement methodologies and changes in local medical practice could also affect our sales to foreign markets. Relationships with customers and effective terms of sale frequently vary by country, often with longer-term receivables than are typical in the U.S.

# Oversight of the medical device industry might affect the manner in which we may sell medical devices and compete in the marketplace.

There are laws and regulations that govern the means by which companies in the healthcare industry may market their products to healthcare professionals and may compete by discounting the prices of their products, including for example, the federal Anti-Kickback Statute, the federal False Claims Act, the federal Health Insurance Portability and Accountability Act of 1996, state law equivalents to these federal laws that are meant to protect against fraud and abuse and analogous laws in foreign countries. Violations of these laws are punishable by criminal and civil sanctions, including, but not limited to, in some instances civil and criminal penalties, damages, fines, exclusion from participation in federal and state healthcare programs, including Medicare and Medicaid. Although we exercise care in structuring our sales and marketing practices and customer discount arrangements to comply with those laws and regulations, we cannot assure that:

- government officials charged with responsibility for enforcing those laws will not assert that our sales
  and marketing practices or customer discount arrangements are in violation of those laws or
  regulations; or
- government regulators or courts will interpret those laws or regulations in a manner consistent with our interpretation.

Correspondingly, federal and state laws are also sometimes open to interpretation, and from time to time we may find ourselves at a competitive disadvantage if our interpretation differs from that of our competitors. AdvaMed (for the U.S. and China), MedTech Europe (Europe), Mecomed (Middle East), and APACMed (Asia

Pacific), some of the principal trade associations for the medical device industry, promulgate model codes of ethics that set forth standards by which its members should (and non-member companies may) abide in the promotion of their products. We have in place policies and procedures for compliance that we believe are at least as stringent as those set forth in the AdvaMed Code, and we regularly train our sales and marketing personnel on our policies regarding sales and marketing practices. Pursuant to the AdvaMed Code, we have certified our adoption of the AdvaMed Code. Nevertheless, the sales and marketing practices of our industry have been the subject of increased scrutiny from federal and state government agencies, and we believe that this trend will continue. Various hospital organizations, medical societies and trade associations are establishing their own practices that may require detailed disclosures of relationships between healthcare professionals and medical device companies or ban or restrict certain marketing and sales practices such as gifts and business meals.

## Our private-label product lines depend significantly on key relationships with third parties, which we could be unable to establish and maintain.

Our private-label business depends in part on our entering into and maintaining long-term supply agreements with third parties. The third parties with whom we have entered into agreements might terminate these agreements for a variety of reasons, including developing other sources for the products that we supply. Termination of our most important relationships could adversely affect our expectations for the growth of private-label products.

## We may have significant product liability exposure and our insurance may not cover all potential claims.

We are exposed to product liability and other claims if our technologies or products are alleged to have caused harm. We may not be able to obtain insurance for the potential liability on acceptable terms with adequate coverage or at reasonable costs. Any potential product liability claims could exceed the amount of our insurance coverage or may be excluded from coverage under the terms of the policy. Our insurance may not be renewed at a cost and level of coverage comparable to that then in effect.

## We are subject to requirements relating to hazardous materials which may impose significant compliance or other costs on us.

Our manufacturing, product development, research, and development operations and processes involve the controlled use of certain hazardous materials. In addition, we own and/or lease a number of facilities at which hazardous materials have been used in the past. Finally, we have acquired various companies that historically have used certain hazardous materials and that have owned and/or leased facilities at which hazardous materials have been used. For all of these reasons, we are subject to federal, state, foreign, and local laws and regulations governing the use, manufacture, storage, transportation, handling, treatment, remediation, and disposal of hazardous materials and certain waste products ("Environmental, Health, Safety and Transportation Laws"). Although we believe that our procedures for handling, transporting, and disposing of hazardous materials comply with the Environmental, Health, Safety and Transportation Laws, the Environmental Health, Safety and Transportation Laws may be amended in ways that increase our cost of compliance, perhaps materially.

Furthermore, the potential risk of accidental contamination or injury from these materials cannot be eliminated, and there is also a risk that such contamination previously has occurred in connection with one of our facilities or in connection with one of the companies we have purchased. In the event of such an accident or contamination, we could be held liable for any damages that result and any related liability could exceed the limits or fall outside the coverage of our insurance and could exceed our resources. We may not be able to maintain insurance on acceptable terms or at all.

## Cyber attacks or other disruptions to our information technology systems could adversely affect our business.

We are increasingly dependent on sophisticated information technology for our infrastructure and to support business decisions. As a result of technology initiatives, recently enacted regulations, changes in our system platforms and integration of new business acquisitions, we have been consolidating and integrating our systems. Our information systems require an ongoing commitment of significant resources to maintain, protect, and enhance existing systems and develop new systems to keep pace with continuing changes in information processing technology, evolving systems and regulatory standards, the increasing need to protect patient and customer information, and changing customer patterns. Any significant breakdown, intrusion, interruption, corruption, or destruction of these systems, as well as any data breaches, could have a material, adverse effect on our business.

In addition, third parties may attempt to breach our systems and may obtain data relating to patients, the Company's proprietary information, or other sensitive data. If we fail to maintain or protect our information systems and data integrity effectively, we could lose existing customers, have difficulty attracting new customers, suffer backlash from negative public relations, have problems in determining product cost estimates and establishing appropriate pricing, have difficulty preventing, detecting, and controlling fraud, have disputes with customers, physicians, and other health care professionals, have regulatory sanctions or penalties imposed, have increases in operating expenses, incur expenses or lose revenues as a result of a data privacy breach, or suffer other adverse consequences.

We have programs, processes and technologies in place to prevent, detect, contain, respond to and mitigate security related threats and potential incidents. We undertake considerable ongoing improvements to our systems, connected devices and information-sharing products in order to minimize vulnerabilities, in accordance with industry and regulatory standards. Because the techniques used to obtain unauthorized access change frequently and can be difficult to detect, anticipating, identifying or preventing these intrusions or mitigating them if and when they occur, may be challenging.

We also rely on third party vendors to supply and/or support certain aspects of our information technology systems. Third party systems may contain defects in design or manufacture or other problems that could result in system disruption or unexpectedly compromise the information security of our own systems, and we are dependent on these third parties to provide reliable systems and software and to deploy appropriate security programs to protect their systems.

In addition, we continue to grow in part through new business acquisitions. As a result of acquisitions, we may face risks due to implementation, modification, or remediation of controls, procedures, and policies relating to data privacy and cybersecurity at the acquired business. We continue to consolidate and integrate the number of systems we operate, and to upgrade and expand our information system capabilities for stable and secure business operations.

If we are unable to maintain reliable information technology systems and prevent disruptions, outages, or data breaches, we may suffer regulatory consequences in addition to business consequences. Our worldwide operations mean that we are subject to laws and regulations, including data protection and cyber security laws and regulations, in many jurisdictions. The variety of U.S. and international privacy and cybersecurity laws and regulations impacting our operations are described in "Item 1. Business -Government Regulation—Other Factors—Data Privacy and Cybersecurity Laws and Regulations." We have programs to ensure compliance with such laws and regulations. However, there is no guarantee that we will avoid enforcement actions by governmental bodies. Enforcement actions may be costly and interrupt regular operations of our business. In addition, there has been a developing trend of civil lawsuits and class actions relating to breaches of consumer data held by large companies or incidents arising from other cyber attacks. While Integra has not been named in any such suits, if a substantial breach or loss of data were to occur, we could become a target of such litigation.

#### ITEM 1B. UNRESOLVED STAFF COMMENTS

As of the filing of this Annual Report on Form 10-K, we had no unresolved comments from the staff of the Securities and Exchange Commission that were received not less than 180 days before the end of our 2017 fiscal year.

#### ITEM 2. PROPERTIES

Our principal executive offices are located in Plainsboro, New Jersey. Our principal manufacturing and research facilities are located in New Jersey, Ohio, Pennsylvania, Massachusetts, Tennessee, Canada, France, Germany, Ireland, Switzerland, Mexico, and Puerto Rico. Our instrument procurement operations are located in Germany. Our primary distribution centers are located in Nevada, Ohio, Pennsylvania, Missouri, Australia, Belgium, Canada and France. In addition, we lease several smaller facilities to support additional administrative, assembly, and distribution operations. Third parties own and operate the facilities in Nevada, Missouri and Belgium. We own our facilities in Biot, France, Saint Aubin Le Monial, France, Rietheim-Weilheim, Germany and certain facilities in Ohio and Pennsylvania, and we lease all of our other facilities. We also have repair centers in California, Massachusetts, Ohio, Australia and Germany.

Our manufacturing facilities are registered with the FDA. Our facilities are subject to FDA inspection to ensure compliance with Quality System regulations. For further information regarding the status of FDA inspections, see the "Government Regulation" and "Management's Discussion and Analysis of Financial Condition and Results of Operations—Update on Remediation Activities" sections in this Form 10-K.

#### ITEM 3. LEGAL PROCEEDINGS

Various lawsuits, claims and proceedings are pending or have been settled by us; the most significant of which are described below.

The Company is subject to various claims, lawsuits and proceedings in the ordinary course of the Company's business, including claims by current or former employees, distributors and competitors and with respect to its products and product liability claims, lawsuits and proceedings, some of which have been settled by the Company. In the opinion of management, such claims are either adequately covered by insurance or otherwise indemnified, or are not expected, individually or in the aggregate, to result in a material, adverse effect on our financial condition. However, it is possible that the Company's results of operations, financial position and cash flows in a particular period could be materially affected by these contingencies.

## TEI

TEI, acquired by Integra on July 17, 2015, manufactures a bovine-derived surgical mesh product for Boston Scientific Corporation ("BSC") and has been named as a defendant in lawsuits under a broad range of products liability theories, many of which have not been served on TEI. As of December 31, 2017, only ten cases remained against TEI. Pursuant to an indemnification agreement with BSC (i) BSC is managing the litigation; (ii) TEI has in place a products liability insurance policy, of which it must exhaust \$3.0 million before BSC's indemnity begins to cover relevant claims (and of which only a small portion has been utilized to date and against which the insurer has reserved the entire \$3.0 million). Because the thrust of the products liability litigation focuses on synthetic surgical mesh products, counsel is filing motions to dismiss on behalf of TEI in many cases. In addition, Integra has certain protections in the merger agreements with TEI which would indemnify the Company for up to three years after closing for losses relating to a variety of matters, including half of certain products liability claims (including those related to the product it manufactures for BSC) not covered by insurance. As of March 1, 2018, no indemnification payments were received nor owed in relation to the lawsuits for the indemnification time period.

#### BioD

On April 7, 2017, the Company's indirect wholly-owned subsidiary, BioD filed an action in the Superior Court of New Jersey, Chancery Division, Middlesex County seeking a declaration that the resignation of Russell Olsen, the former CEO of BioD, was "for Good Reason" (as defined in Olsen's employment agreement); a finding that Olsen breached the implied covenant of good faith and fair dealing, committed legal fraud, equitable fraud and negligent misrepresentation; and an award of damages for such actions, including a return of severance fees paid to Olsen. BioD was acquired in August 2016 by Derma Sciences, which Integra subsequently acquired in February 2017. After receiving a job offer from Integra that Olsen believed materially diminished his title and authority, on February 24, 2017 Olsen indicated his intention to terminate his position with BioD for Good Reason, as otherwise permitted by his employment agreement with BioD. Shortly thereafter, Cynthia Weatherly (as representative of the former equity owners of BioD) claimed in a letter to Derma Sciences that Olsen's resignation was a "termination Without Cause" (as also defined in Olsen's employment agreement), which would arguably trigger an acceleration of the earn out under a merger agreement between Derma Sciences, BioD and other parties (the "BioD Merger Agreement"), which was entered into in July 2016, and require as a result of the acceleration the payment of \$26.5 million by BioD. As disclosed and described in Note 4-Acquisition, Divestitures and Pro Forma Results to the Company's consolidated financial statements for year ended December 31, 2017, Integra assumed this contingent liability in connection with its acquisition of Derma Sciences. The action for a declaratory judgment was filed to clarify that Olsen's termination was for Good Reason and not Without Cause. If the employment agreement was terminated for Good Reason, then the Company believes that the earn out provision under the BioD Merger Agreement should not be accelerated.

The Company accrues for loss contingencies when it is deemed probable that a loss has been incurred and that loss is estimable. The amounts accrued are based on the full amount of the estimated loss before considering insurance proceeds, and do not include an estimate for legal fees expected to be incurred in connection with the loss contingency. The Company consistently accrues legal fees expected to be incurred in connection with loss contingencies as those fees are incurred by outside counsel as a period cost.

## ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

#### **PART II**

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

### Market Information, Holders and Dividends

Our common stock trades on The NASDAQ Global Market under the symbol "IART." The following table lists the high and low closing sales prices for our common stock for each quarter for the last two years:

	20	2016		
	High	Low	High	Low
Fourth Quarter	\$51.77	\$46.22	\$43.22	\$37.89
Third Quarter (1)	\$55.76	\$47.80	\$43.70	\$39.37
Second Quarter (1)	\$54.54	\$40.86	\$39.89	\$32.58
First Quarter (1)	\$44.90	\$41.09	\$33.78	\$27.75

(1) As adjusted to give effect to the two-for-one stock split effective December 21, 2016.

We have not paid any cash dividends on our common stock since our formation. Our credit facility limits the amount of dividends that we may pay. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Amended and Restated Senior Credit Agreement." Any future determinations to pay cash dividends on the common stock will be at the discretion of our Board of Directors and will depend upon our results of operations, cash flows, and financial condition and other factors deemed relevant by the Board of Directors.

The number of stockholders of record as of February 27, 2018 was approximately 1,074, which includes stockholders whose shares were held in nominee name.

### Sales of Unregistered Securities

There were no sales of unregistered securities during the years ended December 31, 2017, 2016 or 2015.

### Sale of Registered Securities

In August 2015, we sold 7.590 million shares of our common stock (including 990,000 shares from the exercise of the underwriters' option for additional shares), in a registered public offering to a select group of underwriters through a Registration Statement on Form S-3 (File No. 333-192079) that was declared effective by the Securities and Exchange Commission on November 4, 2013. The shares of common stock were sold at a price of \$30.50 per share (before underwriting discounts and commissions). The aggregate offering gross proceeds were \$231.5 million. Following the sale of the common stock, the public offering terminated.

We incurred total offering costs of approximately \$11.8 million, which includes the amounts paid for underwriters' discounts and commissions of 5.0%, and other offering costs. The net proceeds of the offering were \$219.7 million after deducting these expenses. No offering expenses were paid directly or indirectly to any of our directors or officers (or their associates) or persons owning ten percent or more of any class of our equity securities or to any other affiliates.

We used the entire net proceeds from this offering to pay down a portion of our outstanding Senior Credit Facility balance during 2015.

The foregoing represents our best estimate of our use of proceeds for the period indicated.

### **Issuer Purchases of Equity Securities**

On October 25, 2016, the Board of Directors terminated the previous share repurchase plan dated October 28, 2014, of up to \$75.0 million of outstanding common stock set to expire at the end of 2016 and authorized a new repurchase of up to \$150.0 million outstanding common stock through December 2018. Shares may be repurchased either in the open market or in privately negotiated transactions.

There have been no shares of common stock repurchased by the Company under any of these authorizations in the year ended December 31, 2017, 2016 or 2015.

See Note 7, *Treasury Stock*, in our consolidated financial statements for further details.

#### ITEM 6. SELECTED FINANCIAL DATA

The information set forth below should be read in conjunction with "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this report. All results and data in the tables below reflect continuing operations, unless otherwise noted. As a result, the data presented below will not necessarily agree to previously issued financial statements. See Note 3, *Discontinued Operations* in the Consolidated Financial Statements in Item 15 of this Form 10-K for additional information on discontinued operations and Note 4, *Acquisitions* for additional information regarding the impact of 2017, 2016 and 2015 acquisitions.

	Years Ended December 31,									
		2017		2016		2015		2014		2013
			(Ir	ı thousand	s, ex	cept per s	hare	e data)		
Operating Results:										
Total revenues, net	\$1	,188,236	\$9	992,075	\$8	882,734	\$7	96,717	\$6	596,832
Costs and expenses	_1	,143,432	_{	376,735	_8	303,147	_7	28,860	-6	61,459
Operating income (4)		44,804	1	115,340		79,587		67,857		35,373
Interest expense, net (1) (2)		(34,764)		(25,779)	(	(23,504)	(	(21,799)	(	(14,792)
Other income (expense), net (7)	_	1,345		845	_	4,588	_	(492)	_	(1,795)
Income from continuing operations before income taxes		11,385		90,406		60,671		45,566		18,786
(Benefit from) provision for income taxes (4) (6)		(53,358)		15,842		53,820		9,271		(3,241)
Net income from continuing operations	\$	64,743	\$	74,564	\$	6,851	\$	36,295	\$	22,027
Loss from discontinued operations (net of tax benefit)	\$		\$		\$ (	(10,370)	\$	(2,291)	\$ (	(43,094)
Net income (loss)	\$	64,743	\$	74,564	\$	(3,519)	\$	34,004	\$ (	(21,067)
Diluted net income per common share from continuing operations	\$	0.82	\$	0.94	\$	0.10	\$	0.55	\$	0.38
Diluted net loss per common share from discontinued operations	\$		\$		\$	(0.15)	\$	(0.03)	\$	(0.75)
Diluted net income (loss) per common share	\$	0.82	\$	0.94	\$	(0.05)	\$	0.52	\$	(0.37)
Weighted average common shares outstanding for diluted net income per share		79,121		79,194		71,354		65,920		57,604

	As of December 31,								
	2017	2016	2015	2014	2013				
			$(\overline{In\ thousands})$						
Financial Position:									
Cash, cash equivalents	\$ 174,935	\$ 102,055	\$ 48,132	\$ 71,734	\$ 120,692				
Total assets (5) (8)	3,211,257	1,807,954	1,774,224	1,412,402	1,007,272				
Short-term borrowings under the term loan of the senior credit facility	60,000	_	14,375	3,750	_				
Long-term borrowings under the revolving									
portion of the senior credit facility (1)	1,781,142	665,000	481,875	413,125	186,875				
Long-term debt (2) (5)		_	218,240	211,623	202,658				
Retained earnings (4)	285,186	220,443	145,879	314,960	280,956				
Stockholders' equity (3)	962,306	839,667	751,443	704,322	666,090				

- (1) For the years ended December 31, 2017, 2016, 2015, 2014 and 2013, we report the borrowings outstanding under the revolving portion of our Senior Credit Facility as long-term debt as well as the 1.625% convertible senior notes due in 2016 ("2016 Convertible Notes"). We also report the term loan as long-term debt with the exception of current principal payments due within 12 months, which are classified as short-term. At December 31, 2017, we have a total of \$1.9 billion outstanding under our Senior Credit Facility and \$345.0 million available for future borrowings.
- (2) In 2011, we issued \$230.0 million of the 2016 Convertible Notes. The 2016 Convertible Notes were repaid in December 2016 in accordance with their terms.
- (3) In 2015, we sold 7.590 million shares of our common stock at a price of \$30.50 per share. The aggregate offering proceeds were \$231.5 million. The net proceeds of the offering were \$219.7 million after deducting the underwriters' discounts and commissions and all other estimated offering expenses.
  - In 2013, we sold 8.050 million shares of our common stock at a price of \$20.00 per share. The aggregate gross offering proceeds were \$161.0 million. The net proceeds of the offering were \$152.5 million after deducting the underwriters' discounts and commissions and all other estimated offering expenses.
- (4) In 2016. the Company elected to adopt Accounting Standard Update 2016-09, *Improvements to Employee Share-Based Payment Accounting (Topic 718)*. The Company elected to account for forfeitures as they occur. The impact in retained earnings as of December 31, 2015 from this provision was not significant. Amendments related to accounting for excess tax benefits have been adopted prospectively, resulting in recognition of excess tax benefits against income tax expenses rather than additional paid-in capital of \$3.8 million for the year ended December 31, 2016.
- (5) In 2016, the Company adopted Accounting Standard Update 2015-03, *Simplifying the Presentation of Debt Issuance Costs*. The Company adopted this guidance effective January 1, 2016 on a retrospective basis. The Company reclassified a portion of the debt issuance costs from other assets to long-term debt as of December 31, 2015, 2014 and 2013.
- (6) The benefit from income taxes in 2017 includes \$43.4 million related to the re-measurement of our deferred taxes resulting from a reduction of the federal statutory rate from 35% to 21% from the Tax Cuts and Jobs Act (the "2017 Tax Act"), enacted in December 2017 (see Note 11, *Income Taxes*, of the consolidated financial statements).
- (7) In 2017, other income (expense), net, includes gain on sale of business of \$2.6 million related to the Divestiture to Natus (as defined in Item 7. *Management's Discussion and Analysis*).
- (8) Presented for continuing operations only.

## 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 together with the selected consolidated financial data and our financial statements and the related notes appearing elsewhere in this report. This discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including but not limited to those under the heading "Risk Factors."

#### **GENERAL**

Integra is a worldwide leader in medical technology focused on limiting uncertainty for surgeons so we can concentrate on providing the best patient care. Integra provides customers with clinically relevant, innovative and cost-effective products that improve the quality of life for patients. We focus on cranial procedures, small bone and joint reconstruction, the repair and reconstruction of soft tissue, and instruments for surgery.

We manufacture and sell our products in two reportable business segments: Codman Specialty Surgical, and Orthopedics and Tissue Technologies. Our Codman Specialty Surgical products offer specialty surgical implants and instrumentation for a broad range of specialties. This product category includes products and solutions for dural access and repair, precision tools and instruments, advanced energy, CSF management and neuro monitoring including market-leading product portfolios used in neurosurgery operation suites and critical care units. Our Orthopedics and Tissue Technologies products portfolios consists of differentiated regenerative technology products for soft tissue repair and tissue regeneration products, and small bone fixation and joint replacement hardware products for both upper extremities and lower extremities. This business also includes private-label sales of a broad set of our regenerative and wound care medicine technologies.

We manufacture many of our products in plants located in the U.S., Canada, Puerto Rico, France, Germany, Ireland, Switzerland and Mexico. We also source most of our handheld surgical instruments, specialty metal and pyrocarbon implants, and dural sealant products through specialized third-party vendors.

We have several sales channels in the U.S. Codman Specialty Surgical products are sold through a combination of directly employed sales representatives, distributors and wholesalers, depending on the customer call point. Orthopedics and Tissue Technologies products are sold through directly employed sales representatives and specialty distributors focused on their respective surgical specialties. We sell in the international markets through a combination of direct sales organizations and distributors.

We also market certain products through strategic partners in the U.S.

Our objective is to become a multi-billion dollar diversified global medical technology company that helps patients by limiting uncertainty for medical professionals, and is a high-quality investment for shareholders. We will achieve these goals by becoming a company recognized as a leader by our customers worldwide in specialty surgical applications, regenerative technologies and extremities orthopedics. Our strategy is built around four pillars: 1) building an execution-focused culture, 2) achieving relevant scale, 3) improving agility and innovation, and 4) leading in customer excellence. These four pillars support our strategic initiatives to deliver on our commitments through improved planning and communication, optimizing our infrastructure, and strategically aligned tuck-in acquisitions.

We aim to achieve growth in our revenues while maintaining strong financial results. While we pay attention to any meaningful trend in our financial results, we pay particular attention to measurements that are indicative of long-term profitable growth. These measurements include (1) revenue growth (including organic growth and growth through acquisitions), (2) gross margins on total revenues, (3) operating margins (which we aim to expand as we leverage our existing infrastructure), (4) earnings before interest, taxes, depreciation, and amortization, (5) earnings per diluted share of common stock, and (6) operating cash flows.

We believe that we are particularly effective in the following aspects of our business:

- Regenerative Technology Platform. We have developed numerous product lines through our proprietary collagen and polyethylene glycol technologies that we sell through every one of our sales channels.
- Diversification and Platform Synergies. The selling platforms of Codman Specialty Surgical and Orthopedics and Tissue Technologies each contribute a different strength to our core business. Codman Specialty Surgical provides us with a strong presence in the hospital, with market-leading products and comprehensive solutions for surgical specialties, such as neurosurgery, as well as a strong capacity to generate cash flows. Orthopedics and Tissue Technologies enables us to grow our top line by continuing to introduce new, differentiated products in fast-growing markets, such as small joint replacement and advanced wound care, as well as to increase gross margins. We have unique synergies between these platforms, such as our regenerative technology, instrument sourcing capabilities, and enterprise contract management.
- Specialized Sales Footprint. Our medical technology investment and manufacturing strategy provides us with a specialized set of customer call-points and synergies. We have market-leading products across our portfolio providing both scale and depth in solutions for a broad set of clinical needs across many departments in the healthcare system. We also have clinical expertise across all our channels in the U.S., and an opportunity to expand and leverage this expertise in markets worldwide. In response to our customers' needs for clinical and technical solutions across multiple departments and clinical areas, we have developed and deployed our enterprise selling team to bring unique clinical solutions for the most difficult healthcare issues in our key accounts across multiple clinical sites and multi-hospital integrated delivery networks.
- Ability to Change and Adapt. Our corporate culture is what enables us to adapt and evolve. We have demonstrated that we can quickly and profitably integrate new products and businesses. This core strength has made it possible for us to grow over the years, and is key to our ability to grow into a multi-billion dollar company.

### **Clinical and Product Development Activities**

We continue to invest in collecting clinical evidence to support our existing products and new product launches, and to ensure that we obtain market access for broader and more cost-effective solutions. In 2017, we introduced seven new regenerative technology products, including new sizes of PriMatrix® and OmniGraft®, and our largest electromechanical product, the CUSA® Clarity. We continue to work on advanced shoulder products and are developing a pyrocarbon hemi-shoulder product to add to our orthopedic reconstruction portfolio. In our electromechanical technologies portfolio, we are focused on the development of core clinical applications in CSF management, neuro monitoring, electro surgery and ultrasonic medical technologies. We also work with several instrument partners to bring new surgical instrument patterns to the market, enabling us to add new instruments with minimal expense and invest in ongoing development, such as in LED technology.

More importantly, with our recent acquisition activities and the integration of all the different research and development teams, we now have opportunities to combine multiple technology platforms to develop new, gamechanging products for customers and patients.

#### **FDA Untitled Letter**

On June 22, 2015, the FDA issued an Untitled Letter (the "Untitled Letter") alleging that BioD LLC's ("BioD") morselized amniotic membrane tissue based products do not meet the criteria for regulation as HCT/Ps solely under Section 361 of the Public Health Services Act ("Section 361") and that, as a result, BioD would need a biologics license to lawfully market those morselized products. Since the issuance of the Untitled Letter, BioD and more recently the Company have been in discussions with the FDA to communicate their disagreement

with the FDA's assertion that certain products are more than minimally manipulated. The FDA has not changed its position that certain of the BioD acquired products are not eligible for marketing solely under Section 361.

In November 2017, the FDA issued the final guidance document related to human tissue titled, "Regulatory Considerations for Human Cells, Tissues, and Cellular and Tissue-Based Products: Minimal Manipulation and Homologous Use" (the "HCT/P Final Guidance"). The HCT/P Final Guidance maintains the FDA's position that products such as the Company's morselized amniotic membrane tissue-based products do not meet the criteria for regulation solely as HCT/Ps. In addition, the FDA articulated a risk-based approach to enforcement and, while some uses for amniotic membrane tissue based products would enjoy as much as thirty-six months of enforcement discretion, other high risk uses could be subject to immediate enforcement action. The Company does not believe the uses for its amniotic membrane tissue based products fall into the high risk category. Nonetheless, we can make no assurances that the FDA will continue to exercise its enforcement discretion with respect to the Company's amniotic membrane tissue-based products, and any potential action of the FDA could have a financial impact regarding the sales of such products. Although the Company continues to disagree with the FDA's position, the Company has been considering and continues to consider regulatory approval pathways for its amniotic membrane tissue based products.

Revenues from BioD morselized amniotic membrane based products for the year ended December 31, 2017 were less than 1.0% of consolidated revenues.

## **ACQUISITIONS**

A part of our growth strategy includes the acquisition of businesses, assets or products lines to increase the breadth and reach of our product portfolios and drive relevant scale to our customers. As a result of several recent acquisitions, our financial results for the year ended December 31, 2017 may not be directly comparable to those of the corresponding prior-year periods. See Note 4, *Acquisitions Divestitures and Pro Forma Results* to our consolidated financial statements for a further discussion.

From January 2015 through December 2017, we acquired the following businesses, assets and product lines:

## Johnson & Johnson's Codman Neurosurgery Business

On May 11, 2017, the Company entered into an asset purchase agreement (the "Purchase Agreement") with DePuy Synthes, Inc., a Delaware corporation ("DePuy Synthes"), a wholly-owned subsidiary of Johnson & Johnson, pursuant to which the Company agreed to acquire certain assets, and assume certain liabilities, of Johnson & Johnson's Codman neurosurgery business (the "Codman Acquisition"). The assets and liabilities subject to the Codman Acquisition relate to the research, development, manufacturing, marketing, distribution and sale of certain products used in connection with neurosurgery procedures.

On October 2, 2017, based upon the terms and subject to the conditions set forth in the Purchase Agreement, the Codman Acquisition was completed. Under the terms of the Purchase Agreement, the Company paid an aggregate purchase price of \$1.014 billion, subject to adjustments set forth in the Purchase Agreement relating to the book value of inventory transferred to us at the closing of the Codman Acquisition, the book value of certain inventory retained by DePuy Synthes that will be transferred to the Company in the future along with certain prepaid taxes.

To facilitate the completion of the Codman Acquisition, the Company drew \$326.4 million from the revolving component of the Senior Credit Facility on September 29, 2017 and \$700.0 million from the Term Loan A-1 component of the Senior Credit Facility on October 2, 2017.

## TGX Medical

On April 4, 2017, the Company entered into a Membership Interest Purchase Agreement (the "Purchase Agreement"), by and among the Company, MCF I LP THX Medical System LLC Holdings, Inc., Terragraphix,

Inc. and TGX Medical Systems, LLC (collectively, "TGX Medical"). Pursuant to the Purchase Agreement, the Company purchased all issued and outstanding membership interests in TGX Medical for \$5.4 million.

TGX Medical designs, develops and markets software solutions that track surgical instruments from the operating room, sterilization, to storage, which helps ensure that the instruments have been properly cleaned, assembled and maintained. TGX Medical's customers are located in the U.S. and Canada.

#### Derma Sciences

On February 24, 2017, the Company executed the Agreement and Plan of Merger (the "Merger Agreement") under which the Company acquired all the outstanding shares of Derma Sciences, Inc., a Delaware corporation ("Derma Sciences") for an aggregate purchase price of approximately \$210.8 million including payment of certain of Derma Sciences' closing expenses and settlement of stock-based compensation plans of \$4.8 million and \$4.3 million, respectively. The purchase price consisted of a cash payment to the former shareholders of Derma Sciences of approximately \$201.7 million upon the closing of the transaction.

Derma Sciences is a tissue regeneration company focused on advanced wound and burn care that offers products to help manage chronic and hard-to-heal wounds, especially those resulting from diabetes and poor vascular functioning.

#### **Tekmed**

In December 2015, we acquired the assets of Tekmed Instruments S.p.A ("Tekmed") for \$14.1 million in cash. Tekmed was a distributor of our products in Italy and has a specialty focus on neurosurgery and neurotrauma, along with representation in plastic and reconstructive surgery, cardiovascular surgery, image diagnostics, general surgery, anesthesia and intensive care, interventional radiology, and proton therapy. This acquisition enables us to support Codman Specialty Surgical growth in Italy along with other key Integra franchises.

## Tornier's U.S. Toe & Ankle Business

In October 2015, we acquired the U.S. rights to Tornier's Salto Talaris and Salto Talaris XT ankle replacement products and Tornier's Futura<sup>TM</sup> silastic toe replacement products for \$6.0 million in cash. The acquired toe and ankle products ("Salto and Futura") enhance our lower extremities product offering and accelerates our entry into the U.S. total ankle replacement market. Under the agreement, Integra acquired the U.S. rights to the Salto Talaris Total Ankle Prosthesis, Salto Talaris XT Revision Total Ankle Prosthesis, Futura Primus Flexible Great Toe system, Futura Classic Flexible Great Toe system, and Futura Lesser Metatarsal Phalangeal system. The agreement also includes an option to purchase, in the future, the rights to the Salto Talaris, Salto Talaris XT, Salto Mobile, and Futura silastic toe replacement products outside the U.S.

## TEI

In July 2015, we executed the two merger agreements (collectively, the "Agreements") under which we acquired TEI Biosciences, Inc., a Delaware corporation ("TEI Bio"), and TEI Medical Inc., a Delaware corporation ("TEI Med") for an aggregate purchase price of approximately \$312.2 million after working capital adjustment. TEI Bio is in the business of developing and commercializing biologic devices for soft tissue repair and regenerative applications, including dura and hernia repair and plastic and reconstructive surgery. TEI Med holds a license to TEI Bio's regenerative technology in the fields of wound healing and orthopedics.

### **DIVESTITURES**

On September 8, 2017, the Company and certain of its subsidiaries entered into an asset purchase agreement (the "Divestiture Agreement") with Natus Medical Incorporated ("Natus"), pursuant to which the Company agreed to divest its Camino Intracranial Pressure monitoring and the U.S. rights to the fixed pressure shunts

businesses together with certain of the neurosurgery assets related to the Codman U.S. rights to the dural graft implant, external ventricular drainage catheter and cerebrospinal fluid collection systems businesses that were acquired as part of the Codman Acquisition (the "Divestiture"). The Divestiture Agreement was entered in connection with the review of the Codman Acquisition by the Federal Trade Commission and the antitrust authority of Spain. The Divestiture was conditioned upon completion of the Codman Acquisition.

On October 6, 2017, upon the terms and subject to the conditions set forth in the Divestiture Agreement (see *Note 4—Acquisition, Divestitures and Pro Forma Results*), the Divestiture was completed and Natus paid an aggregate purchase price of \$46.4 million.

#### OPTIMIZATION AND INTEGRATION ACTIVITIES

As a result of our ongoing acquisition strategy and significant growth in recent years, we have undertaken cost-saving initiatives to consolidate manufacturing operations, distribution facilities and transfer activities, implement a common ERP system, eliminate duplicative positions, realign various sales and marketing activities, and expand and upgrade production capacity for our regenerative technology products. These efforts are expected to continue and while we expect a positive impact from ongoing restructuring, integration, and manufacturing transfer and expansion activities, such results remain uncertain.

#### RESULTS OF OPERATIONS

## **Executive Summary**

Our net income from continuing operations in 2017 was \$64.7 million, or \$0.82 per diluted share, as compared to \$74.6 million, or \$0.94 per diluted share in 2016, and \$6.9 million, or \$0.10 per diluted share, in 2015.

Revenues from 2015 to 2017 increased \$305.5 million, generating \$196.5 million of additional gross margin over that time period resulting primarily from the businesses that we acquired and strong organic growth. Costs and expenses increased sequentially as new employees, especially in selling, general and administrative functions, joined the Company, and from the higher operating expenses associated with the businesses we acquired.

The benefit from income taxes in 2017 was primarily driven by a re-measurement of our deferred taxes resulting from a reduction of the federal statutory rate from 35% to 21% from the 2017 Tax Act and a decrease in income before income taxes in 2017 resulting from acquisition and integration costs related to the Derma Sciences and Codman Neurosurgery acquisitions.

Years Ended December 31.

### **Special Charges**

Income before taxes includes the following special charges:

	Tears Ended December 51,				
	2017	2016	2015		
	(I	n thousands	)		
Acquisition-related charges (1)	\$117,947	\$18,898	\$15,703		
Global ERP implementation charges	2,780	15,585	16,375		
Structural optimization charges	7,336	7,794	16,752		
Certain employee termination charges	125	1,446	2,642		
Discontinued product lines charges	1,156	_	_		
Spine spin-off charges	_	_	3,801		
Convertible debt non-cash interest	_	8,075	7,871		
Hurricane Maria charges	2,758				
Total	<u>\$132,102</u>	\$51,798	\$63,144		

(1) The amounts have been reduced by \$2.6 million in 2017, representing gain on sale of business to Natus. See Note 4, *Acquisitions, Divestiture and Pro Forma Result*, of our consolidated financial statements for more information.

The items reported above are reflected in the consolidated statements of operations as follows:

	Years Ended December 31,					
	2017	2017 2016				
	(]	$(n \overline{thousands})$				
Cost of goods sold	\$ 25,123	\$18,869	\$17,421			
Research and development	_	200	580			
Selling, general and administrative	107,361	24,654	38,761			
Interest expense	_	8,075	7,871			
Other income	(382)		(1,489)			
Total	\$132,102	\$51,798	\$63,144			

We typically define special charges as items for which the amounts and/or timing of such expenses may vary significantly from period to period, depending upon our acquisition, integration and restructuring activities, and for which the amounts are non-cash in nature, or for which the amounts are not expected to recur at the same magnitude. We believe that given our ongoing strategy of seeking acquisitions, our continuing focus on rationalizing our existing manufacturing and distribution infrastructure and our continuing review of various product lines in relation to our current business strategy, some of the special charges discussed above could recur with similar materiality in the future. In 2010, we began investing significant resources in the global implementation of a single enterprise resource planning ("ERP") system. We began capitalizing certain costs for the project starting in 2011 and continued to do so during 2017. We expect additional capital and integration expenses in 2018 associated with the integration of Codman Neurosurgery. In September 2017, Hurricane Maria caused disruption and minor damage to our operations in our facility in Añasco, Puerto Rico. We incurred \$2.8 million in expenses to restore the facility to its normal operations.

