

Sientra, Inc.
Form 424B4
September 18, 2015

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Filed Pursuant to Rule 424(b)(4)
Registration No. 333-206755

3,000,000 Shares

SIENTRA, INC.

Common Stock

\$22.00 per share

Sientra, Inc. is offering 3,000,000 shares of its common stock.

Trading symbol: The NASDAQ Global Select Market SIEN.

The last reported sale price of our common stock on September 17, 2015 was \$23.20 per share.

This investment involves risk. See "Risk Factors" beginning on page 14.

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, and as such, have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings.

| | Per Share | Total |
|---|------------------|---------------|
| Public offering price | \$ 22.00 | \$ 66,000,000 |
| Underwriting discounts and commissions ⁽¹⁾ | \$ 1.32 | \$ 3,960,000 |
| Proceeds to Sientra, Inc., before expenses | \$ 20.68 | \$ 62,040,000 |

⁽¹⁾ See "Underwriting" for additional information regarding underwriting compensation.

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We have granted the underwriters an option to purchase up to 450,000 additional shares of our common stock for 30 days after the date of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares of common stock to investors on or about September 23, 2015.

Piper Jaffray

Leerink Partners

Stifel

William Blair

The date of this prospectus is September 17, 2015.

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You should rely only on the information contained in this prospectus or any related free writing prospectus we may authorize to be delivered to you. We have not, and the underwriters have not, authorized any other person to provide you with different information. We and the underwriters take no responsibility for, and can provide no assurances as to the reliability of, any information that others may give you. This prospectus is not an offer to sell, nor is it seeking an offer to buy, these securities in any state where the offer or sale is not permitted. The information in this prospectus or incorporated herein by reference, is only accurate as of the date of this prospectus or the date of the document incorporated by reference, as applicable, regardless of the time of delivery of this prospectus and the sale of our common stock.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to the registration statement of which this prospectus is a part were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreement, and should not be deemed to be a representation, warranty or covenant made to you or for your benefit. Moreover, such representations, warranties or covenants were accurate only as of the date they were made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

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Trademarks

Our trademark portfolio contains five registered U.S. trademarks, including Sientra®, Simplicity is Beauty®, Sientra Simplicity is Beauty®, Anatomical Controlled® and ACX®, and six Canadian trademark applications. This prospectus contains additional trademarks and trade names of others, which are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus or any document incorporated herein by reference are referred to without the ® and symbols, but such references should not be construed as any indicator that we will not assert, to the fullest extent under applicable law, our rights thereto.

Investors Outside of the United States

Neither we nor any of the underwriters have taken any action that would permit this offering or the possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of shares of our common stock and the distribution of this prospectus outside of the United States.

Market and Industry Data and Forecasts

Certain market and industry data and forecasts included or incorporated by reference in this prospectus were obtained from independent market research, industry publications and surveys, governmental agencies, publicly available information and Realself, Inc. Industry surveys, publications and forecasts generally state that the information contained therein has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. We believe the data from such third-party sources that is included in the prospectus or incorporated herein by reference to be reliable. However, we have not independently verified any of such data and cannot guarantee its accuracy or completeness and cannot assure you that the trends reflected in this data will continue. Similarly, internal market research and industry forecasts, which we believe to be reliable based upon our management's knowledge of the market and the industry, have not been verified by any independent sources. While we are not aware of any misstatements regarding the market or industry data presented herein or incorporated herein by reference, our estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under the heading "Risk Factors" in this prospectus and in our Annual Report on Form 10-K for the year ended December 31, 2014 and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2015 and June 30, 2015, which are incorporated herein by reference, and "Special Note Regarding Forward-Looking Statements" in this prospectus.

Basis of Presentation

On November 3, 2014, the Company completed an initial public offering, or IPO, whereby it sold a total of 5,750,000 shares of common stock at \$15.00 per share inclusive of 750,000 shares sold to underwriters pursuant to the exercise in full of their option to purchase additional shares. The Company received net proceeds from the IPO of approximately \$77.0 million, after deducting underwriting discounts and commissions and offering expenses of approximately \$9.2 million. In connection with our IPO, our board of directors and stockholders approved an amendment to the Company's certificate of incorporation, which effected a 1 for 2.75 reverse stock split of the Company's issued and outstanding shares of common stock. All issued and outstanding shares of common stock, stock options and warrants and the related per share amounts were adjusted to reflect this reverse stock split for all periods presented. The outstanding shares of convertible preferred stock were converted on a 2.75-to-1 basis into shares of common stock concurrent with the closing of the IPO. All of the outstanding shares of Series A, Series B and Series C preferred stock converted into 8,942,925 shares of common stock. Following the closing of the IPO, there were no shares of preferred stock outstanding.

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PROSPECTUS SUMMARY

This summary highlights information contained in other parts of this prospectus or incorporated by reference from our Annual Report on Form 10-K for the year ended December 31, 2014, our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2015 and June 30, 2015, and our other filings with the Securities and Exchange Commission listed in the section of the prospectus entitled "Incorporation of Certain Information by Reference." This summary does not contain all of the information you should consider in making your investment decision. Before deciding to invest in shares of our common stock, you should read the entire prospectus, the registration statement of which this prospectus is a part, and the information incorporated by reference herein in their entirety. You should carefully consider, among other things, the matters discussed in the sections entitled "Risk Factors" and "Selected Financial Data" included elsewhere in this prospectus and incorporated herein by reference and the matters discussed in our financial statements and the accompanying notes and the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations," in each case, incorporated by reference into this prospectus. Some of the statements in this prospectus constitute forward-looking statements that involve risks and uncertainties. See "Special Note Regarding Forward-Looking Statements." Unless otherwise stated in this prospectus, references to "Sientra," "we," "us," "our" or "the Company" refer to Sientra, Inc.

Overview

We are a medical aesthetics company committed to making a difference in patients' lives by enhancing their body image, growing their self-esteem and restoring their confidence. We were founded to provide greater choice to board-certified plastic surgeons and patients in need of medical aesthetics products. We have developed a broad portfolio of products with technologically differentiated characteristics, supported by independent laboratory testing and strong clinical trial outcomes. We sell our breast implants and breast tissue expanders, or Breast Products, exclusively to board-certified and board-admissible plastic surgeons and tailor our customer service offerings to their specific needs, which we believe helps secure their loyalty and confidence. These advantages have allowed us to increase our market share each year since we entered the market in 2012.

Our primary products are silicone gel breast implants for use in breast augmentation and breast reconstruction procedures, which we offer in over 195 variations of shapes, sizes, fill volumes, and textures. Our breast implants are primarily used in elective procedures which are generally performed on a cash-pay basis. Many of our breast implants incorporate one or more differentiated technologies, including a proprietary high-strength, cohesive silicone gel and proprietary texturing branded TRUE Texture. Our breast implants offer a desired balance between strength, shape retention and softness due to the high-strength, cohesive silicone gel used in our manufacturing process. TRUE Texture provides texturing on the implant shell that is designed to reduce the incidence of malposition, rotation and capsular contracture. We also offer breast tissue expanders and a range of other aesthetic and specialty products. We do not have any patents or patent applications, but rely on trade secrets, proprietary know-how and regulatory barriers to protect our products and technologies.