We believe that the separate identification of these special charges provides important supplemental information to investors regarding financial and business trends relating to our financial condition and results of operations. Investors may find this information useful in assessing comparability of our operating performance from period to period, against the business model objectives that management has established, and against other companies in our industry. We provide this information to investors so that they can analyze our operating results in the same way that management does and to use this information in their assessment of our core business and valuation of Integra.

#### **Update on Remediation Activities**

We had an FDA warning letter related to TEI, acquired by Integra on July 17, 2015. TEI received a Warning Letter from the FDA dated May 29, 2015 for promoting the product SurgiMend for breast surgery applications that were not cleared in the 510(k) process and do not have a PMA approval for the indication. The FDA requested that TEI immediately cease all activities that resulted in misbranding or adulteration of the product in commercial distribution. The FDA also required TEI to cease all violations regarding promotion of the product for an indication that was not cleared or approved. TEI responded to the FDA with a corrective action plan and took action to address the issues prior to the completion of the acquisition. The FDA warning letter was lifted on August 31, 2017.

#### **Revenues and Gross Margin**

Our revenues and gross margin on product revenues were as follows:

	Years Ended December 31,				
	2017	2016	2015		
Segment Net Sales		In thousands)			
Codman Specialty Surgical	\$ 720,301	\$632,524	\$586,918		
Orthopedics and Tissue Technologies	467,935	359,551	295,816		
Total revenues	1,188,236	992,075	882,734		
Cost of goods sold	435,511	349,089	326,542		
Gross margin on total revenues	\$ 752,725	\$642,986	\$556,192		
Gross margin as a percentage of total revenues	63.3%	64.8%	63.0%		

#### Revenues

## Year Ended December 31, 2017 Compared with Year Ended December 31, 2016.

For the year ended December 31, 2017, total revenues increased by \$196.2 million, or 20%, to \$1,188.2 million from \$992.1 million during the prior year. Domestic revenues increased \$128.7 million, or 17%, to \$894.3 million and were 75% of total revenues for the year ended December 31, 2017. International revenues increased to \$293.9 million, compared to \$226.5 million during 2016. Foreign exchange fluctuations had a positive impact of \$2.4 million on revenues for the year.

Codman Specialty Surgical revenues were \$720.3 million, an increase of 14% from the prior year. The increase resulted from growth across all franchises and one quarter of revenues from Codman Neurosurgery of \$76.9 million.

Orthopedics and Tissue Technologies revenues were \$467.9 million, an increase of 30% from the prior year. The increase largely resulted from the impact of the 2017 acquisition of Derma Sciences, which added \$84.6 million incremental revenue in the period. We also saw increases in our regenerative products, extremities and private label portfolios driven by strong demand for our skin products and continued relationships with existing private label customers.

With our global reach, we generate revenues in multiple foreign currencies. Accordingly, we will experience currency exchange risk with respect to those foreign currency denominated revenues.

### Year Ended December 31, 2016 Compared with Year Ended December 31, 2015.

For the year ended December 31, 2016, total revenues increased by \$109.3 million or 12% to \$992.1 million from \$882.7 million during 2015. Domestic revenues increased 12% to \$765.6 million and were 77% of total revenues for the year ended December 31, 2016. International revenues increased to \$226.5 million compared to \$201.9 million during 2015. Foreign exchange fluctuations had a negative impact of \$2.7 million on revenues for the year.

Codman Specialty Surgical revenues were \$632.5 million, an increase of 8% from the prior year. The increase resulted from growth across all franchises, with the majority of the increases in our dural access and repair, domestic precision tools and instruments and international advanced energy franchises.

Orthopedics and Tissue Technologies revenues were \$359.6 million, an increase of 22% from the prior year. The increase largely resulted from the impact of the 2015 acquisitions of TEI and the Salto ankle and Futura

products, which added \$37.5 million incremental revenue in the period due to the inclusion of a full year's activity. We also saw increases in our regenerative products, upper extremities and private label portfolios, driven by strong demand for our skin products and additional relationships with existing private label customers.

With our global reach, we generate revenues in multiple foreign currencies. Accordingly, we experience currency exchange risk with respect to those foreign currency denominated revenues.

## **Gross Margin**

Gross margin as a percentage of revenues was 63.3% in 2017, 64.8% in 2016, and 63.0% in 2015. The decrease in gross margin percentage of total revenue from 2016 to 2017 resulted primarily from dilution related to product sales from the Derma Sciences and Codman Neurosurgery acquisitions at lower margins than the Company's average. Additionally, there were higher net costs associated with fair value inventory purchase accounting adjustments and amortization for technology-based intangible assets inclusive of impairments recorded in connection with the acquisitions.

The increase in gross margin percentage from 2015 to 2016 resulted primarily from an increase in sales of higher margin products such as DuraSeal, DuraGen, skin and wound products, higher private label royalties, the leveraging of our existing manufacturing infrastructure, and the addition of higher margin products from the TEI acquisition.

We expect our consolidated gross margin percentage for the full year 2018 to be approximately 62% to 63% in line with 2017.

#### **Other Operating Expenses**

The following is a summary of other operating expenses as a percent of total revenues:

	Years En	ears Ended December 31,				
	2017	2016	2015			
Research and development	5.3%	5.9%	5.8%			
Selling, general and administrative	52.5%	45.9%	47.1%			
Intangible asset amortization	1.7%	1.4%	1.1%			

Total operating expenses, which consist of research and development expenses, selling, general and administrative expenses, and intangible asset amortization expense, increased \$180.3 million or 34% to \$707.9 million in 2017, compared to \$527.6 million in the prior year.

RESEARCH AND DEVELOPMENT. Research and development totaled \$63.5 million in 2017, compared to \$58.2 million in 2016 and \$50.9 million in 2015. Similar to the prior year, the increase in research and development costs from 2016 to 2017 primarily resulted from the acquisition of Derma Sciences and Codman Neurosurgery and additional spending on new product development and clinical studies.

We are continuing to invest in clinical studies and product development, and expect an increase in our research and development expenses in 2018 to be approximately 6.0% of total revenues.

SELLING, GENERAL AND ADMINISTRATIVE. Selling, general and administrative expenses in the year ended December 31, 2017 increased by \$168.5 million or 37.0% to \$624.1 million, compared to \$455.6 million in the same period in the prior year. Selling and marketing expenses increased by \$63.9 million, primarily resulting from the Derma Sciences and Codman Neurosurgery acquisitions, higher headcount in our sales force compared to the prior year, and higher commission costs resulting from increases in revenue. General and administrative costs increased by \$104.6 million, primarily resulting from the costs related to acquiring and integrating the Derma Sciences and Codman Neurosurgery businesses and increased compensation costs.

Selling, general and administrative expenses for the year ended December 31, 2016 increased by \$39.9 million or 9.6% to \$455.6 million, compared to \$415.8 million in 2015. Selling and marketing expenses increased by \$54.4 million, primarily resulting from the full-year impact of the TEI acquisition, higher headcount in our sales force compared to the prior year, and higher commission costs resulting from increases in revenue. General and administrative costs decreased \$14.5 million, primarily due to the suspension of the Medical Device Excise Tax and reduction in transaction-related costs both to affect the spin-off of our Spine business, and to close the TEI and Salto acquisitions, which more than offset higher incentive compensation costs arising from the improved performance of the business.

For 2018, we expect our reported selling, general, and administrative expenses to be approximately 47% to 48% of revenue.

INTANGIBLE ASSET AMORTIZATION. Amortization expense (excluding amounts reported in cost of product revenues for technology-based intangible assets) in the year ended December 31, 2017 was \$20.4 million, compared to \$13.9 million in 2016. The increase primarily resulted from amortization on the intangible assets added as part of our Derma Sciences acquisition.

In 2016, amortization expense (excluding amounts reported in cost of product revenues for technology-based intangible assets) in the year ended December 31, 2016 was \$13.9 million, compared to \$10.0 million in 2015. The increase primarily resulted from a full year of amortization on the intangible assets added as part of our TEI, Salto, and Tekmed acquisitions in 2015.

We may discontinue certain products in the future as we continue to assess the profitability of our product lines. As our profitability assessment evolves, we may make further decisions about our trade names and incur additional impairment charges or accelerated amortization. We expect total annual amortization expense (including amounts reported in cost of product revenues, but excluding any possible future amortization associated with acquired in-process research and development ("IPR&D")) to be approximately \$66.9 million in 2018, \$66.8 million in 2019, \$66.7 million in 2020, \$65.7 million in 2021 and \$721.0 million in 2022 and thereafter.

### **Non-Operating Income and Expenses**

The following is a summary of non-operating income and expenses:

	Years Ended December 31,						
	2017		2016		20	015	
		-	(In the	ousands)			
Interest income	\$	255	\$	24	\$	30	
Interest expense	(3	5,019)	(2	5,803)	(23	3,534)	
Other income (expense)		1,345		845		4,588	
Total non-operating income and expense	\$(3	3,419)	\$(2	4,934)	\$(18	8,916)	

#### Interest Income and Interest Expense

Interest income on our invested cash was \$0.3 million in 2017 and minimal in 2016 and 2015.

Interest expense was \$35.0 million, \$25.8 million and \$23.5 million in 2017, 2016 and 2015, respectively. Interest expense increased in 2017 as compared to 2016 and 2015 primarily because of increased borrowings under our Senior Credit facility to fund the acquisitions of Derma Sciences and Codman Neurosurgery. In December 2016, we expensed \$0.5 million of previously capitalized deferred financing costs in connection with the refinancing of our Senior Credit Facility. No deferred financing costs were written-off in 2017.

Our reported interest expense for the years ended December 31, 2016 and 2015 includes non-cash interest related to the accounting for convertible securities of \$8.1 million and \$7.9 million, respectively. The expense was associated primarily with the principal amount of the outstanding 2016 Convertible Notes, and interest and fees related to our Senior Credit Facility.

Our reported interest expense for the years ended December 31, 2017, 2016 and 2015 included \$2.7 million, \$2.5 million and \$2.3 million, respectively, of non-cash amortization of debt issuance costs.

## Other Income, Net

Other income of \$1.3 million in 2017 was composed of a \$2.6 million gain from the Divestiture of certain neurosurgical products to Natus, \$1.6 million in income from a transition services agreement with Natus and a \$1.9 million gain from cross-currency rate swaps, offset by a \$2.2 million loss on sales of short-term investments acquired from Derma Sciences and transactional foreign exchange losses of \$2.9 million.

In 2016, other income of \$0.8 million was primarily attributable to the impact of transactional foreign exchange gains and losses and income from the transition services agreement entered into with SeaSpine.

#### **Income Taxes**

Our effective income tax rate was (468.7)%, 17.5% and 88.7% of income before income taxes in 2017, 2016 and 2015, respectively. See Note 11, "Income Taxes," in our consolidated financial statements for a reconciliation of the United States federal statutory rate to our effective tax rate.

The 2017 Tax Act included numerous changes to existing U.S. tax laws that will impact the Company. The most notable change was a reduction in the federal statutory tax rate from 35% to 21%. In 2017, the lower effective tax rate was primarily driven by a tax benefit of \$43.4 million as a result of the re-measurement of deferred taxes using this reduced federal tax rate. In addition, the Company's income before taxes decreased in 2017 compared to 2016, primarily resulting from the acquisition and integration costs related to the 2017 acquisitions of Derma Sciences and Codman Neurosurgery.

In 2016, our lower worldwide effective tax rate, as compared to 2015, was primarily attributable to an excess tax benefit of \$3.8 million as a result of early adoption of the new share-based compensation accounting guidance (ASU 2016-09), a favorable jurisdictional income mix, significantly lower non-deductible acquisition costs versus the prior year, and a benefit of \$0.5 million for a Federal research credit study.

In 2015, the increase in worldwide effective tax rate, as compared to 2014, was primarily attributable to the Company's recognizing income tax expense of \$37.2 million relating to a tax valuation allowance recorded in continuing operations as a result of the spin-off of the spine business. The Company determined that upon the spin-off, the deferred tax assets of the spine business would be unrealizable. The increase was also due to a shift in the jurisdictional mix of earnings in the current year.

Our effective tax rate could vary from year to year depending on, among other factors, tax law changes, the geographic and business mix and taxable earnings and losses. We consider these factors and others, including our history of generating taxable earnings, in assessing our ability to realize deferred tax assets. We estimate the range of our worldwide effective income tax rate for 2018 to be approximately 8.0% to 10.0%.

We recorded a cumulative valuation allowance of \$8.0 million against the remaining \$96.5 million of gross deferred tax assets recorded at December 31, 2017. Our deferred tax asset valuation allowance increased by \$4.4 million in 2017 and decreased by \$1.3 million in 2016. This valuation allowance relates to deferred tax assets for which the Company does not believe it has satisfied the more likely than not threshold for realization. The increase in valuation allowance in 2017 primarily results from certain deferred tax assets related to

acquisition of Derma Sciences, which we do not expect to realize. If we determine that we would be able to realize more or less than the recorded amount of net deferred tax assets, we will record an adjustment to the deferred tax asset valuation allowance in the period such a determination is made.

At December 31, 2017, we had net operating loss carryforwards of \$148.2 million for federal income tax purposes, \$26.4 million for foreign income tax purposes and \$28.2 million for state income tax purposes to offset future taxable income. The federal net operating loss carryforwards expire through 2033, \$1.0 million of the foreign net operating loss carryforwards expire through 2025 with the remaining \$25.4 million having an indefinite carry forward period. The state net operating loss carryforwards expire through 2037.

The 2017 Tax Act imposes a one-time repatriation tax on accumulated foreign subsidiaries' untaxed foreign earnings ("Toll Tax"). As of December 31, 2017, we recorded income tax expense of approximately \$5.5 million as an estimate of the Toll Tax on certain foreign earnings. The calculation of the Toll Tax allows for the ability to offset positive foreign earnings with existing foreign deficits and use of foreign tax credits. We prepared a reasonable estimate of this tax and expect to analyze the results once we finalize our tax filings for 2017. We intend to reinvest future earnings of the Company's foreign subsidiaries outside of the U.S. indefinitely, in order to fund our non-U.S. operations.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the 2017 Tax Act. The Company has recognized the provisional tax impacts related to deemed repatriated earnings and the revaluation of deferred tax assets and liabilities and included these amounts in its consolidated financial statements for the year ended December 31, 2017. The ultimate impact may differ from these provisional amounts, possibly materially, due to, among other things, additional analysis, changes in interpretations and assumptions the Company has made, additional regulatory guidance that may be issued, and actions the Company may take as a result of the 2017 Tax Act.

## GEOGRAPHIC PRODUCT REVENUES AND OPERATIONS

We attribute revenues to geographic areas based on the location of the customer. Total revenue by major geographic area consisted of the following:

	Years	Years Ended December 31,					
	2017	2016	2015				
		(In thousands)					
United States	\$ 894,260	\$765,608	\$680,824				
Europe	150,147	120,588	103,057				
Rest of World	143,829	105,879	98,853				
Total Revenues	<u>\$1,188,236</u>	\$992,075	\$882,734				

In 2017, sales to our U.S. customers increased 16.8% from the prior year. We saw increases in our regenerative technologies, private label, dural access and repair, advanced energy, precision tools and instruments and extremities businesses, which benefited from organic growth as well as contributions from the Derma Sciences and Codman Neurosurgery acquisitions. European sales increased 24.5% in 2017 compared to the prior year, resulting primarily from increases in sales in our Codman Specialty Surgical portfolio as well as regenerative technologies. Both areas included contributions from the Codman Neurosurgery and Derma Sciences acquisitions. Sales to customers in the Rest of the World increased approximately 35.8% for the year ended December 31, 2017, primarily driven by sales from our 2017 acquisitions of Codman Neurosurgery and Derma Sciences and growth in Codman Specialty Surgical and regenerative technologies portfolios.

In 2016, sales to our U.S. customers increased 12.5% from the prior year. We saw increases in our lower extremities, regenerative technologies, precision tools and instruments, private label and dural access and repair businesses, which benefited from organic growth as well as the full year contribution of the TEI and Salto Talaris acquisitions. These gains were offset by decreases in sales of upper extremities hardware and neuro critical care products. European sales increased 17% in 2016 compared to the prior year, resulting primarily from increases in sales in our neurosurgery portfolio, led by advanced energy, as well as revenue related to our TEI and Tekmed acquisitions. Increases in revenue were offset by foreign exchange losses due to the declining value of the euro against the U.S. dollar. Sales to customers in the Rest of the World region increased approximately 7% for the year ended December 31, 2016, primarily driven by neurosurgery sales, led by advanced energy.

With our global reach, we generate revenues and incur operating expenses in multiple foreign currencies. Accordingly, we will experience currencies exchange risk with respect to those foreign currency denominated revenues and operating expenses. The Company generated revenues denominated in foreign currencies of \$185.9 million, \$163.3 million and \$144.5 million during the years ended December 31, 2017, 2016 and 2015, respectively.

We will continue to assess the potential effects that changes in foreign currency exchange rates could have on our business. However, either a strengthening or a weakening of the dollar against individual foreign currencies could reduce future revenues and gross margins. If we believe this potential impact presents a significant risk to our business, we may enter into derivative financial instruments to mitigate this risk.

Additionally, we generate significant revenues outside the U.S., a portion of which are U.S. dollar-denominated transactions conducted with customers who generate revenue in currencies other than the U.S. dollar. As a result, currency fluctuations between the U.S. dollar and the currencies in which those customers do business may have an impact on the demand for our products in foreign countries.

Local economic conditions, regulatory, legal or political considerations, the effectiveness of our sales representatives and distributors, local competition and changes in local medical practice all could combine to affect our sales into markets outside the U.S.

Relationships with customers and effective terms of sale frequently vary by country, often with longer-term receivables than are typical in the U.S.

### LIQUIDITY AND CAPITAL RESOURCES

## Cash and Marketable Securities

We had cash and cash equivalents totaling approximately \$174.9 million and \$102.1 million at December 31, 2017 and 2016, respectively.

We determined that our existing cash, future cash to be generated from operations, and our remaining \$344.4 million of borrowing capacity under our senior secured revolving credit facility at December 31, 2017, if needed, will satisfy our foreseeable working capital, debt repayment and capital expenditure requirements for at least the next twelve months after the date the financial statements are issued or are available to be issued.

In 2018, we anticipate that our principal uses of cash will include between \$65.0 million and \$75.0 million on capital expenditures primarily for the support and maintenance in our existing plants for facility automation, additions to our instrument kits used in sales of orthopedic products and development of our new Mansfield, Massachusetts facility, which will be used to manufacture products acquired as part of the Codman Neurosurgery transaction.

At December 31, 2017, our non-U.S. subsidiaries held approximately \$130.6 million of cash and cash equivalents that are available for use by all of our operations around the world. The 2017 Tax Act imposes a Toll

Tax of 15.5% on cash and cash equivalents and 8.0% on all foreign earnings related to the deemed repatriation of undistributed earnings of foreign subsidiaries. An income tax expense of approximately \$5.5 million was computed as a Toll Tax on certain foreign earnings. We intend to indefinitely reinvest future earnings of the Company's foreign subsidiaries outside of the U.S., in order to provide for our non-U.S. operations.

#### Cash Flows

	Year Ended December 31,				
	2017	2016			
	(In thous	ands)			
Net cash provided by operating activities	\$ 114,544	\$116,405			
Net cash used in investing activities	(1,221,335)	(42,622)			
Net cash provided (used in) by financing activities	1,168,947	(15,116)			
Effect of exchange rate fluctuations on cash	10,724	(4,744)			
Net increase in cash and cash equivalents	\$ 72,880	\$ 53,923			

#### Cash Flows Provided by Operating Activities

We generated operating cash flows of \$114.5 million, \$116.4 million and \$117.1 million for years ended December 31, 2017, 2016 and 2015, respectively.

Operating cash flows in 2017 decreased compared to the same period in 2016. Net income in 2017 decreased compared to 2016 due to an increase in expenses related to the acquisitions and integrations of Codman Neurosurgery and Derma Sciences. Net income for the year, adjusted for items included in net income which did not result in a change to our cash balance, amounted to cash inflows of \$115.9 million, compared to \$170.4 million in 2016. Changes in working capital in 2017 decreased cash flows by approximately \$24.2 million. Among the changes in working capital, accounts receivable used \$89.7 million of cash, inventory provided \$0.1 million of cash, prepaid expenses and other current assets used \$33.8 million of cash, and accounts payable, accrued expenses and other current liabilities provided \$95.3 million of cash.

Operating cash flows in 2016 decreased compared to the same period in 2015. Net income in 2016 increased compared to 2015 due to an increase in income from continuing operations before income taxes and because of the impact of the tax valuation allowance recorded in 2015 in conjunction with the SeaSpine spin-off, which was a non-cash adjustment. In 2016, we also made payments of accreted interest of \$42.8 million compared to \$0.4 million paid in 2015, which are included in operating activities. Net income for the year, adjusted for items included in net income which did not result in a change to our cash balance, amounted to cash inflows of \$170.4 million, compared to \$127.8 million in 2015. Changes in working capital in 2016 decreased cash flows by approximately \$11.3 million. Among the changes in working capital, accounts receivable used \$17.5 million of cash, inventory used \$9.6 million of cash, prepaid expenses and other current assets provided \$14.9 million of cash, and accounts payable, accrued expenses and other current liabilities used \$0.4 million of cash.

Operating cash flows in 2015 increased compared to the same period in 2014. Net income in 2015 decreased compared to 2014 primarily because of the impact of the tax valuation allowance recorded in conjunction with the SeaSpine spin-off, which was a non-cash adjustment. Net income for the year, adjusted for items included in net income which did not result in a change to our cash balance, amounted to cash inflows of \$127.8 million, compared to \$101.0 million in 2014. Changes in working capital in 2015 decreased cash flows by approximately \$11.9 million. Among the changes in working capital, accounts receivable used \$16.2 million of cash, inventory used \$3.8 million of cash, prepaid expenses and other current assets used \$0.2 million of cash, and accounts payable, accrued expenses and other current liabilities provided \$8.2 million of cash.

#### Cash Flows Used in Investing Activities

During the year ended December 31, 2017, we paid an aggregate of \$1.2 billion for the acquisition of Codman Neurosurgery, Derma Sciences and TGX Medical. The payment for Derma Sciences includes a \$210.5 million payment of purchase price plus a \$26.6 million payment for the BioD Product Payment in May 2017 (see *Note 3, Acquisition, Divestitures and Pro Forma Results*). We received \$17.0 million from the sale of short-term investments acquired from Derma Sciences. We also received \$46.4 million from the Divestiture to Natus in October 2017. We paid \$43.5 million in cash for capital expenditures, most of which was directed towards the expansion of our manufacturing facilities and commercial expansion.

During the year ended December 31, 2016, we paid \$47.3 million in cash for capital expenditures, most of which was directed to the expansion of our collagen manufacturing center, new instruments for several product launches, facility improvements and ERP implementation. We also released \$4.1 million from a restricted cash account that supported our European cash pool activities.

During the year ended December 31, 2015, we paid \$33.4 million in cash for capital expenditures, most of which was directed to the expansion of our collagen manufacturing center and ERP implementation. We also paid an aggregate of \$328.9 million for the acquisition of the TEI, Salto and Futura product lines, and Tekmed. We transferred \$4.1 million to a restricted cash account to support our European cash pool activities.

## Cash Flows Provided by Financing Activities

Our principal sources of cash from financing activities in the year ended December 31, 2017 were \$700.0 million under the Term Loan A-1 component of our Senior Credit Facility, \$607.0 million of borrowings under the revolver component of our Senior Credit Facility, and \$9.8 million in proceeds from stock option exercises, net of cash paid to cover employee taxes, offset by \$117.0 million in repayments under our Senior Credit Facility, \$7.1 million of cash taxes paid in net equity settlements and \$19.0 million in debt issuance costs related to our Senior Credit Facility. In the third quarter of 2017, we paid \$4.8 million related to the BioD Earnout Payments (see *Note 3, Acquisition, Divestitures and Pro Forma Results*).

Our principal sources of cash from financing activities in the year ended December 31, 2016 were \$500.0 million under the term loan component of our Senior Credit Facility, \$180.0 million of borrowings under the revolver component of our Senior Credit Facility, a \$184.3 million repayment of the 2016 Convertible Notes, and \$10.5 million in proceeds from stock option exercises, net of cash paid to cover employee taxes, offset by \$511.3 million in repayments under our Senior Credit Facility, \$4.9 million of cash taxes paid in net equity settlements and \$4.5 million in debt issuance costs related to our Senior Credit Facility.

Our principal sources of cash from financing activities in the year ended December 31, 2015 were from \$219.7 million of net proceeds from the issuance of 7.590 million shares of common stock in the third quarter, \$545.0 million of borrowings under our Senior Credit Facility, and \$7.3 million in proceeds from stock option exercises, net of cash paid to cover employee taxes, offset by \$465.6 million in repayments under our Senior Credit Facility, a \$47.0 million distribution to SeaSpine, a \$2.5 million repayment of 2016 Convertible Notes and \$6.6 million of cash taxes paid in net equity settlement.

## Working Capital

At December 31, 2017 and December 31, 2016, working capital was \$473.2 million and \$371.6 million, respectively. Working capital consists of total current assets less total current liabilities as presented in the consolidated balance sheets.

#### **Upcoming Debt Maturities**

The first quarterly installment of the Company's Term Loan A and Term Loan A-1 components of its Senior Credit Facility is due on March 31, 2018. We recorded a total of \$60.0 million of the Term Loan A and Term Loan A-1 components of the Senior Credit Facility as a current liability in the Company's consolidated balance sheets.

#### Amended and Restated Senior Credit Agreement

On March 31, 2017, the Company entered into an amendment (the "March 2017 Amendment") to its fourth amended and restated Senior Credit Facility with a syndicate of lending banks, Bank of America, N.A., as Administrative Agent. The March 2017 Amendment increased the aggregate principal amount from \$1.5 billion to \$2.2 billion available to the Company through the following facilities:

- i. a \$500.0 million Term A facility;
- ii. a \$700.0 million Term Loan A-1, which was available in a single drawing on a delayed basis at the time of closing of the Codman Acquisition (see Note 4—Acquisitions and Pro forma Results); and
- iii. a \$1.0 billion revolving credit facility, which includes a \$60.0 million sublimit for the issuance of standby letters of credit and a \$60.0 million sublimit for swingline loans.

In connection with the March 2017 Amendment, the Company's maximum consolidated total leverage ratio in the financial covenants was increased to the following:

Fiscal Quarter	Maximum Consolidated Total Leverage Ratio
December 31, 2016 through before the first fiscal quarter after the delayed draw date of	4.50 1.00
Term Loan A-1	4.50: 1.00
First fiscal quarter ended after the delayed draw date of Term Loan A-1 through	
September 30, 2018	5.50: 1.00
October 1, 2018 through September 30, 2019	5.00:1.00
October 1, 2019 through September 30, 2020	4.50: 1.00
October 1, 2020 and thereafter	4.00:1.00

There was no change in the maturity date, which remains at December 7, 2021.

Borrowings under the Senior Credit Facility bear interest, at the Company's option, at a rate equal to

- i. the Eurodollar Rate (as defined in the amendment and restatement) in effect from time to time plus the applicable rate (ranging from 1.00% to 2.00%), or
- ii. the highest of:
  - 1. the weighted average overnight Federal funds rate, as published by the Federal Reserve Bank of New York, plus 0.50%, or
  - 2. the prime lending rate of Bank of America, N.A., or
  - 3. the one-month Eurodollar Rate plus 1.00%.

The applicable rates are based on the Company's consolidated total leverage ratio (defined as the ratio of (a) consolidated funded indebtedness less cash in excess of \$40.0 million that is not subject to any restriction of the use or investment thereof to (b) consolidated EBITDA) at the time of the applicable borrowing.

The Company will also pay an annual commitment fee (ranging from 0.15% to 0.35%), based on the Company's consolidated total leverage ratio, on the amount for borrowing under the revolving credit facility.

The Senior Credit Facility is collateralized by substantially all of the assets of the Company's U.S. subsidiaries, excluding intangible assets. The Senior Credit Facility is subject to various financial and negative covenants and at December 31, 2017 the Company was in compliance with all such covenants. The Company capitalized \$19.1 million and \$4.5 million of incremental financing costs in 2017 and 2016, respectively, in connection with the modifications of the Senior Credit Facility. The Company wrote-off a previously capitalized financing cost of \$0.5 million as interest expense in 2016 related to the modifications.

In October 2017, to facilitate the completion of the Codman Acquisition, the Company drew \$700.0 million from the Term Loan A-1 component of the Senior Credit Facility. The Company capitalized \$19.1 million of incremental financing costs related to the drawing of Term A-1 component.

We plan to utilize the Senior Credit Facility for working capital, capital expenditures, acquisitions, debt repayments and other general corporate purposes. At December 31, 2017 and 2016, there were \$655.0 million and \$165.0 million outstanding, respectively, under the revolving portion of the Senior Credit Facility at a weighted average interest rate of 3.7% and 2.2%, respectively. At December 31, 2017 and 2016 there was \$500.0 million outstanding under the Term Loan A component of the Senior Credit Facility at a weighted average interest rate of 3.6% and 2.2%, respectively. At December 31, 2017, there was \$700.0 million outstanding under the Term Loan A-1 component of the Senior Credit Facility at a weighted average interest rate of 3.6%. At December 31, 2017, there was approximately \$344.4 million available for borrowing under the Senior Credit Facility.

Contractual repayments of the term loan under the March 2017 Amendment will begin in March 2018. We classify as short-term those repayments that are due within twelve months.

Letters of credit outstanding as of December 31, 2017 and 2016 totaled \$0.6 million. There were no amounts drawn as of December 31, 2017.

#### Convertible Debt and Related Hedging Activities

On December 15, 2016, the Company extinguished its 2016 Convertible Notes by paying the remaining principal amount of \$227.1 million and issued 2.9 million shares of common stock with a fair value of \$122.0 million related to excess conversion value. No gain or loss on extinguishment was recognized as a result of the conversion. The Company also received 2.9 million shares of common stock from the exercise of call options with hedge participants (as defined below) with a fair value of \$123.1 million at the date of the exercise. The shares of common stock received from the exercise of the call options were held as treasury stock as of December 31, 2016 at a weighted average price of \$41.78 per share for a total of \$123.1 million.

The 2016 Convertible Notes were issued on June 15, 2011 with the aggregate principal of \$230.0 million and maturity date of December 15, 2016. The 2016 Convertible Notes bore interest at a rate of 1.625% per annum payable semi-annually in arrears on December 15 and June 15 of each year. The 2016 Convertible Notes were senior, unsecured obligations and were convertible into cash and, if applicable, shares of its common stock based on a conversion rate defined within the note agreement.

In connection with the issuance of the 2016 Convertible Notes, we entered into call transactions and warrant transactions, primarily with affiliates of the initial purchasers of such notes (the "hedge participants"). The initial strike price of the call transaction was approximately \$28.72 per share, subject to customary anti-dilution adjustments. The initial strike price of the warrant transaction was approximately \$35.03 per share, subject to customary anti-dilution adjustments. The strike price of the call transactions and warrant transactions has been adjusted similar to the 2016 Convertible Notes as a result of the spin-off of the Company's spine business in July 2015 to \$26.42 per share and \$32.22 per share, respectively. The warrants expired on a series of expiration dates from March 2017 to August 2017. For the year ended December 31, 2017, the hedge participants exercised 8,707,202 warrants, and, as a result, the Company issued 2,839,743 shares of common stock for the year ended December 31, 2017. The Company has no warrants outstanding as of December 31, 2017.

#### Share Repurchase Plan

On October 25, 2016, our Board of Directors terminated its October 2014 authorization for the repurchase of its outstanding common stock and authorized management to repurchase up to \$150.0 million of its outstanding common stock through December 2018. Shares may be repurchased either in the open market or in privately negotiated transactions.

There have been no shares of common stock repurchased by the Company under any of these authorizations in the year ended December 31, 2017 or 2016.

## **Dividend Policy**

We have not paid any cash dividends on our common stock since our formation. Our Senior Credit Facility limits the amount of dividends that we may pay. Any future determinations to pay cash dividends on our common stock will be at the discretion of our Board of Directors and will depend upon our financial condition, results of operations, cash flows and other factors deemed relevant by the Board of Directors.

## **Contractual Obligations and Commitments**

As of December 31, 2017, we were obligated to pay the following amounts under the following agreements:

	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
			(In millions	s)	
Senior Credit Facility—Revolver(1)	\$ 655.0	\$ —	\$ —	\$ 655.0	\$ —
Senior Credit Facility—Term Loan A	500.0	25.0	62.5	412.5	_
Senior Credit Facility—Term Loan A-1	700.0	35.0	87.5	577.5	_
Interest(2)	164.8	42.7	79.1	43.0	_
Employment Agreements(3)	2.7	0.9	1.8	_	_
Operating Leases	97.3	13.7	22.4	13.5	47.7
Contingent Consideration	24.0	24.0	_	_	_
Purchase Obligations	12.2	10.9	1.3	_	_
Others	7.3	1.2	1.2	1.2	3.7
Total	\$2,163.3	\$153.4	<u>\$255.8</u>	<u>\$1,702.7</u>	<u>\$51.4</u>

- (1) The Company may borrow and make payments against the credit facility from time to time and considers all of the outstanding amounts to be long-term based on its current intent and ability to repay the borrowing outside the next twelve-month period.
- (2) As the revolving credit facility can be repaid at any time, no interest has been included in the calculation.
- (3) Amounts shown under Employment Agreements do not include compensation resulting from a change in control.
- (4) Amounts shown under Others include the Toll Tax of \$5.5 million.

Excluded from the contractual obligations table is the liability for uncertain tax benefits, including interest and penalties, totaling \$0.4 million. The Company has excluded its contingent consideration obligation, supply agreement liability and above market supply agreement liability related to prior acquisitions from the contractual obligations table above; these liabilities had a total fair value of \$4.3 million at December 31, 2017. The liabilities for uncertain tax benefits, certain contingent consideration, supply agreement liability and above market supply agreement liability have been excluded because we cannot make a reliable estimate of the period in which the uncertain tax benefits or contingent consideration may be realized.

#### Off-Balance Sheet Arrangements

There were no off-balance sheet arrangements during the year ended December 31, 2017 that have or are reasonably likely to have, a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to our interests.

#### CRITICAL ACCOUNTING POLICIES AND THE USE OF ESTIMATES

Our discussion and analysis of financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent liabilities, and the reported amounts of revenues and expenses. Significant estimates affecting amounts reported or disclosed in the consolidated financial statements include allowances for doubtful accounts receivable and sales returns and allowances, net realizable value of inventories, valuation of intangible assets including in-process research and development, amortization periods for acquired intangible assets, estimates of projected cash flows and discount rates used to value intangible assets and test goodwill and intangible assets for impairment, estimates of projected cash flows and depreciation and amortization periods for long-lived assets, computation of taxes, computation of valuation allowances recorded against deferred tax assets, valuation of stock-based compensation, valuation of pension assets and liabilities, valuation of derivative instruments, valuation of the equity component of convertible debt instruments, valuation of debt instruments and loss contingencies. These estimates are based on historical experience and on various other assumptions that are believed to be reasonable under the current circumstances. Actual results could differ from these estimates.

We believe that the following accounting policies, which form the basis for developing these estimates, are those that are most critical to the presentation of our consolidated financial statements and require the more difficult subjective and complex judgments:

### Allowances For Doubtful Accounts Receivable and Sales Returns and Allowances

We evaluate the collectability of accounts receivable based on a combination of factors. In circumstances where a specific customer is unable to meet its financial obligations to us, we record an allowance against amounts due to reduce the net recognized receivable to the amount that we reasonably expect to collect. For all other customers, we record allowances for doubtful accounts based on the length of time the receivables are past due, the current business environment and our historical experience. If the financial condition of customers or the length of time that receivables are past due were to change, we may change the recorded amount of allowances for doubtful accounts in the future through charges or reductions to selling, general and administrative expense.

We record a provision for estimated sales returns and allowances on revenues in the same period as the related revenues are recorded. We base these estimates on historical sales returns and allowances and other known factors. If actual returns or allowances differ from our estimates and the related provisions for sales returns and allowances, we may change the sales returns and allowances provision in the future through an increase or decrease in revenues.

#### **Inventories**

Inventories, consisting of purchased materials, direct labor and manufacturing overhead, are stated at the lower of cost (determined by the first-in, first-out method) or net realizable value. At each balance sheet date, we evaluate ending inventories for excess quantities, obsolescence or shelf-life expiration. Our evaluation includes an analysis of historical sales levels by product, projections of future demand by product, the risk of technological or competitive obsolescence for our products, general market conditions, a review of the shelf-life

expiration dates for our products, and the feasibility of reworking or using excess or obsolete products or components in the production or assembly of other products that are not obsolete or for which we do not have excess quantities in inventory. To the extent that we determine there are excess or obsolete quantities or quantities with a shelf life that is too near its expiration for us to reasonably expect that we can sell those products prior to their expiration, we adjust their carrying value to estimated net realizable value. If future demand or market conditions are lower than our projections, or if we are unable to rework excess or obsolete quantities into other products, we may record further adjustments to the carrying value of inventory through a charge to cost of product revenues in the period the revision is made.

## Acquisitions

Results of operations of acquired companies are included in the Company's results of operations as of the respective acquisition dates. The purchase price of each acquisition is allocated to the net assets acquired based on estimates of their fair values at the date of the acquisition. Any purchase price in excess of these net assets is recorded as goodwill. The allocation of purchase price in certain cases may be subject to revision based on the final determination of fair values during the measurement period, which may be up to one year from the acquisition date.

Contingent consideration is recognized at the estimated fair value on the acquisition date. Subsequent changes to the fair value of contingent payments are recognized in earnings. Contingent payments related to acquisitions consist of development, regulatory, and commercial milestone payments, in addition to sales-based payments, and are valued using discounted cash flow techniques. The fair value of development, regulatory, and commercial milestone payments reflects management's expectations of probability of payment, and increases or decreases as the probability of payment or expectation of timing of payments changes. The fair value of sales-based payments is based upon probability-weighted future revenue estimates and increases or decreases as revenue estimates or expectation of timing of payments changes.

## Valuation of Goodwill

The excess of the cost over the fair value of net assets of acquired businesses is recorded as goodwill. Goodwill is not subject to amortization, but is reviewed for impairment at the reporting unit level annually, or more frequently if impairment indicators arise. Our assessment of the recoverability of goodwill is based upon a comparison of the carrying value of goodwill with its estimated fair value. We review goodwill for impairment annually as of July 31 and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable.

In October 2017, as part of our strategy, we adopted the Codman name by rebranding our Specialty Surgical Solutions segment to Codman Specialty Surgical.

We have two reportable segments with three underlying reporting units: Instruments and Neurosurgery, under Codman Specialty Surgical and Orthopedics and Tissue Technologies. Refer to Note 13—Segment and Geographic Information for more information on reportable segments.

We estimated the fair value of the three reporting units using a discounted cash flow model, which incorporates significant estimates and assumptions made by management which, by their nature, are characterized by uncertainty. Inputs used to estimate the fair value of our reporting units are considered inputs of the fair value hierarchy. For Level 3 measurements, significant increases or decreases in long-term growth rates or discount rates in isolation or in combination could result in a significantly lower or higher fair value measurement. The key assumptions impacting the valuation included the following:

• The reporting unit's financial projections, which are based on management's assessment of regional and macroeconomic variables, industry trends and market opportunities, and our strategic objectives and future growth plans.

- The projected terminal value for the reporting unit, which represents the present value of projected cash flows beyond the last period in the discounted cash flow analysis. The terminal value reflects our assumptions related to long-term growth rates and profitability, which are based on several factors, including local and macroeconomic variables, market opportunities, and future growth plans.
- The discount rate used to measure the present value of the projected future cash flows is set using a weighted-average cost of capital method that considers market and industry data as well as our specific risk factors that are likely to be considered by a market participant. The weighted-average cost of capital is our estimate of the overall after-tax rate of return required by equity and debt holders of a business enterprise.

Given the excess of the estimated fair values of the Instruments, Neurosurgery and Orthopedics and Tissue Technologies reporting units over their carrying values after the reallocation of goodwill, no impairment was recognized.

We elected to early adopt ASU 2017-4, Simplifying the Test for Goodwill Impairment, effective January 1, 2017. We performed our annual goodwill impairment test as of July 31, 2017. In reviewing goodwill for impairment, we have the option—for any or all of its reporting units that carry goodwill—to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not (i.e. greater than 50%) that the estimated fair value of a reporting unit is less than its carrying amount. If we elect to perform a qualitative assessment and determine that an impairment is more likely than not, we are then required to perform the quantitative impairment test, otherwise no further analysis is required. We may elect not to perform the qualitative assessment and, instead, proceed directly to the quantitative impairment test. The ultimate outcome of the goodwill impairment review for a reporting unit should be the same whether we choose to perform the qualitative assessment or proceeds directly to the quantitative impairment test.

We elected to perform a qualitative analysis for our three reporting units as of July 31, 2017. We determined, after performing the qualitative analysis that there was no evidence that it is more likely than not that the fair value of any identified reporting unit is less than their carrying value; therefore, it was not necessary to perform the quantitative impairment test.

### Valuation of Identifiable Intangible Assets

Other intangible assets include patents, trademarks, purchased technology, and supplier and customer relationships. Identifiable intangible assets are initially recorded at fair market value at the time of acquisition generally using an income or cost approach. The Company capitalizes costs incurred to renew or extend the term of recognized intangible assets and amortizes those costs over their expected useful lives.

#### **Derivatives**

We develop, manufacture, and sell medical devices globally. Our earnings and cash flows are exposed to market risk from changes in interest rates and currency exchange rates. We address these risks through a risk management program that includes the use of derivative financial instruments, and operate the program pursuant to documented corporate risk management policies. All derivative financial instruments are recognized in the financial statements at fair value in accordance with the authoritative guidance. Under the guidance, for those instruments that are designated and qualify as hedging instruments, the hedging instrument must be designated as a fair value hedge, cash flow hedge, or a hedge of a net investment in a foreign operation, based on the exposure being hedged. The accounting for changes in the fair value of a derivative instrument depends on whether it has been designated and qualifies as part of a hedging relationship and, further, on the type of hedging relationship. Our derivative instruments do not subject our earnings or cash flows to material risk, and gains and losses on these derivatives generally offset losses and gains on the item being hedged. We have not entered into derivative transactions for speculative purposes and all of our derivatives are designated as hedges.

All derivative instruments are recognized at their fair values as either assets or liabilities on the balance sheet. We determine the fair value of our derivative instruments, using the framework prescribed by the authoritative guidance, by considering the estimated amount we would receive to sell or transfer these instruments at the reporting date and by taking into account expected forward interest rates, currency exchange rates, the creditworthiness of the counterparty for assets, and our creditworthiness for liabilities. In certain instances, we may utilize a discounted cash flow model to measure fair value. Generally, we use inputs that include quoted prices for similar assets or liabilities in active markets, other observable inputs for the asset or liability, and inputs that are derived principally from, or corroborated by, observable market data by correlation or other means.

We also entered into a foreign currency forward contract that is not designated as a hedging instrument for accounting purposes. This contract is recorded at fair value, with the changes in fair value recognized into other income, net on the consolidated financial statements.

#### **Income Taxes**

Since we conduct operations on a global basis, our effective tax rate has and will depend upon the geographic distribution of our pre-tax earnings among locations with varying tax rates. Changes in the tax rates of the various jurisdictions in which we operate affect our profits. In addition, we maintain a reserve for uncertain tax benefits, changes to which could impact our effective tax rate in the period such changes are made. The effective tax rate can also be impacted by changes in valuation allowances of deferred tax assets, and tax law changes.

Our provision for income taxes may change period-to-period based on specific events, such as the settlement of income tax audits and changes in tax laws, as well as general factors, including the geographic mix of income before taxes, state and local taxes and the effects of the Company's global income tax strategies. We maintain strategic management and operational activities in overseas subsidiaries. See Note 11, *Income Taxes*, in our consolidated financial statements for disclosures related to foreign and domestic pretax income, foreign and domestic income tax expense (benefit) and the effect foreign taxes have on our overall effective tax rate.

We recognize a tax benefit from an uncertain tax position only if it is more likely than not to be sustained upon examination based on the technical merits of the position. The amount of the accrual for which an exposure exists is measured by determining the amount that has a greater than 50 percent likelihood of being realized upon ultimate settlement of the position. Components of the reserve are classified as a long-term liability in the consolidated balance sheets. We record interest and penalties accrued in relation to uncertain tax benefits as a component of income tax expense.

We believe that we have identified all reasonably identifiable exposures and that the reserve we have established for identifiable exposures is appropriate under the circumstances; however, it is possible that additional exposures exist and that exposures will be settled at amounts different from the amounts reserved. It is also possible that changes in facts and circumstances could cause us to either materially increase or reduce the carrying amount of our tax reserves.

Our deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their basis for income tax purposes, and also the temporary differences created by the tax effects of capital loss, net operating loss and tax credit carryforwards. We record valuation allowances to reduce deferred tax assets to the amounts that are more likely than not to be realized. We could recognize no benefit from our deferred tax assets or we could recognize some or all of the future benefit depending on the amount and timing of taxable income we generate in the future.

We intend to indefinitely reinvest substantially all of our foreign earnings in foreign operations of our foreign subsidiaries. The current analysis indicates that we have sufficient U.S. liquidity, including borrowing

capacity, to fund foreseeable U.S. cash needs without requiring the repatriation of foreign cash. The 2017 Tax Act, imposes a toll tax on a deemed repatriation of undistributed earnings of foreign subsidiaries. One time or unusual items that may impact our ability or intent to keep the foreign earnings and cash indefinitely reinvested include significant U.S. acquisitions, loans from a foreign subsidiary, and changes in tax laws.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 to address the application of U.S. GAAP in situations where a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the 2017 Tax Act. The Company has recognized the provisional tax impacts related to deemed repatriated earnings and the revaluation of deferred tax assets and liabilities and included these amounts in its consolidated financial statements for the year ended December 31, 2017. The ultimate impact may differ from these provisional amounts, possibly materially, due to, among other things, additional analysis, changes in interpretations and assumptions the Company has made, additional regulatory guidance that may be issued, and actions the Company may take as a result of the 2017 Tax Act.

## Loss Contingencies

We are subject to claims and lawsuits in the ordinary course of our business, including claims by employees or former employees, with respect to our products and involving commercial disputes. We accrue for loss contingencies when it is deemed probable that a loss has been incurred and that loss is estimable. The amounts accrued are based on the full amount of the estimated loss before considering insurance proceeds, if applicable, and do not include an estimate for legal fees expected to be incurred in connection with the loss contingency. We consistently accrue legal fees expected to be incurred in connection with loss contingencies as those fees are incurred by outside counsel as a period cost. Our financial statements do not reflect any material amounts related to possible unfavorable outcomes of claims and lawsuits to which we are currently a party because we currently believe that such claims and lawsuits are not expected, individually or in the aggregate, to result in a material, adverse effect on our financial condition. However, it is possible that these contingencies could materially affect our results of operations, financial position and cash flows in a particular period if we change our assessment of the likely outcome of these matters.

### Pension Benefits

A defined benefit pension plan covers former employees in Germany. Various factors are considered in determining the pension liability, including the number of employees expected to be paid their salary levels and years of service, the expected return on plan assets, the discount rate used to determine the benefit obligations, the timing of benefit payments and other actuarial assumptions. If the actual results and events for the pension plans differ from current assumptions, the benefit obligation may be over or under valued.

We acquired several funded and unfunded non-U.S. defined benefit pension plans as part of the Codman Neurosurgery acquisition. We recognize the underfunded status of the defined benefit pension plans as an asset or a liability in the balance sheet, with changes in the funded status recorded through other comprehensive income in the year in which those changes occur.

The Company's discount rates are determined by considering current yield curves representing high quality, long-term fixed income instruments. The resulting discount rates are consistent with the duration of plan liabilities. In 2017, the discount rate was prescribed as the current yield on corporate bonds with an average rating of AA or AAA of equivalent currency and term to the liabilities.

The expected return on plan assets represents the average rate of return expected to be earned on plan assets over the period the benefits included in the benefit obligation are to be paid. In developing the expected rate of return, the Company considers returns of historical market data as well as actual returns on the plan assets. Using this reference information, the long-term return expectations for each asset category are developed according to the allocation among those investment categories.

The net plan assets of the pension plans are invested in common trusts as of December 31, 2017. Common trusts are classified as Level 2 in fair value hierarchy. The fair value of common trusts are valued at net asset value based on the fair values of the underlying investments of the trusts as determined by the sponsor of the trusts.

The following weighted average assumptions were used to develop net periodic pension benefit cost and the actuarial present value of projected pension benefit obligations for the year ended December 31, 2017:

Discount rate	0.74%
Expected return on plan assets	3.08%
Rate of compensation increase	1.70%

A change of plus (minus) 25 basis points on expected rate of return on plan assets, with other assumptions held constant, would have an estimated \$0.1 million favorable (unfavorable) impact on pension plan costs. As of December 31, 2017, contributions expected to be paid to the plan in 2018 is \$1.8 million.

We use the corridor approach in the valuation of defined benefit pension benefit plans. The corridor approach defers all actuarial gains and losses resulting from variances between actual results and actuarial assumptions. Those unrecognized gains and losses are amortized when the net gains and losses exceed 10% of the greater of the market-related value of plan assets or the projected benefit obligation at the beginning of the year. The amount in excess of the corridor is amortized over the average remaining service period to retirement date of active plan participants.

In September 2015, we completed the buy-out of our defined benefit pension plan in the U.K. which covered certain employees and retirees. All plan assets of the defined benefit pension plan were transferred to an independent financial services firm and the Company made cash contributions of approximately \$1.8 million for the year-ended December 31, 2015.

### Stock-based Compensation

We apply the authoritative guidance for stock-based compensation. This guidance requires companies to recognize the expense related to the fair value of their stock-based compensation awards. Stock-based compensation expense for stock option awards granted after January 1, 2006 was based on the fair value on the grant date using the binomial distribution model. The Company recognized compensation expense for stock option awards, restricted stock awards, performance stock awards and contract stock awards on a ratable basis over the requisite service period of the award. All excess tax benefits and taxes and tax deficiencies from stock-based compensation are included in the provision for income taxes in the consolidated statement of operations.

## Recently Issued and Adopted Accounting Standards

Refer to Note 2, *Summary of Significant Accounting Policies*, to the consolidated financial statements for recently adopted accounting pronouncements and recently issued accounting pronouncements not yet adopted as of December 31, 2017.

## ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to various market risks, including changes in foreign currency exchange rates and interest rates that could adversely affect our results of operations and financial condition. To manage the volatility relating to these typical business exposures, we may enter into various derivative transactions when appropriate. We do not hold or issue derivative instruments for trading or other speculative purposes.

#### Foreign Currency Exchange and Other Rate Risks

We operate on a global basis and are exposed to the risk that changes in foreign currency exchange rates could adversely affect our financial condition, results of operations and cash flows. We are primarily exposed to foreign currency exchange rate risk with respect to transactions and net assets denominated in euros, Swiss francs, British pounds, Canadian dollars, Japanese yen, Mexican pesos, Brazilian reais, Australian dollars and Chinese yuan. We manage the foreign currency exposure centrally, on a combined basis, which allows us to net exposures and to take advantage of any natural offsets. To mitigate the impact of currency fluctuations on transactions denominated in nonfunctional currencies, we periodically enter into derivative financial instruments in the form of foreign currency exchange forward contracts with major financial institutions. We temporarily record realized and unrealized gains and losses on these contracts that qualify as cash flow hedges in other comprehensive income, and then recognize them in other income or expense when the hedged item affects net earnings.

From time to time, we enter into foreign currency forward exchange contracts to manage currency exposures for transactions denominated in a currency other than an entity's functional currency. As a result, the impact of foreign currency gains/losses recognized in earnings are partially offset by gains/losses on the related foreign currency forward exchange contracts in the same reporting period.

On October 2, 2017, we entered into cross currency swap agreements to convert a notional amount of \$300.0 million equivalent to 291.2 million of Swiss Franc ("CHF") denominated intercompany loans into U.S. dollars. The CHF denominated intercompany loans were the result of the purchase of intellectual property by a subsidiary in Switzerland as part of the Codman Acquisition. The objective of these cross-currency swaps is to reduce volatility of earnings and cash flows associated with changes in the foreign currency exchange rate. Under the terms of these contracts, which have been designated as cash flow hedges, we will make interest payments in CHF and receive interest in U.S. dollars. Upon the maturity of these contracts, the Company will pay the principal amount of the loans in Swiss Francs and receive U.S. dollars from the counterparties.

On November 28, 2017, we entered into a foreign currency forward contract, with a notional amount of \$8.9 million to mitigate the foreign currency exchange risk related to certain intercompany loans denominated in CHF. The contract is not designated as a hedging instrument.

At December 31, 2017, we had an outstanding cross currency swap and currency forward contract with an aggregate notional amount of \$300.0 million and \$8.9 million, respectively.

We maintain written policies and procedures governing our risk management activities. With respect to cash flow hedges, changes in cash flows attributable to hedged transactions are generally expected to be completely offset by changes in the fair value of hedge instruments. Consequently, foreign currency exchange contracts would not subject us to material risk due to exchange rate movements, because gains and losses on these contracts offset gains and losses on the assets, liabilities or transactions being hedged.

The results of operations discussed herein have not been materially affected by inflation.

#### Interest Rate Risk

Cash and Cash Equivalents — We are exposed to the risk of interest rate fluctuations on the interest income earned on our cash and cash equivalents. A hypothetical 100 basis points movement in interest rates applicable to our cash and cash equivalents outstanding at December 31, 2017 would increase interest income by approximately \$1.7 million on an annual basis. No significant decrease in interest income would be expected as our cash balances are earning interest at rates of approximately 2 basis points. We are subject to foreign currency exchange risk with respect to cash balances maintained in foreign currencies.

Senior Credit Facility — Our interest rate risk relates primarily to U.S. dollar LIBOR-indexed borrowings. We use interest rate swap derivative instruments to manage our earnings and cash flow exposure to changes in

interest rates. These interest rate swaps fix the interest rate on a portion of our expected LIBOR-indexed floating-rate borrowings. The Company held the following interest rate swaps as of December 31, 2017 (dollar amounts in thousands):

Hedged Item	Current Notional Amount	Designation Date	Effective Date	Termination Date	Fixed Interest Rate	Floating Rate		mated Value
								ssets pilities)
3-month USD LIBOR	<b>* *</b> 0.000		5 1 21 2016		10000			
Loan	\$ 50,000	June 22, 2016	December 31, 2016	June 30, 2019	1.062%	3-month USD LIBOR	\$	675
3-month USD LIBOR Loan	50,000	June 22, 2016	December 31, 2016	June 30, 2019	1.062%	3-month USD LIBOR		672
1-month USD LIBOR	30,000	June 22, 2010	December 31, 2010	June 30, 2017	1.002 /6	5-month CSD LIBOR		072
Loan	50,000	July 12, 2016	December 31, 2016	June 30, 2019	0.825%	1-month USD LIBOR		779
3-month USD LIBOR								
Loan	50,000	February 6, 2017	June 30, 2017	June 30, 2020	1.834%	3-month USD LIBOR		318
1-month USD LIBOR Loan	100,000	February 6, 2017	June 30, 2017	June 30, 2020	1.652%	1-month USD LIBOR		858
1-month USD LIBOR		•						
Loan	100,000	March 27, 2017	December 31, 2017	June 30, 2021	1.971%	1-month USD LIBOR		337
1-month USD LIBOR Loan	150,000	December 13, 2017	January 1, 2018	December 31, 2022	2.201%	1-month USD LIBOR		(455)
1-month USD LIBOR			•					` /
Loan	150,000	December 13, 2017	January 1, 2018	December 31, 2022	2.201%	1-month USD LIBOR		(434)
1-month USD LIBOR Loan	100,000	December 13, 2017	July 1, 2019	June 30, 2024	2.423%	1-month USD LIBOR		(684)
1-month USD LIBOR	,	,	•	,				` /
Loan	50,000	December 13, 2017	July 1, 2019	June 30, 2024	2.423%	1-month USD LIBOR		(255)
1-month USD LIBOR Loan	200,000	December 13, 2017	January 1, 2018	Dogambar 21, 2024	2 2120/-	1-month USD LIBOR	(1	,219)
	200,000	December 13, 2017	January 1, 2016	December 31, 2024	2.31370	1-IIIOIIIII USD LIBOK		,219)
Total interested rate derivatives designated as cash								
flow hedge	\$1,050,000						\$	592

These interest rate swaps were designated as a cash flow hedges as of December 31, 2017.

We had an interest rate swap that fixed the interest rate on a portion of our expected LIBOR-indexed floating-rate borrowings beginning on December 31, 2010. The interest rate swap expired in August 2015. The interest rate swap was used to manage the Company's earnings and cash flow exposure to changes in interest rates by converting a portion of its floating-rate debt into fixed-rate debt. We recognized \$0.9 million of additional interest expense related to this derivative during the year-ended December 31, 2015.

Based on our outstanding borrowings at December 31, 2017, a 100 basis points change in interest rates would have impacted interest expense on the unhedged portion of the debt by \$8.1 million on an annualized basis.

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

Financial statements and the financial statement schedules specified by this Item, together with the report thereon of PricewaterhouseCoopers LLP, are presented following Item 15 of this report.

Information on quarterly results of operations is set forth in our financial statements under Note 16, "Selected Quarterly Information — Unaudited," to our consolidated financial statements.

# ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURES

Not applicable.

#### ITEM 9A. CONTROLS AND PROCEDURES

## Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to provide reasonable assurance that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow for timely decisions regarding required disclosure. Disclosure controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Management has designed our disclosure controls and procedures to provide reasonable assurance of achieving the desired control objectives.

As required by Exchange Act Rule 13a-15(b), we have carried out an evaluation, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2017. Based upon this evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of December 31, 2017 to provide such reasonable assurance.

#### Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) under the Securities Exchange Act of 1934, as amended. Internal control over financial reporting is 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 in the United States of America ("GAAP"). We recognize that because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies and procedures may deteriorate.

To evaluate the effectiveness of our internal control over financial reporting, management used the criteria described in *Internal Control* — *Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based upon this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2017.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2017 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

On February 24, 2017, the Company completed the acquisition of Derma Sciences. In accordance with SEC Staff guidance permitting a company to exclude an acquired business from management's assessment of the effectiveness of internal control over financial reporting for the year in which the acquisition is completed, we excluded Derma Sciences from our assessment of internal control over financial reporting as of December 31, 2017. Derma Sciences is a wholly owned subsidiary of the Company whose total assets represent approximately 0.6% of the Company's total assets and whose net revenues represent approximately 4.0% of the Company's net revenues as of and for the year ended December 31, 2017.

On October 2, 2017, the Company completed the acquisition of Codman Neurosurgery. In accordance with SEC Staff guidance permitting a company to exclude an acquired business from management's assessment of the effectiveness of internal control over financial reporting for the year in which the acquisition is completed, we excluded Codman Neurosurgery from our assessment of internal control over financial reporting as of December 31, 2017. The assets of Codman Neurosurgery represent approximately 5.2% of the Company's total assets and the net revenues of Codman Neurosurgery represent approximately 6.5% of the Company's net revenues as of and for the year ended December 31, 2017.

### Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that occurred during the quarter ended December 31, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

#### ITEM 9B. OTHER INFORMATION

Not applicable.

#### PART III

#### INCORPORATION BY REFERENCE

The information called for by Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities relating to equity compensation plans, Item 10. Directors, Executive Officers and Corporate Governance, Item 11. Executive Compensation, Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters, Item 13. Certain Relationships and Related Transactions, and Director Independence and Item 14. Principal Accountant Fees and Services is incorporated herein by reference to the Company's definitive proxy statement for its Annual Meeting of Stockholders scheduled to be held on May 17, 2018, which definitive proxy statement is expected to be filed with the Commission not later than 120 days after the end of the fiscal year to which this report relates.

#### **PART IV**

#### ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as a part of this report.

#### 1. Financial Statements.

The following financial statements and financial statement schedules are filed as a part of this report:

Report of Independent Registered Public Accounting Firm	F-1
Consolidated Statements of Operations for the years ended December 31, 2017, 2016 and 2015	F-3
Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2017, 2016 and 2015	F-4
Consolidated Balance Sheets as of December 31, 2017 and 2016	F-5
Consolidated Statements of Cash Flows for the years ended December 31, 2017, 2016 and 2015	F-6
Consolidated Statements of Changes in Stockholders' Equity for the years ended December 31, 2017, 2016 and 2015	F-7
Notes to Consolidated Financial Statements	F-8
2. Financial Statement Schedules	
Schedule II — Valuation and Qualifying Accounts for the years ended December 31, 2017, 2016 and 2015	F-63

All other schedules not listed above have been omitted, because they are not applicable or are not required, or because the required information is included in the consolidated financial statements or notes thereto.

### 3. Exhibits required to be filed by Item 601 of Regulation S-K.

- 2.1 Stock Purchase Agreement, dated as of October 25, 2013, by and between Covidien Group S.A.R.L. and Integra LifeSciences Corporation (Incorporated by Reference to Exhibit 10.1 to the Company's Current Report on Form 8- K filed on January 15, 2014)
- 2.2 Stock and Asset Purchase Agreement by and among Medtronic, Inc., Medtronic Xomed Instrumentation, SAS, and Integra LifeSciences Corporation, dated as of September 12, 2014 (Incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on October 27, 2014)
- 2.3 Separation and Distribution Agreement between Integra LifeSciences Holdings Corporation and SeaSpine Holdings Corporation, dated as of June 30, 2015 (Incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on July 7, 2015)
- 2.4 Agreement and Plan of Merger by and among Integra LifeSciences Corporation, Patriot S1, Inc., TEI Biosciences Inc. and Dr. Yiannis Monovoukas, dated as of June 26, 2015 (Incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on July 20, 2015)
- 2.5 Agreement and Plan of Merger by and among Integra LifeSciences Corporation, Patriot S2, Inc., TEI Medical Inc. and Dr. Yiannis Monovoukas, dated as of June 26, 2015 (Incorporated by reference to Exhibit 2.2 to the Company's Current Report on Form 8-K filed on July 20, 2015)
- Agreement and Plan of Merger by and among Integra LifeSciences Holdings Corporation, Integra Derma, Inc., and Derma Sciences, Inc. dated as of January 10, 2017 (Incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on January 11, 2017)

- 2.7 Binding Offer Letter by and among Integra LifeSciences Holdings Corporation and DePuy Synthes, Inc., dated as of February 14, 2017 (Incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on February 15, 2017
- 2.7(a) Asset Purchase Agreement accepted and countersigned by DePuy Synthes, dated May 11, 2017 (Incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on May 15, 2017)
- 2.8 Asset Purchase Agreement, dated September 8, 2017, between the Company and certain of its subsidiaries and Natus Medical Incorporated (Incorporated by reference to Exhibit 2.1 to the Company's Quarterly Report on Form 10-Q filed on October 26, 2017)
- 3.1(a) Amended and Restated Certificate of Incorporation of the Company dated February 16, 1993 (Incorporated by reference to Exhibit 3.1(a) to the Company's Annual Report on Form 10-K for the year ended December 31, 2005)
- 3.1(b) Certificate of Amendment to Amended and Restated Certificate of Incorporation of the Company dated May 22, 1998 (Incorporated by reference to Exhibit 3.1(b) to the Company's Annual Report on Form 10-K for the year ended December 31, 1998)
- 3.1(c) Certificate of Amendment to Amended and Restated Certificate of Incorporation of the Company dated May 17, 1999 (Incorporated by reference to Exhibit 3.1(c) to the Company's Annual Report on Form 10-K for the year ended December 31, 2004)
- 3.1(d) Certificate of Amendment to Amended and Restated Certificate of Incorporation of the Company dated December 21, 2016 (Incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on December 22, 2016)
- 3.2 Amended and Restated Bylaws of the Company, effective as of May 17, 2012 (Incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed on April 13, 2012)
- 4.1 Purchase Agreement, dated June 9, 2011, by and between Integra LifeSciences Holdings Corporation and J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Morgan Stanley & Co. LLC, Deutsche Bank Securities Inc., RBC Capital Markets, LLC and Wells Fargo Securities, LLC (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 15, 2011)
- 4.2 Indenture, dated June 15, 2011, by and between Integra LifeSciences Holdings Corporation and Wells Fargo Bank, National Association, as trustee (Incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed on June 15, 2011)
- 4.3(a) Credit Agreement, dated as of December 22, 2005, among Integra LifeSciences Holdings Corporation, the lenders party thereto, Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer, Citibank FSB and SunTrust Bank, as Co-Syndication Agents, and Royal Bank of Canada and Wachovia Bank, National Association, as Co-Documentation Agents (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 29, 2005)
- 4.3(b) First Amendment, dated as of February 15, 2006, among Integra LifeSciences Holdings Corporation, the lenders party thereto, Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer, Citibank FSB and SunTrust Bank, as Co-Syndication Agents, and Royal Bank of Canada and Wachovia Bank, National Association, as Co-Documentation Agents (Incorporated by reference to Exhibit 4.3(b) to the Company's Annual Report on Form 10-K for the year ended December 31, 2005)
- 4.3(c) Second Amendment, dated as of February 23, 2007, among Integra LifeSciences Holdings Corporation, the lenders party thereto, Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer, Citibank FSB and SunTrust Bank, as Co-Syndication Agents, and Royal Bank of Canada and Wachovia Bank, National Association, as Co-Documentation Agents (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on February 27, 2007)

- 4.3(d) Third Amendment, dated as of June 4, 2007, among Integra LifeSciences Holdings Corporation, the lenders party thereto, Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer, Citibank, N.A., successor by merger to Citibank, FSB, as Syndication Agent and JPMorgan Chase Bank, N.A., Deutsche Bank Trust Company Americas and Royal Bank of Canada, as Co-Documentation Agents (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 6, 2007)
- 4.3(e) Fourth Amendment, dated as of September 5, 2007, among Integra LifeSciences Holdings Corporation, the lenders party thereto, Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer, Citibank, N.A., successor by merger to Citibank FSB, as Syndication Agent and JPMorgan Chase Bank, N.A., Deutsche Bank Trust Company Americas and Royal Bank of Canada, as Co-Documentation Agents (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on September 6, 2007)
- 4.3(f) Amended and Restated Credit Agreement, dated as of August 10, 2010, among Integra LifeSciences Holdings Corporation, the lenders party thereto, Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer, JP Morgan Chase Bank, as Syndication Agent, and HSBC Bank USA, NA, RBC Capital Markets, Wells Fargo Bank, N.A., Fifth Third Bank, DNB NOR Bank ASA and TD Bank, N.A., as Co-Documentation Agents (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 10, 2010)
- 4.3(g) Second Amended and Restated Credit Agreement, dated as of June 8, 2011, among Integra LifeSciences Holdings Corporation, the lenders party thereto, Bank of America, N.A. as Administrative Agent, Swing Line Lender and L/C Issuer, JPMorgan Chase Bank N.A. as Syndication Agent, and, HSBC Bank USA, NA, Royal Bank of Canada, Wells Fargo Bank, N.A., Fifth Third Bank, DNB NOR Bank ASA, and TD Bank, N.A., as Co-Documentation Agents (Incorporated by reference to Exhibit 4.3 to the Company's Quarterly Report on Form 10-Q filed on July 29, 2011)
- 4.3(h) First Amendment, dated as of May 11, 2012, to Second Amended and Restated Credit Agreement dated as of June 8, 2011, among Integra LifeSciences Holdings Corporation, the lenders party thereto, Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer, JPMorgan Chase Bank, N.A., as Syndication Agent, and HSBC Bank, NA, Royal Bank of Canada, Wells Fargo Bank, NA, Fifth Third Bank, DNB Nor Bank ASA and TD Bank, N.A., as Co-Documentation Agents (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on May 14, 2012)
- 4.3(i) Second Amendment, dated as of June 21, 2013, to Second Amended and Restated Credit Agreement dated as of June 8, 2011, among Integra LifeSciences Holdings Corporation, the lenders party thereto, Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer, JPMorgan Chase Bank, N.A., as Syndication Agent, and HSBC Bank USA, National Association, Royal Bank of Canada, Wells Fargo Bank, National Association, Fifth Third Bank, DNB Bank ASA and TD Bank, N.A., as Co-Documentation Agents (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 24, 2013)
- 4.3(j) Third Amended and Restated Credit Agreement, dated as of July 2, 2014, among Integra LifeSciences Holdings Corporation, the other lenders party hereto, Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer, Wells Fargo Bank, National Association, as Syndication Agent and HSBC Bank USA, National Association, Royal Bank of Canada, Citizens Bank, National Association, DNB Capital LLC, Credit Agricole- Corporate and Investment Bank and TD Bank, N.A., as Co-Documentation Agents (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on July 9, 2014)

- 4.3(k) First Amendment, dated as of December 19, 2014, to that Third Amended and Restated Credit Agreement, among Integra LifeSciences Holdings Corporation, a syndicate of lending banks, Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer, Wells Fargo Bank, National Association, as Syndication Agent, and HSBC Bank USA, National Association, Royal Bank of Canada, Citizens Bank, National Association, DNB Capital LLC, Crédit Agricole-Corporate and Investment Bank, and TD Bank, N.A., as Co-Documentation Agents (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on December 29, 2014)
- 4.3(1) Second Amendment, dated August 28, 2015, to that Third Amended and Restated Credit Agreement, among Integra LifeSciences Holdings Corporation, a syndicate of lending banks, Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer, Wells Fargo Bank, National Association, as Syndication Agent, and HSBC Bank USA, National Association, Royal Bank of Canada, Citizens Bank, National Association, DNB Capital LLC, Crédit Agricole-Corporate and Investment Bank and TD Bank, N.A., as Co-Documentation Agents (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on September 1, 2015)
- 4.3(m) Fourth Amended and Restated Credit Agreement, dated as of December 7, 2016, among Integra LifeSciences Holdings Corporation, the other lenders party hereto, Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer, Securities, LLC, Citizens Bank, N.A., DNB Capital LLC, HSBC Bank PLC, HSBC Bank USA. N.A., The Bank of Tokyo-Mitsubishi UFJ, LTD., PNC Bank, N.A., Royal Bank of Canada, SunTrust Bank, TD Bank, N.A., JPMorgan and Chase Bank, N.A., Mizuho Bank, LTD., and Bank of Nova Scotia, as Co- Documentation Agents (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on December 7, 2016)
- 4.3(n) First Amendment to the Fourth Amended and Restated Credit Agreement, dated as of March 31, 2017, among Integra LifeSciences Holdings Corporation, a syndicate of lending banks, and Bank of America, N.A., as Administrative Agent (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on April 4, 2017)
- 4.4 Security Agreement, dated as of December 22, 2005, among Integra LifeSciences Holdings Corporation and the additional grantors party thereto in favor of Bank of America, N.A., as administrative and collateral agent (Incorporated by reference to Exhibit 4.4 to the Company's Annual Report on Form 10-K for the year ended December 31, 2005)
- 4.5 Pledge Agreement, dated as of December 22, 2005, among Integra LifeSciences Holdings Corporation and the additional grantors party thereto in favor of Bank of America, N.A., as administrative and collateral agent (Incorporated by reference to Exhibit 4.5 to the Company's Annual Report on Form 10-K for the year ended December 31, 2005)
- 4.6 Subsidiary Guaranty Agreement, dated as of December 22, 2005, among the guarantors party thereto and individually as a "Guarantor"), in favor of Bank of America, N.A., as administrative and collateral agent (Incorporated by reference to Exhibit 4.6 to the Company's Annual Report on Form 10-K for the year ended December 31, 2005)
- 4.7 Indenture, dated June 11, 2007, among Integra LifeSciences Holdings Corporation, Integra LifeSciences Corporation and Wells Fargo Bank, N.A., as trustee (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 12, 2007)
- 4.8 Form of 2.75% Senior Convertible Note due 2010 (included in Exhibit 4.8) (Incorporated by reference to Exhibit B to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 12, 2007)
- 4.9 Indenture, dated June 11, 2007, among Integra LifeSciences Holdings Corporation, Integra LifeSciences Corporation and Wells Fargo Bank, N.A., as trustee (Incorporated by reference to Exhibit 4.3 to the Company's Current Report on Form 8-K filed on June 12, 2007)