Our breast implants were approved by the U.S. Food and Drug Administration, or FDA, in 2012, based on data we collected from our ongoing, long-term clinical trial of our breast implants in 1,788 women across 36 investigational sites in the United States, which included 3,506 implants (approximately 53% of which were smooth and 47% of which were textured). Our clinical trial is the largest prospective, long-term safety and effectiveness pivotal study of breast implant patients in the United States and included the largest magnetic resonance imaging, or MRI, cohort with 571 patients. The MRI cohort is a subset of study patients that underwent regular MRI screenings in addition to the other aspects of the clinical trial protocol. The clinical data we collected over an eight-year follow-up period demonstrated rupture rates, capsular contracture rates and reoperation rates that were

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comparable to or better than those of our competitors, at similar time points. In addition to our pivotal study, our clinical data is supported by our Continued Access Study of 2,497 women in the United States. We have also commissioned a number of bench trials run by independent laboratories that we believe further demonstrate the advantages of our breast implants over those of our competitors.

We sell our Breast Products exclusively to board-certified and board-admissible plastic surgeons, as determined by the American Board of Plastic Surgery, who we refer to as Plastic Surgeons. These surgeons have completed the extensive multi-year plastic surgery residency training required by the American Board of Plastic Surgery. While aesthetic procedures are performed by a wide range of medical professionals, including dermatologists, otolaryngologists, obstetricians, gynecologists, dentists and other specialists, the majority of aesthetic surgical procedures are performed by Plastic Surgeons. Plastic Surgeons are thought leaders in the medical aesthetics industry. According to the American Society of Plastic Surgeons, or ASPS, there are approximately 6,400 board-certified plastic surgeons in the United States. We seek to provide Plastic Surgeons with differentiated services, including enhanced customer service offerings, a ten-year limited warranty that is the best-in-the-industry based on providing patients with the largest cash reimbursement for certain out-of-pocket costs related to revision surgeries in a covered event; a lifetime no-charge implant replacement program for covered ruptures; and our industry-first CapCon Care Program, or C3 Program, through which we offer no-charge replacement implants to breast augmentation patients who experience capsular contracture within the first five years after implantation with our smooth or textured breast implants.

We commenced sales of our breast implants in the United States in the second quarter of 2012. Our net sales were \$44.7 million, \$35.2 million and \$10.4 million for the years ended December 31, 2014, 2013 and 2012, respectively. Our net sales were \$26.6 million and \$21.9 million for the six months ended June 30, 2015 and 2014, respectively. Our net loss was \$5.8 million, \$19.1 million and \$23.4 million for the years ended December 31, 2014, 2013 and 2012, respectively. Our net loss was \$6.4 million and \$1.2 million for the six months ended June 30, 2015 and 2014, respectively.

Our Market

The overall market for medical aesthetic procedures is significant, and awareness and acceptance of these procedures is growing in the United States. According to ASAPS, in 2014, consumers in the United States spent approximately \$12.4 billion on aesthetic procedures overall, including both surgical and non-invasive cosmetic treatments. Of this amount, more than \$7.5 billion was spent on aesthetic surgical procedures.

Breast augmentation surgery remains the leading aesthetic surgical procedure by dollars and number of procedures in the United States. According to ASAPS, over 287,000 primary breast augmentation procedures and 72,000 revision augmentation procedures were performed in the United States in 2014. These procedures provide cosmetic solutions generally to enhance breast size and shape, correct breast asymmetries or help restore fullness after breastfeeding. For breast reconstruction, ASPS estimates that approximately 102,000 procedures were performed in the United States in 2014. These procedures are a surgical solution generally used to restore a breast to near normal shape and appearance following a mastectomy and typically utilize a breast tissue expander prior to implantation of a breast implant. Based on the number of procedures reported by ASAPS and by ASPS, and our estimates of average selling price, implant mix and implants per procedure, we estimate that the U.S. market for breast implants and breast tissue expanders exceeded \$630 million in 2014.

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Our Opportunity

We believe a significant opportunity exists in the U.S. marketplace due to the high barriers to entry in the U.S. breast implant market and the historical lack of product and service innovation for Plastic Surgeons.

For more than 20 years prior to the FDA approval of our breast implants in 2012, only two companies manufactured and distributed breast implants in the United States. We believe that this market concentration is largely a result of the considerable costs and risks associated with the lengthy regulatory approval process required by the FDA, which has created a significant barrier to entry in the U.S. breast implant market. All new breast implants require pre-market approval, or PMA, from the FDA before they may be marketed in the United States. The PMA application process is lengthy and uncertain, and the PMA application must be supported by valid scientific evidence, which typically requires long-term follow-up of a large number of enrolled patients, as well as extensive technical, pre-clinical, clinical and manufacturing data to demonstrate safety and effectiveness. At present, we are not aware of any ongoing clinical studies in the United States for silicone breast implants other than those post-approval studies being performed by us and our two U.S. competitors. We believe that in the near term, it is likely that the companies currently providing silicone breast implants in the United States will continue to be the only companies servicing the U.S. silicone breast implant market.

We believe the rigorous FDA approval process and the existence of only two competitors in the U.S. market have historically contributed to a lack of technological innovation in the U.S. breast implant industry resulting in limited product choices. Until the FDA approval of our breast implants in 2012, surgeons in the United States were only able to purchase basic round breast implants from our two U.S. competitors, while surgeons outside of the United States were able to purchase technologically-advanced round and anatomically-shaped breast implants.

Our Competitive Strengths

We believe that we are well positioned to take advantage of opportunities afforded by current market dynamics. By focusing on products with technologically differentiated characteristics, demonstrating strong clinical data, offering more product choice and providing services tailored specifically to the needs of Plastic Surgeons, we believe we can continue to enhance our position in the breast implant market. Our competitive strengths include:

Differentiated silicone gel and texturing technologies. We incorporate differentiated technologies into our breast implants, including a proprietary high-strength, cohesive silicone gel and proprietary texturing branded TRUE Texture. Our breast implants offer a desired balance between strength, shape retention and softness due to the high-strength, cohesive silicone gel used in our manufacturing process. In addition, TRUE Texture technology provides texturing on the implant shell that is designed to reduce the incidence of malposition, rotation and capsular contracture. We do not have any patents or patent applications, but rely on trade secrets, proprietary know-how and regulatory barriers to protect our products and technologies.

Strong clinical trial outcomes. Our clinical trial results demonstrate the safety and effectiveness of our breast implants. Our breast implants were approved by the FDA based on data we collected from our ongoing, long-term clinical trial of our breast implants in 1,788 women across 36 investigational sites in the United States. The clinical data we collected over an eight-year follow-up period demonstrated rupture rates, capsular contracture rates and reoperation rates that were comparable to or better than those of our competitors, based on our competitors' published eight-year data.

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Innovative services that deliver an improved customer experience. Our customer service offerings are intended to accommodate and anticipate the needs of Plastic Surgeons so that they can focus on providing better services to their patients. We provide a ten-year limited warranty that is the best-in-the-industry based on providing patients with the largest cash reimbursement for certain out-of-pocket costs related to revision surgeries in a covered event; a lifetime no-charge implant replacement program for covered ruptures; and our industry-first C3 Program through which we offer no-charge replacement implants to breast augmentation patients who experience capsular contracture within the first five years after implantation with our smooth or textured breast implants. We also offer specialized educational initiatives and a streamlined ordering, shipping and billing process.

Board-certified plastic surgeon focus. We sell our Breast Products exclusively to board-certified and board-admissible plastic surgeons who are thought leaders in the medical aesthetics industry. We address the specific needs of Plastic Surgeons through continued product innovation, expansion of our product portfolio and enhanced customer service offerings. We believe that securing the loyalty and confidence of Plastic Surgeons is essential to our success and that our association with Plastic Surgeons enhances our credibility and aligns with our focus on making a difference in patients' lives.

Proven and experienced leadership team. We have a highly experienced management team at both the corporate and operational levels with significant experience in the medical aesthetics industry. Members of our senior management team collectively have more than 135 years of medical aesthetics industry experience.