- 4.10 Form of 2.375% Senior Convertible Note due 2012 (included in Exhibit 4.10) (Incorporated by reference to Exhibit B to Exhibit 4.3 to the Company's Current Report on Form 8-K filed on June 12, 2007)
- 4.11 Registration Rights Agreement, dated June 11, 2007, among Integra LifeSciences Holdings Corporation, Banc of America Securities LLC, J.P. Morgan Securities Inc. and Morgan Stanley & Co., Incorporated, as representatives of the several initial purchasers (Incorporated by reference to Exhibit 4.5 to the Company's Current Report on Form 8-K filed on June 12, 2007)
- 4.12 Registration Rights Agreement, dated June 11, 2007, among Integra LifeSciences Holdings Corporation, Banc of America Securities LLC, J.P. Morgan Securities Inc. and Morgan Stanley & Co., Incorporated, as representatives of the several initial purchasers (Incorporated by reference to Exhibit 4.6 to the Company's Current Report on Form 8-K filed on June 12, 2007)
- 10.1(a) Lease between Plainsboro Associates and American Biomaterials Corporation dated as of April 16, 1985, as assigned to Colla-Tec, Inc. on September 30, 1988 and as amended on November 1, 1992 as Lease Modification #1 (Incorporated by reference to Exhibit 10.30 to the Company's Registration Statement on Form 10/A (File No. 0- 26224) which became effective on August 8, 1995)
- 10.1(b) Lease Modification #2 entered into as of October 28, 2005, by and between Plainsboro Associates and Integra LifeSciences Corporation (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8- K filed on November 2, 2005)
- 10.1(c) Lease Modification #3 entered into as of March 2, 2011, by and between Plainsboro Associates and Integra LifeSciences Corporation (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8- K filed on March 3, 2011)
- 10.1(d) Lease Modification #4 entered into as of April 20, 2017, by and between Plainsboro Associates and Integra LifeSciences Corporation (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8- K filed on April 25, 2017)
- 10.2(a) Equipment Lease Agreement between Medicus Corporation and the Company, dated as of June 1, 2000 (Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2000)
- 10.2(b) First Amendment to Equipment Lease Agreement between Medicus Corporation and the Company, dated as of June 29, 2010 (Incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2010)
- 10.3(a) Form of Indemnification Agreement between the Company and [ ] dated August 16, 1995, including a schedule identifying the individuals that are a party to such Indemnification Agreements (Incorporated by reference to Exhibit 10.37 to the Company's Registration Statement on Form S-1 (File No. 33-98698) which became effective on January 24, 1996)\*
- 10.3(b) Form of Indemnification Agreement for Non-Employee Directors and Officers (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 24, 2008)\*
- 10.4 1996 Incentive Stock Option and Non-Qualified Stock Option Plan (as amended through December 27, 1997) (Incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K filed on February 3, 1998)\*
- 10.5 1998 Stock Option Plan (amended and restated as of July 26, 2005) (Incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2005)\*
- 10.6 1999 Stock Option Plan (amended and restated as of July 26, 2005) (Incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2005)\*

- 10.7(a) Employee Stock Purchase Plan (as amended on May 17, 2004) (Incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-8 (Registration No. 333-127488) filed on August 12, 2005)\*
- 10.7(b) First Amendment to Employee Stock Purchase Plan, dated October 26, 2005 (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on November 1, 2005)\*
- 10.8(a) 2000 Equity Incentive Plan (amended and restated as of July 26, 2005) (Incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2005)\*
- 10.8(b) Amendment to 2000 Equity Incentive Plan (effective as of May 17, 2012) (Incorporated by reference to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012)\*
- 10.8(c) Amendment to 2000 Equity Incentive Plan (effective as of January 1, 2013) (Incorporated by reference to Exhibit 10.8(c) to the Company's Annual Report on Form 10-K for the year ended December 31, 2012)\*
- 10.9(a) 2001 Equity Incentive Plan (amended and restated as of July 26, 2005) (Incorporated by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2005)\*
- 10.9(b) Amendment to 2001 Equity Incentive Plan (effective as of May 17, 2012) (Incorporated by reference to Exhibit 10.8 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012)\*
- 10.9(c) Amendment to 2001 Equity Incentive Plan (effective as of January 1, 2013) (Incorporated by reference to Exhibit 10.9(c) to the Company's Annual Report on Form 10-K for the year ended December 31, 2012)\*
- 10.10(a) Second Amended and Restated 2003 Equity Incentive Plan effective May 19, 2010 (Incorporated by reference to Exhibit 10 to the Company's Current Report on Form 8-K filed May 21, 2010)\*
- 10.10(b) Amendment to the Second Amended and Restated 2003 Equity Incentive Plan effective May 17, 2012 (Incorporated by reference to Exhibit 10.9 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012)\*
- 10.10(c) Amendment to the Second Amended and Restated 2003 Equity Incentive Plan effective January 1, 2013 (Incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013)\*
- 10.10(d) Third Amended and Restated 2003 Equity Incentive Plan effective May 22, 2015 (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 29, 2015)\*
- 10.10(e) Fourth Amended and Restated 2003 Equity Incentive Plan, effective May 23, 2017 (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 25, 2017)
- 10.11(a) Second Amended and Restated Employment Agreement dated July 27, 2004 between the Company and Stuart M. Essig (Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004)\*
- 10.11(b) Amendment 2006-1, dated as of December 19, 2006, to the Second Amended and Restated Employment Agreement, between the Company and Stuart M. Essig (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 22, 2006)\*
- 10.11(c) Amendment 2008-1, dated as of March 6, 2008, to the Second Amended and Restated Employment Agreement, between the Company and Stuart M. Essig (Incorporated by reference to Exhibit 10.12(c) to the Company's Annual Report on Form 10-K for the year ended December 31, 2007)\*

- 10.11(d) Amendment 2008-2, dated as of August 6, 2008, to the Second Amended and Restated Employment Agreement between Stuart M. Essig and the Company (Incorporated by reference to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2008)\*
- 10.11(e) Amendment 2009-1, dated as of April 13, 2009, to the Second Amended and Restated Employment Agreement between Stuart M. Essig and the Company (Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on April 13, 2009)\*
- 10.11(f) Letter Agreement dated May 17, 2011 between the Company and Stuart M. Essig (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed May 23, 2011)\*
- 10.11(g) Letter dated December 20, 2011 from Stuart M. Essig to the Company (Incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed December 23, 2011)\*
- 10.11(h) Letter Agreement dated June 7, 2012 between Stuart M. Essig and the Company (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 7, 2012)\*
- 10.12 Indemnity letter agreement dated December 27, 1997 from the Company to Stuart M. Essig (Incorporated by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K filed on February 3, 1998)\*
- 10.13(a) Registration Rights Provisions for Stuart M. Essig (Incorporated by reference to Exhibit B of Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 3, 1998)\*
- 10.13(b) Registration Rights Provisions for Stuart M. Essig (Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on January 8, 2001)\*
- 10.13(c) Registration Rights Provisions for Stuart M. Essig (Incorporated by reference to Exhibit B of Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004)\*
- 10.14(a) Amended and Restated 2005 Employment Agreement between John B. Henneman, III and the Company dated December 19, 2005 (Incorporated by reference to Exhibit 10.16 to the Company's Annual Report on Form 10-K for the year ended December 31, 2005)\*
- 10.14(b) Amendment 2008-1, dated as of January 2, 2008, to the Amended and Restated 2005 Employment Agreement between John B. Henneman, III and the Company (Incorporated by reference to Exhibit 10.15(b) to the Company's Annual Report on Form 10-K for the year ended December 31, 2007)\*
- 10.14(c) Amendment 2008-2, dated as of December 18, 2008, to the Amended and Restated 2005 Employment Agreement between John B. Henneman, III and the Company (Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on December 24, 2008)\*
- 10.14(d) Amendment 2009-1, dated as of April 13, 2009, to the Amended and Restated 2005 Employment Agreement between John B. Henneman, III and the Company (Incorporated by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K filed on April 13, 2009)\*
- 10.14(e) Amendment 2010-1, dated as of October 12, 2010, to the Amended and Restated 2005 Employment Agreement between John B. Henneman, III and the Company (Incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed October 12, 2010)\*
- 10.14(f) Letter dated as of February 22, 2012 from John B. Henneman, III to the Company (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed February 22, 2012)\*
- 10.14(g) Second Amended and Restated 2005 Employment Agreement between the Company and John B. Henneman, III (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 23, 2014)\*

- 10.15 Consulting Agreement, dated October 12, 2010, between the Company and Inception Surgical (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on October 12, 2010)\*
- 10.16 Severance Agreement between Richard D. Gorelick and the Company dated as of January 3, 2012 (Incorporated by reference to Exhibit 10.10 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013)\*
- 10.17(a) Severance Agreement between Judith O'Grady and the Company dated as of January 4, 2010 (Incorporated by reference to Exhibit 10.17 to the Company's Annual Report on Form 10-K for the year ended December 31, 2009)\*
- 10.17(b) Severance Agreement between Judith O'Grady and the Company dated as of January 3, 2011 (Incorporated by reference to Exhibit 10.17(a) to the Company's Annual Report on Form 10-K for the year ended December 31, 2010)\*
- 10.17(c) Severance Agreement between Judith O'Grady and the Company dated as of January 3, 2012 (Incorporated by reference to Exhibit 10.16(c) to the Company's Annual Report on Form 10-K for the year ended December 31, 2011)\*
- 10.18(a) Employment Agreement, dated as of October 12, 2010, between Peter J. Arduini and the Company (Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed October 12, 2010)\*
- 10.18(b) Amended and Restated Employment Agreement dated December 20, 2011 between Peter J. Arduini and the Company (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed December 23, 2011)\*
- 10.18(c) Second Amended and Restated Employment Agreement between the Company and Peter J. Arduini (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 20, 2014)\*
- 10.18(d) Third Amended and Restated Employment Agreement between the Company and Peter J. Arduini (Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on October 26, 2017)\*
- 10.19 Form of Notice of Stock Option Grant with Eight-Year Term for Peter J. Arduini (Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed December 23, 2011)\*
- 10.20 Letter Agreement dated February 19, 2013 between Peter J. Arduini and Integra LifeSciences Holdings Corporation (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 25, 2013)\*
- 10.21(a) Lease Contract, dated April 1, 2005, between the Puerto Rico Industrial Development Company and Integra CI, Inc. (executed on September 15, 2006) (Incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2006)
- 10.21(b) Amendment to Lease Contract dated as of November 2, 2011, between Integra CI, Inc. and Puerto Rico Industrial Development Company (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on November 7, 2011)
- 10.21(c) Termination of Amendment to Lease Contract, dated as of April 2, 2012, between Integra CI, Inc. and Puerto Rico Industrial Development Company (Incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012)
- 10.22 Restricted Units Agreement dated December 27, 1997 between the Company and Stuart M. Essig (Incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on February 3, 1998)\*

- Stock Option Grant and Agreement pursuant to 1999 Stock Option Plan dated December 22, 2000 between the Company and Stuart M. Essig (Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on January 8, 2001)\*
- Stock Option Grant and Agreement pursuant to 2000 Equity Incentive Plan dated December 22, 2000 between the Company and Stuart M. Essig (Incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed on January 8, 2001)\*
- 10.25(a) Restricted Units Agreement dated December 22, 2000 between the Company and Stuart M. Essig (Incorporated by reference to Exhibit 4.3 to the Company's Current Report on Form 8-K filed on January 8, 2001)\*
- 10.25(b) Amendment 2006-1, dated as of October 30, 2006, to the Stuart M. Essig Restricted Units Agreement dated as of December 22, 2000 (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on November 3, 2006)\*
- 10.26 Stock Option Grant and Agreement pursuant to 2003 Equity Incentive Plan dated July 27, 2004 between the Company and Stuart M. Essig (Incorporated by reference to Exhibit 10.30 to the Company's Annual Report on Form 10-K for the year ended December 31, 2004)\*
- 10.27(a) Contract Stock/Restricted Units Agreement pursuant to 2003 Equity Incentive Plan dated July 27, 2004 between the Company and Stuart M. Essig (Incorporated by reference to Exhibit 10.31 to the Company's Annual Report on Form 10-K for the year ended December 31, 2004)\*
- 10.27(b) Amendment 2006-1, dated as of October 30, 2006, to the Stuart M. Essig Contract Stock/ Restricted Units Agreement dated as of July 27, 2004 (Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on November 3, 2006)\*
- 10.27(c) Amendment 2008-1, dated as of March 6, 2008, to the Stuart M. Essig Contract Stock/Restricted Units Agreement dated as of July 27, 2004 (Incorporated by reference to Exhibit 10.25(c) to the Company's Annual Report on Form 10-K for the year ended December 31, 2007)\*
- 10.27(d) Amendment 2011-1, dated as of May 17, 2011, to the Stuart M. Essig Contract Stock/Restricted Units Agreement dated as of July 24, 2004 (Incorporated by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2011)\*
- 10.28 Contract Stock/Units Agreement dated as of May 17, 2011 between the Company and Stuart M. Essig (Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on May 23, 2011)\*
- 10.29 Form of Amendment 2011-1 to Contract Stock/Restricted Units Agreements between the Company and Mr. Essig (Incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2011)\*
- 10.30 Form of Stock Option Grant and Agreement between the Company and Stuart M. Essig (Incorporated by reference to Exhibit 10.32 to the Company's Annual Report on Form 10-K for the year ended December 31, 2004)\*
- 10.31(a) Form of Contract Stock/Restricted Units Agreement for Stuart M. Essig (Incorporated by reference to Exhibit 10.8 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2008)\*
- 10.31(b) New Form of Contract Stock/Restricted Units Agreement (for Annual Equity Awards) for Stuart M. Essig (Incorporated by reference to Exhibit 10.28(b) to the Company's Annual Report on Form 10-K for the year ended December 31, 2010)\*
- 10.31(c) Form of Amendment 2011-1 to Contract Stock/Restricted Units Agreement between the Company and Mr. Essig (Incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2011)\*

- Form of Performance Stock Agreement for Stuart M. Essig (Incorporated by reference to Exhibit 10.9 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2008)\*
- 10.33 Form of Restricted Stock Agreement for Stuart M. Essig for 2009 (Incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed April 13, 2009)\*
- 10.34(a) Form of Performance Stock Agreement (Executive Officers) (Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on February 25, 2013)\*
- 10.34(b) Form of Performance Stock Agreement (Executive Officers) (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 29, 2016)\*
- 10.34(c) Form of Performance Stock Agreement for Peter J. Arduini (Incorporated by reference to Exhibit 10.2 to the Company's Report on Form 8-K filed on February 29, 2016)\*
- 10.35 Performance Incentive Compensation Plan effective January 1, 2013 (Incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013)\*
- 10.35(a) First Amendment, dated as of February 15, 2017, to the Performance Incentive Compensation Plan (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 17, 2017)
- 10.35(b) 2018 Performance Incentive Compensation Plan, effective January 1, 2018 (Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on May 25, 2017)
- 10.36 New Form of Contract Stock/Restricted Units Agreement pursuant to 2003 Equity Incentive Plan (for 2011) Annual Equity Award for Stuart M. Essig) (Incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2011)\*
- 10.37 Form of Notice of Grant of Stock Option and Stock Option Agreement (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on July 29, 2005)\*
- 10.38 Form of Non-Qualified Stock Option Agreement (Non-Directors) (Incorporated by reference to Exhibit 10.35 to the Company's Annual Report on Form 10-K for the year ended December 31, 2004)\*
- 10.39 Form of Incentive Stock Option Agreement (Incorporated by reference to Exhibit 10.36 to the Company's Annual Report on Form 10-K for the year ended December 31, 2004)\*
- 10.40 Form of Non-Qualified Stock Option Agreement (Directors) (Incorporated by reference to Exhibit 10.37 to the Company's Annual Report on Form 10-K for the year ended December 31, 2004)\*
- 10.41 Form of Stock Option Agreement (Executive Officers) (Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015)\*
- 10.42 Form of Stock Option Agreement for Glenn Coleman (Incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015)\*
- Agreement and General Release by and between Robert Paltridge and Integra LifeSciences Corporation (Incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015)\*
- 10.44(c) Form of Change in Control Severance Agreement (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 3, 2016)\*
- 10.44(d) Form of Change in Control Severance Agreement (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 3, 2017)
- 10.45(a) Compensation of Directors of the Company effective May 17, 2011 (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 16, 2010)\*

- 10.45(b) Compensation of Non-Employee Directors of the Company effective May 17, 2012 (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on April 13, 2012)\*
- 10.45(c) Compensation of Non-Employee Directors of the Company effective May 22, 2013 (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 14, 2012)\*
- 10.45(d) Compensation of Non-Employee Directors of the Company effective July 24, 2013 (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on July 29, 2013)\*
- 10.45(e) Compensation of Non-Employee Directors of the Company effective May 22, 2015 (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 18, 2014)\*
- 10.45(f) Compensation of Non-Employee Directors of the Company effective May 24, 2016 (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 17, 2015)\*
- 10.46(a) Form of Restricted Stock Agreement for Non-Employee Directors under the 2003 Equity Incentive Plan (Incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012)\*
- 10.46(b) New Form of Restricted Stock Agreement for Non-Employee Directors under the 2003 Equity Incentive Plan (Incorporated by reference to Exhibit 10.38(b) to the Company's Annual Report on Form 10-K for the year ended December 31, 2012)\*
- 10.46(c) Form of Restricted Stock Agreement for Executive Officers—Annual Vesting (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 25, 2009)\*
- 10.46(d) Form of Restricted Stock Agreement for Executive Officers—Annual Vesting (Incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012)\*
- 10.46(e) New Form of Restricted Stock Agreement for Executive Officers—Annual Vesting (Incorporated by reference to Exhibit 10.38(e) to the Company's Annual Report on Form 10-K for the year ended December 31, 2012)\*
- 10.46(f) Form of Restricted Stock Agreement for Executive Officers—Cliff Vesting (Incorporated by reference to Exhibit 10.8 to the Company's Quarter Report on Form 10-Q for the quarter ended March 31, 2009)\*
- 10.46(g) Form of Restricted Stock Agreement for Executive Officers—Cliff Vesting (Incorporated by reference to Exhibit 10.6 to the Company's quarterly report on Form 10-Q for the quarter ended June 30, 2012)\*
- 10.46(h) New Form of Restricted Stock Agreement for Executive Officers—Cliff Vesting (Incorporated by reference to Exhibit 10.38(h) to the Company's Annual Report on Form 10-K for the year ended December 31, 2012)\*
- 10.46(i) Form of Restricted Stock Agreement for Mr. Henneman for 2008 and 2009 (Incorporated by reference to Exhibit 10.6 to the Company's Current Report on Form 8-K filed on April 13, 2009)\*
- 10.46(j) Form of Contract Stock/Restricted Units Agreement pursuant to 2003 Equity Incentive Plan for Mr. Henneman (Incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K filed on December 24, 2008)\*

- 10.46(k) Form of Option Agreement for John B. Henneman, III (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 6, 2008)\*
- 10.46(l) Form of Performance Stock Agreement for John B. Henneman, III (Incorporated by reference to Exhibit 10.37(b) to the Company's Annual Report on Form 10-K for the year ended December 31, 2007)\*
- 10.46(m) Form of Contract Stock/Restricted Units Agreement (for Signing Grant) for Mr. Arduini (Incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K filed on October 12, 2010)\*
- 10.46(n) Form of Contract Stock/Restricted Units Agreement (for Annual Equity Awards) for Mr. Arduini (Incorporated by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K filed on October 12, 2010)\*
- 10.46(o) Form of Non-Qualified Stock Option Agreement for Mr. Arduini (Incorporated by reference to Exhibit 10.6 to the Company's Current Report on Form 8-K filed on October 12, 2010)\*
- 10.46(p) Form of Restricted Stock Agreement for Mr. Henneman (Incorporated by reference to Exhibit 10.7 to the Company's Current Report on Form 8-K filed on October 12, 2010)\*
- 10.46(q) Form of Restricted Stock Agreement (Annual Vesting) for Mr. Henneman (Incorporated by reference to Exhibit 10.39(n) to the Company's Annual Report on Form 10-K for the year ended December 31, 2011)\*
- 10.47(a) Coleman Promotion Summary, effective December 1, 2016 (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 5, 2016)\*
- 10.47(b) Davis Promotion Summary, effective December 1, 2016 (Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on December 5, 2016)\*
- Annual Executive Physical Medical Exam Arrangement (Incorporated by reference to the Exhibit 10.2 to the Company's Current Report on Form 8-K filed on July 29, 2013)\*
- 10.49 Reimbursement of Legal Fees Arrangement for CFO (Incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on July 29, 2013)\*
- 10.50 Amended and Restated Management Incentive Compensation Plan, as of January 1, 2008 (Incorporated by reference to Exhibit 10.43(c) to the Company's Annual Report on Form 10-K for the year ended December 31, 2007)\*
- 10.51 Form of 2010 Convertible Bond Hedge Transaction Confirmation, dated June 6, 2007, between Integra LifeSciences Holdings Corporation and dealer (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 12, 2007)
- Form of 2012 Convertible Bond Hedge Transaction Confirmation, dated June 6, 2007, between Integra LifeSciences Holdings Corporation and dealer (Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on June 12, 2007)
- 10.53 Form of 2010 Amended and Restated Issuer Warrant Transaction Confirmation, dated June 6, 2007, between Integra LifeSciences Holdings Corporation and dealer (Incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on June 12, 2007)
- Form of 2012 Amended and Restated Issuer Warrant Transaction Confirmation, dated June 6, 2007, between Integra LifeSciences Holdings Corporation and dealer (Incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K filed on June 12, 2007)
- 10.55 Letter Agreement, dated June 9, 2011, between Deutsche Bank AG, London Branch and Integra LifeSciences Holdings Corporation, regarding the Base Call Option Transaction (Incorporated by reference to Exhibit 10.4 to the Company's Form 8-K filed on June 15, 2011)

- 10.56 Letter Agreement, dated June 9, 2011, between Royal Bank of Canada and Integra LifeSciences Holdings Corporation, regarding the Base Call Option Transaction (Incorporated by reference to Exhibit 10.8 to the Company's Form 8-K filed on June 15, 2011)
- 10.57 Letter Agreement, dated June 9, 2011, between The Royal Bank of Scotland plc and Integra LifeSciences Holdings Corporation, regarding the Base Call Option Transaction (Incorporated by reference to Exhibit 10.6 to the Company's Form 8-K filed on June 15, 2011)
- 10.58 Letter Agreement, dated June 9, 2011, between Wells Fargo Bank, National Association and Integra LifeSciences Holdings Corporation, regarding the Base Call Option Transaction (Incorporated by reference to Exhibit 10.2 to the Company's Form 8-K filed on June 15, 2011)
- 10.59 Letter Agreement, dated June 9, 2011, between Deutsche Bank AG, London Branch and Integra LifeSciences Holdings Corporation, regarding the Base Warrant Transaction (Incorporated by reference to Exhibit 10.3 to the Company's Form 8-K filed on June 15, 2011)
- 10.60 Letter Agreement, dated June 9, 2011, between Royal Bank of Canada and Integra LifeSciences Holdings Corporation, regarding the Base Warrant Transaction (Incorporated by reference to Exhibit 10.7 to the Company's Form 8-K filed on June 15, 2011)
- 10.61 Letter Agreement, dated June 9, 2011, between The Royal Bank of Scotland plc and Integra LifeSciences Holdings Corporation, regarding the Base Warrant Transaction (Incorporated by reference to Exhibit 10.5 to the Company's Form 8-K filed on June 15, 2011)
- 10.62 Letter Agreement, dated June 9, 2011, between Wells Fargo Bank, National Association and Integra LifeSciences Holdings Corporation, regarding the Base Warrant Transaction (Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on June 15, 2011)
- 10.63 Letter Agreement, dated June 14, 2011, between Deutsche Bank AG, London Branch and Integra LifeSciences Holdings Corporation, regarding the Additional Call Option Transaction (Incorporated by reference to Exhibit 10.9 to the Company's Form 8-K filed on June 15, 2011)
- 10.64 Letter Agreement, dated June 14, 2011, between Royal Bank of Canada and Integra LifeSciences Holdings Corporation, regarding the Additional Call Option Transaction (Incorporated by reference to Exhibit 10.10 to the Company's Form 8-K filed on June 15, 2011)
- 10.65 Letter Agreement, dated June 14, 2011, between The Royal Bank of Scotland plc and Integra LifeSciences Holdings Corporation, regarding the Additional Call Option Transaction (Incorporated by reference to Exhibit 10.11 to the Company's Form 8-K filed on June 15, 2011)
- 10.66 Letter Agreement, dated June 14, 2011, between Wells Fargo Bank, National Association and Integra LifeSciences Holdings Corporation, regarding the Additional Call Option Transaction (Incorporated by reference to Exhibit 10.12 to the Company's Form 8-K filed on June 15, 2011)
- 10.67 Letter Agreement, dated June 14, 2011, between Deutsche Bank AG, London Branch and Integra LifeSciences Holdings Corporation, regarding the Additional Warrant Transaction (Incorporated by reference to Exhibit 10.13 to the Company's Form 8-K filed on June 15, 2011)
- 10.68 Letter Agreement, dated June 14, 2011, between Royal Bank of Canada and Integra LifeSciences Holdings Corporation, regarding the Additional Warrant Transaction (Incorporated by reference to Exhibit 10.14 to the Company's Form 8-K filed on June 15, 2011)
- 10.69 Letter Agreement, dated June 14, 2011, between The Royal Bank of Scotland plc and Integra LifeSciences Holdings Corporation, regarding the Additional Warrant Transaction (Incorporated by reference to Exhibit 10.15 to the Company's Form 8-K filed on June 15, 2011)
- 10.70 Letter Agreement, dated June 14, 2011, between Wells Fargo Bank, National Association and Integra LifeSciences Holdings Corporation, regarding the Additional Warrant Transaction (Incorporated by reference to Exhibit 10.16 to the Company's Form 8-K filed on June 15, 2011)

- 10.71 Piggyback Registration Rights Agreement dated December 22, 2008 between Integra LifeSciences Holdings Corporation and George Heenan, Thomas Gilliam and Michael Evers, as trustees of The Bruce A. LeVahn 2008 Trust and Steven M. LeVahn (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 29, 2008)
- 10.72(a) Lease Agreement between 109 Morgan Lane, LLC and Integra LifeSciences Corporation, dated May 15, 2008 (Incorporated by reference to Exhibit 10.10 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2008)
- 10.72(b) First Amendment to Lease Agreement between 109 Morgan Lane, LLC and Integra LifeSciences Corporation, dated March 9, 2009 (Incorporated by reference to Exhibit 10.9 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2009)
- 10.72(c) Lease Agreement dated as of July 1, 2013, between 109 Morgan Lane, LLC and Integra LifeSciences Corporation (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on July 1, 2013)
- 10.73 Offer Letter between Glenn Coleman and the Company (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on April 29, 2014)\*
- 12.1 Statement Regarding the Computation of Ratio of Earnings to Fixed Charges and Preferred Share Dividends for the Years Ended 2015, 2014, 2013, 2012 and 2011, and the Nine Months Ended September 30, 2016 (Incorporated by reference to Exhibit 12.1 to the Company's Registration Statement on Form S-3 ASR filed November 4, 2016)
- 18.1 Preferability letter of Independent Public Accounting Firm dated May 1, 2014 (Incorporated by reference to Exhibit 18 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014)
- Preferability Letter of Independent Public Accounting Firm dated July 31, 2012 (Incorporated by reference to Exhibit 18.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012)
- 21 Subsidiaries of the Company+
- 23 Consent of PricewaterhouseCoopers LLP+
- 31.1 Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002+
- 31.2 Certification of Principal Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002+
- 32.1 Certification of Principal Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002+
- 32.2 Certification of Principal Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002+
- 99.1 Letter, dated December 21, 2011, from the United States Food and Drug Administration to Integra LifeSciences Corporation (Incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K filed on January 5, 2012)
- 99.2 Food and Drug Administration Form FDA-483, dated July 30, 2012, relating to inspection of Plainsboro, NJ manufacturing facility (Incorporated by reference to Exhibit 99.1 to the Company's Quarterly Report on Form 10- Q for the quarter ended June 30, 2012)
- 99.3 Letter, dated November 1, 2012, from the United States Food and Drug Administration to Integra NeuroSciences Ltd. (Incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K filed on November 13, 2012)

99.4	Letter, dated February 13, 2013, from the United States Federal Drug Administration to Integra LifeSciences Corporation (Incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K filed on February 19, 2013)
99.5	Letter, dated September 24, 2013, from the United States Federal Drug Administration to Integra LifeSciences Corporation (Incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K filed on September 27, 2013)
99.6	Food and Drug Administration Form FDA-483, dated November 26, 2013, relating to the inspection of the Añasco Facility (Incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K filed on December 3, 2013)
99.7	Letter, dated January 14, 2015, from the United States Food and Drug Administration to Integra LifeSciences Corporation (Incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K filed on January 20, 2015)
99.8	Letter, dated May 29, 2015, from the United States Food and Drug Administration to TEI Biosciences Inc. (Incorporated by reference to Exhibit 99.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015)
99.9	Letter, dated June 30, 2015, from the United States Food and Drug Administration to Integra LifeSciences (Ireland) Limited (Incorporated by reference to Exhibit 99.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015)
101.INS	XBRL Instance Document+#
101.SCH	XBRL Taxonomy Extension Schema Document+#
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document+#

XBRL Taxonomy Extension Labels Linkbase Document+#

XBRL Taxonomy Extension Presentation Linkbase Document+#

XBRL Definition Linkbase Document

The Company's Commission File Number for Reports on Form 10-K, Form 10-Q and Form 8-K is 0-26224.

## ITEM 16. FORM 10-K SUMMARY

None.

101.DEF

101.LAB

101.PRE

<sup>\*</sup> Indicates a management contract or compensatory plan or arrangement.

<sup>+</sup> Indicates this document is filed as an exhibit herewith.

<sup>#</sup> The financial information of Integra LifeSciences Holdings Corporation Annual Report on Form 10-K for the year ended December 31, 2017 filed on March 1, 2018 formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Statements of Operations, (ii) the Consolidated Statement of Comprehensive Income (Loss), (iii) the Consolidated Balance Sheets, (iv) Parenthetical Data to the Consolidated Balance Sheets, (v) the Consolidated Statements of Cash Flows, (vi) the Consolidated Statements of Changes in Stockholders' Equity, and (vii) Notes to Consolidated Financial Statements, is furnished electronically herewith.

#### **SIGNATURES**

Pursuant to the requirements of Section 13 of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

# INTEGRA LIFESCIENCES HOLDINGS CORPORATION

By: /s/ Peter J. Arduini

Peter J. Arduini
President and Chief Executive Officer

Date: March 1, 2018

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

<b>Signature</b>	<u>Title</u>	<u>Date</u>
/s/ Peter J. Arduini Peter J. Arduini	President and Chief Executive Officer, and Director (Principal Executive Officer)	March 1, 2018
/s/ Glenn G. Coleman Glenn G. Coleman	Corporate Vice President and Chief Financial Officer (Principal Financial Officer)	March 1, 2018
/s/ Jeffrey A. Mosebrook  Jeffrey A. Mosebrook	Vice President, Corporate Controller (Principal Accounting Officer)	March 1, 2018
/s/ Stuart M. Essig, Ph.D. Stuart M. Essig, Ph.D.	Chairman of the Board	March 1, 2018
/s/ Keith Bradley, Ph.D.  Keith Bradley, Ph.D.	Director	March 1, 2018
/s/ Barbara B. Hill Barbara B. Hill	Director	March 1, 2018
/s/ Lloyd W. Howell, Jr. Lloyd W. Howell, Jr.	Director	March 1, 2018
/s/ Donald E. Morel, Jr., Ph.D.  Donald E. Morel, Jr., Ph.D.	Director	March 1, 2018
/s/ Raymond G. Murphy Raymond G. Murphy	Director	March 1, 2018
/s/ Christian S. Schade Christian S. Schade	Director	March 1, 2018
/s/ James M. Sullivan James M. Sullivan	Director	March 1, 2018

#### REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Integra LifeSciences Holdings Corporation

### Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Integra LifeSciences Holdings Corporation and its subsidiaries as of December 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive income (loss), changes in stockholders' equity and cash flows for each of the three years in the period ended December 31, 2017, including the related notes and the financial statement schedule listed in the index appearing under Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2017, 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2017 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control—Integrated Framework* (2013) issued by the COSO.

#### **Basis for Opinions**

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management's Report on Internal Control Over Financial Reporting, management has excluded Derma Sciences and Codman Neurosurgery from its assessment of internal control over financial

reporting as of December 31, 2017 because these entities were acquired by the Company in purchase business combinations during 2017. We have also excluded Derma Sciences and Codman Neurosurgery from our audit of internal control over financial reporting. Derma Sciences and Codman Neurosurgery are wholly-owned subsidiaries whose total assets and total revenues excluded from management's assessment and our audit of internal control over financial reporting collectively represent approximately 0.6% and 5.2% of total assets, respectively, and approximately 4.0% and 6.5% of total revenues, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2017.

## 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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ PricewaterhouseCoopers LLP

Florham Park, New Jersey March 1, 2018

We have served as the Company's auditor since 1989.

# INTEGRA LIFESCIENCES HOLDINGS CORPORATION CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,					
		2017		2016		2015
	(1	In thousands,	exc	ept per sha	re an	nounts)
Total revenue, net	\$1	,188,236	\$9	992,075	\$8	882,734
Costs and Expenses:						
Cost of goods sold		435,511	3	349,089	3	326,542
Research and development		63,455		58,155		50,895
Selling, general and administrative		624,096	2	455,629	4	15,757
Intangible asset amortization		20,370		13,862		9,953
Total costs and expenses	_1	,143,432	_8	876,735	_8	303,147
Operating income		44,804	1	115,340		79,587
Interest income		255		24		30
Interest expense		(35,019)		(25,803)	(	(23,534)
Other income, net		1,345	_	845		4,588
Income from continuing operations before income taxes		11,385		90,406		60,671
(Benefit from) provision for income taxes	_	(53,358)	_	15,842	_	53,820
Net income from continuing operations	\$	64,743	\$	74,564	\$	6,851
Loss from discontinued operations (net of tax benefit)	\$		\$		\$ (	(10,370)
Net income (loss)	\$	64,743	\$	74,564	\$	(3,519)
Net income (loss) per share—basic: Income from continuing operations	\$	0.84	\$	1.00	\$	0.10
	\$	0.84	э \$	1.00		
Loss from discontinued operations	_		_		\$	(0.15)
Net income (loss) per share—basic	\$	0.84	\$	1.00	\$	(0.05)
Income from continuing operations	\$	0.82	\$	0.94	\$	0.10
Loss from discontinued operations	\$		\$		\$	(0.15)
Net income (loss) per share—diluted	\$	0.82	\$	0.94	\$	(0.05)
Basic		76,897		74,386		68,990
Diluted		79,121		79,194		71,354

# INTEGRA LIFESCIENCES HOLDINGS CORPORATION CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	Years Ended December 31,		
	2017	2016	2015
		(In thousands	)
Net income (loss)	\$64,743	\$ 74,564	\$ (3,519)
Other comprehensive income (loss), before tax:			
Change in foreign currency translation adjustments	37,454	(10,278)	(25,841)
Unrealized gain (loss) on derivatives			
Unrealized derivative (loss) gain arising during period	(3,425)	1,871	(25)
Less: Reclassification adjustments for losses included in net loss	2,958		(923)
Unrealized (loss) gain on derivatives	(6,383)	1,871	898
Defined benefit pension plan—net (loss) gain arising during			
period	(57)	(45)	904
Total other comprehensive income (loss), before tax	31,014	(8,452)	(24,039)
Income tax expense (benefit) related to items in other comprehensive			
loss	2,333	(800)	(375)
Total other comprehensive income (loss), net of tax	33,347	(9,252)	(24,414)
Comprehensive income (loss), net of tax	\$98,090	\$ 65,312	\$(27,933)

# INTEGRA LIFESCIENCES HOLDINGS CORPORATION CONSOLIDATED BALANCE SHEETS

	Decem 2017	ber 31, 2016
		usands)
ASSETS		
Current Assets: Cash and cash equivalents Trade accounts receivable, net of allowances of \$8,882 and \$6,319 Inventories, net Prepaid expenses and other current assets	\$ 174,935 251,799 296,332 99,080	\$ 102,055 148,186 217,263 27,666
Total current assets Property, plant and equipment, net Intangible assets, net Goodwill Deferred tax assets Other assets	822,146 269,251 1,159,627 937,905 6,250 16,078	495,170 222,369 561,175 510,571 6,935 11,734
Total assets	\$3,211,257	\$1,807,954
LIABILITIES AND STOCKHOLDERS' EQUITY Current Liabilities:		
Borrowings under senior credit facility  Accounts payable, trade  Deferred revenue  Accrued compensation  Short-term portion of contingent consideration  Accrued expenses and other current liabilities	\$ 60,000 93,967 11,051 73,392 22,793 87,708	\$ — 29,057 6,812 52,762 — 34,970
Total current liabilities  Long-term borrowings under senior credit facility  Deferred tax liabilities  Other liabilities	348,911 1,781,142 65,130 53,768	123,601 665,000 148,941 30,745
Total liabilities	2,248,951	968,287
Commitments and contingencies Stockholders' Equity: Preferred Stock; no par value; 15,000 authorized shares; none outstanding Common stock; \$0.01 par value; 240,000 authorized shares; 81,306 and 77,666		
issued at December 31, 2017 and 2016, respectively	813 821,758	777 798,652
respectively  Accumulated other comprehensive loss  Retained earnings	(121,644) (23,807) 285,186	(123,051) (57,154) 220,443
Total stockholders' equity	962,306	839,667
Total liabilities and stockholders' equity	\$3,211,257	\$1,807,954

# CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December		er 31,
	2017	2016	2015
		In thousands)	
OPERATING ACTIVITIES:			
Net income (loss)	\$ 64,743	\$ 74,564	\$ (3,519)
Adjustments to reconcile net (loss) income to net cash provided by operating activities:			10.270
Loss from discontinued operations, net of tax	99.045	72,665	10,370
Depreciation and amortization	88,945	72,003	58,863
Non-cash impairment charges  Deferred income tax benefit	3,290 (67,304)	(6,474)	380 (351)
Non-cash valuation allowance	(07,304)	(0,474)	37,210
Share-based compensation	21,550	17,310	15.450
Amortization of debt issuance costs	2,722	2,529	2,264
Non-cash interest expense	2,722	8,074	7,911
Realized loss on sale of sale of short-term investment	2,287	0,074	7,711
Loss on disposal of property and equipment	6,989	1,765	481
Gain on divestiture of business	(2,645)	1,705	
Change in fair value of contingent consideration and others	(4,710)	(13)	(177)
Gain on bargain purchase	(.,, 10)	(10) —	(1,111)
Payment of accreted interest	_	(42,786)	(384)
Changes in assets and liabilities, net of business acquisitions:		(,,,	(001)
Accounts receivable	(89,698)	(17,518)	(16,231)
Inventories	99	(9,576)	(3,759)
Prepaid expenses and other current assets	(33,808)	14,912	(233)
Other non-current assets	(914)	(475)	610
Accounts payable, accrued expenses and other current liabilities	95,321	(414)	8,208
Deferred revenue	3,874	1,251	136
Other non-current liabilities	23,803	591	945
Net cash provided by operating activities of continuing operations	114,544	116,405	117,063
Net cash used in operating activities of discontinued operations		110,405	(12,209)
•	114544		
Net cash provided by operating activities	114,544	116,405	104,854
INVESTING ACTIVITIES:		1 165	(4.097)
Change in restricted cash  Proceeds from sale of short-term investments	16,951	4,165	(4,087)
Proceeds from note receivable	483	_	
Cash used in business acquisitions, net of cash acquired	(1,241,946)	225	(328,888)
Purchases of property and equipment	(43,503)	(47,328)	(33,413)
Proceeds from sales of property and equipment	293	316	1,438
Proceeds from divestiture of business	46,387		
			(264.050)
Net cash used in investing activities of continuing operations	(1,221,335)	(42,622)	(364,950)
Net cash used in investing activities of discontinued operations			(7,060)
Net cash used in investing activities	(1,221,335)	(42,622)	(372,010)
FINANCING ACTIVITIES:			
Borrowings under senior credit facility	1,307,000	680,000	545,000
Repayments under senior credit facility	(117,000)	(511,250)	(465,625)
Net cash paid for contingent consideration	(4,661)	_	
Proceeds from the issuance of common stock, net of issuance costs	_	_	219,669
Distribution to SeaSpine	_	(104.212)	(47,013)
Payment of liability component of convertible notes	_	(184,313)	(2,519)
Payment of capital lease obligation	(10.043)	(653)	(709)
Debt issuance costs Proceeds from exercised stock options	(19,043) 9,774	(4,530)	(1,426) 7,345
Cash taxes paid in net equity settlement	(7,123)	10,481 (4,851)	(6,580)
Net cash provided by (used in) financing activities	1,168,947	(15,116)	248,142
Effect of exchange rate changes on cash and cash equivalents	10,724	(4,744)	(4,848)
Net increase (decrease) in cash and cash equivalents	72,880 102,055	53,923	(23,862) 71,994
		48,132	
Cash and cash equivalents at end of period	\$ 174,935	\$ 102,055	\$ 48,132

# INTEGRA LIFESCIENCES HOLDINGS CORPORATION CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

	Common Stock			Treasury Stock		Accumulated Other Comprehensive	Retained	Total
	Shares	Amount	Shares	Amount	Paid-In Capital	Income (Loss)	Earnings	Equity
					(In thousands)			
Balance, January 1, 2015	83,288	\$ 833	(17,814)	\$(367,121)	\$ 779,138	\$(23,488)	\$ 314,960	\$ 704,322
Net loss	_	_	_	_	_	_	(3,519)	(3,519)
Separation of SeaSpine	_	_	_	_	_	(1,667)	(165,562)	(167,229)
Other comprehensive loss, net of tax						(22,747)		(22,747)
Treasury Share purchases			(16)			(22,747)		(22,747)
Issuance of common stock	8,006	80	(10)		219,600			219,680
Issuance of common stock through		80		_		_	_	,
employee stock purchase plan	8	_	_	_	231	_	_	231
Issuance of common stock for vesting of share based awards, net of	440							
shares withheld for taxes	412	4	_	_	5,251	_	_	5,255
Share-based compensation					15,450			15,450
Balance, December 31, 2015	91,714	\$ 917	(17,830)	\$(367,121)	\$1,019,670	\$(47,902)	\$ 145,879	\$ 751,443
Net income	_	_	_	_	_	_	74,564	74,564
Other comprehensive loss, net of								
tax	_	_	_	_	_	(9,252)	_	(9,252)
Treasury shares retirement	(17,830)	(178)	17,830	367,121	(366,943)	_	_	
Settlement of convertible notes	2,946	29	_	_	(29)		_	
Exercise of convertible note hedge	_	_	(2,946)	(123,051)	123,051	_	_	
Issuance of common stock through employee stock purchase plan	12	1	_	_	390	_	_	391
Issuance of common stock for vesting of share based awards, net of								
shares withheld for taxes	824	8	_	_	5,203	_	_	5,211
Share-based compensation	_	_	_	_	17,310	_	_	17,310
Balance, December 31, 2016	77,666	\$ 777	(2,946)	\$(123,051)	\$ 798,652	\$(57,154)	\$ 220,443	\$ 839,667
Net income	_	_	_	_	_	_	64,743	64,743
Other comprehensive income, net of								
tax	_	_	_	_	_	33,347	_	33,347
Treasury shares retirement	_	_	_	_	_	_	_	_
Issuance of common stock	135	1	_	_	_	_	_	1
Issuance of common stock through employee stock purchase plan	12	_	_	_	509	_	_	509
Issuance of common stock for vesting of share based awards, net of								
shares withheld for taxes	653	7	19	1,407	723	_	_	2,137
Exercise of warrants	2,840	28	_	_	(28)	_	_	_
Share-based compensation					21,902			21,902
Balance, December 31, 2017	81,306	\$ 813	(2,927)	\$(121,644)	\$ 821,758	\$(23,807)	\$ 285,186	\$ 962,306

# INTEGRA LIFESCIENCES HOLDINGS CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### 1. BUSINESS

Integra LifeSciences Holdings Corporation (the "Company") was incorporated in Delaware in 1989. The Company, a world leader in medical devices, is dedicated to limiting uncertainty for surgeons through the development, manufacturing, and marketing of cost-effective surgical implants and medical instruments. Its products are used primarily in neurosurgery, extremity reconstruction, orthopedics and general surgery.

The Company sells its products directly through various sales forces and through a variety of other distribution channels.

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### **BASIS OF PRESENTATION**

These financial statements and the accompanying notes are prepared in accordance with accounting principles generally accepted in the United States of America and conform to Regulation S-X under the Securities Exchange Act of 1934, as amended.

#### PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include the accounts of the Company and its subsidiaries, all of which are wholly owned. All intercompany accounts and transactions are eliminated in consolidation. See Note 4, *Acquisitions and Pro Forma Results*, for details of new subsidiaries included in the consolidation.

On July 1, 2015, the Company completed the distribution of 100% of the outstanding common shares of SeaSpine Holdings Corporation ("SeaSpine") to Integra shareholders who received one share of SeaSpine common stock for every three shares, on a pre-split basis, of Integra common stock held as of the close of business on the record date, June 19, 2015. The Company has classified the results of operations, cash flows, and related assets and liabilities of SeaSpine as discontinued operations for all periods presented in the Company's consolidated financial statements. Unless indicated otherwise, the information in the Notes to the consolidated financial statements relates to the Company's continuing operations. Refer to Note 3, *Discontinued Operations*, for additional information regarding the distribution.

#### **USE OF ESTIMATES**

The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent liabilities, and the reported amounts of revenues and expenses. Significant estimates affecting amounts reported or disclosed in the consolidated financial statements include allowances for doubtful accounts receivable and sales returns and allowances, net realizable value of inventories, valuation of intangible assets and in-process research and development ("IPR&D"), amortization periods for acquired intangible assets, discount rates and estimated projected cash flows used to value and test impairments of long-lived assets and goodwill, estimates of projected cash flows, depreciation and amortization periods for long-lived assets, computation of taxes, valuation allowances recorded against deferred tax assets, the valuation of stock-based compensation, valuation of pension assets and liabilities, valuation of derivative instruments, valuation of the equity component of convertible debt instruments, and valuation of debt instruments and loss contingencies. These estimates are based on historical experience and on various other assumptions that are believed to be reasonable under the current circumstances. Actual results could differ from these estimates.

#### RECLASSIFICATIONS

Certain amounts from the prior year's financial statements have been reclassified in order to conform to the current year's presentation.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

#### CASH AND CASH EQUIVALENTS

The Company considers all short-term, highly liquid investments purchased with original maturities of three months or less to be cash equivalents. These investments are carried at cost, which approximates fair value.

#### TRADE ACCOUNTS RECEIVABLE AND ALLOWANCES FOR DOUBTFUL ACCOUNTS RECEIVABLE

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The Company grants credit to customers in the normal course of business, but generally does not require collateral or any other security to support its receivables.

The Company evaluates the collectability of accounts receivable based on a combination of factors. In circumstances where a specific customer is unable to meet its financial obligations to the Company, a provision to the allowances for doubtful accounts is recorded against amounts due to reduce the net recognized receivable to the amount that is reasonably expected to be collected. For all other customers, a provision to the allowances for doubtful accounts is recorded based on factors including the length of time the receivables are past due, the current business environment and the Company's historical experience. Provisions to the allowances for doubtful accounts are recorded to selling, general and administrative expenses. Account balances are charged off against the allowance when it is probable that the receivable will not be recovered. Provision for doubtful accounts, associated with accounts receivable, included in selling, general and administrative expense, were \$2.0 million, \$0.4 million, and \$1.0 million for the years ended December 31, 2017, 2016 and 2015, respectively.

#### **INVENTORIES**

Inventories, consisting of purchased materials, direct labor and manufacturing overhead, are stated at the lower of cost, the value determined by the first-in, first-out method, or net realizable value. Inventories consisted of the following:

	December 31,		
	2017	2016	
	(In tho	usands)	
Finished goods	\$190,100	\$127,973	
Work in process	58,637	50,043	
Raw materials	47,595	39,247	
Total inventories, net	<u>\$296,332</u>	<u>\$217,263</u>	

At each balance sheet date, the Company evaluates inventories for excess quantities, obsolescence or shelf life expiration. This evaluation includes analysis of historical sales levels by product, projections of future demand, the risk of technological or competitive obsolescence for products, general market conditions, a review of the shelf life expiration dates for products, as well as the feasibility of reworking or using excess or obsolete products or components in the production or assembly of other products that are not obsolete or for which there are not excess quantities in inventory. To the extent that management determines there are excess or obsolete inventory or quantities with a shelf life that is too near its expiration for the Company to reasonably expect that it can sell those products prior to their expiration, the Company adjusts the carrying value to estimated net realizable value.

The Company capitalizes inventory costs associated with certain products prior to regulatory approval, based on management's judgment of probable economic benefit. The Company could be required to expense previously capitalized costs related to pre-approval inventory upon a change in such judgment, due to, among other potential factors, a denial or delay of approval by necessary regulatory bodies or a decision by management

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

to discontinue the related development program. No such amounts were capitalized at December 31, 2017 or 2016.

#### PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are stated at historical cost less accumulated depreciation and any impairment charges. The Company provides for depreciation using the straight-line method over the estimated useful lives of the assets. Leasehold improvements are amortized over the lesser of the lease term or the useful life. The cost of major additions and improvements is capitalized, while maintenance and repair costs that do not improve or extend the lives of the respective assets are charged to operations as incurred. The cost of computer software developed or obtained for internal use is accounted for in accordance with the Accounting Standards Codification 350-40, *Internal-Use Software*.

Property, plant and equipment balances and corresponding lives were as follows:

	Decem		
	2017	2016	<b>Useful Lives</b>
		(In thousands)	
Land	\$ 1,881	\$ 2,147	
Buildings and building improvements	20,243	17,677	5-40 years
Leasehold improvements	90,329	82,432	1-20 years
Machinery and production equipment	137,914	103,818	3-20 years
Surgical instrument kits	30,511	19,871	4-5 years
Information systems and hardware	127,946	111,145	1-7 years
Furniture, fixtures, and office equipment	17,394	16,896	1-15 years
Construction-in-progress	62,967	59,222	
Total	489,185	413,208	
Less: Accumulated depreciation	(219,934)	(190,839)	
Property, plant and equipment, net	\$ 269,251	\$ 222,369	

Depreciation expense associated with property, plant and equipment was \$36.1 million, \$31.2 million, and \$27.0 million for the years ended December 31, 2017, 2016 and 2015, respectively.

The Company leased certain computer equipment under capital lease agreements. The gross carrying value of such leases amounted to \$2.0 million at December 31, 2016. The accumulated depreciation of such leases amounted to \$2.0 million at December 31, 2016, and the cost is included as a component of furniture, fixtures, office equipment and information systems and hardware. There are no outstanding capital lease agreements as of December 31, 2017.

# CAPITALIZED INTEREST

The interest cost on capital projects, including facilities build-out and internal use software, is capitalized and included in the cost of the project. Capitalization commences with the first expenditure for the project and continues until the project is substantially complete and ready for its intended use. When no debt is incurred specifically for a project, interest is capitalized on project expenditures using the weighted average cost of the Company's outstanding borrowings. For the years ended December 31, 2017 and 2016, respectively, the Company capitalized \$1.1 million and \$1.0 million of interest expense into property, plant and equipment.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

#### **ACQUISITIONS**

Results of operations of acquired companies are included in the Company's results of operations as of the respective acquisition dates. The purchase price of each acquisition is allocated to the net assets acquired based on estimates of their fair values at the date of the acquisition. Any purchase price in excess of these net assets is recorded as goodwill. The allocation of purchase price in certain cases may be subject to revision based on the final determination of fair values during the measurement period, which may be up to one year from the acquisition date.

Contingent consideration is recognized at the estimated fair value on the acquisition date. Subsequent changes to the fair value of contingent payments are recognized in selling, general and administrative expense in consolidated statements of operations. Contingent payments related to acquisitions consist of development, regulatory, and commercial milestone payments, in addition to sales-based payments, and are valued using discounted cash flow techniques. The fair value of development, regulatory, and commercial milestone payments reflects management's expectations of probability of payment, and increases or decreases as the probability of payment or expectation of timing of payments changes. The fair value of sales-based payments is based upon probability-weighted future revenue estimates and increases or decreases as revenue estimates or expectation of timing of payments changes.

#### GOODWILL AND OTHER INTANGIBLE ASSETS

The excess of the cost over the fair value of net assets of acquired businesses is recorded as goodwill. Goodwill is not subject to amortization, but is reviewed for impairment at the reporting unit level annually, or more frequently if impairment indicators arise. The Company's assessment of the recoverability of goodwill is based upon a comparison of the carrying value of goodwill with its estimated fair value. The Company reviews goodwill for impairment annually as of July 31 and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable.

In October 2017, as part of the Company's branding strategy, the Company adopted the Codman name by rebranding the Specialty Surgical Solutions segment to Codman Specialty Surgical. The change in name does not have an effect on our reportable segments or reporting units.

The Company has two reportable segments with three underlying reporting units: Instruments and Neurosurgery, under Codman Specialty Surgical and Orthopedics and Tissue Technologies. Refer to Note 13—Segment and Geographic Information for more information on reportable segments.

The Company estimated the fair value of the three reporting units using a discounted cash flow model, which incorporates significant estimates and assumptions made by management which, by their nature, are characterized by uncertainty. Inputs used to fair value the Company's reporting units are considered inputs of the fair value hierarchy. For Level 3 measurements, significant increases or decreases in long-term growth rates or discount rates in isolation or in combination could result in a significantly lower or higher fair value measurement. The key assumptions impacting the valuation included the following:

- The reporting unit's financial projections, which are based on management's assessment of regional and macroeconomic variables, industry trends and market opportunities, and the Company's strategic objectives and future growth plans.
- The projected terminal value for the reporting unit, which represents the present value of projected cash flows beyond the last period in the discounted cash flow analysis. The terminal value reflects the Company's assumptions related to long-term growth rates and profitability, which are based on several factors, including local and macroeconomic variables, market opportunities, and future growth plans.
- The discount rate used to measure the present value of the projected future cash flows is set using a weighted-average cost of capital method that considers market and industry data as well as the

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Company's specific risk factors that are likely to be considered by a market participant. The weighted-average cost of capital is the Company's estimate of the overall after-tax rate of return required by equity and debt holders of a business enterprise.

Given the excess of the Instruments, Neurosurgery and Orthopedics and Tissue Technologies estimated fair values over their carrying values after the reallocation of goodwill, no impairment was recognized.

The Company elected to early adopt ASU 2017-4, Simplifying the Test for Goodwill Impairment, effective January 1, 2017. The Company performed its annual goodwill impairment test as of July 31, 2017. In reviewing goodwill for impairment, the Company has the option—for any or all of its reporting units that carry goodwill—to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not (i.e. greater than 50%) that the estimated fair value of a reporting unit is less than its carrying amount. If the Company elects to perform a qualitative assessment and determines that an impairment is more likely than not, the Company is then required to perform the quantitative impairment test, otherwise no further analysis is required. The Company also may elect not to perform the qualitative assessment and, instead, proceed directly to quantitative impairment test. The ultimate outcome of the goodwill impairment review for a reporting unit should be the same whether the Company chooses to perform the qualitative assessment or proceeds directly to the quantitative impairment test.

The Company elected to perform a qualitative analysis for its three reporting units as of July 31, 2017. The Company determined, after performing qualitative analysis, that there was no evidence that it is more likely than not that the fair value of any identified reporting unit was less that the carrying amounts, therefore, it was not necessary to perform a quantitative impairment test.

Changes in the carrying amount of goodwill in 2017 and 2016 were as follows:

	Codman Specialty Surgical	Orthopedics and Tissue Technologies	Total
		(In thousands)	
Goodwill at January 1, 2016	\$284,976	\$227,413	\$512,389
TEI acquisition working capital adjustment	_	(174)	(174)
Foreign currency translation and other	(618)	(1,026)	(1,644)
Goodwill at December 31, 2016	\$284,358	\$226,213	\$510,571
Derma Sciences acquisition	_	73,765	73,765
TGX Medical acquisition	641		641
Codman acquisition	346,220		346,220
Divestment to Natus	(2,861)		(2,861)
Foreign currency translation and other	6,409	3,160	9,569
Goodwill at December 31, 2017	\$634,767	\$303,138	\$937,905

When the Company acquires a business, the assets acquired, including IPR&D, and liabilities assumed are recorded at their respective fair values as of the acquisition date. The Company's policy defines IPR&D as the fair value of those projects for which the related products have not received regulatory approval and have no alternative future use. Determining the fair value of intangible assets, including IPR&D, acquired as part of a business combination requires the Company to make significant estimates. These estimates include the amount and timing of projected future cash flows, the discount rate used to discount those cash flows to present value, the assessment of the asset's life cycle, and the consideration of legal, technical, regulatory, economic, and competitive risks. The fair value assigned to other intangible assets, including IPR&D, is determined by

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

estimating the future cash flows of each project or technology and discounting the net cash flows back to their present values. The discount rate used is determined at the time of measurement in accordance with accepted valuation methodologies.

IPR&D acquired in a business combination is capitalized as an indefinite-lived intangible asset. Development costs incurred after the acquisition are expensed as incurred. Upon receipt of regulatory approval, the indefinite-lived intangible asset is then accounted for as a finite-lived intangible asset and amortized on a straight-line basis or accelerated basis, as appropriate, over its estimated useful life. If the research and debt project is subsequently abandoned, the indefinite-lived intangible asset is charged to expense. IPR&D acquired outside of a business combination is expensed immediately.

Due to the uncertainty associated with research and development projects, there is risk that actual results will differ materially from the original cash flow projections and that the research and development project will result in a successful commercial product. The risks associated with achieving commercialization include, but are not limited to, delay or failure to obtain regulatory approvals to conduct clinical trials, delay or failure to obtain required market clearances, delays or issues with patent issuance, or validity and litigation.

Other intangible assets include patents, trademarks, purchased technology, and supplier and customer relationships. Identifiable intangible assets are initially recorded at fair market value at the time of acquisition generally using an income or cost approach. The Company capitalizes costs incurred to renew or extend the term of recognized intangible assets and amortizes those costs over their expected useful lives.

December 31 2017

The components of the Company's identifiable intangible assets were as follows:

	December 31, 2017					
	Weighted Average Life		Cost	Accumulated Amortization		Net
	(Dollars in			n Thousands)		
Completed technology	19 years	\$	869,174	\$(124,096)	\$	745,078
Customer relationships	13 years		233,430	(91,961)		141,469
Trademarks/brand names	28 years		104,879	(22,293)		82,586
Codman trade name	Indefinite		162,900	_		162,900
Supplier relationships	27 years		34,721	(15,092)		19,629
All other(1)	4 years		11,511	(3,546)		7,965
		\$1,	,416,615	<u>\$(256,988)</u>	\$1	,159,627
	December 31, 2016					
			Decemb	er 31, 2016		
	Weighted Average Life		Decembe	Accumulated Amortization		Net
	Average		Cost	Accumulated	_	Net
Completed technology	Average	\$	Cost	Accumulated Amortization	<b>-</b>	Net 384,973
Completed technology	Average Life	\$	Cost (Dollars in	Accumulated Amortization Thousands)	\$	
2	Average Life 17 years	\$	Cost (Dollars in 479,964	Accumulated Amortization Thousands) \$ (94,991)	\$	384,973
Customer relationships	Average Life  17 years 12 years	\$	Cost (Dollars in 479,964 152,335	Accumulated Amortization Thousands) \$ (94,991) (77,005)	\$	384,973 75,330
Customer relationships	Average Life  17 years 12 years 30 years	\$	Cost (Dollars in 479,964 152,335 90,507	Accumulated Amortization Thousands) \$ (94,991) (77,005) (19,158)	\$	384,973 75,330 71,349

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

(1) At December 31, 2017 and 2016, all other included IPR&D of \$1.0 million, which was indefinite-lived.

The Company performs its assessment of the recoverability of indefinite-lived intangible assets annually during the third quarter, or more frequently as impairment indicators arise, and it is based upon a comparison of the carrying value of such assets to their estimated fair values. The Company performed its most recent annual assessment during the third quarter of 2017, which resulted in no impairments.

There were no impairment charges for research and development expenses related to IPR&D projects during 2017 and 2016.

During the third quarter of 2017, the Company recorded an impairment charge of \$3.3 million in cost of goods sold related to completed technology assets acquired from Tarsus Medical, Inc. ("Tarsus Technology"), since the underlying product will no longer be sold. Tarsus Technology was included in the Orthopedic and Tissue Technology segment.

During 2015, the Company recorded impairment charges of \$0.4 million in research and development expense related to IPR&D projects that have been discontinued in its Orthopedics and Tissue Technologies segment.

Amortization expense (including amounts reported in cost of product revenues, but excluding any possible future amortization associated with acquired IPR&D) for the years ended December 31, 2017, 2016 and 2015 was \$52.8 million, \$41.5 million and \$32.2 million, respectively. Annual amortization expense is expected to approximate \$66.9 million in 2018, \$66.8 million in 2019, \$66.7 million in 2020, \$65.7 million in 2021, \$62.2 million in 2022 and \$658.9 million thereafter. Amortization of product technology based intangible assets totaled \$35.7 million, \$27.6 million and \$22.3 million for the years ended December 31, 2017, 2016 and 2015, respectively, and is presented by the Company within cost of goods sold.

# LONG-LIVED ASSETS

Long-lived assets held and used by the Company, including property, plant and equipment and intangible assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. For purposes of evaluating the recoverability of long-lived assets to be held and used, a recoverability test is performed using projected undiscounted net cash flows applicable to the long-lived assets. If an impairment exists, the amount of such impairment is calculated based on the estimated fair value of the asset. Impairments to long-lived assets to be disposed of are recorded based upon the difference between the carrying value and the fair value of the applicable assets.

# INTEGRA FOUNDATION

The Company may periodically make contributions to the Integra Foundation, Inc. The Integra Foundation was incorporated in 2002 exclusively for charitable, educational, and scientific purposes and qualifies under IRC 501(c)(3) as an exempt private foundation. Under its charter, the Integra Foundation engages in activities that promote health, the diagnosis and treatment of disease, and the development of medical science through grants, contributions and other appropriate means. The Integra Foundation is a separate legal entity and is not a subsidiary of the Company; therefore, its results are not included in these consolidated financial statements. The Company contributed \$0.5 million and \$0.9 million to the Integra Foundation during the years ended December 31, 2017 and 2015, respectively. There were no contributions to the Integra Foundation during 2016. These contributions were recorded in selling, general, and administrative expense.

#### **DERIVATIVES**

The Company develops, manufactures, and sells medical devices globally, and its earnings and cash flows are exposed to market risk from changes in interest rates and currency exchange rates. The Company addresses

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

these risks through a risk management program that includes the use of derivative financial instruments, and operates the program pursuant to documented corporate risk management policies. All derivative financial instruments are recognized in the financial statements at fair value in accordance with the authoritative guidance. Under the guidance, for those instruments that are designated and qualify as hedging instruments, the hedging instrument must be designated as a fair value hedge, cash flow hedge, or a hedge of a net investment in a foreign operation, based on the exposure being hedged. The accounting for changes in the fair value of a derivative instrument depends on whether it has been designated and qualifies as part of a hedging relationship and, further, on the type of hedging relationship. The Company's derivative instruments do not subject its earnings or cash flows to material risk, and gains and losses on these derivatives generally offset losses and gains on the item being hedged. The Company has not entered into derivative transactions for speculative purposes and from time to time, the Company may enter into derivatives that are not designated as hedging instruments in order to protect itself from currency volatility due to intercompany balances.

All derivative instruments are recognized at their fair values as either assets or liabilities on the balance sheet. The Company determines the fair value of its derivative instruments, using the framework prescribed by the authoritative guidance, by considering the estimated amount the Company would receive to sell or transfer these instruments at the reporting date and by taking into account: expected forward interest rates, currency exchange rates, the creditworthiness of the counterparty for assets, and its creditworthiness for liabilities. In certain instances, the Company utilizes a discounted cash flow model to measure fair value. Generally, the Company uses inputs that include quoted prices for similar assets or liabilities in active markets, other observable inputs for the asset or liability and inputs derived principally from, or corroborated by, observable market data by correlation or other means. The Company has classified all of its derivative assets and liabilities within Level 2 of the fair value hierarchy because observable inputs are available for substantially the full term of its derivative instruments. The Company classifies derivatives designated as hedges in the same category as the item being hedged for cash flow presentation purposes.

The Company also has entered into an foreign currency forward contract that is not designated as a hedging instrument for accounting purposes. This contract is recorded at fair value, with the changes in fair value recognized into other income, net on the consolidated financial statements.

#### **FOREIGN CURRENCY**

All assets and liabilities of foreign subsidiaries which have a functional currency other than the U.S. dollar are translated at the rate of exchange at year-end, while elements of the income statement are translated at the average exchange rates in effect during the year. The net effect of these translation adjustments is shown as a component of accumulated other comprehensive income (loss). These currency translation adjustments are not currently adjusted for income taxes as they relate to permanent investments in non-U.S. subsidiaries. Foreign currency transaction (loss) gain of \$(2.9) million, \$0.3 million and \$(0.5) million are reported in other income, net in the statements of operations, for the year ended December 31, 2017, 2016 and 2015, respectively.

#### **INCOME TAXES**

Income taxes are accounted for by using the asset and liability method. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis. A valuation allowance is provided when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period when the change is enacted.

The Company recognizes a tax benefit from an uncertain tax position only if it is more likely than not to be sustained upon examination based on the technical merits of the position. Reserves are established for positions

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

that don't meet this recognition threshold. The reserve is measured as the largest amount of benefit determined on a cumulative probability basis that the Company believes is more likely than not to be realized upon ultimate settlement of the position. These reserves are classified as long-term liabilities in the consolidated balance sheets of the Company, unless the reserves are expected to be paid in cash during the next twelve months, in which case they are classified as current liabilities. The Company also records interest and penalties accrued in relation to uncertain tax benefits as a component of income tax expense.

While the Company believes it has identified all reasonably identifiable exposures and the reserve it has established for identifiable exposures is appropriate under the circumstances, it is possible that additional exposures exist and that exposures may be settled at amounts different than the amounts reserved. It is also possible that changes in facts and circumstances could cause the Company to either materially increase or reduce the carrying amount of its tax reserve.

The Company continues to indefinitely reinvest substantially all of its foreign earnings. The current provisional analysis indicates that the Company has sufficient U.S. liquidity, including borrowing capacity, to fund foreseeable U.S. cash needs without requiring the repatriation of foreign cash. The Tax Cuts and Jobs Act (the "2017 Tax Act"), enacted in December 2017, imposes a toll tax on a deemed repatriation of undistributed earnings of foreign subsidiaries. One time or unusual items that may impact the ability or intent to keep the foreign earnings and cash indefinitely reinvested include significant U.S. acquisitions, loans from a foreign subsidiary, changes in tax laws.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the 2017 Tax Act. The Company has recognized the provisional tax impacts related to deemed repatriated earnings and the revaluation of deferred tax assets and liabilities and included these amounts in its consolidated financial statements for the year ended December 31, 2017. The ultimate impact may differ from these provisional amounts, possibly materially, due to, among other things, additional analysis, changes in interpretations and assumptions the Company has made, additional regulatory guidance that may be issued, and actions the Company may take as a result of the 2017 Tax Act.

### **REVENUE RECOGNITION**

Total revenues, net, include product sales, product royalties and other revenues, such as fees received under research, licensing, distribution arrangements, research grants, and technology-related royalties.

Revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred; title and risk of loss have passed to the customer, there is a fixed or determinable sales price, and collectability of that sales price is reasonably assured. For product sales, the Company's stated terms are primarily FOB shipping point and with most customers, title and risk of loss pass to the customer at that time. With certain United States customers, the Company retains risk of loss until the customers receive the product, and in those situations, the Company recognizes revenue upon receipt by the customer. A portion of the Company's product revenue is generated from consigned inventory maintained at hospitals and distributors, and also from inventory physically held by field sales representatives. For these types of products sales, the Company retains title until receiving appropriate notification that the product has been used or implanted, at which time revenue is recognized.

Each revenue transaction is evidenced by either a contract with the customer or a valid purchase order and an invoice which includes all relevant terms of sale. There are generally no significant customer acceptance or other conditions that prevent the Company from recognizing revenue in accordance with its delivery terms. In certain cases, where the Company has performance obligations that are significant to the functionality of the product, the Company recognizes revenue upon fulfillment of its obligation.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Sales invoices issued to customers contain the Company's price for each product or service. The Company performs a review of each specific customer's credit worthiness and ability to pay prior to accepting them as a customer. Further, the Company performs periodic reviews of its customers' status prospectively.

The Company records a provision for estimated returns and allowances on revenues in the same period as the related revenues are recorded. These estimates are based on historical sales returns and discounts and other known factors. The provisions are recorded as a reduction to revenues.

The Company's return policy, as set forth in its product catalogs and sales invoices, requires the Company to review and authorize the return of product in advance. Upon authorization, a credit will be issued for goods returned within a set amount of days from shipment, which is generally ninety days.

Product royalties are estimated and recognized in the same period that the royalty-based products are sold by the Company's strategic partners. The Company estimates and recognizes royalty revenue based upon communication with licensees, historical information and expected sales trends. Differences between actual revenues and estimated royalty revenues are adjusted in the period in which they become known, which is typically the following quarter. Historically, such adjustments have not been significant.

Other operating revenues may include fees received under research, licensing, and distribution arrangements, technology-related royalties and research grants. Non-refundable fees received under research, licensing and distribution arrangements or for the licensing of technology are recognized as revenue when received if the Company has no continuing obligations to the other party. For those arrangements where the Company has continuing performance obligations, revenue is recognized using the lesser of the amount of non-refundable cash received or the result achieved using the proportional performance method of accounting based upon the estimated cost to complete these obligations. Research grant revenue is recognized when the related expenses are incurred.

# SHIPPING AND HANDLING FEES AND COSTS

Amounts billed to customers for shipping and handling are included in revenues. The related shipping and freight charges incurred by the Company are included in cost of goods sold. Distribution and handling costs of \$13.5 million, \$13.6 million and \$13.7 million were recorded in selling, general and administrative expense during the years ended December 31, 2017, 2016 and 2015, respectively.

#### **PRODUCT WARRANTIES**

Certain of the Company's medical devices, including monitoring systems and neurosurgical systems, are reusable and are designed to operate over long periods of time. These products are sold with warranties which may extend for up to two years from date of purchase. The Company accrues estimated product warranty costs at the time of sale based on historical experience. Any additional amounts are recorded when such costs are probable and can be reasonably estimated. Accrued warranty expense of \$0.7 million and \$0.8 million is recorded in the consolidated balance sheet at December 31, 2017 and 2016, respectively.

#### RESEARCH AND DEVELOPMENT

Research and development costs, including salaries, depreciation, consultant and other external fees, and facility costs directly attributable to research and development activities, are expensed in the period in which they are incurred.

#### EMPLOYEE TERMINATION BENEFITS AND OTHER EXIT-RELATED COSTS

The Company does not have a written severance plan, and it does not offer similar termination benefits to affected employees in all restructuring initiatives. Accordingly, in situations where minimum statutory

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

termination benefits must be paid to the affected employees, the Company records employee severance costs associated with these restructuring activities in accordance with the authoritative guidance for non-retirement post-employment benefits. Charges associated with these activities are recorded when the payment of benefits is probable and can be reasonably estimated. In all other situations where the Company pays out termination benefits, including supplemental benefits paid in excess of statutory minimum amounts and benefits offered to affected employees based on management's discretion, the Company records these termination costs in accordance with the authoritative guidance for ASC Topic 712 Compensation-Nonretirement Benefits and ASC Topic 420 One-time Employee Termination Benefits.

The timing of the recognition of charges for employee severance costs other than minimum statutory benefits depends on whether the affected employees are required to render service beyond their legal notification period in order to receive the benefits. If affected employees are required to render service beyond their legal notification period, charges are recognized over the future service period. Otherwise, charges are recognized when management has approved a specific plan and employee communication requirements have been met.

For leased facilities and equipment that have been abandoned, the Company records estimated lease losses based on the fair value of the lease liability, as measured by the present value of future lease payments subsequent to abandonment, less the present value of any estimated sublease income on the cease-use date. For owned facilities and equipment that will be disposed of, the Company records impairment losses based on fair value less costs to sell. The Company also reviews the remaining useful life of long-lived assets following a decision to exit a facility and may accelerate depreciation or amortization of these assets, as appropriate.

## AMENDMENT TO THE CERTIFICATE OF INCORPORATION AND STOCK SPLIT

On October 25, 2016, the Board of Directors recommended, subject to stockholder approval, an Amendment to the Company's Certificate of Incorporation (the "Amendment") to increase the number of authorized shares of common stock from 60.0 million shares to 240.0 million shares with \$0.01 per share par value, for the purpose of, among other things, affecting a two-for-one stock split. The Stockholders approved the amendment on its special Stockholders Meeting on December 21, 2016 and the Company filed a certificate of amendment to the amended and restated certificate of incorporation to effect the increase in authorized share of common stock and the two-for-one-stock split. Stockholders of record, as of the close of markets on December 21, 2016, became entitled to receive one additional share of common stock for each share held. The shares were distributed on January 3, 2017. No fractional shares of common stock were issued as a result of the two-for-one stock split. The adjusted stock price was reflected on the NASDAQ stock market on January 4, 2017.

The shares of common stock retained a par value of \$0.01 per share. Accordingly, the stockholders' equity reflects the stock split by reclassifying from "Additional paid-in capital" to "Common stock" in an amount equal to the par value of the increased shares resulting from the stock split. All share and per share amounts of common stock contained in the Company's financial statements have been restated for all periods to give retroactive effect to the stock split.

#### STOCK-BASED COMPENSATION

The Company applies the authoritative guidance for stock-based compensation. This guidance requires companies to recognize the expense related to the fair value of their stock-based compensation awards. Stock-based compensation expense for stock option awards granted after January 1, 2006 was based on the fair value on the grant date using the binomial distribution model. The Company recognizes compensation expense for stock option awards, restricted stock awards, performance stock awards and contract stock awards over the requisite service period of the award. All excess tax benefits and taxes and tax deficiencies from stock-based compensation are included in provision for income taxes in the consolidated statement of operations.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

#### PENSION BENEFITS

A defined benefit pension plan covers former employees in Germany. Various factors are considered in determining the pension liability, including the number of employees expected to be paid their salary levels and years of service, the expected return on plan assets, the discount rate used to determine the benefit obligations, the timing of benefit payments and other actuarial assumptions. If the actual results and events for the pension plans differ from current assumptions, the benefit obligation may be over or under valued.

The Company acquired several funded and unfunded non-U.S. defined benefit pension plans as part of Codman Neurosurgery acquisition. The Company recognizes the underfunded status of the defined benefit pension plans as an asset or a liability in the balance sheet, with changes in the funded status recorded through other comprehensive income in the year in which those changes occur.