Our Strategy

Our objective is to become a leading global provider of differentiated medical aesthetic products and services tailored to meet the needs of Plastic Surgeons, allowing us to deliver on our commitment to enhance and make a difference in patients' lives. We are currently focused on growing the breast implant and breast tissue expander markets and our share of them in the United States, and intend to leverage our capabilities into new or complementary aesthetic products or technologies and new geographic markets or market segments. To achieve our objective, we are pursuing the following business strategies:

Create awareness of our differentiated technologies, products and services with Plastic Surgeons and consumers. Since we commenced commercial operations, we have focused our marketing efforts on Plastic Surgeons to promote and create awareness of the benefits of our products. Among other marketing programs targeted at Plastic Surgeons, we offer educational initiatives exclusively to Plastic Surgeons through our Sientra Education Forums. Recently, we have increased our consumer-directed efforts including an expanded exclusive relationship with Realself.com. We believe that continuing to invest in expanding marketing initiatives will have a positive impact on our business.

Expand to new markets. We are pursuing regulatory approval for our breast implants in Canada and intend to expand into the Canadian market upon receipt of such approval. We regularly evaluate additional expansion opportunities and in the future may also expand our business to cover new markets and geographic territories.

Selectively pursue acquisitions. We may selectively pursue domestic and international acquisitions of businesses or technologies that may allow us to leverage our relationships with Plastic Surgeons and our existing commercial infrastructure to provide us with new or complementary products or technologies, and allow us to compete in new geographic markets or market segments or to increase our market share.

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Broaden our product portfolio and launch new products and services. We plan to continue to develop products that address the unmet needs of Plastic Surgeons and patients by leveraging our innovative technologies in combination with our regulatory and product development expertise. We have a number of new Breast Products under development with different characteristics and configurations. We believe these expanded product choices will allow Plastic Surgeons to potentially achieve better outcomes for their patients.

Enhance our sales capabilities and marketing programs to drive adoption of our products. We intend to increase our direct sales capabilities through the hiring of additional, experienced sales representatives and support staff. We believe that continued expansion of our sales team will allow us to broaden our market reach and educate a broader group of Plastic Surgeons on the benefits of our products.

Invest in clinical studies and peer reviewed articles with key opinion leaders. We intend to continue to invest in clinical studies in order to provide published peer reviewed articles that support the clinical benefits of our products and technologies over those of our competitors. We believe our relationship with Plastic Surgeons and our continued focus on providing differentiated products and services will allow us to leverage our existing capabilities to increase our share of the breast implant market specifically and the medical aesthetics market generally.

Recent Developments

Following is a summary of selected recent developments affecting our business:

Launch of new style and configuration of Silicone Gel Breast Implants. In late August 2015, we introduced a new round breast implant featuring our unique high-strength HSC+ silicone gel which was previously available only in our anatomically shaped breast implants. We believe our new HSC+ round breast implants allow surgeons and patients to benefit from the highly cohesive gel in the form of a more traditional round implant. We believe that prior to this introduction by us, such benefits were only accessible to surgeons in the form of shaped implants. In addition, in the fourth quarter of 2014, we launched a line extension to our line of smooth round silicone gel breast implants that provides a higher fill ratio that we believe is desired by some surgeons. We also recently added 16 additional sizes and configurations of our moderate-plus and high projection round implants. This makes a total of over 195 available shapes, sizes and configurations of our silicone gel breast implants.

Direct-to-Consumer Marketing through Exclusive Campaign with Realself.com. We have expanded our exclusive relationship with Realself.com, or Realself, as the only breast implant company with certain exclusive filters on the Realself website. Realself is one of the world's largest online communities for learning and sharing information about cosmetic procedures with nearly 1.5 million unique users a month specifically interested in breast augmentation. For the first six months of 2015, we saw a strong engagement with the Sientra brand and its value proposition where the Sientra brand held a commanding 56% share of all branded breast implant traffic on Realself. We have also experienced substantial growth in the number of Sientra pages viewed on Realself, which we primarily attribute to the launch of our branded Sientra webpages on Realself in May 2014. From 2013 to 2014, the number of Sientra pages viewed on Realself increased by over 50-fold to over 1.2 million in 2014, approximately 1.0 million of which occurred in the last six months of the year. More recently, as our exclusive relationship with Realself has deepened, the number of Sientra pages viewed on Realself has increased. During the first six months of 2015, the number of Sientra pages viewed on Realself increased to approximately 2.9 million views an approximately 20-fold increase when compared to the first six months of 2014.

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In August 2015, we launched our "Orange Dot" campaign with Realself in which all plastic surgeons who are Sientra customers are identified with an orange dot on their profile. Simultaneously, Sientra has advertisements on Realself that explain that the easiest way to identify a board-certified or board-admissible plastic surgeon is by looking for the orange dot because Sientra sells only to board-certified and board-admissible plastic surgeons.

In addition, we achieved a very high 98% "worth it" approval rating, a metric that is highly relevant to the site and its members as it indicates their approval, the relevance of the material and their decision making. We believe that such targeted efforts utilizing online communities are important elements of our brand expansion and that further targeting such direct-to-consumer marketing will help build consumer engagement with the Sientra brand and create value for our surgeons for the long-term.

Increased Sales Organization to a total of 46 Plastic Surgery Consultants. During the first half of 2015, we increased the number of plastic surgery consultants, or PSCs, by 7 from 39 to 46, and we plan to continue adding more PSCs in order to obtain broader coverage and deeper account penetration in certain geographic markets.

Our Eight-Year Follow-Up Data from the pivotal trial that was the basis of PMA Approval in the United States. In May 2015, an update on the eight-year follow-up data from Sientra's ongoing PMA Study of our gel breast implant, authored by Stevens, Harrington, Alizadeh, et al, was published in the peer-reviewed Aesthetic Surgery Journal. Among the significant statistics reported were data on key complications measured among the 1,116 women in the primary-augmentation cohort of Sientra's Core Study, an ongoing 10-year open label, prospective, multicenter clinical study, including:

| | Sientra 8-Year |
|-------------------------------|---------------------------|
| Rupture (overall) | 4.9% |
| (MRI cohort) | 7.2% |
| (non-MRI cohort) | 1.5% |
| Capsular Contracture (III/IV) | 11.2% |
| Reoperation | 20.7% |

This newly released 8-year follow-up data allows the following summary of Sientra's key clinical data over various follow-up periods:

| | 3-Year | 5-Year | 6-Year | 8-Year |
|--------------------------|-----------------------------|---------------|---------------|---------------|
| | Kaplan-Meier % (KM%) | | | |
| Rupture (overall) | 0.7 | 2.0 | 3.2 | 4.9 |
| Rupture (MRI cohort) | 2.5 | 4.2 | 4.4 | 7.2 |
| Rupture (non-MRI cohort) | 0.0 | 0.6 | 1.7 | 1.5 |
| Capsular Contracture | 6.0 | 8.8 | 10.0 | 11.2 |
| Reoperation | 12.6 | 16.6 | 18.7 | 20.7 |

Our clinical study was not designed to facilitate head-to-head comparisons with our competitors. However, our clinical data and our competitors' clinical data are publicly available to both surgeons and patients who are able to use such data to compare and contrast competing implants. For example, comparisons of the eight-year follow-up data from our pivotal study to the eight-year follow-up data from our competitors' pivotal studies are shown below. In addition, the graph below shows the MRI

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rupture rates of our implants and our competitors as measured in the augmentation cohort of each company's approval study.