Retirement benefit plan assumptions are reassessed on an annual basis or more frequently if changes in circumstances indicate a re-evaluation of assumptions are required. The key benefit plan assumptions are the discount rate and expected rate of return on plan assets. The discount rate is based on average rates on bonds that matched the expected cash outflows of the benefit plans. The expected rate of return is based on historical and expected returns on the various categories of plan assets.

In September 2015, the Company completed the buy-out of its defined benefit pension plan in the United Kingdom (the "U.K.") which covered certain employees and retirees. All plan assets of the defined benefit pension plan were transferred to an independent financial services firm and the Company made cash contributions of approximately \$1.8 million for the year-ended December 31, 2015. The Company recorded expenses totaling approximately \$5.6 million in selling, general and administrative costs in conjunction with the buy-out of the plan. The buy-out of the U.K. pension plan eliminated future obligations of the Company under this plan.

Total contributions to the defined benefit plans were \$0.5 million and \$2.2 million during the years ended December 31, 2017 and 2015. There were no contributions to the defined benefit plans for the year ended December 31, 2016.

The Company use the corridor approach in measuring the amount of net periodic benefit pension cost to recognize each period. The corridor approach defers all actuarial gains and losses resulting from variances between actual results and actuarial assumptions. Those unrecognized gains and losses are amortized when the net gains and losses exceed 10% of the greater of the market-related value of plan assets or the projected benefit obligation at the beginning of the year. The amount in excess of the corridor is amortized over the average remaining service period to retirement date of active plan participants.

#### **CONCENTRATION OF CREDIT RISK**

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist principally of cash and cash equivalents, which are held at major financial institutions, investment-grade marketable debt securities and trade receivables.

The Company's products are sold on an uncollateralized basis and on credit terms based upon a credit risk assessment of each customer. A portion of the Company's trade receivables to customers outside the United States includes sales to foreign distributors, who then sell to government owned or supported healthcare systems.

None of the Company's customers accounted for 10% or more of the consolidated net sales during the years ended December 31, 2017, 2016 and 2015.

#### RECENTLY ISSUED AND ADOPTED ACCOUNTING STANDARDS

In May 2014, the FASB issued Update No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve that core principle, an entity should: 1) identify the contract(s) with a customer, 2) identify the performance obligations in the contract, 3) determine the transaction price, 4) allocate the transaction price to the performance obligations in the contract, and 5) recognize revenue when (or as) the entity satisfies a performance obligation. This update will become effective for all annual periods and interim reporting period beginning after December 15, 2017. Early adoption as of January 1, 2017 is permitted. The Company will adopt this standard on January 1, 2018. The Company expects to apply the modified retrospective method. Based on preliminary results of the Company's assessment of the impact, the Company does not expect the adoption of ASU 2014-09 to have a material impact on the consolidated financial statements. The impact will primarily relate to: (i) the timing of recognition for goods in transit, in which control has been transferred to customers at the time of shipment and; (ii) the timing of recognition of revenue in the Company's private label business from point in time to over time during the manufacturing process.

In July 2015, the FASB issued Update No. 2015-11, Simplifying the Measurement of Inventory. The amendment requires an entity to measure inventory that is within the scope of this amendment at the lower of cost and net realizable value. Existing impairment models will continue to be used for inventories that are accounted for using the last-in first-out ("LIFO") method. The ASU requires prospective adoption for inventory measurements for fiscal years beginning after December 15, 2016 and interim periods within those fiscal years for public business entities. Early adoption is permitted. The Company adopted ASU 2015-11 as of January 1, 2017 on a prospective basis, and there was no significant impact of this guidance on its consolidated financial statements.

In February 2016, the FASB issued Update No. 2016-02, *Leases (Topic 842)*. Under current accounting guidance an entity is not required to report operating leases on the balance sheet. The amendment requires that lessees recognize virtually all of their leases on the balance sheet by recording a right-of-use asset and lease liability (other than leases that meet the definition of a "short-term lease"). This update will become effective for all annual periods and interim reporting periods beginning after December 15, 2018. The new standard must be adopted using a modified retrospective transition. Early adoption is permitted. The Company is in the process of evaluating the impact of this standard on its financial statements.

In August 2016, the FASB issued Update No. 2016-15, Classification of Certain Cash Receipts and Cash Payments. The guidance addresses the classification of cash flows related to debt repayment or extinguishment costs, settlement of zero-coupon debt instruments or debt instruments with coupon rate that are insignificant in relation to the effective interest rate of the borrowing, contingent consideration payments made after business combination, proceeds from the settlement of insurance claims and corporate-owned life insurance, distribution received from equity method investees and beneficial interest in securitization transactions. This update will become effective for all annual periods and interim reporting periods beginning after December 15, 2017. Early adoption is permitted. The Company does not expect the adoption of ASU 2016-15 to have a material impact on its consolidated financial statements.

In October 2016, the FASB issued Update No. 2016-16, *Intra-Entity Transfers of Assets Other Than Inventory*. The guidance requires the income tax consequences of intra-entity transfers of assets other than inventory to be recognized as current period income tax expense or benefit and removes the requirement to defer and amortize the consolidated tax consequences of intra-entity transfers. The new standard will be effective for all annual periods beginning after December 15, 2017. Early adoption is permitted. The Company does not expect the adoption of ASU 2016-16 to have a material impact on its consolidated financial statements.

In January 2017, the FASB issued Update 2017-04, Simplifying the Test for Goodwill Impairment. The standard eliminates the second step in the goodwill impairment test which requires an entity to determine the implied fair value of the reporting unit's goodwill. Instead, an entity should recognize an impairment loss if the carrying value of the net assets assigned to the reporting unit exceeds the fair value of the reporting unit, with the

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

impairment loss not to exceed the amount of goodwill allocated to the reporting unit. The standard is effective for annual and interim goodwill impairment tests conducted in fiscal years beginning after December 15, 2019. Early adoption is permitted. The Company elected to early adopt ASU 2017-04 effective January 1, 2017 and applied the new guidance in its annual assessment in the third quarter of 2017. The Company performed its annual goodwill impairment assessment as of July 31, 2017. The Company elected to perform a qualitative analysis for its reporting units. The Company determined, after performing the qualitative analysis, that there was no evidence that it is more likely than not that the fair value of any identified reporting unit was less than the carrying amount, and therefore, it was not necessary to perform quantitative analysis for any reporting units.

In January 2017, the FASB issued Update No. 2017-01, *Business Combinations*. The standard provides guidance for evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The guidance provides a screen to determine when an integrated set of assets and activities (a "set") does not qualify to be a business. The screen requires that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in an identifiable asset or a group of similar identifiable assets, the set of assets and activities is not a business. If the screen is not met, the guidance requires a set of assets and activities to be considered a business and to include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs and removes the evaluation as to whether a market participant could replace the missing elements. The new standard will be effective for all annual periods beginning after December 15, 2017. Early adoption is permitted. The Company elected to early adopt ASU 2017-01 effective January 1, 2017. The implementation of the amended guidance did not have any material impact on the Company's consolidated financial statements.

In March 2017, the FASB issued Update No. 2017-07, Compensation—Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. The guidance requires that an employer report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components of net benefit cost are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations, if one is presented. If a separate line item or items are used to present the other components of net benefit cost, that line item or items must be appropriately described. If a separate line item or items are not used, the line item or items used in the income statement to present the other components of net benefit cost must be disclosed. In addition, the amendments also allow only the service cost component to be eligible for capitalization when applicable. The new standard will be effective for annual periods beginning after December 15, 2017. The Company does not expect the adoption of ASU 2017-07 to have a material impact on its consolidated financial statements.

In May 2017, the FASB issued ASU 2017-09, *Stock Compensation (Topic 718): Scope of Modification Accounting.* The update to provide clarity and reduce both (1) diversity in practice and (2) cost and complexity when applying the guidance in Topic 718, Compensation-Stock Compensation, to a change to the terms or conditions of a share-based payment award. The new standard will be effective for all annual periods beginning after December 15, 2017. Early adoption is permitted. The Company does not expect the adoption of ASU 2017-09 to have a material impact on its consolidated financial statements.

In August 2017, the FASB issued ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*. This update amends the hedge accounting rules to simplify the application of hedge accounting guidance and better portray the economic results of risk management activities in the financial statements. The guidance expands the ability to hedge nonfinancial and financial risk components, reduces complexity in fair value hedges of interest rate risk, eliminates the requirement to separately measure and report hedge ineffectiveness, as well as eases certain hedge effectiveness assessment requirements. This update will become effective for all annual periods and interim reporting periods beginning after December 15, 2018. Early adoption is permitted. The Company elected to early adopt ASU 2017-01

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

effective January 1, 2017 using modified retrospective method. The implementation of the amended guidance did not have any material impact on the Company's consolidated financial statements.

There are no other recently issued accounting pronouncements that are expected to have a material effect on the Company's financial position, results of operations or cash flows.

#### SUPPLEMENTAL CASH FLOW INFORMATION

In addition to the \$42.8 million and \$0.4 million payment of accreted interest associated with the settlement of the 1.625% Convertible Senior Notes due in 2016 ("2016 Convertible Notes") during the years ended December 31, 2016 and 2015, respectively, cash paid for interest during the years ended December 31, 2017, 2016 and 2015 was \$32.3 million (net of \$1.1 million that was capitalized into construction in progress), \$14.4 million (net of \$1.0 million that was capitalized into construction in progress) and \$12.7 million (net of \$1.7 million that was capitalized into construction in progress), respectively.

As part of settlement of 1.625% 2016 Convertible Notes in December 2016, the Company issued 2.9 million shares of common stock with fair value of \$122.0 million. The Company also received 2.9 million shares of common stock from the exercise of call options with hedge participants with fair value of \$123.1 million at the date of the exercise which was held as treasury stock as of December 31, 2016.

For the year ended December 31, 2017, the affiliates of the initial purchasers of 2016 Convertible Notes (the "hedge participants") exercised 8,707,202 warrants. As a result, the Company issued 2,839,743 shares of common stock for year ended December 31, 2017.

Cash paid for income taxes, net of refunds, for the years ended December 31, 2017, 2016 and 2015 was \$14.6 million, \$4.3 million and \$21.3 million, respectively.

Property and equipment purchases included in liabilities at December 31, 2017, 2016 and 2015 were \$7.8 million, \$4.7 million and \$4.7 million, respectively.

#### 3. DISCONTINUED OPERATIONS

On October 29, 2014, Integra's Board of Directors approved the announcement of a plan to separate SeaSpine from Integra as a new, publicly traded medical technology company focused on the design, development and commercialization of surgical solutions for the treatment of patients suffering from spinal disorders. Integra's board of directors based this determination, in part, on its belief that the tax-free distribution of SeaSpine shares to Integra stockholders is the most efficient manner to separate the business from Integra's other medical technology businesses. On November 3, 2014, the Company announced its intention to separate its spine business, which was previously a separate reportable segment. On July 1, 2015, the Company completed the distribution of 100% of the outstanding common stock of SeaSpine to Integra stockholders, who received one share of SeaSpine common stock for every three shares, on a pre-split basis, of Integra common stock held as of the close of business on the record date, June 19, 2015. The Company and SeaSpine share three board members, including the chair of Integra's board of directors who is lead director for SeaSpine. The separation agreement ensures that SeaSpine had approximately \$47.0 million of total cash immediately following the distribution. No gain or loss was recognized on the part of the Company or shareholders as a result of the distribution resulting from the separation of the spine business.

The historical results of operations, cash flows, and statement of financial position of SeaSpine have been presented as discontinued operations in the consolidated financial statements and prior periods have been revised. Discontinued operations include results of SeaSpine's business except for certain allocated corporate overhead costs and certain costs associated with transition services provided by Integra to SeaSpine. These allocated costs will remain part of continuing operations. Discontinued operations also include other costs incurred by Integra to

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

separate SeaSpine from the fourth quarter of 2014 through the second quarter of 2015. These costs include transaction charges, advisory and consulting fees, and information system expenses. For the third quarter 2015 and going forward, SeaSpine as a stand-alone public company have separately reported its financial results. Due to differences between the basis of presentation for discontinued operations and the basis of presentation as a stand-alone company, the financial results of SeaSpine included within discontinued operations for the Company may not be indicative of actual financial results of SeaSpine as a stand-alone company.

The following table summarizes results from discontinued operations of SeaSpine included in the consolidated statement of operations for the year ended December 31, 2015 (in thousands):

Total revenue	\$ 65,775
Costs and expenses	80,618
Operating loss	
Loss from discontinued operations before tax  Benefit for income taxes	
Loss from discontinued operations	\$(10,370)

No income or expense has been recorded for the SeaSpine business after the separation from Integra on July 1, 2015.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following table presents Integra's spine business assets and liabilities removed from the consolidated balance sheet as of July 1, 2015:

Assets:	
Cash	\$ 47,178
Accounts receivable	20,856
Inventory	49,425
Other current assets	13,411
Current assets of discontinued operations	130,870
Property, plant, and equipment, net	21,093
Intangible assets, net	43,122
Other assets	4,465
Non-current assets of discontinued operations	68,680
Total assets of discontinued operations	\$199,550
Liabilities:	
Accounts payable	\$ 7,072
Accrued compensation	5,964
Accrued expenses and other current liabilities	3,361
Current liabilities of discontinued operations	16,397
Deferred tax liabilities	13,331
Other liabilities	2,593
Long-term liabilities of discontinued operations	15,924
Total liabilities of discontinued operations	\$ 32,321

The removal of SeaSpine's net assets and unrealized accelerated currency translation adjustment is presented as a reduction in Integra's retained earnings and accumulated other comprehensive loss.

In order to effect the separation and govern Integra's relationship with SeaSpine after the separation, the Company entered into a Separation and Distribution Agreement and other agreements including a Tax Matters Agreement, an Employee Matters Agreement, several supply agreements, and a Transition Services Agreement. The Separation and Distribution Agreement governs the separation of the spine business, the transfer of assets and other matters related to the Company's relationship with SeaSpine.

The Tax Matters Agreement governs the respective rights, responsibilities and obligations of SeaSpine and Integra with respect to taxes, tax attributes, tax returns, tax proceedings and certain other tax matters.

The Employee Matters Agreement governs the compensation and employee benefit obligations with respect to the current and former employees and non-employee directors of SeaSpine and Integra, and generally allocates liabilities and responsibilities relating to employee compensation, benefit plans and programs. The Employee Matters Agreement provides that employees of SeaSpine will no longer participate in benefit plans sponsored or maintained by Integra. In addition, the Employee Matters Agreement provides that each of the parties will be responsible for their respective former and current employees and compensation plans for such current employees.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The Company entered into several Supply Agreements in which SeaSpine engaged Integra to be the product supplier of Integra's former Integra Mozaik<sup>TM</sup> product line ("Mozaik") for a three-year period following the separation after which there will be no defined terms and this will be considered a normal purchase/sale arrangement. This product line has been licensed to SeaSpine in conjunction with the spin-off. Prior to the spin-off, the sale of Mozaik products from an Integra facility to a SeaSpine facility eliminated in Integra's historical consolidated financial results of operations. The revenue and cost of goods sold related to prior sales of Mozaik to SeaSpine have been restated and are presented in Integra's continuing operations results of operations. The Company has recorded \$0.7 million, \$0.8 million, and \$6.2 million in revenue related to the sale of Mozaik products for the year-ended December 31, 2017, 2016 and 2015, respectively and \$0.3 million, \$0.7 million and \$3.8 million in cost of goods sold for the years ended December 31, 2017, 2016 and 2015, respectively, in its continuing operations.

Under the terms of the Transition Services Agreement, the Company agreed to provide administrative, site services, information technology systems and various other corporate and support services to SeaSpine over various periods after the separation on a cost or cost-plus basis. The most significant components of the service income were the provision of information systems and legal services which was completed by the end of the first quarter of 2016. In the year-ended December 31, 2016 and 2015, other income (expense), net includes \$0.3 million and \$2.7 million of income in respect of the provision of services to SeaSpine, respectively.

## 4. ACQUISITIONS, DIVESTITURE AND PRO FORMA RESULTS

# Johnson & Johnson's Codman Neurosurgery Business

On February 14, 2017, the Company entered into a binding offer letter (the "Offer Letter") with DePuy Synthes, Inc., a Delaware corporation ("DePuy Synthes"), a wholly-owned subsidiary of Johnson & Johnson, pursuant to which Integra made a binding offer to acquire certain assets, and assume certain liabilities, of Johnson & Johnson's Codman neurosurgery business (the "Codman Acquisition"). The assets and liabilities subject to the proposed Codman Acquisition relate to the research, development, manufacturing, marketing, distribution and sale of certain products used in connection with neurosurgery procedures. The purchase price for the Codman Acquisition is \$1.014 billion, subject to adjustments set forth in the Purchase Agreement (as defined below) relating to the book value of inventory transferred to the Company at the closing of the Codman Acquisition, the book value of certain inventory retained by DePuy Synthes and the amount of certain prepaid taxes.

Pursuant to the terms of the Offer Letter, following the conclusion of certain statutory information or consultation processes in connection with the Codman Acquisition by the employees of DePuy Synthes and its affiliates in France, Switzerland, and Germany, on May 11, 2017, DePuy Synthes accepted the Company's offer and countersigned the Asset Purchase Agreement (the "Purchase Agreement") with respect to the Codman Acquisition, previously executed by the Company.

On October 2, 2017, upon the terms and subject to the conditions set forth in the Purchase Agreement, the Codman Acquisition was completed. Under the terms of the Purchase Agreement, the Company paid an aggregate purchase price of \$1.014 billion, subject to adjustments set forth in the Purchase Agreement relating to the book value of inventory transferred to the Company at the closing of the Codman Acquisition, the book value of certain inventory retained by DePuy Synthes will be transferred to the Company in the future along with certain prepaid taxes.

To facilitate the completion of the Codman Acquisition, the Company drew \$700.0 million from the Term Loan A-1 component of the Senior Credit Facility and used cash available as of October 2, 2017.

The Codman Acquisition was accounted for using the acquisition method of business combination under ASC 805. Business Combinations.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The Company recorded revenue for Codman Neurosurgery of approximately \$76.9 million, in the consolidated statements of operations and comprehensive income for the year ended December 31, 2017. The net income or loss attributable to this acquisition cannot be identified on a stand-alone basis because it is in the process of being integrated into the Company's operations.

The following summarizes the preliminary allocation of the purchase price based on the fair value of the assets acquired and liabilities assumed:

	Preliminary Purchase Price Allocation	
	(Dollars in thousands)	
Inventory	77,921	
Assets held for sale	30,813	
Other current assets	2,036	
Property, plant and equipment	35,949	
Intangible assets:		Weighted Average Life
Codman corporate trade name	162,900	Indefinite
Completed technology	379,900	22 years
Goodwill	346,219	
Total assets acquired	1,035,738	
Accrued expenses	1,730	
Pension liabilities	19,917	
Net assets acquired	\$1,014,091	

As of December 31, 2017, certain amounts relating to the valuation of property, plant and equipment and pension liabilities have not been finalized. The finalization of these matters may result in changes to goodwill.

Goodwill was allocated to the Codman Special Surgical segment. Goodwill is the excess of the consideration transferred over the net assets recognized and represents the expected revenue and cost synergies of the combined company and assembled workforce. Goodwill recognized as a result of the acquisition is generally deductible for income tax purposes.

The Company wrote-off construction in progress of \$6.3 million related to a project acquired from Codman Neurosurgery that the Company decided to discontinue after the Codman Acquisition.

## Divestiture to Natus

On September 8, 2017, to facilitate the acquisition of the Codman Neurosurgery Business, the Company and certain of its subsidiaries entered into an asset purchase agreement (the "Divestiture Agreement") with Natus Medical Incorporated ("Natus"), pursuant to which the Company agreed to divest its Camino<sup>®</sup> Intracranial Pressure monitoring and the U.S. rights to its fixed pressure shunts businesses within its Codman Specialty Surgical segment together with certain neurosurgery assets acquired as part of the Codman Acquisition, which includes Codman U.S. dural graft implant, external ventricular drainage catheter and cerebrospinal fluid collection systems businesses (the "Divestiture"). The Divestiture Agreement was entered into in connection with the review of the Codman Acquisition by the Federal Trade Commission and the antitrust authority of Spain.

On October 6, 2017, upon the terms and subject to the conditions of the Divestiture Agreement, the Divestiture was completed and Natus paid an aggregate purchase price of \$46.4 million.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Assets and liabilities divested consisted of the following as of October 6, 2017 (amounts in thousands):

Inventories	\$ 8,348
Prepaid expenses and other current assets	36
Assets held for sale	30,813
Property, plant and equipment, net	1,122
Goodwill	2,861
Total assets divested	\$43,180
Deferred revenue	\$ 1,082 209
Total liabilities divested	\$ 1,291

Assets held for sale includes assets and liabilities related to U.S. dural graft implant, external ventricular drainage catheters and cerebrospinal fluid collection systems businesses acquired as part of acquisition of Codman Neurosurgery.

The transitional supply agreement with Natus requires the Company to provide to Natus certain assets defined in the transitional supply agreement upon termination. The Company recognized a liability of \$1.3 million, included in other liabilities in consolidated balance sheet, related to estimated cost of assets to be provided to Natus upon termination of transitional supply agreement.

The Divestiture does not represent a strategic shift that will have a major effect on the Company's operations and financial statements. Goodwill was allocated to the assets and liabilities divested using the relative fair value method. The Company recognized a gain on sale of business of \$2.6 million included in other income, net in its consolidated statement of operations for the year ended December 31, 2017.

## TGX Medical

On April 4, 2017, the Company entered into a Membership Interest Purchase Agreement (the "Purchase Agreement"), by and among the Company, MCF I LP THX Medical System LLC Holdings, Inc., Terragraphix, Inc. and TGX Medical Systems, LLC (collectively, "TGX Medical"). Pursuant to the Purchase Agreement, the Company purchased all issued and outstanding membership interests in TGX Medical for \$5.4 million.

TGX Medical designs, develops and markets software solutions that track surgical instruments from the operating room, through sterilization to storage, which helps ensure that the instruments have been properly cleaned, assembled and maintained. TGX Medical's customers are located in the U.S. and Canada.

The Company recorded revenue for TGX Medical of approximately \$0.6 million in the consolidated statements of operations and comprehensive income for year ended December 31, 2017. The net income or loss attributable to this acquisition cannot be identified on a stand-alone basis because it is in the process of being integrated into the Company's operations.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following summarizes the allocation of the purchase price based on the fair value of the assets acquired and liabilities assumed:

	<b>Purchase Price Allocation</b>	
	(Dollars in thousands)	
Cash and cash equivalents	\$ 49	
Accounts receivables	279	
Property, plant and equipment	3	
Intangible assets:		Weighted Average Life
Completed technology	4,707	13 Years
Goodwill	641	
Total assets acquired	5,679	
Accounts payable	13	
Accrued expenses and other current liabilities	65	
Other liabilities	234	
Net assets acquired	\$5,367	

Goodwill was allocated to the Codman Surgical Solutions segment. Goodwill is the excess of the consideration transferred over the net assets recognized and represents the expected revenue and cost synergies of the combined company and assembled workforce. Goodwill recognized as a result of the acquisition is not deductible for income tax purposes.

#### Derma Sciences

On February 24, 2017, the Company executed the Agreement and Plan of Merger (the "Merger Agreement") under which the Company acquired all of the outstanding shares of Derma Sciences, Inc., a Delaware corporation ("Derma Sciences") for an aggregate purchase price of approximately \$210.8 million, including payment of certain of Derma Sciences' closing expenses and settlement of stock-based compensation plans of \$4.8 million and \$4.3 million, respectively. The purchase price consisted of a cash payment to the former shareholders of Derma Sciences of approximately \$201.7 million upon the closing of the transaction.

Derma Sciences is a tissue regeneration company focused on advanced wound and burn care that offers products to help manage chronic and hard-to-heal wounds, especially those resulting from diabetes and poor vascular functioning.

The Company recorded revenue for Derma Sciences of approximately \$84.6 million in the consolidated statements of operations and comprehensive income for the year ended December 31, 2017. The net income or loss attributable to this acquisition cannot be identified on a stand-alone basis because it has been integrated into the Company's operations.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following summarizes the allocation of the purchase price based on the fair value of the assets acquired and liabilities assumed:

	<b>Purchase Price Allocation</b>	
	(Dollars in thousands)	
Cash and cash equivalents	\$ 16,512	
Short-term investments	19,238	
Accounts receivable	8,949	
Inventory	17,977	
Prepaid expenses and other current assets	4,369	
Property, plant and equipment	4,311	
Intangible assets:		Weighted Average Life
Customer relationship	78,300	14 years
Trademarks/brand names	13,500	15 years
Completed technology	11,600	14 years
Non-compete agreement	280	1 year
Goodwill	73,765	
Deferred tax assets	14,524	
Other assets	101	
Total assets acquired	263,426	
Accounts payable	4,560	
Accrued expenses and other current liabilities	7,409	
Contingent liability	37,174	
Other liabilities	3,805	
Net assets acquired	<u>\$210,478</u>	

Goodwill was allocated to the Orthopedics and Tissue Technologies segment. Goodwill is the excess of the consideration transferred over the net assets recognized and represents the expected revenue and cost synergies of the combined company and assembled workforce. Goodwill recognized as a result of the acquisition is not deductible for income tax purposes.

In the second quarter of 2017, the Company adjusted its preliminary purchase price allocation of other liabilities by \$1.7 million because of additional liabilities for sales and use tax, employment tax and unclaimed property. In the third quarter of 2017, the Company adjusted the purchase price and goodwill by \$0.3 million, as a result of cash received from escrow related to the acquisition of BioD LLC ("BioD") by Derma Sciences. BioD is a wholly owned subsidiary of Derma Sciences.

# Short-term Investments

Short-term investments recognized at the acquisition date of Derma Sciences are investments in equity and debt securities including certificates of deposit purchased with an original maturity greater than three months which are deposited in various U.S. financial institutions and are fully insured by the Federal Deposit Insurance Corporation. The Company considers securities with original maturities of greater than 90 days to be available for sale securities. Securities under this classification are recorded at fair value and unrealized gains and losses are recorded within accumulated other comprehensive income. The estimated fair value of the available for sale

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

securities is determined based on quoted market prices. The Company evaluates securities with unrealized losses to determine whether such losses, if any, are other than temporary. Short-term investments are classified as Level 1 in fair value hierarchy. Fair values of short-term investments are determined using the unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access at the balance sheet date.

In the second quarter of 2017, the Company sold the acquired short-term investments and recognized a realized loss of \$2.3 million included in other income, net in the consolidated statement of operations.

## Deferred Taxes

The acquired deferred taxes of \$14.5 million include a deferred tax asset of \$39.7 million related to a federal net operating loss which the Company expects to utilize against income in future periods and a deferred tax asset of \$16.4 million related to intangibles acquired by Derma Sciences in previous periods, offset by a deferred tax liability of \$41.1 million for new intangibles for which the Company will not receive a tax benefit and deferred tax liability \$0.5 million related to various deferred items. In the second quarter of 2017, the Company decreased the preliminary estimated value of the net deferred tax assets by \$1.5 million to reflect adjustments to preliminary estimated fair values of assets and liabilities acquired. In fourth quarter of 2017, the Company decreased the preliminary value of the deferred tax asset by \$3.3 million to reflect returns filed for periods prior to the acquisition date and adjustments for expected effective state tax rates.

## United States Food and Drug Administration ("FDA") Untitled Letter

On June 22, 2015, the FDA issued an Untitled Letter (the "Untitled Letter") alleging that BioD morselized amniotic membrane based products do not meet the criteria for regulation as human cellular tissue-based products ("HCT/Ps") solely under Section 361 of the Public Health Service Act and that, as a result, BioD would need a biologics license to lawfully market those morselized products. Since the issuance of the Untitled Letter, BioD and more recently, the Company have been in discussion with the FDA to communicate its disagreement with the FDA's assertion that certain products are more than minimally manipulated. The FDA has not changed its position that certain of the BioD acquired products are not eligible for marketing solely under Section 361.

In November 2017, the FDA issued the final guidance document related to human tissue titled, "Regulatory Considerations for Human Cells, Tissues, and Cellular and Tissue-Based Products: Minimal Manipulation and Homologous Use" (the "HCT/P Final Guidance"). The HCT/P Final Guidance maintains the FDA's position that products such as the Company's morselized amniotic membrane tissue based products do not meet the criteria for regulation solely as HCT/Ps. In addition, the FDA articulated a risk-based approach to enforcement and, while some uses for amniotic membrane tissue based products would enjoy as much as thirty-six months of enforcement discretion, other high risk uses could be subject to immediate enforcement action. The Company does not believe the uses for its amniotic membrane tissue based products fall into the high risk category. Nonetheless, we can make no assurances that the FDA will continue to exercise its enforcement discretion with respect to the Company's amniotic membrane tissue based products, and any potential action of the FDA could have a financial impact regarding the sales of such products. Although the Company continues to disagree with the FDA's position, the Company has been considering and continues to consider regulatory approval pathways for its amniotic membrane tissue based products. Revenues from BioD morselized amniotic material based products for the year ended December 31, 2017 were less than 1.0% of consolidated revenues.

## Contingent Consideration

The Company assumed contingent consideration incurred by Derma Sciences related to its acquisitions of BioD and the intellectual property related to the Medihoney product. The Company accounted for the contingent

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

liabilities by recording their fair value on the date of the acquisition based on a discounted cash-flow model. The contingent liabilities recognized as part of the Derma Sciences acquisition relate to the following:

- contractual incentive payments that could be made to former equity owners of BioD if net sales of BioD products exceed a certain amount for the twelve-month periods ending June 30, 2017 and 2018 ("BioD Earnout Payments");
- ii. a contractual incentive payment that could be made to the former equity owners if there has been no specific enforcement action or notice by the FDA against the specific BioD products as a result of the Untitled Letter for a certain period after closing as defined by the agreement ("Product Payment"); and
- iii. contractual incentive payments that could be made to the former owner of the intellectual property relating to the Medihoney product line, if net sales of Medihoney products exceed certain amounts defined in the agreement between Derma Sciences and the former owner of the intellectual property of Medihoney for any twelve-month period ("Medihoney Earnout Payments").

At the date of the acquisition, net sales used in estimating the BioD Earnout Payments is based on the weighted average of different possible scenarios using revenue volatility of 13.5%. The BioD Earnout Payments were valued using a discount rate of 3.0%. The maximum payout related to the BioD Earnout Payments is \$26.5 million. The estimated fair value as of February 24, 2017 was \$9.1 million. In August 2017, the Company paid \$4.8 million for the twelve-month period ending June 30, 2017 component of the BioD Earnout Payments. The Company recognized \$4.0 million gain from change in estimated fair value, included in selling, general and administrative expenses, in the consolidated statement of operations for the year ended December 31, 2017. As of December 31, 2017, the estimated fair value of the remaining portion of the BioD Earnout Payments is \$0.3 million.

At the date of acquisition, the Company estimated that the probability of the Product Payment was 98.0% and valued it at a discount rate of 2.5%. The maximum payout related to the Product Payment is \$29.7 million. The estimated fair value as of February 24, 2017 was \$26.8 million. In the second quarter of 2017, the Company adjusted the preliminary estimated fair value to increase the Product Payment by \$0.9 million related to additional products that should have been included in the preliminary estimate based on the Merger Agreement. On May 25, 2017, the Company made full payment for the Product Payment of \$26.6 million. The payment was included in cash used in business acquisition, net of cash acquired within investing activities in the condensed consolidated statements of cash flows since the payment was made shortly after the acquisition.

At the date of the acquisition, net sales used in estimating the Medihoney Earnout Payments is based on the weighted average of different possible scenarios using revenue volatility of 27.5%. The Medihoney Earnout Payments were valued using a discount rate of 4.5%. The maximum payout related to the Medihoney Earnout Payments is \$5.0 million. The estimated fair value as of February 24, 2017 and December 31, 2017 was \$1.4 million.

These fair value measurements were based on significant inputs not observed in the market and thus represented a Level 3 measurement. The contingent considerations are re-measured to fair value at each reporting date until the contingency is resolved, and those changes in fair value are recognized in earnings. Depending on the expected timing of the estimated payments, the acquisition date fair values and subsequent remeasurement could be different.

#### Tekmed

On December 15, 2015, the Company acquired the assets of Tekmed Instruments S.p.A ("Tekmed") for an aggregate purchase price of \$14.1 million including a minimal amount of working capital and purchase adjustment which was recorded as an adjustment to assumed liabilities. Tekmed was a distributor of the

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Company's and third parties' products in Italy and focused on neurosurgery and neurotrauma, along with representation in plastic and reconstructive surgery, cardiovascular surgery, image diagnostics, general surgery, anesthesia and intensive care, interventional radiology, and proton therapy. This acquisition enables the Company to sell directly into the market support the Codman Specialty Surgical division's growth in Italy along with other key Integra franchises.

The revenue and net income or loss attributable to this acquisition cannot be identified on a stand-alone basis because it has been integrated into the Company's operations.

The following summarizes the allocation of the purchase price based on the fair value of the assets acquired and liabilities assumed:

	<b>Purchase Price Allocation</b>	
	(Dollars in thousands)	
Inventory	\$ 1,143	
Property, plant and equipment	669	
Other current assets	11	
Intangible assets:		Weighted Average Life
Supplier Contracts	4,981	2-13 Years
Goodwill	9,665	
Total assets acquired	16,469	
Accrued expenses and other liabilities		
acquired	802	
Deferred tax liability	1,564	
Net assets acquired	<u>\$14,103</u>	

## Tornier's United States Toe & Ankle Business

On October 2, 2015, the Company acquired the United States rights to Tornier's Salto Talaris® and Salto Talaris® XT ankle replacement products and Tornier's Futura<sup>TM</sup> silastic toe replacement products (the "Salto and Futura") for \$6.0 million in cash. Under the agreement, Integra acquired the U.S. rights to the Salto Talaris® Total Ankle Prosthesis, Salto Talaris® XT Revision Total Ankle Prosthesis, Futura<sup>TM</sup> Primus Flexible Great Toe system, Futura<sup>TM</sup> Classic Flexible Great Toe system, and Futura<sup>TM</sup> Lesser Metatarsal Phalangeal system. The agreement also includes an option to purchase, in the future, the rights to the Salto Talaris®, Salto Talaris® XT, Salto Mobile, and Futura<sup>TM</sup> silastic toe replacement products outside the United States. The estimated fair value of the net assets acquired exceeded the purchase price for the Salto and Futura product lines and resulted in the Company recording a gain of \$1.1 million for the year-ended December 31, 2015 in other income. The acquired toe and ankle products enhances the Company's lower extremities product offering and accelerates its entry into the U.S. total ankle replacement market.

The revenue and net income or loss attributable to this acquisition cannot be identified on a stand-alone basis because it has been integrated into the Company's operations.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following summarizes the allocation of the purchase price as based on the fair value of the assets acquired and liabilities assumed:

	<b>Purchase Price Allocation</b>	
	(Dollars in thousands)	
Inventory	\$2,688	
Property, plant, and equipment	1,453	
Intangible assets:		Weighted Average Life
Ankle product family	3,210	11 years
Toe product family	460	10 years
Total assets acquired	7,811	
Deferred tax liability	700	
Net assets acquired	<u>\$7,111</u>	

#### TEI

On July 17, 2015, the Company executed the two merger agreements (collectively, the "Agreements") under which the Company acquired TEI Biosciences, Inc., a Delaware corporation ("TEI Bio"), and TEI Medical Inc., a Delaware corporation ("TEI Med", collectively "TEI") for an aggregate purchase price of approximately \$312.2 million (\$210.9 million for TEI Bio and \$101.3 million for TEI Med) including a working capital adjustment of \$0.2 million (\$0.5 million for TEI Bio offset by \$0.7 million cash received for TEI Med) which was recorded as a reduction from goodwill. The purchase price consisted of a cash payment to the former shareholders of TEI Bio and TEI Med of approximately \$312.4 million upon the closing of the transaction, net of \$1.2 million of acquired cash. The acquired assets included a contingent receivable with a fair value of \$0.4 million at acquisition and will be paid to the Company if the sale of products used in breast surgery in the United States drops below \$6.0 million in either 2016 or 2017. The fair value of this asset is based on future sales projections of the products under various potential scenarios and weighting the probability of these outcomes. At the date of the acquisition, the cash flow projection was discounted using an internal rate of return of 11.0%. These fair value measurements were based on significant inputs not observed in the market and thus represented a Level 3 measurement. In April 2017, the Company received from escrow \$1.2 million related to the contingent consideration for 2016 calendar year. For the year ended December 31, 2017 and 2016, the Company recognized \$1.6 million and \$1.3 million gain, respectively, related to change in fair value of contingent receivable, included in selling, general and administrative expenses in the consolidated statements of operations. As of December 31, 2017, the fair value of this contingent receivable of \$2.0 million is included in prepaid expenses and other current assets in the consolidated balance sheet. As of December 31, 2016, the \$1.7 million balance of this contingent receivable is included in Prepaid expenses and other current assets and Other current assets of \$1.2 million and \$0.5 million, respectively.