| | Sientra Pivotal Study (N=1,116) | Mentor Pivotal Study (N=552) | Allergan Pivotal Study (N=455) |
|--|---|--|--|
| Augmentation | | | |
| Rupture (overall) | 4.9% | NR | 5.8% |
| Rupture (MRI) | 7.2% | 10.6% (24.2% at 10 years) | 7.7% (10.1% at 10 years) |
| Capsular Contracture (Baker Grade III & IV) | 11.2% | 10.9% | 16.8% |
| Reoperation | 20.7% | 20.1% | 32.1% |

N = Number of patients

NR = Not reported

Key complications by Kaplan-Meier rate (KM%)

MRI rupture trend (augmentation cohort)

As shown above, Sientra's clinical rupture data at 8 years of follow-up compares favorably to both of our competitors' rupture data at eight years. In addition, in 2015, a rupture trending analysis of data from Sientra's Core Study was published. This study evaluated 1,792 implants (approximately 52% of which were smooth and 48% of which were textured) in 935 patients (implanted at 31 sites with an average follow-up of 6.6 years – range 147 days to 10.6 years) of which 43 implants were ruptured. The study showed that, in each of the first two years following implantation there were 2 or fewer ruptures and, following that, in each of years 3-10, there was a single-digit number of ruptures each year, with no real pattern from year-to-year. The most significant finding of the study was the observation that approximately half of the ruptures originated from three particular surgeons which suggests that surgical technique is a significant factor in rupture rates.

Selected Risks Related to Our Business and Our Industry

Our business is subject to numerous risks and uncertainties of which you should be aware before you decide to invest in our common stock. These risks may prevent us from achieving our business

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objectives, and may adversely affect our business, financial condition, results of operations and prospects. These risks are discussed in greater detail under "Risk Factors" contained in our Annual Report on Form 10-K for the year ended December 31, 2014 and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2015 and June 30, 2015 that are incorporated by reference into this prospectus and in the section entitled "Risk Factors" beginning on page 14 of this prospectus. These risks include, but are not limited to the following:

we have incurred significant net operating losses since inception and cannot assure you that we will achieve profitability;

our future profitability depends on the success of our Breast Products;

we rely on a foreign, sole source, third-party to manufacture and supply our silicone gel breast implants, tissue expanders and other products;

there are inherent risks in contracting with manufacturers located outside of the United States such as in Brazil;

various factors outside our direct control may adversely affect manufacturing and supply of our breast implants, tissue expanders and other products;

we have a limited operating history and may face difficulties encountered by companies early in their commercialization in competitive and rapidly evolving markets;

if we fail to compete effectively against our competitors, both of which have significantly greater resources than we have, our net sales and operating results may be negatively affected;

pricing pressure from customers and our competitors may impact our ability to sell our products at prices necessary to support our current business strategies;

the long-term (defined as 10 years or more) safety of our products has not fully been established and our breast implants are currently under study in our PMA and post-approval studies, which could reveal unanticipated complications;

we are subject to extensive federal and state regulation, and if we fail to comply with applicable regulations, we could suffer severe criminal or civil sanctions or be required to restructure our operations, any of which could adversely affect our business, financial condition and operating results;

if our intellectual property rights do not adequately protect our products or technologies, others could compete against us more directly, which would hurt our profitability; and

any negative publicity concerning our products could harm our business and reputation and negatively impact our financial results.

Corporate Information

We incorporated in Delaware on August 29, 2003 under the name Juliet Medical, Inc. and subsequently changed our name to Sientra, Inc. in April 2007. Our principal executive offices are located at 420 South Fairview Avenue, Suite 200, Santa Barbara, California 93117, and our

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telephone number is (805) 562-3500. Our website address is www.sientra.com. The information contained on our website is not a part of this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only

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Implications of Being an Emerging Growth Company

As a company with less than \$1.0 billion in revenue during our last fiscal year, we qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. An emerging growth company may take advantage of specified reduced reporting requirements and is relieved of certain other significant requirements that are otherwise generally applicable to public companies. As an emerging growth company:

we are exempt from the requirement to obtain an attestation and report from our auditors on the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act of 2002;

we are permitted to provide less extensive disclosure about our executive compensation arrangements in our periodic reports, proxy statements and registration statements; and

we are not required to give our stockholders non-binding advisory votes on executive compensation or golden parachute arrangements.

We may take advantage of these provisions until December 31, 2019. However, if certain events occur prior to December 31, 2019, including if we become a "large accelerated filer" as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended, our annual gross revenue equals or exceeds \$1.0 billion or we issue more than \$1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to December 31, 2019.

We may choose to take advantage of some but not all of these reduced burdens. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different from the information you receive from our competitors that are public companies, or other public companies in which you have made an investment.

In addition, the JOBS Act provides that an emerging growth company may take advantage of an extended transition period for complying with new or revised accounting standards. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

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The Offering

| | |
|---|--|
| Shares of common stock offered by us | 3,000,000 shares. |
| Shares of common stock to be outstanding immediately after this offering | 17,942,696 shares (or 18,392,696 shares if the underwriters exercise in full their option to purchase additional shares). |
| Option to purchase additional shares | We have granted the underwriters an option to purchase up to 450,000 additional shares of common stock from us. The underwriters can exercise this option at any time within 30 days from the date of this prospectus. |
| Use of proceeds | We currently anticipate that we will use the net proceeds received by us from this offering for the following purposes: (i) we may acquire or invest in complementary products, technologies, businesses or international expansion opportunities; however, we currently have no agreements or commitments to complete any such transaction, and (ii) for working capital and other general corporate purposes. We may also use a portion of the net proceeds to repay a portion of our long-term debt. For additional information, see "Use of Proceeds." |
| Risk factors | You should read the "Risk Factors" section of this prospectus, our Annual Report on Form 10-K for the year ended December 31, 2014 and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2015 and June 30, 2015, incorporated by reference herein, for a discussion of factors to consider carefully before deciding to invest in shares of our common stock. |
| The NASDAQ Global Select Market symbol | "SIEN." |
| The number of shares of our common stock to be outstanding immediately after this offering is based on 14,942,696 shares of common stock outstanding as of June 30, 2015, and excludes: | |

47,710 shares of common stock issuable upon exercise of outstanding warrants as of June 30, 2015, at an exercise price of \$14.671 per share;

2,231,748 shares of common stock issuable upon exercise of outstanding options to purchase shares of common stock under our 2007 Equity Incentive Plan, or the 2007 Plan, and our 2014 Equity Incentive Plan, or the 2014 Plan, as of June 30, 2015, at a weighted average exercise price of \$7.58 per share;

668,112 shares of common stock reserved for future grant or issuance under the 2014 Plan, as of June 30, 2015;

404,629 shares of common stock reserved for future grant or issuance under the 2014 Employee Stock Purchase Plan, or ESPP, as of June 30, 2015; and

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44,250 shares of common stock issued on July 20, 2015 under the ESPP.

Except as otherwise indicated or the context otherwise requires, the information in this prospectus assumes:

no exercise of the underwriters' option to purchase additional shares; and

no exercise of the outstanding warrants or options described above subsequent to June 30, 2015.

Table of Contents**Summary Financial Data**

The following table set forth our summary financial data for the periods and as of the dates indicated. We derived the summary statement of operations data for the years ended December 31, 2012, 2013 and 2014 from our audited financial statements incorporated by reference into this prospectus from our Annual Report on Form 10-K for the year ended December 31, 2014. The summary statement of operations data for the six months ended June 30, 2014 and 2015, and the summary balance sheet data as of June 30, 2015 were derived from our unaudited financial statements incorporated by reference into this prospectus from our Quarterly Report on Form 10-Q for the quarter ended June 30, 2015. In the opinion of management, the unaudited financial statements reflect all adjustments, consisting of normal recurring adjustments, necessary for a fair statement of our results for those periods. Our historical results are not necessarily indicative of future operating results and our interim results are not necessarily indicative of results for a full year or any future period.

The summary financial data should be read together with our financial statements and related notes, "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus or incorporated herein by reference.

| | Year Ended December 31, | | | Six Months Ended June 30, | |
|---|---|-------------|-------------|--------------------------------------|-------------|
| | 2012 | 2013 | 2014 | 2014 | 2015 |
| | (Unaudited) | | | | |
| | (In thousands, except per share and share amounts) | | | | |
| Statement of operations data: | | | | | |
| Net sales | \$ 10,447 | \$ 35,171 | \$ 44,733 | \$ 21,947 | \$ 26,640 |
| Cost of goods sold | 2,352 | 8,592 | 11,500 | 5,455 | 7,174 |
| Gross profit | 8,095 | 26,579 | 33,233 | 16,492 | 19,466 |
| Operating expenses: | | | | | |
| Sales and marketing | 17,919 | 22,229 | 23,599 | 11,863 | 13,805 |
| Research and development | 3,670 | 4,479 | 4,707 | 2,305 | 2,753 |
| General and administrative | 9,938 | 18,078 | 10,712 | 4,908 | 7,664 |
| Total operating expenses | 31,527 | 44,786 | 39,018 | 19,076 | 24,222 |
| Loss from operations | (23,432) | (18,207) | (5,785) | (2,584) | (4,756) |
| Other (expense) income, net: | | | | | |
| Interest income | | | | | 7 |
| Interest expense | | (872) | (2,172) | (842) | (1,339) |
| Other (expense) income, net | (1) | (46) | 2,146 | 2,264 | (288) |
| Total other (expense) income, net | (1) | (918) | (26) | 1,422 | (1,620) |
| Loss before income taxes | (23,433) | (19,125) | (5,811) | (1,162) | (6,376) |
| Income taxes | | | | | |
| Net loss | \$ (23,433) | \$ (19,125) | \$ (5,811) | \$ (1,162) | \$ (6,376) |
| Per share data: | | | | | |
| Basic and diluted net loss per share attributable to common stockholders ⁽¹⁾ | \$ (85.01) | \$ (82.25) | \$ (2.28) | \$ (5.58) | \$ (0.43) |

Weighted average outstanding common shares used for net loss
per share attributable to common stockholders:

| | | | | | |
|----------------------------------|---------|---------|-----------|---------|------------|
| Basic and diluted ⁽¹⁾ | 275,642 | 232,512 | 2,545,371 | 208,294 | 14,927,558 |
|----------------------------------|---------|---------|-----------|---------|------------|

(1)

For an explanation of the calculations of our basic and diluted net loss per share, see (a) Note 2 to our audited financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2014, incorporated herein by reference, and (b) Note 6 to our unaudited financial statements included in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, incorporated herein by reference.

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| | As of June 30, 2015 (Unaudited) (In thousands) | |
|---|--|----------------------------|
| | Actual | As Adjusted ⁽¹⁾ |
| Balance sheet data (at end of period): | | |
| Cash and cash equivalents | \$ 89,659 | \$ 151,199 |
| Working capital | 93,439 | 154,979 |
| Total assets | 134,413 | 195,953 |
| Long-term debt | 25,686 | 25,686 |
| Total stockholders' equity | 90,437 | 151,977 |

(1) The as adjusted column reflects the receipt of the net proceeds from the sale of 3,000,000 shares of our common stock at the public offering price of \$22.00 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

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RISK FACTORS

Investing in our common stock involves a high degree of risk. Before investing in our common stock, you should consider carefully the risks described below, together with the other information contained in this prospectus or incorporated by reference in this prospectus, including the risks and uncertainties discussed under "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2014 and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2015 and June 30, 2015, which are incorporated herein by reference in their entirety. The risks and uncertainties described below and incorporated herein by reference are not the only ones we face. Additional risks and uncertainties that we are unaware of or that we deem immaterial may also become important factors that adversely affect our business. If any of the following or other risks actually occur, our business, financial condition, results of operations and future prospects could be materially and adversely affected. In that event, the market price of our stock could decline, and you could lose part or all of your investment.

Risks Relating to this Offering

If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.

Investors purchasing shares of common stock in this offering will pay a price per share that substantially exceeds the as adjusted net tangible book value per share. As a result, investors purchasing shares of common stock in this offering will incur immediate dilution of approximately \$14.33 per share, based on the public offering price of \$22.00 per share, and our as adjusted net tangible book value as of June 30, 2015, after giving effect to this offering. As a result of the dilution to investors purchasing shares in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of our liquidation. For more information on the dilution you will experience immediately after this offering, see "Dilution."

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to decline.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that our officers, directors or the holders of a large number of shares of common stock intend to sell shares, could reduce the market price of our common stock. Based on the number of shares of common stock outstanding as of June 30, 2015, upon the closing of this offering, we will have outstanding a total of approximately 17,942,696 shares of common stock. Of these shares, the shares of our common stock sold in our initial public offering, which was completed on November 3, 2014, are currently freely tradable, and the shares to be sold in this offering, plus any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable, without restriction, in the public market immediately following this offering.

Each of our directors and officers and substantially all of our stockholders, optionholders and warrant holders entered into lock-up agreements with the underwriters in connection with our initial public offering. The lock-up agreements expired on April 27, 2015, and based on shares outstanding as of August 7, 2015, up to an additional 9,127,824 shares of common stock became eligible for sale in the public market, approximately 105,735 of which are held by our executive officers and directors and approximately 8,115,083 of which are held by our affiliates (including stockholders affiliated with our directors) and subject to volume limitations under Rule 144 under the Securities Act. Each of our directors and officers and certain of our stockholders entered into lock-up agreements with the underwriters in connection with this offering which will expire 90 days from the date of this prospectus, following which approximately 5,035,512 shares of common stock will be eligible for sale

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in the public market, approximately 105,735 of which are held by our executive officers and directors and approximately 4,929,777 of which are held by our affiliates (including stockholders affiliated with our directors) and subject to volume limitations under Rule 144 under the Securities Act.

Holders of an aggregate of approximately 7,620,083 shares of our common stock have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders.

In addition, as of August 7, 2015, options to purchase an aggregate of 2,237,248 shares of our common stock were outstanding under our 2007 Plan and our 2014 Plan, which have been registered on a Registration Statement on Form S-8. In addition, 662,612 shares of common stock that are reserved for issuance under our 2014 Plan are registered on the Registration Statement on Form S-8. These shares can be freely sold in the public market upon issuance and once vested.

We cannot predict what effect, if any, sales of our shares in the public market or the availability of shares for sale will have on the market price of our common stock. Future sales of substantial amounts of our common stock in the public market, including shares issued upon exercise of outstanding options or warrants, or the perception that such sales may occur, however, could adversely affect the market price of our common stock and also could adversely affect our future ability to raise capital through the sale of our common stock or other equity-related securities of ours at times and prices we believe appropriate.

Our management team may invest or spend the proceeds from this offering in ways with which you may not agree or in ways which may not yield a return.