TEI Bio is in the business of developing and commercializing biologic devices for soft tissue repair and regenerative applications, including dura and hernia repair and plastic and reconstructive surgery. TEI Med holds a license to TEI Bio's regenerative technology in the fields of wound healing and orthopedics.

The revenue and net income or loss attributable to this acquisition cannot be identified on a stand-alone basis because it has been integrated into the Company's operations.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following summarizes the allocation of the purchase price based on the fair value of the assets acquired and liabilities assumed:

	<b>Purchase Price Allocation</b>	
	(Dollars in thousands)	
Cash	\$ 1,241	
Accounts receivable, net	9,011	
Inventory	23,223	
Property, plant, and equipment	2,027	
Income tax receivable	5,135	
Other current assets	2,670	
Intangible assets:		Weighted Average Life
Developed technology	167,400	14 - 16 Years
Contractual relationships	51,345	11 - 14 Years
Leasehold interest	69	
Goodwill	147,704	
Total assets acquired	409,825	
Accrued expenses and other liabilities	9,732	
Deferred tax liabilities	87,908	
Net assets acquired	<u>\$312,185</u>	

# Pro Forma Results (unaudited)

The following unaudited pro forma financial information summarizes the results of operations for the years ended December 31, 2017 and 2016 as if the acquisitions of Codman Neurosurgery, Derma Sciences and TGX Medical and Divestiture to Natus, which were completed by the Company during 2017 had been completed as of the beginning 2016. The pro forma results are based upon certain assumptions and estimates, and they give effect to actual operating results prior to the acquisitions and adjustments to reflect (i) the change in interest expense, depreciation expense, intangible asset amortization and fair value inventory step-up, (ii) timing of recognition for certain expenses that will not be recurring in the post-acquisition period, which includes \$2.9 million incurred by Derma Sciences prior to acquisition and \$24.9 million incurred by Integra, (iii) gain from the sale of business of \$2.6 million related to the Divestiture to Natus, and (iv) income taxes at a rate consistent with the Company's statutory rate at the date of the acquisitions. No effect has been given to other cost reductions or operating synergies. As a result, these pro forma results do not necessarily represent results that would have occurred if the acquisitions had taken place on the basis assumed above, nor are they indicative of the results of future combined operations.

	Year Ended December 31,					
		2017		2016		2015
	(Pro forma)					
	(	In thousand	ls exc	ept per share	amo	ounts)
Total revenue from continuing operations	\$1,	428,491	\$1	,446,903	\$9	40,005
Net income from continuing operations	\$	81,730	\$	27,520	\$	10,694
Basic earnings per share from continuing operations	\$	1.06	\$	0.37	\$	0.31

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

#### 5. DEBT

## Amended and Restated Senior Credit Agreement

On March 31, 2017, the Company entered into an amendment (the "March 2017 Amendment") to its fourth amended and restated Senior Credit Facility with a syndicate of lending banks with Bank of America, N.A., as Administrative Agent. The March 2017 Amendment increased the aggregate principal amount from \$1.5 billion to \$2.2 billion available to the Company through the following facilities:

- i. a \$500.0 million Term Loan A facility;
- ii. a \$700.0 million Term Loan A-1, which was available in a single drawing on a delayed basis at the time of closing of the Codman Acquisition (see Note 4—Acquisitions, Divestitures and Pro forma Results); and
- iii. a \$1.0 billion revolving credit facility, which includes a \$60.0 million sublimit for the issuance of standby letters of credit and a \$60.0 million sublimit for swingline loans.

In connection with the March 2017 Amendment, the Company's maximum consolidated total leverage ratio in the financial covenants was increased to the following:

Fiscal Quarter	Maximum Consolidated Total Leverage Ratio
December 31, 2016 through before the first fiscal quarter after the delayed draw date of Term Loan A-1	4.50 : 1.00
First fiscal quarter ended after the delayed draw date of Term Loan A-1 through September 30, 2018	5.50: 1.00
October 1, 2018 through September 30, 2019	5.00:1.00
October 1, 2019 through September 30, 2020	4.50: 1.00
October 1, 2020 and thereafter	4.00:1.00

There was no change in the maturity date, which remains at December 7, 2021.

Borrowings under the Senior Credit Facility bear interest, at the Company's option, at a rate equal to the following:

- i. the Eurodollar Rate (as defined in the amendment and restatement) in effect from time to time plus the applicable rate (ranging from 1.00% to 2.00%), or
- ii. the highest of:
  - 1. the weighted average overnight Federal funds rate, as published by the Federal Reserve Bank of New York, plus 0.50%, or
  - 2. the prime lending rate of Bank of America, N.A., or
  - 3. the one-month Eurodollar Rate plus 1.00%.

The applicable rates are based on the Company's consolidated total leverage ratio (defined as the ratio of (a) consolidated funded indebtedness less cash in excess of \$40.0 million that is not subject to any restriction of the use or investment thereof to (b) consolidated EBITDA) at the time of the applicable borrowing.

The Company will also pay an annual commitment fee (ranging from 0.15% to 0.35%), based on the Company's consolidated total leverage ratio, on the amount available for borrowing under the revolving credit facility.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The Senior Credit Facility is collateralized by substantially all of the assets of the Company's U.S. subsidiaries, excluding intangible assets. The Senior Credit Facility is subject to various financial and negative covenants and at December 31, 2017 the Company was in compliance with all such covenants. The Company capitalized \$19.1 million and \$4.5 million of incremental financing costs in 2017 and 2016, respectively, in connection with the modifications of the Senior Credit Facility. The Company wrote-off previously capitalized financing cost of \$0.5 million as interest expense in 2016 related to the modifications. No previously capitalized financing cost was written-off in 2017.

In October 2017, to facilitate the completion of the Codman Acquisition, the Company drew \$700.0 million from the Term Loan A-1 component of the Senior Credit Facility. The Company capitalized \$19.1 million of incremental financing costs related to the drawing of Term A-1 component.

At December 31, 2017 and 2016, there was \$655.0 million and \$165.0 million outstanding, respectively, under the revolving portion of the Senior Credit Facility at a weighted average interest rate of 3.7% and 2.2%, respectively. At December 31, 2017 and 2016 there was \$500.0 million outstanding under the Term Loan A component of the Senior Credit Facility at a weighted average interest rate of 3.6% and 2.2%, respectively. At December 31, 2017, there was \$700.0 million outstanding under the Term Loan A-1 component of the Senior Credit Facility at a weighted average interest rate of 3.6%.

The fair value of outstanding borrowings of the Senior Credit Facility's revolving credit facility, Term Loan A and Term Loan A-1 components at December 31, 2017 was approximately \$661.0 million, \$502.7 million and \$703.7 million, respectively. These fair values were determined by using a discounted cash flow model based on current market interest rates available to the Company. These inputs are corroborated by observable market data for similar liabilities and therefore classified within Level 2 of the fair value hierarchy. Level 2 inputs represent inputs that are observable for the asset or liability, either directly or indirectly and are other than active market observable inputs that reflect unadjusted quoted prices for identical assets or liabilities.

Letters of credit outstanding as of December 31, 2017 and 2016 totaled \$0.6 million and \$0.5 million, respectively. There were no amounts drawn as of December 31, 2017.

Contractual repayments of the Term A and Term A-1 components of Senior Credit Facility are due as follows:

D . . .

Year Ended December 31,	Principal Repayment
	(In thousands)
2018	\$ 60,000
2019	60,000
2020	90,000
2021	990,000

The outstanding balance of revolving credit component of the Senior Credit Facility is due on December 7, 2021.

# 2016 Convertible Senior Notes

On December 15, 2016, the Company extinguished its 2016 Convertible Notes by paying the remaining principal amount of \$227.1 million and issued 2.9 million shares of common stock with fair a value of \$122.0 million related to excess conversion value. No gain or loss on extinguishment was recognized as a result of the conversion. The Company also received 2.9 million shares of common stock from the exercise of call option with hedge participants with a fair value of \$123.1 million at the date of the exercise. The shares of common stock received from exercise of the call option are held as treasury stock as of December 31, 2016 at a weighted average price of \$41.78 for a total of \$123.1 million.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The 2016 Convertible Notes were issued on June 15, 2011 with the aggregate principal of \$230.0 million and maturity date of December 15, 2016. The 2016 Convertible Notes bore interest at a rate of 1.625% per annum payable semi-annually in arrears on December 15 and June 15 of each year. The 2016 Convertible Notes were senior, unsecured obligations and were convertible into cash and, if applicable, shares of its common stock based on a conversion rate defined within the note agreement.

In connection with the issuance of the 2016 Convertible Notes, the Company entered into call transactions and warrant transactions, primarily with the hedge participants. The initial strike price of the call transaction was approximately \$28.72 per share, subject to customary anti-dilution adjustments. The initial strike price of the warrant transaction was approximately \$35.03 per share, subject to customary anti-dilution adjustments. The strike price of the call transactions and warrant transactions has been adjusted similarly to the 2016 Convertible Notes as a result of the spin-off of the Company's spine business in July 2015 to \$26.42 per share and \$32.22 per share, respectively. The warrants expired on a series of expiration dates from March 2017 to August 2017. For the year ended December 31, 2017, the hedge participants exercised 8,707,202 warrants. As a result, the Company issued 2,839,743 shares of common stock for year ended December 31, 2017. The Company has no warrants outstanding as of December 31, 2017.

#### Convertible Note Interest

The interest expense components of the Company's convertible notes are as follows:

	Years Ended December 31		
	2016	2015	
	(In tho	usands)	
2016 Convertible Notes:			
Amortization of the discount on the liability component (1)	\$ 8,073	\$ 7,917	
Cash interest related to the contractual interest coupon (2)	3,407	3,430	
Total	<u>\$11,480</u>	\$11,347	

- (1) The amortization of the discount on the liability component of the 2016 Convertible Notes is presented net of capitalized interest of \$0.3 million and \$0.6 million for the years ended December 31, 2016 and 2015, respectively.
- (2) The cash interest related to the contractual interest coupon on the 2016 Convertible Notes is presented net of capitalized interest of \$0.1 million and \$0.3 million for the years ended December 31, 2016 and 2015.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

#### 6. DERIVATIVE INSTRUMENTS

## **Interest Rate Hedging**

The Company's interest rate risk relates to U.S. dollar denominated variable interest rate borrowings. The Company uses interest rate swap derivative instruments to manage earnings and cash flow exposure resulting from changes in interest rates. These interest rate swaps apply a fixed interest rate on a portion of our expected LIBOR-indexed floating-rate borrowings. The Company held the following interest rate swaps as of December 31, 2017 (dollar amounts in thousands):

Hedged Item	Current Notional Amount	Designation Date	Effective Date	Termination Date	Fixed Interest Rate	Floating Rate		mated Value
								ssets bilities)
3-month USD LIBOR Loan	\$ 50,000	June 22, 2016	December 31, 2016	June 30, 2019	1.062%	3-month USD LIBOR	\$	675
Loan	50,000	June 22, 2016	December 31, 2016	June 30, 2019	1.062%	3-month USD LIBOR		672
1-month USD LIBOR Loan	50,000	July 12, 2016	December 31, 2016	June 30, 2019	0.825%	1-month USD LIBOR		779
Loan	50,000	February 6, 2017	June 30, 2017	June 30, 2020	1.834%	3-month USD LIBOR		318
1-month USD LIBOR Loan	100,000	February 6, 2017	June 30, 2017	June 30, 2020	1.652%	1-month USD LIBOR		858
Loan	100,000	March 27, 2017	December 31, 2017	June 30, 2021	1.971%	1-month USD LIBOR		337
1-month USD LIBOR Loan	150,000	December 13, 2017	January 1, 2018	December 31, 2022	2.201%	1-month USD LIBOR		(455)
Loan	150,000	December 13, 2017	January 1, 2018	December 31, 2022	2.201%	1-month USD LIBOR		(434)
1-month USD LIBOR Loan	100,000	December 13, 2017	July 1, 2019	June 30, 2024	2.423%	1-month USD LIBOR		(684)
Loan	50,000	December 13, 2017	July 1, 2019	June 30, 2024	2.423%	1-month USD LIBOR		(255)
1-month USD LIBOR Loan	200,000	December 13, 2017	January 1, 2018	December 31, 2024	2.313%	1-month USD LIBOR	(:	1,219)
Total interested rate derivatives designated as cash flow hedge	\$1,050,000						\$	592

The Company designated these derivative instruments as cash flow hedges. The Company assess the effectiveness of these derivative instruments and recorded the change in the fair value of a derivative instrument designated as a cash flow hedge as unrealized gains or losses in accumulated other comprehensive income ("AOCI"), net of tax, until the hedged item affected earnings, at which point the effective portion of any gain or loss was reclassified to earnings. If the hedged cash flow does not occur, or if it becomes probable that it will not occur, the Company will reclassify the amount of any gain or loss on the related cash flow hedge to interest expense at that time.

In 2017, the Company reclassified \$0.1 million of pre-tax losses recorded as net in AOCI related to the interest rate hedges to earnings prior to the date of expiration. No gain or loss was reclassified to interest expense from AOCI in 2016.

The Company expects that approximately \$0.3 million of pre-tax income recorded in AOCI related to interest rate hedges could be reclassified to earnings in the next twelve months.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

## Foreign Currency Hedging

From time to time the Company enters into foreign currency hedge contracts intended to protect the U.S. dollar value of certain forecasted foreign currency denominated transactions. For contracts that are designated as a hedging instruments, the Company assess the effectiveness of the contracts. The change in fair value of foreign currency cash flow hedges are recorded in AOCI, net of tax, until the hedged item affects earnings. Once the related hedged item affects earnings, the Company reclassifies amounts recorded in AOCI to earnings. If the hedged forecasted transaction does not occur, or if it becomes probable that it will not occur, the Company will reclassify the amount of any gain or loss on the related cash flow hedge to earnings at that time. For contracts not designated as hedging instruments, the change in fair value of the contracts are recognized in other income (expense), net in the consolidated statements of operation, along with the offsetting foreign currency gain or loss on the underlying assets or liabilities.

The success of the Company's hedging program depends, in part, on forecasts of certain activity denominated in foreign currencies. The Company may experience unanticipated currency exchange gains or losses to the extent that there are differences between forecasted and actual activity during periods of currency volatility. In addition, changes in currency exchange rates related to any unhedged transactions may affect its earnings and cash flows.

On November 28, 2017, the Company entered into a foreign currency forward contract, with a notional amount of \$8.9 million to mitigate the foreign currency exchange risk related to a certain intercompany loan denominated in Swiss Francs ("CHF"). The contract is not designated as a hedging instrument. The Company recognized \$0.1 million gain from the change in fair value of the contract, which was included in other income (expense), net in the consolidated statement of operations. The fair value of the foreign currency forward contact was \$0.1 million as of December 31, 2017.

#### Cross-Currency Rate Swap

On October 2, 2017, the Company entered into cross currency swap agreements to convert a notional amount of \$300.0 million equivalent to 291.2 million of CHF denominated intercompany loans into U.S. dollars. The CHF denominated intercompany loans were the result of the purchase of intellectual property by a subsidiary in Switzerland as part of the Codman Acquisition. The objective of these cross-currency swaps is to reduce volatility of earnings and cash flows associated with changes in the foreign currency exchange rate. Under the terms of these contracts, which have been designated as cash flow hedges, the Company will make interest payments in Swiss Francs and receive interest in U.S. dollars. Upon the maturity of these contracts, the Company will pay the principal amount of the loans in Swiss Francs and receive U.S. dollars from the counterparties.

The Company held the following cross-currency rate swaps as of December 31, 2017 (dollar amounts in thousands):

	Effective Date	Termination Date	Fixed Rate		ate Notional mount	Fair Value Asset (Liability)
Pay CHF	October 2,	October 2,	1.75%	CHF	97,065	\$ (742)
Receive U.S.\$	2017	2020	4.38%	\$	100,000	
Pay CHF	October 2,	October 2,	1.85%	CHF	48,533	(610)
Receive U.S.\$	2017	2021	4.46%	\$	50,000	
Pay CHF	October 2,	October 2,	1.95%	CHF	145,598	(2,605)
Receive U.S.\$	2017	2022	4.52%	\$	150,000	
Total						\$(3,957)

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The cross-currency swaps were carried on the consolidated balance sheet at fair value, and changes in the fair values were recorded as unrealized gains or losses in AOCI. The Company recorded a gain of \$1.1 million in other income, net related to change in fair value related to the foreign currency rate translation to offset the gains or losses recognized on the intercompany loan. For the year ended December 31, 2017, the Company recorded a loss of \$2.1 million in AOCI related to change in fair value of the cross-currency swap and a gain of \$1.9 million in other income, net included in the consolidated statements of operations related to the interest rate differential of the cross-currency swap. The estimated gain that is expected to be reclassified to other income, net from AOCI as of December 31, 2017 within the next twelve months is \$7.8 million. As of December 31, 2017, the Company does not expect any gains or losses will be reclassified into earnings as a result of the discontinuance of these cash flow hedges because the original forecasted transaction will not occur.

## Counterparty Credit Risk

The Company manages its concentration of counterparty credit risk on its derivative instruments by limiting acceptable counterparties to a group of major financial institutions with investment grade credit ratings, and by actively monitoring their credit ratings and outstanding positions on an ongoing basis. Therefore, the Company considers the credit risk of the counterparties to be low. Furthermore, none of the Company's derivative transactions are subject to collateral or other security arrangements, and none contain provisions that depend upon the Company's credit ratings from any credit rating agency.

## Fair Value of Derivative Instruments

The Company has classified all of its derivative instruments within Level 2 of the fair value hierarchy because observable inputs are available for substantially the full term of the derivative instruments. The fair values of the interest rate swaps and cross-currency swaps were developed using a market approach based on publicly available market yield curves and the terms of the swap. The Company performs ongoing assessments of counterparty credit risk.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following table summarizes the fair value and presentation in the consolidated balance sheet for derivatives designated as hedging instruments:

	Fair Value as of December 31	
	2017	2016
	(In thou	ısands)
Location on Balance Sheet (1):		
Derivatives designated as hedges — Assets:		
Prepaid expenses and other current assets		
Interest rate swap (2)	\$ 1,521	\$ 242
Cross-currency swap	7,757	
Other assets		
Interest rate swap (2)	2,491	1,629
Total Derivatives designated as hedges — Assets	<u>\$11,769</u>	<u>\$1,871</u>
Derivatives designated as hedge — Liabilities		
Accrued expenses and other current liabilities		
Interest rate swap (2)	\$ 1,845	\$ —
Other liabilities		
Interest rate swap (2)	1,575	
Cross-currency swap	11,714	
Total Derivative designated as hedges — Liabilities	\$15,134	<u> </u>

<sup>(1)</sup> The Company classifies derivative assets and liabilities as current based on the cash flows expected to be incurred within the following 12 months.

<sup>(2)</sup> At December 31, 2017 and 2016, the total notional amounts related to the Company's interest rate swaps were \$1.1 billion and \$150.0 million, respectively.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following presents the effect of derivative instruments designated as cash flow hedges on the accompanying consolidated statements of operations during the years ended December 31, 2017 and 2016:

	Balance in AOCI Beginning of Year	Amount of Gain (Loss) Recognized in AOCI	Amount of Gain (Loss) Reclassified from AOCI into Earnings	Balance in AOCI End of Year	Location in Statements of Operations
			(In thousands)		
Year Ended December 31, 2017					
Interest rate swap	\$1,871	\$(1,355)	\$ (76)	\$ 592	Interest (expense)
					Other income
Cross-currency swap		(2,070)	3,034	(5,104)	(expense)
	<u>\$1,871</u>	<u>\$(3,425)</u>	\$2,958 ====	<u>\$(4,512)</u>	
Year Ended December 31, 2016					
Interest rate swap	<u>\$</u>	\$ 1,871	<u>\$</u>	\$ 1,871	Interest (expense)
	<u>\$</u>	\$ 1,871	<u>\$</u>	\$ 1,871	

#### 7. TREASURY STOCK

On October 25, 2016, the Board of Directors approved a resolution to retire approximately 17.8 million treasury stocks with an aggregate cost of \$367.1 million and return such shares to authorized and unissued shares of common stock. These shares became available for issue on October 28, 2016. The effect of retiring these treasury stocks was recognized in Common stock and Additional paid-in capital. There was no effect on total stockholders' equity as a result of retiring the treasury shares.

On October 25, 2016, the Board of Directors terminated its October 2014 authorization for the repurchase of its outstanding common stock and authorized management to repurchase up to \$150.0 million of its outstanding common stock through December 2018. Shares may be repurchased either in the open market or in privately negotiated transactions. As of December 31, 2017, there remained \$150.0 million available for repurchases under this authorization.

As part of the conversion of the 2016 Convertible Notes, the Company received 2.9 million shares of common stock from the exercise of call options with hedge participants. The shares of common stock received from exercise of the call options are held as treasury stock, and there were 2.9 million share of treasury stock outstanding as of December 31, 2017 and 2016, with cost of \$121.6 million and \$123.1 million, respectively, at a weighted average of \$41.77 and \$41.78 per share, respectively.

There were no treasury stock repurchases under this authorization during the years ended December 31, 2017 and 2016.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

#### 8. STOCK-BASED COMPENSATION

Stock-based compensation expense — all related to employees and members of the Board of Directors—recognized under the authoritative guidance was as follows:

	Years Ended December 31,		
	2017	2016	2015
		(In thousands)	
Selling, general and administrative	\$19,785	\$15,829	\$14,461
Research and development	1,273	1,048	714
Cost of goods sold	492	433	275
Total stock-based compensation expense	21,550	17,310	15,450
Total estimated tax benefit related to stock-based compensation			
expense	15,448	10,569	5,792
Net effect on net income	\$ 6,102	\$ 6,741	\$ 9,658

Estimated tax benefit related to stock-based compensation expense for the year ended December 31, 2017 does not include adjustments related to the effect of 2017 Tax Act.

# EMPLOYEE STOCK PURCHASE PLAN

The purpose of the Employee Stock Purchase Plan (the "ESPP") is to provide eligible employees of the Company with the opportunity to acquire shares of common stock at periodic intervals by means of accumulated payroll deductions. The ESPP is a non-compensatory plan. Under the ESPP, a total of 3.0 million shares of common stock are reserved for issuance. These shares will be made available either from the Company's authorized but unissued shares of common stock or from shares of common stock reacquired by the Company as treasury stock. At December 31, 2017, 2.1 million shares remain available for purchase under the ESPP. During the years ended December 31, 2017, 2016 and 2015, the Company issued 12,168 shares, 12,494 shares and 12,040 shares under the ESPP for \$0.6 million, \$0.5 million and \$0.4 million, respectively.

## **EQUITY AWARD PLANS**

As of December 31, 2017, the Company had stock options, restricted stock awards, performance stock awards, contract stock awards and restricted stock unit awards outstanding under three plans, the 2000 Equity Incentive Plan (the "2000 Plan"), the 2001 Equity Incentive Plan (the "2001 Plan"), and the 2003 Equity Incentive Plan (the "2003 Plan," and collectively, (the "Plans")).

In May 2010 and May 2017, the stockholders of the Company approved amendments to the 2003 Plan to increase by 3.5 million and 1.7 million, respectively, the number of shares of common stock that may be issued under the 2003 Plan. The Company has reserved 4.0 million shares under each of the 2000 Plan and the 2001 Plan, and 14.7 million shares under the 2003 Plan. The Plans permit the Company to grant incentive and non-qualified stock options, stock appreciation rights, restricted stock, contract stock, performance stock, or dividend equivalent rights to designated directors, officers, employees and associates of the Company.

Stock options issued under the Plans become exercisable over specified periods, generally within four years from the date of grant for officers and employees, and within one year from the date of the grant for members of the Board of Directors. The awards generally expire six years from the grant date for employees and from six to ten years for directors and certain executive officers. Restricted stock issued under the Plans vests ratably over specified periods, generally three years after the date of grant.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

In connection with the separation of SeaSpine on July 1, 2015 and in accordance with the Employee Matters Agreement, the Company made certain adjustments to the exercise price and number of share-based compensation awards with the intention of preserving the intrinsic value of the awards prior to the separation. Stock options issued in 2015 prior to the separation converted to those of the entity where the employee is working post-separation. Stock options issued prior to 2015 converted to both Integra and SeaSpine options such that the holders received stock options in both companies. The exercise price of these outstanding awards was adjusted to preserve the value of the awards immediately prior to the separation. Performance stock, restricted stock, and contract stock were adjusted for all employees holding outstanding awards to provide holders performance stock, restricted stock, and contract stock in the company that employs such employee following the separation. The adjustments to the Company's stock-based compensation awards resulted in an increase in incremental fair value of \$4.4 million, of which \$0.3 million, \$0.7 million and \$3.3 million was recorded during the year ended December 31, 2017, 2016 and 2015, respectively. The remaining \$0.1 million will be recognized prospectively over the remaining term of outstanding awards, adjusted, as applicable, for forfeitures.

# Stock Options

The Company values stock option grants using the binomial distribution model. Management believes that the binomial distribution model is preferable to the Black-Scholes model because it is a more flexible model that gives consideration to the impact of non-transferability and vesting provisions in valuing employee stock options.

In determining the value of stock options granted, the Company considered that it has never paid cash dividends and does not currently intend to pay cash dividends, and thus has assumed a 0% dividend yield. Expected volatilities are based on the historical volatility of the Company's stock price. The expected life of stock options is estimated based on historical data on exercise of stock options, post-vesting forfeitures and other factors to estimate the expected term of the stock options granted. The risk-free interest rates are derived from the U.S. Treasury yield curve in effect on the date of grant for instruments with a remaining term similar to the expected life of the options. The Company adopted ASU 2016-09 and elected to account for forfeitures as they occur.

The following weighted-average assumptions were used in the calculation of fair value:

	Years Ended December 31		
	2017	2016	2015
Dividend yield	0%	0%	0%
Expected volatility	30%	29%	29%
Risk free interest rate	2.18%	1.94%	1.96%
Expected life of option from grant date	8 years	8 years	8 years

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Weighted Average

The following table summarizes the Company's stock option activity.

	Shares	Weighted Average Exercise Price	Contractual Term in Years	Aggregate Intrinsic Value
Stock Options	(In thousands)			(In thousands)
Outstanding at January 1, 2017	2,083	\$20.65		
Granted	187	41.72		
Exercised	(531)	17.60		
Forfeited or Expired		_		
Outstanding at December 31, 2017	<u>1,739</u>	\$23.84	3.54	\$41,753
Vested or expected to vest at December 31, 2017	1,739	\$23.84	3.54	\$41,753
Exercisable at December 31, 2017	1,333	\$19.95	2.63	\$37,208

The intrinsic value of options exercised for the years ended December 31, 2017, 2016 and 2015 were \$16.2 million, \$9.7 million and \$5.8 million, respectively. The weighted average grant date fair value of options granted during the years ended December 31, 2017, 2016 and 2015 was \$16.95, \$12.48 and \$8.59, respectively. Cash received from option exercises was \$9.8 million, \$10.5 million and \$7.3 million, for the years ended December 31, 2017, 2016 and 2015, respectively. The realized tax benefit from options exercised were \$6.2 million, \$3.7 million and \$2.2 million for the years ended December 31, 2017, 2016 and 2015, respectively.

As of December 31, 2017, there was approximately \$4.0 million of total unrecognized compensation costs related to unvested stock options. These costs are expected to be recognized over a weighted-average period of approximately two years.

# Awards of Restricted Stock, Performance Stock and Contract Stock

The following table summarizes the Company's awards of restricted stock, performance stock and contract stock for the year ended December 31, 2017.

	Restricted	Stock Awards	and Co	nance Stock ntract Stock wards
	Shares	Weighted Average Grant Date Fair Value Per Share	Shares	Weighted Average Grant Date Fair Value Per Share
	(In thousands)		(In thousands)	
Unvested, January 1, 2017	512	\$28.49	345	\$21.62
Granted	286	44.15	213	43.75
Adjustments for performance achievement				
related to award target		_	25	36.90
Cancellations	(61)	36.00	(12)	30.52
Released	(286)	27.89	(225)	43.11
Vested but not released		_	<u>(174</u> )	32.40
Unvested, December 31, 2017	451	\$37.79	172	\$33.61

The Company recognized \$18.5 million, \$15.6 million and \$10.2 million in expense related to such awards during the years ended December 31, 2017, 2016 and 2015, respectively. The total fair market value of shares

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

vested and released in 2017, 2016 and 2015 was \$22.2 million, \$16.2 million and \$19.9 million, respectively. Vested awards include shares that have been fully earned, but had not been delivered as of December 31, 2017.

Performance stock awards have performance features associated with them. Performance stock, restricted stock and contract stock awards generally have requisite service periods of three years. The fair value of these awards is being expensed on a straight-line basis over the vesting period.

As of December 31, 2017, there was approximately \$16.9 million of total unrecognized compensation costs related to unvested restricted stock, performance stock and contract stock awards. These costs are expected to be recognized over a weighted-average period of approximately two years.

At December 31, 2017, there are approximately 0.5 million vested Restricted Units and 0.2 million vested performance share units held by various employees for which the related shares have not yet been issued. The final determination of the number of shares to be issued in respect of an award based on achievement of predefined performance metrics is made by the Company's Compensation Committee of the Board of Directors.

At December 31, 2017, there were approximately 3.4 million shares available for grant under the Plans.

The Company capitalized into inventory, share based compensation costs of \$0.5 million, \$0.5 million and \$0.3 million for the years ended December 31, 2017, 2016 and 2015, respectively. Such share based compensation was recognized as cost of goods sold when related inventory was sold.

#### 9. RETIREMENT BENEFIT PLANS

#### DEFINED BENEFIT PLANS

The Company maintains a defined benefit pension plan that covers former employees in its manufacturing plant located in Tuttlingen, Germany (the "Germany Plan"). The Company closed the Tuttlingen, Germany plant in December 2005. The Company did not terminate the Germany Plan, and the Company remains obligated for the accrued pension benefits related to this plan.

As part of the acquisition of Codman Neurosurgery, the Company assumed various defined benefit which covers certain employees acquired with Codman Neurosurgery in Austria, France, Japan, Germany and Switzerland.

Net periodic benefit costs for the Company's defined benefit pension plans for the year ended December 31, 2017 included the following amounts (amounts in thousand):

Service cost	\$ 565
Interest cost	95
Expected return on plan assets	(224)
Recognized net actuarial loss	8
Net period benefit cost	\$ 444

The following weighted average assumptions were used to develop net periodic pension benefit cost and the actuarial present value of projected pension benefit obligations for the year ended December 31, 2017:

Discount rate	0.74%
Expected return on plan assets	3.08%
Rate of compensation increase	1.70%

The Company's discount rates are determined by considering current yield curves representing high quality, long-term fixed income instruments. The resulting discount rates are consistent with the duration of plan

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

liabilities. In 2017, the discount rate was prescribed as the current yield on corporate bonds with an average rating of AA or AAA of equivalent currency and term to the liabilities. The expected return on plan assets represents the average rate of return expected to be earned on plan assets over the period the benefits included in the benefit obligation are to be paid. In developing the expected rate of return, the Company considers returns of historical market data as well as actual returns on the plan assets. Using this reference information, the long-term return expectations for each asset category are developed according to the allocation among those investment categories.

The assessment is determined using projections from external financial sources, long-term historical averages, actual returns by asset class and the various asset class allocations by market.

The following sets forth the change in projected benefit obligations and the change in plan assets for the years ended December 31, 2017 and a reconciliation of the funded status at December 31, 2017 (amounts in thousands):

Change In Projected Benefit Obligations	
Projected benefit obligation, beginning of year	\$ 668
Interest cost	95
Service cost	565
Actuarial loss	(12)
Employee contribution	180
Premiums paid	(89)
Benefit payment	(19)
Transfer from Codman Neurosurgery acquisition	46,448
Effect of foreign currency exchange rates	(175)
Projected benefit obligation, end of year	\$47,661
Change In Plan Assets	
Plan assets at fair value, beginning of year	\$ —
Actual return on plan assets	82
Employer contributions	450
Employee contributions	180
Premiums paid	(89)
Transfer from Codman Neurosurgery acquisition	26,477
Effect of foreign currency exchange rates	(157)
Plan assets at fair value, end of year	\$26,943
Reconciliation Of Funded Status	
Fair value of plan assets	\$26,943
Benefit obligations	47,661
Unfunded benefit obligation	\$20,718

The unfunded benefit obligation is included in other liabilities in the consolidated balance sheet at December 31, 2017.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

As of December 31, 2017, the Company has \$0.4 million gain recognized within accumulated other comprehensive income (loss) that has not been recognized as component of net periodic cost. The combined accumulated benefit obligation for the defined benefit plans was \$42.9 million as of December 31, 2017.

Unrecognized gains and losses are amortized over the average remaining future service for each plan. For plans with no active employees, they are amortized over the average life expectancy. The amortization of gains and losses is determined by using a 10% corridor of the greater of the market value of assets or the accumulated benefit obligation. Total unamortized gains and losses in excess of the corridor are amortized over the average remaining future service.

Prior service costs/benefits for the pension plans are amortized over the average remaining future service of plan participants at the time of the plan amendment. Prior service cost/benefit is amortized over the average remaining service to full eligibility age of plan participants at the time of the plan amendment.

The net plan assets of the pension plans are invested in common trusts as of December 31, 2017. Common trusts are classified as Level 2 in fair value hierarchy. The fair value of common trusts is valued at net asset value based on the fair values of the underlying investments of the trusts as determined by the sponsor of the trusts. The investment strategy of the Company's defined benefit plans is both to meet the liabilities of the plans as they fall due and to maximize the return on invested assets within appropriate risk profile.

The investment strategy for the Company's defined benefit plans is both to meet the liabilities of the plans as they fall due and to maximize the return on invested assets within appropriate risk tolerances. The benefit plans in Austria, France and Germany had no assets at December 31, 2017.

As of December 31, 2017, no plan assets are expected to be returned to the Company in the next twelve months.

The following table is the summary of expected future benefit payments (in thousands):

2018	\$ 158
2019	225
2020	296
2021	454
2022	466
Next five years	5,380

As of December 31, 2017, contributions expected to be paid to the plan in 2018 is \$1.8 million.

In September 2015, the Company completed the buy-out of its defined benefit pension plan in the U.K. which covered certain employees and retirees. All plan assets of the defined benefit pension plan were transferred to an independent financial services firm and the Company made cash contributions of approximately \$1.8 million for the year-ended December 31, 2015. The Company recorded expenses totaling approximately \$5.6 million in selling, general and administrative costs in conjunction with the buy-out of the plan. The buy-out of the U.K. pension plan eliminated future obligations of the Company under this plan.

#### **DEFINED CONTRIBUTION PLANS**

The Company also has various defined contribution savings plans that cover substantially all employees in the United States, Belgium, Canada, France, Japan, Netherlands, the U.K. and Puerto Rico. The Company matches a certain percentage of each employee's contributions as per the provisions of the plans. Total contributions by the Company to the plans were \$7.2 million, \$5.6 million and \$3.7 million for the years ended December 31, 2017, 2016 and 2015, respectively.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

#### 10. LEASES AND RELATED PARTY LEASES

The Company leases administrative, manufacturing, research and distribution facilities and various manufacturing, office and transportation equipment through operating lease agreements. Future minimum lease payments under operating leases at December 31, 2017 were as follows:

	Related Parties	Third Parties	Total
		(In thousands	s)
2018	\$ 296	\$13,449	\$13,745
2019	296	12,245	12,541
2020	296	9,534	9,830
2021	296	7,058	7,354
2022	296	5,849	6,145
Thereafter	2,019	45,714	47,733
Total minimum lease payments	\$3,499	\$93,849	\$97,348

Total rental expense for the years ended December 31, 2017, 2016 and 2015 and was \$12.9 million, \$10.3 million and \$10.1 million, respectively, and included \$0.3 million, in related party rental expense in each of the three years.

There were no future minimum lease payments under capital leases at December 31, 2017.

## Related Party Leases

Until December 27, 2016, the Company leased certain production equipment from a corporation whose sole stockholder is a general partnership, of which the Company's principal owner and former Chairman and director is a partner and the President. Under the terms of the lease agreement, the Company pays \$0.1 million per year to the related party lessor. Effective December 27, 2016, the Company purchased the production equipment for \$0.4 million.

The Company also leases its manufacturing facility in Plainsboro, New Jersey, from a general partnership that is 50% owned by a corporation whose shareholders are trusts, whose beneficiaries include family members of the Company's principal owner and former Chairman and director. The term of the current lease agreement is through October 31, 2032 at an annual rate of approximately \$0.3 million per year. The current lease agreement also provides (i) a 5-year renewal option for the Company to extend the lease from November 1, 2032 through October 31, 2037 at the fair market rental rate of the premises, and (ii) another 5-year renewal option to extend the lease from November 1, 2037 through October 31, 2042 at the fair market rental rate of the premises.