Our management has considerable discretion in the application of the net proceeds from this offering, and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment. We currently anticipate that we will use the net proceeds from this offering for the following purposes: (i) we may acquire or invest in complementary products, technologies, businesses or international expansion opportunities; however, we currently have no agreements or commitments to complete any such transaction, and (ii) for working capital and other general corporate purposes. We may also use a portion of the net proceeds to repay a portion of our long-term debt. The failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in high-quality, short-term interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government. These investments may not yield a favorable return to our stockholders. If we do not invest or apply the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected financial results, which could cause our stock price to decline.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains, or incorporates by reference, estimates, projections and other forward-looking statements including in the sections entitled "Prospectus Summary," "Risk Factors," "Use of Proceeds," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business". Our estimates, projections and other forward-looking statements are based on our management's current assumptions and expectations of future events and trends, which affect or may affect our business, strategy, operations or financial performance. Although we believe that these estimates, projections and other forward-looking statements are based upon reasonable assumptions, they are subject to numerous known and unknown risks and uncertainties and are made in light of information currently available to us. Many important factors, in addition to the factors described in this prospectus, or incorporated herein by reference, may adversely and materially affect our results as indicated in forward-looking statements. You should read this prospectus, the documents incorporated herein by reference and the documents that we have filed as exhibits, or incorporated by reference, to the registration statement of which this prospectus is a part completely and with the understanding that our actual future results may be materially different from those anticipated or implied in the forward-looking statements.

All statements other than statements of historical fact are forward-looking statements. The words "believe," "may," "might," "could," "will," "aim," "estimate," "continue," "anticipate," "intend," "expect," "plan," or the negative of those terms, and similar expressions that convey uncertainty of future events or outcomes are intended to identify estimates, projections and other forward-looking statements.

Our estimates, projections and other forward-looking statements may be influenced by one or more of the factors set forth under "Risk Factors" above and incorporated herein by reference and one or more of the following factors:

our history of net operating losses and uncertainty regarding our ability to achieve profitability;

our dependence on sales of silicone gel breast implants to generate a significant amount of our net sales;

our reliance on a foreign, sole source, third-party to manufacture and supply our silicone gel breast implants, tissue expanders and other products;

our limited operating history and any difficulties encountered by us as a result of being a company early in its commercialization;

our ability to successfully commercialize our products;

our inability to operate in a competitive industry and compete successfully against competitors that have greater resources than we do;

pricing pressure from customers and our competitors;

concern about the safety and efficacy of our products, which is based on limited long-term clinical data;

the failure of our products to achieve and maintain market acceptance;

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our inability to expand our sales force and marketing programs;

the productivity of our sales representatives and ability to achieve expected growth;

our inability to retain a high percentage of our customer base;

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any inaccuracies in our assumptions about the breast implant market;

our inability to protect our intellectual property;

our failure to comply with the applicable governmental regulations to which our products and operations are subject;

the accuracy of our estimates regarding expenses, net sales, capital requirements and needs for additional financing;

our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act; and

our use of the proceeds from this offering.

Other sections of this prospectus, and incorporated herein by reference, include additional factors that could adversely impact our business, strategy, operations or financial performance. Moreover, we operate in an evolving environment. New risk factors and uncertainties emerge from time to time and it is not possible for our management to predict all risk factors and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of our forward-looking statements by these cautionary statements.

Estimates, projections and other forward-looking statements speak only as of the date they were made, and, except to the extent required by law, we undertake no obligation to update or review any estimate, projection or forward-looking statement because of new information, future events or other factors. You should, however, review the factors and risks we describe in the reports we will file from time to time with the SEC, after the date of this prospectus. See the information included under the heading "Where You Can Find More Information." Estimates, projections and other forward-looking statements involve risks and uncertainties and are not guarantees of future performance. As a result of the risks and uncertainties described above, the estimates, projections and other forward-looking statements discussed in this prospectus, or incorporated herein by reference, might not occur and our future results and our performance may differ materially from those expressed in these forward-looking statements due to, but not limited to, the factors mentioned above. Because of these uncertainties, you should not place undue reliance on these forward-looking statements when making an investment decision.

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USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of 3,000,000 shares of our common stock in this offering will be approximately \$61.5 million, or approximately \$70.8 million if the underwriters exercise their option to purchase additional shares in full, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We currently anticipate that we will use the net proceeds received by us for the following purposes: (i) we may acquire or invest in complementary products, technologies, businesses or international expansion opportunities; however, we currently have no agreements or commitments to complete any such transaction, and (ii) for working capital and other general corporate purposes. We may also use a portion of the net proceeds to repay a portion of our long-term debt. As of June 30, 2015, we had \$25.7 million outstanding on our long-term debt term loans which bear interest at a rate equal to 8.4% per annum. The long-term loan facility consists of (i) a \$7.5 million tranche A term loan, (ii) a \$2.5 million tranche B term loan and (iii) a \$5.0 million tranche C term loan, maturing on February 1, 2017, and (iv) a \$10.0 million tranche D term loan maturing on January 1, 2019.

Our expected use of the net proceeds from this offering is based upon our present plans and business condition. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual use of proceeds will vary depending on numerous factors, including the factors described under the heading "Risk Factors" beginning on page 14 of this prospectus, or incorporated herein by reference. As a result, management will retain broad discretion over the allocation of the net proceeds from this offering, and investors will be relying on the judgment of our management regarding the application of the net proceeds.

Pending the use of the net proceeds of this offering, we intend to invest the net proceeds in high-quality, short-term interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

Table of Contents**MARKET PRICE OF COMMON STOCK**

Our common stock has been listed on The NASDAQ Global Select Market under the symbol "SIEN" since October 29, 2014. Prior to that date, there was no public trading market for our common stock. Our common stock priced at \$15.00 per share in our initial public offering on October 28, 2014. The following table sets forth for the periods indicated the high and low intra-day sales prices per share of our common stock as reported on The NASDAQ Global Select Market:

| | High | Low |
|--|-------------|------------|
| 2015 | | |
| Third quarter (through September 17, 2015) | \$ 25.94 | \$ 20.21 |
| Second quarter | \$ 26.67 | \$ 15.93 |
| First quarter | \$ 20.93 | \$ 14.02 |
| 2014 | | |
| Fourth quarter (from October 29, 2014) | \$ 19.99 | \$ 12.53 |

On September 17, 2015, the last reported sale price of our common stock on The NASDAQ Global Select Market was \$23.20 per share. As of August 7, 2015, there were 14,986,946 shares of our common stock outstanding and we had 104 holders of record of our common stock. The actual number of stockholders is greater than this number of record holders, and includes stockholders who are beneficial owners, but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

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DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. At the present time, we have no plans to declare or pay any cash dividends and intend to retain all of our future earnings, if any, generated by our operations for the development and growth of our business. Any future determination related to our dividend policy will be made by our board of directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions, business prospects and other factors that our board of directors may deem relevant. Investors should not purchase our common stock with the expectation of receiving cash dividends. In addition, the terms of our term loan agreement restrict our ability to pay dividends. See the "Management's Discussion and Analysis of Financial Condition and Results of Operations - Indebtedness" section of our Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, incorporated herein by reference, for a description of the restrictions on our ability to pay dividends.

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CAPITALIZATION

The following table sets forth our capitalization as of June 30, 2015:

on an actual basis; and

on an as adjusted basis to reflect the issuance and sale by us of 3,000,000 shares of our common stock in this offering at the public offering price of \$22.00 per share, after deducting the underwriting discounts and estimated offering expenses payable by us.

You should read this table in conjunction with the information included under the heading "Use of Proceeds" included elsewhere in this prospectus, and under the headings "Selected Financial Data," "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus or incorporated herein by reference.

| | As of June 30, 2015 | |
|---|--------------------------------------|-------------|
| | Actual | As Adjusted |
| | (Unaudited) | |
| | (In thousands, except share amounts) | |
| Long-term debt | \$ 25,686 | \$ 25,686 |
| Stockholders' equity: | | |
| Preferred stock, \$0.01 par value; authorized 10,000,000 shares, none issued or outstanding actual and as adjusted | | |
| Common stock, \$0.01 par value; 200,000,000 shares authorized, 15,015,423 shares issued and 14,942,696 shares outstanding, actual; 200,000,000 shares authorized; 18,015,423 shares issued and 17,942,696 shares outstanding, as adjusted | 150 | 180 |
| Additional paid-in capital | 230,969 | 292,479 |
| Treasury stock, at cost (72,727 shares) | (260) | (260) |
| Accumulated deficit | (140,422) | (140,422) |
| Total stockholders' equity | 90,437 | 151,977 |
| Total capitalization | \$ 116,123 | \$ 177,663 |

The information set forth above is based on 14,942,696 shares of our common stock outstanding as of June 30, 2015, and excludes:

47,710 shares of common stock issuable upon exercise of outstanding warrants as of June 30, 2015, at an exercise price of \$14.671 per share;

2,231,748 shares of common stock issuable upon exercise of outstanding options to purchase shares of common stock under our 2007 Plan and our 2014 Plan, as of June 30, 2015, at a weighted average exercise price of \$7.58 per share;

668,112 shares of common stock reserved for future grant or issuance under the 2014 Plan, as of June 30, 2015;

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404,629 shares of common stock reserved for future grant or issuance under the ESPP, as of June 30, 2015; and

44,250 shares of common stock issued on July 20, 2015 under the ESPP.

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DILUTION

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the public offering price per share of our common stock and the net tangible book value per share of our common stock upon completion of this offering.

Net tangible book value per share is determined by dividing our total tangible assets (total assets less intangible assets) less our total liabilities by the number of shares of common stock outstanding. Our historical net tangible book value at June 30, 2015, was \$76.1 million, or \$5.09 per share of our common stock.

After giving effect to the sale of 3,000,000 shares of our common stock in this offering, at the public offering price of \$22.00 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2015, would have been approximately \$137.6 million, or \$7.67 per share of our common stock. This represents an immediate increase in net tangible book value of approximately \$2.58 per share to existing stockholders, and an immediate dilution of approximately \$14.33 per share to new investors purchasing our common stock in this offering.

The following table illustrates this per share dilution:

| | | | |
|--|--|-----------|--------------|
| Public offering price per share | | \$ | 22.00 |
| Historical net tangible book value per share as of June 30, 2015 | | \$ | 5.09 |
| Increase in net tangible book value per share attributable to new investors purchasing shares in this offering | | \$ | 2.58 |
| As adjusted net tangible book value per share after giving effect to this offering | | \$ | 7.67 |
| Dilution per share to new investors participating in this offering | | \$ | 14.33 |

The information above assumes that the underwriters do not exercise their option to purchase additional shares. If the underwriters exercise in full their option to purchase 450,000 additional shares of our common stock, at the public offering price of \$22.00 per share, our net tangible book value on June 30, 2015, after giving effect to this offering, would have been approximately \$146.9 million, or approximately \$7.99 per share, representing an immediate dilution of \$14.01 per share to new investors purchasing shares of common stock in this offering.

The calculations above are based on 14,942,696 shares outstanding at June 30, 2015, and excludes:

47,710 shares of common stock issuable upon exercise of outstanding warrants as of June 30, 2015, at an exercise price of \$14.671 per share;

2,231,748 shares of common stock issuable upon exercise of outstanding options to purchase shares of common stock under our 2007 Plan and our 2014 Plan, as of June 30, 2015, at a weighted average exercise price of \$7.58 per share;

668,112 shares of common stock reserved for future grant or issuance under the 2014 Plan, as of June 30, 2015;

404,629 shares of common stock reserved for future grant or issuance under the ESPP, as of June 30, 2015; and

44,250 shares of common stock issued on July 20, 2015 under the ESPP.

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To the extent that any outstanding options or warrants described above are exercised or we issue additional shares of common stock in the future, there may be further dilution to investors participating in this offering.

Table of Contents**SELECTED FINANCIAL DATA**

The following selected financial data should be read together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes, each incorporated herein by reference. The selected financial data in this section are not intended to replace our financial statements and the related notes.

We derived the selected statement of operations data for the years ended December 31, 2012, 2013 and 2014 and the selected balance sheet data as of December 31, 2013 and 2014 from our audited financial statements incorporated by reference into this prospectus from our Annual Report on Form 10-K for the year ended December 31, 2014. The selected balance sheet data as of December 31, 2012 has been derived from our audited financial statements, which are not included in or incorporated by reference into this prospectus. The selected statement of operations data for the six months ended June 30, 2014 and 2015, and the selected balance sheet data as of June 30, 2015 were derived from our unaudited financial statements incorporated by reference into this prospectus from our Quarterly Report on Form 10-Q for the quarter ended June 30, 2015. In the opinion of management, the unaudited financial statements reflect all adjustments, consisting of normal recurring adjustments, necessary for a fair statement of our results for those periods. Our historical results are not necessarily indicative of future operating results and our interim results are not necessarily indicative of results for a full year or any future period.

| | Year Ended December 31, | | | Six Months Ended June 30, | |
|---|--|-------------|------------|------------------------------|------------|
| | 2012 | 2013 | 2014 | 2014 | 2015 |
| | (Unaudited) | | | | |
| | (In thousands, except per share and share amounts) | | | | |
| Statement of operations data: | | | | | |
| Net sales | \$ 10,447 | \$ 35,171 | \$ 44,733 | \$ 21,947 | \$ 26,640 |
| Cost of goods sold | 2,352 | 8,592 | 11,500 | 5,455 | 7,174 |
| Gross profit | 8,095 | 26,579 | 33,233 | 16,492 | 19,466 |
| Operating expenses: | | | | | |
| Sales and marketing | 17,919 | 22,229 | 23,599 | 11,863 | 13,805 |
| Research and development | 3,670 | 4,479 | 4,707 | 2,305 | 2,753 |
| General and administrative | 9,938 | 18,078 | 10,712 | 4,908 | 7,664 |
| Total operating expenses | 31,527 | 44,786 | 39,018 | 19,076 | 24,222 |
| Loss from operations | (23,432) | (18,207) | (5,785) | (2,584) | (4,756) |
| Other (expense) income, net: | | | | | |
| Interest income | | | | | 7 |
| Interest expense | | (872) | (2,172) | (842) | (1,339) |
| Other (expense) income, net | (1) | (46) | 2,146 | 2,264 | (288) |
| Total other (expense) income, net | (1) | (918) | (26) | 1,422 | (1,620) |
| Loss before income taxes | (23,433) | (19,125) | (5,811) | (1,162) | (6,376) |
| Income taxes | | | | | |
| Net loss | \$ (23,433) | \$ (19,125) | \$ (5,811) | \$ (1,162) | \$ (6,376) |
| Per share data: | | | | | |
| Basic and diluted net loss per share attributable to common stockholders ⁽¹⁾ | \$ (85.01) | \$ (82.25) | \$ (2.28) | \$ (5.58) | \$ (0.43) |

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Weighted average outstanding common shares used for net loss
per share attributable to common stockholders:

| | | | | | |
|----------------------------------|---------|---------|-----------|---------|------------|
| Basic and diluted ⁽¹⁾ | 275,642 | 232,512 | 2,545,371 | 208,294 | 14,927,558 |
|----------------------------------|---------|---------|-----------|---------|------------|

(1)

For an explanation of the calculations of our basic and diluted net loss per share, see (a) Note 2 to our audited financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2014, incorporated herein by reference, and (b) Note 6 to our unaudited financial statements included in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, incorporated herein by reference.