## 11. INCOME TAXES

Income (Loss) before income taxes consisted of the following:

	Years Ended December 31,		
	2017	2016	2015
	(In thousands)		
United States operations	\$(32,640)	\$51,351	\$37,450
Foreign operations	44,025	39,055	23,221
Total	\$ 11,385	\$90,406	\$60,671

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The 2017 Tax Act is making significant changes to the previous tax law. Included among the numerous changes are a reduction of the federal statutory rate from 35% to 21%, limitations on the deductibility of interest expense and executive compensation, and the elimination of certain domestic tax deductions such as the domestic production activities deduction. Additionally, the 2017 Tax Act imposes a one-time repatriation tax on accumulated foreign subsidiaries' untaxed foreign earnings (the "Toll Tax").

The 2017 Tax Act implements a territorial tax system and includes base erosion provisions on non-U.S. earnings, which subjects certain foreign earnings to additional taxation as global intangible low-taxed income ("GILTI"). These provisions are effective on January 1, 2018. The Company has not completed its full analysis related to the GILTI provision within the 2017 Tax Act. The Company has not yet elected a policy as to whether it will recognize deferred taxes for basis difference expected to reverse as GILTI or whether the Company will account for GILTI as a period costs if and when incurred.

Deferred tax assets and liabilities are measured at the enacted tax rate expected to apply when they are realized or settled. We recognized an estimated benefit of \$43.4 million from the re-measurement of the Company's net deferred tax liabilities at the reduced rate of 21%.

The 2017 Tax Act eliminates the deferral of U.S. income tax on unrepatriated earnings from foreign subsidiaries through the imposition of the Toll Tax, a one-time tax in 2017 on deemed repatriated foreign earnings, which is paid over an eight-year period. The tax is assessed on the foreign subsidiary accumulated foreign earnings that were not previously taxed. Foreign earnings in cash and cash equivalents are taxed at 15.5% and all other earnings are taxed at 8.0%. The calculation of the Toll Tax allows for the ability to offset positive foreign earnings with existing foreign deficits and use of foreign tax credits. The Company prepared a reasonable estimate of this tax and expects to continue to refine the estimate as it finalizes its 2017 tax returns. As of December 31, 2017, we recorded an estimated income tax expense of \$5.5 million related to the Toll Tax, of which, \$0.4 million is expected to be paid within one year.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the 2017 Tax Act. The Company has made reasonable estimates of the impact of the 2017 Tax Act on its consolidated financial statements and has recognized the provisional tax impacts related to deemed repatriated earnings and the revaluation of deferred tax assets and liabilities, as well as its indefinite reinvestment assertion. and included these amounts in its consolidated financial statements for the year ended December 31, 2017. The ultimate impact may differ from these provisional amounts, possibly materially, due to, among other things, additional analysis, changes in interpretations and assumptions the Company has made, additional regulatory guidance that may be issued, and actions the Company may take as a result of the 2017 Tax Act. The accounting is expected to be completed before filing the 2017 U.S. corporate income tax return in 2018.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

A reconciliation of the U.S. Federal statutory rate to the Company's effective tax rate is as follows:

	Years Ended December 31,		
	2017	2016	2015
Federal statutory rate	35.0%	35.0%	35.0%
Increase (decrease) in income taxes resulting from:			
State income taxes, net of federal tax benefit	(17.0)%	(0.2)%	1.3%
Foreign operations	(112.7)%	(10.0)%	(12.5)%
Spine valuation allowance	%	%	61.1%
Excess tax benefits from stock compensation	(57.9)%	(3.9)%	%
Charitable contributions	(10.6)%	(0.4)%	(1.0)%
Nondeductible meals and entertainment	8.8%	0.8%	0.9%
Domestic production activities deduction	%	(2.6)%	(2.4)%
Intercompany profit in inventory	11.6%	1.0%	3.1%
Nondeductible facilitative costs	22.5%	0.2%	3.1%
Changes in valuation allowances	8.0%	0.4%	0.3%
Uncertain tax positions	(4.6)%	(0.3)%	0.2%
Research and development credit	(13.2)%	(1.2)%	(1.9)%
Return to provision	(4.3)%	(1.5)%	1.7%
Reduction of book gain on sale of assets	(4.6)%	%	%
Tax reform — Toll Tax	48.1%	%	%
Tax reform — remeasurement of deferred tax assets and liabilities	(378.6)%	%	%
Other	0.8%	0.2%	(0.2)%
Effective tax rate	(468.7)% =====	17.5%	88.7%

The effective tax rate decreased by 486.2% in 2017 compared with 2016 primarily from recording an income tax benefit of \$43.4 million resulted from the reduction of the U.S. tax rate from 35% to 21%, offset by an expense of \$5.5 million for the Toll Tax imposed on deemed repatriation of foreign untaxed earnings. In addition, the jurisdictional mix of income before tax in U.S.-based operations relative to foreign operations was a driver of a lower effective tax rate in 2017. The change in jurisdictional mix of income results primarily from significant acquisition and integrations costs incurred in the U.S. for the 2017 acquisitions of Derma Sciences and Codman Neurosurgery.

During 2017, the Company's foreign operations generated a \$1.2 million increase in income tax expense when compared with 2016, as a result of, among other factors, the geographic and business mix of taxable earnings and losses. The 2017 foreign effective tax rate is 15.7%, an increase of approximately 2.9% over the rate in 2016. The Company's foreign tax rate is primarily based upon statutory rates.

The Company is negotiating a reduced corporate tax rate of 8% for the manufacturing operations in Switzerland. Once finalized, the negotiated rate will be available through 2024.

During 2016, the Company's foreign operations generated a \$0.8 million increase in income tax expense when compared with 2015, as a result of, among other factors, the geographic and business mix of taxable earnings and losses and the re-establishment of an income tax benefit in France for half of the year related to intercompany interest. The 2016 foreign effective tax rate is 12.7%, a decrease of approximately 2.1% over the rate in 2015. The Company's foreign tax rate is primarily based upon statutory tax rates and is not related to a tax holiday or negotiated tax rate.

# INTEGRA LIFESCIENCES HOLDINGS CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The provision for income taxes consisted of the following:

	Years Ended December 31,			
	2017	2016	2015	
	(In thousands)			
Current:				
Federal	\$ 6,644	\$13,700	\$46,665	
State	1,233	2,503	2,301	
Foreign	6,069	6,113	5,205	
Total current	\$ 13,946	\$22,316	\$54,171	
Deferred:				
Federal	(66,466)	(3,400)	1,282	
State	(758)	(1,751)	(394)	
Foreign	(80)	(1,323)	(1,239)	
Total deferred	\$(67,304)	\$(6,474)	\$ (351)	
Provision for income taxes	\$(53,358)	\$15,842	\$53,820	

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The income tax effects of significant temporary differences that give rise to deferred tax assets and liabilities, shown before jurisdictional netting, are presented below:

	December 31,		
	2017	2016	
	(In thousands)		
Assets:			
Doubtful accounts	\$ 1,811	\$ 2,344	
Inventory related items	29,266	30,074	
Tax credits	6,015	1,040	
Accrued vacation	2,556	3,264	
Accrued bonus	997	7,842	
Stock compensation	10,426	16,031	
Deferred revenue	2,395	2,345	
Net operating loss carryforwards	37,492	15,058	
Unrealized foreign exchange loss	1,177	96	
Charitable contributions carryforward	1,287	5	
Others	3,077	128	
Total deferred tax assets	96,499	78,227	
Less valuation allowance	(7,961)	(3,604)	
Deferred tax assets after valuation allowance	\$ 88,538	\$ 74,623	
Liabilities:			
Intangible and fixed assets	(146,327)	(215,438)	
Others	(1,091)	(1,191)	
Total deferred tax liabilities	\$(147,418)	\$(216,629)	
Total net deferred tax liabilities	\$ (58,880)	<u>\$(142,006)</u>	

The deferred tax assets and liabilities are measured based on the enacted tax rates that apply in years in which the temporary differences are expected to be realized or incurred. The Company re-measured its deferred tax assets and liabilities as a result of the 2017 Tax Act. The primary impact of this re-measurement was a decrease in the net deferred tax liability for the reduction of the U.S. statutory income tax rate from 35% to 21%.

At December 31, 2017, the Company had net operating loss carryforwards of \$148.2 million for federal income tax purposes, \$26.4 million for foreign income tax purposes and \$28.2 million for state income tax purposes to offset future taxable income. The federal net operating loss carryforwards expire through 2033, \$1.0 million of the foreign net operating loss carryforwards expire through 2026 with the remaining \$25.4 million having an indefinite carry forward period. The state net operating loss carryforwards expire through 2037.

A valuation allowance of \$8.0 million, \$3.6 million and \$4.9 million is recorded against the Company's gross deferred tax assets of \$96.5 million, \$78.2 million, and \$82.5 million recorded at December 31, 2017, 2016 and 2015, respectively.

The valuation allowance relates to deferred tax assets for certain items that will be deductible for income tax purposes under very limited circumstances and for which the Company believes it is not more likely than not that it will realize the associated tax benefit. In the event that the Company determines that it would be able to realize

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

more or less than the recorded amount of net deferred tax assets, an adjustment to the deferred tax asset valuation allowance would be recorded in the period such a determination is made.

The Company's valuation allowance increased by \$4.4 million, and \$1.3 million in 2017 and 2016, respectively. The 2017 overall increase in the valuation allowance was primarily due to establishing a valuation allowance against research credits as part of the acquisition of Derma Sciences.

A reconciliation of the beginning and ending amount of uncertain tax benefits is as follows:

	Years Ended December 31,		
	2017	2016	2015
	(	In thousand	s)
Balance, beginning of year	\$ 754	\$1,085	\$ 959
Gross increases:			
Current year tax positions	402		_
Prior years' tax positions	_	380	541
Gross decreases:			
Prior years' tax positions	(777)	(546)	_
Settlements	_	_	_
Statute of limitations lapses	(17)	(131)	(404)
Other	62	(34)	(11)
Balance, end of year	\$ 424	\$ 754	\$1,085

Approximately \$0.4 million of the balance at December 31, 2017 relates to uncertain tax positions that, if recognized, would affect the annual effective tax rate. Included in the balance of uncertain tax positions at December 31, 2017 is less than \$0.1 million related to tax positions for which it is reasonably possible that the total amounts could be reduced during the twelve months following December 31, 2017.

The Company recognizes interest and penalties relating to uncertain tax positions in income tax expense. The Company recognized a minimal benefit for the years ended December 31, 2017, 2016 and 2015. The Company had minimal interest and penalties accrued for the years ended December 31, 2017 and 2016 and 2015.

The Company files Federal income tax returns, as well as multiple state, local and foreign jurisdiction tax returns. The Company is no longer subject to examinations of its Federal income tax returns by the IRS through fiscal year 2013. All significant state and local matters have been concluded through fiscal 2012. All significant foreign matters have been settled through fiscal 2012.

## INTEGRA LIFESCIENCES HOLDINGS CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

#### 12. NET INCOME (LOSS) PER SHARE

Basic and diluted net income (loss) per share was as follows:

	Years Ended December 31,		
	2017	2016	2015
		(In thousand per share a	
Basic net income (loss) per share:			
Net income from continuing operations	\$64,743	\$74,564	\$ 6,851
Net loss from discontinued operations			(10,370)
Net income (loss)	\$64,743	\$74,564	\$ (3,519)
Weighted average common shares outstanding	76,897	74,386	68,990
Basic net income per common share from continuing operations	\$ 0.84	\$ 1.00	\$ 0.10
Basic net loss per common share from discontinued operations			(0.15)
Basic net income (loss) per common share	\$ 0.84	\$ 1.00	\$ (0.05)
Diluted net income (loss) per share:			
Net income from continuing operations	\$64,743	\$74,564	\$ 6,851
Net loss from discontinued operations			(10,370)
Net income (loss)	\$64,743	\$74,564	\$ (3,519)
Weighted average common shares outstanding — Basic	76,897	74,386	68,990
Effect of dilutive securities:			
2016 Convertible notes	_	2,296	922
Warrants	971	1,166	_
Stock options and restricted stock	1,253	1,346	1,442
Weighted average common shares for diluted earnings per share	79,121	79,194	71,354
Diluted net income per common share from continuing operations	\$ 0.82	\$ 0.94	\$ 0.10
Diluted net loss per common share from discontinued operations			(0.15)
Diluted net income (loss) per common share	\$ 0.82	\$ 0.94	\$ (0.05)

In connection with the separation of SeaSpine on July 1, 2015 and in accordance with the Employee Matters Agreement, the Company made certain adjustments to the exercise price and number of share-based compensation awards with the intention of preserving the intrinsic value of the awards prior to the separation. Stock options issued in 2015 prior to the separation converted to those of the entity where the employee is working post-separation. Stock options issued prior to 2015 converted to both Integra and SeaSpine options such that the holders received stock options in both companies. The exercise price of these outstanding awards was adjusted to preserve the value of the awards immediately prior to the separation. Performance stock, restricted stock, and contract stock were adjusted to provide holders performance stock, restricted stock, and contract stock in the company that employs such employee following the separation. The adjustments to the Company's stock-based compensation awards resulted in an increase in incremental fair value of \$4.4 million, of which \$0.3 million, \$0.7 million and \$3.3 million were recorded during the year-ended December 31, 2017, 2016 and 2015, respectively. The remaining \$0.1 million will be recognized prospectively over the remaining term of outstanding awards, adjusted, as applicable, for forfeitures.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Common stock of approximately 0.2 million shares at December 31, 2017, 2016 and 2015, that are issuable through exercise of dilutive securities were not included in the computation of diluted net income per share because their effect would have been anti-dilutive.

For the year-ended December 31, 2015 and for the period from January 1, 2016 to December 15, 2016, the date of 2016 Convertible Notes settlement, the potential excess conversion value on the 2016 Convertible Notes was included in the Company's dilutive share calculation because the average stock price for period outstanding exceeded the conversion price. On December 15, 2016, the Company settled the 2016 Convertible Notes and issued 2.9 million shares of common stock related to the conversion premium of 2016 Convertible Notes. The Company also exercised the call option with hedge participants and received 2.9 million shares of common stock. See Note 5 for additional information related to our 2016 Convertible Notes.

The Company also had warrants outstanding related to its 2016 Convertible Notes for the year ended 2016 and 2015 and the Company's 2016 Convertible Notes are convertible to common shares in certain circumstances (see Note 5). These warrants and the excess conversion value of the 2016 Convertible Notes are included in the diluted earnings per share calculation using the treasury stock method, unless the effect of including such items would be anti-dilutive. For the years ended December 31, 2017 and 2016, the potential excess conversion value on the 2016 Notes were included in the Company's dilutive share calculation because the average stock price for the years ended December 31, 2017 and 2016 exceeded the conversion price.

Performance Shares and Restricted Units that entitle the holders to approximately 0.5 million shares of common stock are included in the basic and diluted weighted average shares outstanding calculation from their date of issuance because no further consideration is due related to the issuance of the underlying common shares.

#### 13. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

Changes in accumulated other comprehensive income (loss) by component between December 31, 2017 and 2016 are presented in the table below, net of tax:

	Gains and Losses on Cash Flow Hedges	•	Foreign Currency Items	Short-term Investment	Total
		(In	thousands)		
Balance at January 1, 2017	\$ 1,071	<u>\$(36)</u>	\$(58,189)	<u>\$</u>	\$(57,154)
Other comprehensive (loss) income before reclassifications		(57)	37,454	(3,019)	32,256
Less: Income (loss) reclassified from accumulated other comprehensive income (loss)	1,928	_		(3,019)	(1,091)
Current period other					
comprehensive (loss) income	(4,050)	(57)	37,454		33,347
Balance at December 31, 2017	<u>\$(2,979)</u>	<u>\$(93)</u>	<u>\$(20,735)</u>	<u>\$</u>	\$(23,807)

For the year ended December 31, 2017, income tax expense related to comprehensive losses from cash flow hedges was \$2.3 million and a minimal amount related to benefit pension items.

#### 14. COMMITMENTS AND CONTINGENCIES

In consideration for certain technology, manufacturing, distribution, and selling rights and licenses granted to the Company, the Company has agreed to pay royalties on sales of certain products that it sells. The royalty payments that the Company made under these agreements were not significant for any of the periods presented.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The Company is subject to various claims, lawsuits and proceedings in the ordinary course of the Company's business, including claims by current or former employees, distributors and competitors and with respect to its products and product liability claims, lawsuits and proceedings, some of which have been settled by the Company. In the opinion of management, such claims are either adequately covered by insurance or otherwise indemnified, or are not expected, individually or in the aggregate, to result in a material, adverse effect on the Company's financial condition. However, it is possible that the Company's results of operations, financial position and cash flows in a particular period could be materially affected by these contingencies.

TEI, acquired by Integra on July 17, 2015, manufactures a bovine-derived surgical mesh product for Boston Scientific Corporation ("BSC") and has been named as a defendant in lawsuits under a broad range of products liability theories, many of which have not been served on TEI. As of December 31, 2017, only ten active cases remained against TEI. Pursuant to an indemnification agreement with BSC (i) BSC is managing the litigation; (ii) TEI has in place a products liability insurance policy, of which it must exhaust \$3.0 million before BSC's indemnity begins to cover relevant claims (and of which only a small portion has been utilized to date and against which the insurer has reserved the entire \$3.0 million). Because the thrust of products liability litigation focuses on synthetic surgical mesh products, counsel is filing motions to dismiss on behalf of TEI in many cases. In addition, Integra has certain protections in the merger agreements with TEI which would indemnify it for approximately \$30.0 million for the first fifteen months after closing and between \$20.0 and \$30.0 million for the remainder of the three-year period after closing for losses relating to a variety of matters, including half of certain products liability claims (including those related to the product it manufactures for BSC) not covered by insurance. As of March 1, 2018, no indemnification payments were received nor owed in relation to the lawsuits.

The Company accrues for loss contingencies when it is deemed probable that a loss has been incurred and that loss is estimable. The amounts accrued are based on the full amount of the estimated loss before considering insurance proceeds, and do not include an estimate for legal fees expected to be incurred in connection with the loss contingency. The Company consistently accrues legal fees expected to be incurred in connection with loss contingencies as those fees are incurred by outside counsel as a period cost.

#### Contingent Consideration

The Company determined the fair value of contingent consideration during the twelve-month period ended December 31, 2017 and 2016 to reflect the change in estimate, additions, payments, transfers and the time value of money during the period.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

A reconciliation of the opening balances to the closing balances of these Level 3 measurements for the year ended December 31, 2017 and 2016 is as follows (in thousands):

	Contingent Consideration Liabilities Related to Acquisition of Derma Sciences (See Note 4)		Contingent Consideration Liability Related to Acquisition of Confluent Surgical, Inc.		Location in Financial Statements	
	Short-term	Long-term	Short-term	Long-term		
Balance as of January 1, 2016	\$ —	\$ —	\$ —	\$ 21,831		
Change in fair value					Selling, general and	
				205	administrative	
Balance as of December 31, 2016	_	_	_	22,036		
Additions from acquisition of Derma Sciences	33,707	3,467	_	_		
Transfers from long-term to current portion	2,193	(2,193)	22,184	(22,184)		
Payments	(31,346)	_	_	_		
Change in fair value					Selling, general and	
	(4,239)	113	294	148	administrative	
Balance as of December 31, 2017	\$ 315	<u>\$ 1,387</u>	\$22,478	<u> </u>		

On January 15, 2014, the Company acquired all outstanding shares of Confluent Surgical, Inc., ("Confluent Surgical"). The purchase price includes contingent consideration. The potential maximum undiscounted contingent consideration of \$30.0 million consists of \$25.0 million upon obtaining certain U.S. governmental approvals and \$5.0 million upon obtaining certain European governmental approvals, both related to the completion of the transition of the Confluent Surgical business. The fair values of contingent consideration related to the acquisition of Confluent Surgical were estimated using a discounted cash flow model using discount rate of 2.2%. The Company expects to receive the U.S. and European governmental approvals and pay the related contingent consideration in 2018.

The Company assesses these assumptions on an ongoing basis as additional information affecting the assumptions is obtained. The contingent consideration balance was included in accrued expenses and other current liabilities and other liabilities at December 31, 2017 and in other liabilities at December 31, 2016.

#### Supply Agreement Liability and Above Market Supply Agreement Liability

On January 15, 2014, the Company entered into a transitional supply agreement with Covidien Group S.a.r.l ("Covidien"). This agreement contains financial incentives to Covidien for the timely supply of products each fiscal quarter through the third anniversary of the agreement. The prices paid under the supply agreement are essentially flat through the third anniversary of the agreement, and then increase significantly in each of the following three years.

The Company determined the fair value of its supply agreement liability and above market supply agreement liability with Covidien for the year ended December 31, 2017 and 2016 to reflect the payments, change in estimate and the time value of money during the period.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

A reconciliation of the opening balances to the closing balances of these Level 3 measurements is as follows (in thousands):

	Supply Agreement Liability		Above Mar Agreemen		Location in Statement of Operations
	Short-term	Long-term	Short-term	Long-term	
Balance as of January 1, 2016	\$ 1,991	\$ 161	\$ —	\$ 931	
Payments	(2,000)	_	_	(47)	
Transfer from long-term to current potion	161	(161)	_	_	
Loss from increase in fair value	14	_	_	1,083	Selling, general and administrative
Other				681	Goodwill
Balance as of December 31, 2016	166	_	_	2,648	
Payments	(166)	_	(113)	(415)	
Transfer	_	_	3,273	(3,273)	
Loss from increase in fair value					Selling, general and
			(519)	1,040	administrative
Balance as of December 31, 2017	<u> </u>	<u>\$</u>	\$2,641	<u>\$</u>	

The fair values of supply agreement liability and above market supply agreement liability were estimated using a discounted cash flow model using discount rate of 12.0%. The Company assesses the assumptions on an ongoing basis as additional information impacting assumptions is obtained. The supply agreement liability — short-term and above market supply agreement liability — short-term were included in accrued expenses and other current liabilities and the supply agreement — long term and above market supply agreement liability — long-term were included in other liabilities in the consolidated balance sheets.

There were no transfers between Level 1, 2 or 3 during 2017 or 2016. If the Company's estimates regarding the fair value of its contingent consideration, supply agreement liability and above market supply agreement liability are inaccurate, a future adjustment to these estimated fair values may be required which could change significantly.

#### BioD

On April 7, 2017, the Company's indirect wholly-owned subsidiary, BioD filed an action in the Superior Court of New Jersey, Chancery Division, Middlesex County seeking a declaration that the resignation of Russell Olsen, the former CEO of BioD, was "for Good Reason" (as defined in Olsen's employment agreement); a finding that Olsen breached the implied covenant of good faith and fair dealing, committed legal fraud, equitable fraud and negligent misrepresentation; and an award of damages for such actions, including a return of severance fees paid to Olsen. BioD was acquired in August 2016 by Derma Sciences, which Integra subsequently acquired in February 2017. After receiving a job offer from Integra that Olsen believed materially diminished his title and authority, on February 24, 2017 Olsen indicated his intention to terminate his position with BioD for Good Reason, as otherwise permitted by his employment agreement with BioD. Shortly thereafter, Cynthia Weatherly (as representative of the former equity owners of BioD) claimed in a letter to Derma Sciences that Olsen's resignation was a "termination Without Cause" (as also defined in Olsen's employment agreement), which would arguably trigger an acceleration of the earn out under a merger agreement between Derma Sciences, BioD and other parties (the "BioD Merger Agreement"), which was entered into in July 2016, and require as a result of the acceleration the payment of \$26.5 million by BioD. As previously disclosed and described in Note 4 — Business

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Acquisition, to the Company's consolidated financial statements for the year ended December 31, 2017, Integra assumed this contingent liability in connection with its acquisition of Derma Sciences. The action for a declaratory judgment was filed to clarify that Olsen's termination was for Good Reason and not Without Cause. If the employment agreement was terminated for Good Reason, then the Company believes that the earn out provision under the BioD Merger Agreement should not be accelerated and the likelihood of loss is remote.

#### 15. SEGMENT AND GEOGRAPHIC INFORMATION

In the first quarter of 2015, the Company began to disclose three global reportable segments as a result of changes in how the Company internally manages and reports the results of its businesses to its chief operating decision maker. On July 1, 2015, the Company completed the separation of its spine business, which was a reportable segment. See Note 3 — *Discontinued Operations* for additional information. Following the separation, the Company is disclosing two reportable segments.

In October 2017, as part of our branding strategy, the Company leveraged the globally recognized Codman name by rebranding the Specialty Surgical Solutions segment to Codman Specialty Surgical.

The two reportable segments and their activities are described below:

- The Codman Specialty Surgical segment includes (i) the Neurosurgery business, which sells a full line of products for neurosurgery and neuro critical care such as tissue ablation equipment, dural repair products, cerebral spinal fluid management devices, intracranial monitoring equipment, and cranial stabilization equipment and (ii) the precision tools and instruments business, which sells more than 60,000 instrument patterns and surgical and lighting products to hospitals, surgery centers, and dental, podiatry, and veterinary offices.
- The Orthopedics and Tissue Technologies segment includes such offerings as skin and wound repair, bone and joint fixation implants in the upper and lower extremities, bone grafts and nerve and tendon repair.

The Corporate and other category includes (i) various legal, finance, information systems, executive, and human resource functions, (ii) brand management, and (iii) share-based compensation costs. Prior to the realignment, costs related to procurement, manufacturing operations and logistics for the Company's entire organization were not allocated to operating segments. In connection with the realignment, a portion of these costs have now been incorporated into the disclosed operating segments.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The operating results of the various reportable segments as presented are not comparable to one another because (i) certain operating segments are more dependent than others on corporate functions for unallocated general and administrative and/or operational manufacturing functions, and (ii) the Company does not allocate certain manufacturing costs and general and administrative costs to the operating segment results. Net sales and profit by reportable segment for the years ended December 31, 2017, 2016 and 2015 are as follows:

	Years Ended December 31,			
	2017	2016	2015	
		(In thousands)		
Segment Net Sales				
Codman Specialty Surgical	\$ 720,301	\$ 632,524	\$ 586,918	
Orthopedics and Tissue Technologies	467,935	359,551	295,816	
Total revenues	\$1,188,236	\$ 992,075	\$ 882,734	
Segment Profit				
Codman Specialty Surgical	\$ 292,971	\$ 256,629	\$ 242,479	
Orthopedics and Tissue Technologies	129,697	103,852	87,844	
Segment profit	422,668	360,481	330,323	
Amortization	(20,370)	(13,862)	(9,953)	
Corporate and other	(357,494)	(231,279)	(240,783)	
Operating income	\$ 44,804	<u>\$ 115,340</u>	\$ 79,587	

The Company does not allocate any assets to the reportable segments, and, therefore, no asset information is reported to the chief operating decision maker and disclosed in the financial information for each segment.

The Company attributes revenue to geographic areas based on the location of the customer. There are certain revenues managed by the various U.S. segments above that are generated from non-U.S. customers and therefore included in Europe and the Rest of World revenues below.

Total revenue, net and long-lived assets (tangible) by major geographic area are summarized below:

	United States*	Europe	Rest of the World	Consolidated
		(Ir		
Total revenue, net:				
2017	\$894,260	\$150,147	\$143,829	\$1,188,236
2016	765,608	120,588	105,879	992,075
2015	680,824	103,057	98,853	882,734
Total long-lived assets:				
2017	\$247,154	\$ 30,942	\$ 7,233	\$ 285,329
2016	213,898	18,970	1,235	234,103

<sup>\*</sup> Includes long-lived assets in Puerto Rico.

# INTEGRA LIFESCIENCES HOLDINGS CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

#### 16. SELECTED QUARTERLY INFORMATION — UNAUDITED

Quarter	Total revenue, net	Gross margin	Net income	Per Share - Basic (1)	Per Share - Diluted (1)
		(In thousands,	except per s	hare data)	
2017					
First	\$ 258,636	\$172,051	\$ 6,394	\$0.09	\$0.08
Second	282,164	183,166	10,835	0.14	0.14
Third	278,834	177,077	3,159	0.04	0.04
Fourth (3) (4)	368,602	220,431	44,355	0.57	0.56
	\$1,188,236	\$752,725	\$64,743		
2016					
First (2)	\$ 236,770	\$151,997	\$13,419	\$0.18	\$0.18
Second	249,309	159,744	12,755	0.17	0.16
Third	250,332	161,003	20,144	0.27	0.25
Fourth	255,664	170,242	28,246	0.38	0.35
	\$ 992,075	\$642,986	\$74,564		

- (1) Per common share amounts for the quarters and full years have been calculated separately. Accordingly, quarterly amounts do not necessarily add to the annual amount because of differences in the weighted average common shares outstanding during each period principally due to the effect of the Company's issuing shares of its common stock during the year.
- (2) The net income for first quarter of 2016 was adjusted to reflect the effect of the adoption of *ASU* 2016-09 in second quarter of 2016 of \$1.8 million. The earning per share were also restated to reflect the adoption of *ASU* 2016-09.
- (3) The net income for the fourth quarter of 2017 includes gain on sale of business of \$2.6 million related to Divestiture to Natus.
- (4) The net income for the fourth quarter of 2017 includes benefit from income taxes of \$43.4 million related to the re-measurement of our deferred taxes resulting from a reduction of the federal statutory rate from 35% to 21% from the 2017 Tax Act (see Note 11, *Income Taxes*).

## SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS

Description	Balance at Beginning of Period	Charged to Costs and Expenses	Charged to Other Accounts	Deductions	Balance at End of Period
<u> </u>			(In thousands		
Year ended December 31, 2017					
Allowance for doubtful accounts and sales returns and allowances	\$6,319	\$ 4,920	1,518 (1)	\$(3,875) (2)	\$8,882
Deferred tax assets valuation allowance	3,604	740	3,617 (1)	—(2)	7,961
Year ended December 31, 2016:					
Allowance for doubtful accounts and sales returns and allowances	\$5,572	\$ 2,009	\$ —	\$(1,262) (2)	\$6,319
Deferred tax assets valuation allowance	4,887	(1,228)	_	(55) (2)	3,604
Year ended December 31, 2015:					
Allowance for doubtful accounts and sales returns and allowances	\$5,659	\$ 1,262	\$ —	\$(1,349) (2)	\$5,572
Deferred tax asset valuation allowance	6,772	80	_	(1,965)(2)	4,887

<sup>(1)</sup> Charges to other accounts primarily relates to amounts acquired through acquisition of Derma Sciences and effect of foreign currency translations.

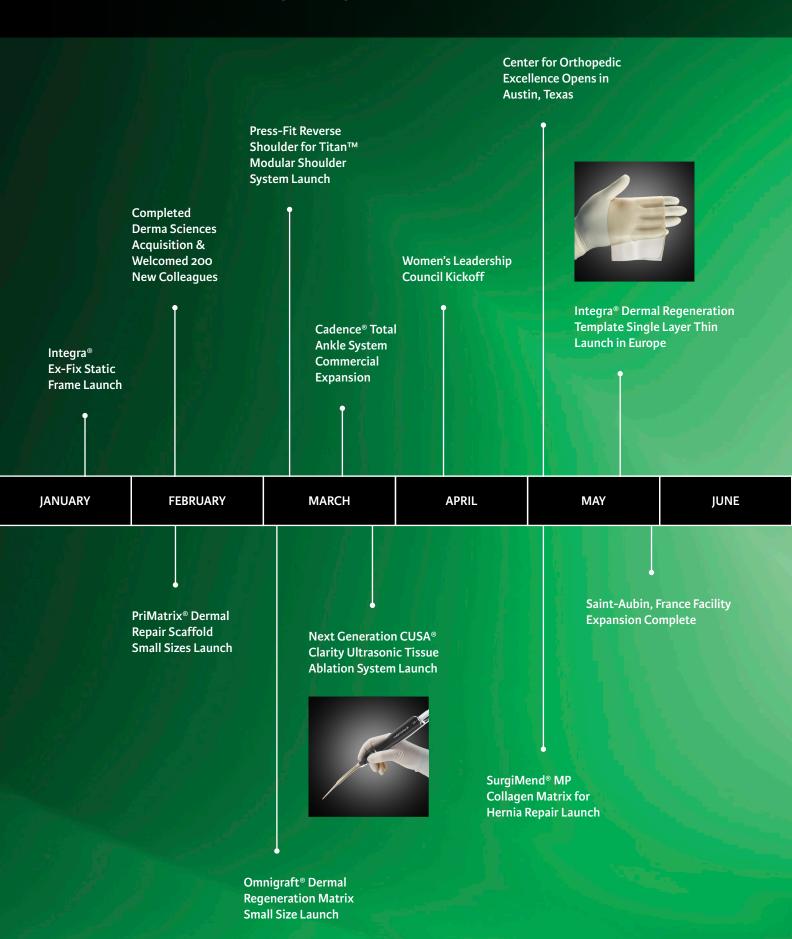
<sup>(2)</sup> Deductions primarily relates to allowance for doubtful accounts written off during the year, net of recoveries and other adjustments.







## 2017: THE YEAR AT A GLANCE



SurgiMend® PRS Meshed Collagen Matrix Launched for Plastic and Reconstructive Surgery in U.S. Omnigraft® Dermal **Regeneration Matrix: Best Medical Technology Nominee** SurgiMend® PRS Meshed Collagen Matrix Launched for Prix Galien USA Award for Breast Reconstruction in Europe Cadence® Total Ankle Plainsboro Collagen System Named Top 10 **Manufacturing Center Innovations in Podiatry Expansion Complete DuraSeal® Health Economic** Revize®/Revize®-X Study Published **Collagen Matrix for** Plastic & Reconstructive **Surgery Launch** JULY **AUGUST SEPTEMBER OCTOBER NOVEMBER** DECEMBER Sale of Neurosurgery **Orthopedics and Tissue Technologies Sales Channel Expansion Opened Integra China Surgical Completed Codman Neurosurgery Technology Innovation Center & Acquisition, Launched New Division Technical Service & Repair Center** Name: Codman Specialty Surgical & Welcomed 500 New Colleagues

Codman

### CORPORATE INFORMATION

#### **Annual Meeting**

The 2018 Annual Meeting of Stockholders will be held at 9:15 a.m., Thursday, May 17, 2018 at:

Integra LifeSciences Holdings Corporation 311 Enterprise Drive, Plainsboro, New Jersey 08536

#### **Stock Trading Information**

Integra stock trades on the Nasdaq National Market under the symbol "IART."

#### **Investor Relations**

Contact the Integra Investor Relations department at IR@integralife.com for business-related inquiries.

Stockholders may obtain, without charge, a copy of the following documents:

- Proxy statement for the 2018 Annual Meeting of Stockholders
- Quarterly reports on Form 10-Q
- Additional copies of the 2017 Annual Report

Requests for these documents should be addressed to:

Investor Relations Department Integra LifeSciences Holdings Corporation 311 Enterprise Drive, Plainsboro, New Jersey 08536 Email: IR@integralife.com

#### Website Address

Additional information about the Company, including a copy of this Annual Report and quarterly reports on Form 10-Q, a description of our business and products, recent financial data and press releases, investor relations calendar and stock price information is available on our website at www.integralife.com.

#### **Headquarters**

Integra LifeSciences Holdings Corporation 311 Enterprise Drive, Plainsboro, New Jersey 08536 Telephone: 800-654-2873

Fax: 888-980-7742

#### **Stock Account Maintenance**

Our transfer agent, American Stock Transfer and Trust Company, can help you with a variety of stockholder-related services, including:

- · Change of address
- · Lost stock certificates
- Transfer of stock to another person
- Verification of your holdings

You can call our transfer agent toll-free at (800) 937-5449 or reach them on the internet at www.amstock.com.

#### **Independent Registered Public Accounting Firm**

PricewaterhouseCoopers LLP Florham Park, New Jersey

## **OUR LOCATIONS**

### **UNITED STATES**

Añasco, Puerto Rico Austin, Texas Billerica, Massachusetts Boston, Massachusetts Cincinnati, Ohio Mansfield, Massachusetts Memphis, Tennessee Plainsboro, New Jersey Reno, Nevada St. Louis, Missouri San Diego, California Waltham, Massachusetts West Valley City, Utah York, Pennsylvania

#### **INTERNATIONAL**

Albany, New Zealand Andover, United Kingdom Beijing, China Biot, France Clayton, Australia
Dubai, United Arab Emirates
Dublin, Ireland
Ghent, Belgium
Guzman, Mexico
Le Locle, Switzerland
Lyon, France
Milan, Italy
Nantong, China
Oakville. Canada

Ratingen, Germany Rietheim-Weilheim, Germany Saint-Aubin, France Shanghai, China Tokyo, Japan Toronto, Canada Tullamore, Ireland Zapopan, Mexico Zaventem, Belgium

#### **ABOUT INTEGRA**

Integra LifeSciences is a global leader in regenerative technologies, neurosurgical and extremity orthopedic solutions dedicated to limiting uncertainty for clinicians, so they can focus on providing the best patient care. Integra offers a comprehensive portfolio of high quality, leadership brands that include AmnioExcel®, Bactiseal®, Cadence®, Certas™, Codman®, CUSA®, DuraGen®, DuraSeal®, ICP Express®, Integra®, MAYFIELD®, MediHoney®, MicroFrance®, PriMatrix®, Salto Talaris®, SurgiMend®, TCC-EZ®, Titan™ and VersaTru™. For the latest news and information about Integra and its brands, please visit www.integralife.com.

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