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| | As of December 31, | | | As of June 30, |
|---|--------------------|-----------|-----------|----------------|
| | 2012 | 2013 | 2014 | 2015 |
| | (Unaudited) | | | |
| | (In thousands) | | | |
| Balance sheet data (at end of period): | | | | |
| Cash and cash equivalents | \$ 39,208 | \$ 9,722 | \$ 96,729 | \$ 89,659 |
| Working capital | 27,718 | 24,509 | 103,151 | 93,439 |
| Total assets | 69,358 | 53,166 | 139,078 | 134,413 |
| Long-term debt | | 15,092 | 25,428 | 25,686 |
| Convertible preferred stock | 150,456 | 150,456 | | |
| Total stockholders' (deficit) equity | (107,640) | (126,673) | 95,639 | 90,437 |

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Table of Contents**CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS**

The following includes a summary of transactions since January 1, 2012 to which we have been a party, in which the amount involved in the transaction exceeded \$120,000, and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of our capital stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than equity and other compensation, termination, change of control and other arrangements, which are described elsewhere in this prospectus or in a document incorporated herein by reference.

Series C Preferred Stock Financing

In March 2012, we entered into a Series C preferred stock purchase agreement, or the Series C purchase agreement, pursuant to which we issued and sold to investors an aggregate of 12,183,690 shares of our Series C preferred stock, at a purchase price of \$5.335 per share, for an aggregate purchase price of approximately \$65.0 million.

The participants in this preferred stock financing included the following holders of more than 5% of our capital stock or entities affiliated with them. The following table sets forth the aggregate number of shares of Series C preferred stock issued to these related parties in this preferred stock financing.

| Participants | Shares of Series C Preferred Stock |
|--|------------------------------------|
| Greater than 5% stockholders | |
| Abingworth Bioventures V LP ⁽¹⁾ | 4,686,035 |
| OrbiMed Private Investments III, LP ⁽²⁾ | 2,811,621 |
| Clarus Lifesciences I, L.P. | 2,811,621 |
| Goldman Sachs Private Equity Concentrated Healthcare Funds Offshore Holding, L.P. ⁽³⁾ | 810,995 |
| Teachers Insurance and Annuity Association of America | 1,063,418 |

(1) Includes 2,343,018 shares of Series C preferred stock issued to Abingworth Bioventures V Co-Invest Growth Equity Fund LP.

(2) Includes 26,252 shares of Series C preferred stock issued to OrbiMed Associates III, LP.

(3) Includes: (i) 133,075 shares of Series C preferred stock issued to Private Equity Partners 2000 Direct Investment Fund LP, (ii) 230,228 shares of Series C preferred stock issued to Private Equity Partners 2000 LP, (iii) 129,954 shares of Series C preferred stock issued to Private Equity Partners 2000 Offshore Holdings LP, (iv) 38,989 shares of Series C preferred stock issued to Private Equity Partners 2002 Direct Investment Fund LP and (v) 172,780 shares of Series C preferred stock issued to Private Equity Partners 2002 Offshore Holdings LP.

Each share of Series C preferred stock referenced in the discussion above converted on a 2.75-to-1 basis into shares of our common stock in connection with our initial public offering, which closed on November 3, 2014.

Certain of our directors and executive officers have affiliations with the investors that participated in the preferred stock financing described above, as indicated in the table below:

| Directors | Principal Stockholder |
|--|---|
| Nicholas Simon | Clarus Lifesciences I, L.P. |
| Timothy Haines | Abingworth Bioventures V LP and affiliated entities |
| Rishi Gupta, a former member of our board of directors, had an affiliation with OrbiMed Private Investments III, LP and affiliated entities. | |

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Investor Agreements

In connection with our preferred stock financing, we entered into an amended and restated investor rights agreement with certain holders of our preferred stock and certain holders of our common stock, including all of the holders of more than 5% of our capital stock or entities affiliated with them, containing information rights, rights of first refusal and certain registration rights which are more fully described below in "Description of Capital Stock Registration Rights." All registration rights will terminate at the earlier of (i) the date five years after our initial public offering, or (ii) as to any holder of registrable securities, the first date after our initial public offering on which such holder is able to dispose of all of its registrable securities without restriction under Rule 144 of the Securities Act. The rights of first refusal terminated upon the closing of our initial public offering.

In connection with our preferred stock financing, we also entered into an amended and restated voting agreement with certain holders of our preferred stock and certain holders of our common stock, including all of the holders of more than 5% of our capital stock or entities affiliated with them, containing voting rights with respect to elections of our board of directors and certain proposed sale transactions. This agreement terminated in its entirety upon the closing of our initial public offering.

Employment Arrangements

We have entered into written employment severance agreements with our executive officers as more fully described in our definitive proxy statement on Schedule 14A, filed with the SEC on April 30, 2015, which is incorporated herein by reference.

Stock Options Granted to Executive Officers and Directors

We have granted stock options to our executive officers and directors, as more fully described in our definitive proxy statement on Schedule 14A, filed with the SEC on April 30, 2015, which is incorporated herein by reference.

Participation in Initial Public Offering

Abingworth Bioventures V LP, a stockholder who holds more than 5% of our capital stock and which one of our directors, Timothy Haines, is a member of the investment committee of, purchased, together with an affiliated entity, an aggregate of 495,000 shares of our common stock in our initial public offering, which closed on November 3, 2014, amounting to \$7.4 million at the initial public offering price of \$15.00 per share.

Indemnification Agreements

We have entered, and intend to continue to enter, into separate indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our amended and restated bylaws. These agreements, among other things, require us to indemnify our directors and executive officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of their services as one of our directors or executive officers or as a director or executive officer of any other company or enterprise to which the person provides services at our request. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative

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litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may decline in value to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Policies and Procedures for Transactions with Related Persons

We have adopted a written related-person transactions policy that sets forth our policies and procedures regarding the identification, review, consideration and oversight of "related-person transactions." For purposes of our policy only, a "related-person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we and any "related person" are participants involving an amount that exceeds \$120,000.

Transactions involving compensation for services provided to us as an employee, consultant or director are not considered related-person transactions under this policy. A related person is any executive officer, director or a holder of more than five percent of our common stock, including any of their immediate family members and any entity owned or controlled by such persons.

Under the policy, where a transaction has been identified as a related-person transaction, management must present information regarding the proposed related-person transaction to our audit committee (or, where review by our audit committee would be inappropriate, to another independent body of our board of directors) for review. The presentation must include a description of, among other things, the material facts, the direct and indirect interests of the related persons, the benefits of the transaction to us and whether any alternative transactions are available. To identify related-person transactions in advance, we rely on information supplied by our executive officers, directors and certain significant stockholders. In considering related-person transactions, our audit committee or another independent body of our board of directors takes into account the relevant available facts and circumstances including, but not limited to:

the risks, costs and benefits to us;

the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated;

the terms of the transaction;

the availability of other sources for comparable services or products; and

the terms available to or from, as the case may be, unrelated third parties or to or from our employees generally.

In the event a director has an interest in the proposed transaction, the director must recuse himself or herself from the deliberations and approval.

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DESCRIPTION OF CAPITAL STOCK

The following is a summary of the rights of our common and preferred stock and some of the provisions of our amended and restated certificate of incorporation and amended and restated bylaws and of the General Corporation Law of the State of Delaware. This summary is not complete. For more detailed information, please see our amended and restated certificate of incorporation and amended and restated bylaws, which are filed as exhibits to the registration statement of which this prospectus is a part, as well as the relevant provisions of the General Corporation Law of the State of Delaware.

General

Our amended and restated certificate of incorporation provides for common stock and undesignated preferred stock, the rights, preferences and privileges of which may be designated from time to time by our board of directors. Our authorized capital stock consists of 200,000,000 shares of common stock, par value \$0.01 per share and 10,000,000 shares of preferred stock, par value \$0.01 per share.

Common Stock

Outstanding Shares

As of June 30, 2015, there were 14,942,696 shares of our common stock outstanding and held by 100 stockholders of record. Based on such number of shares of common stock outstanding as of June 30, 2015, and assuming the issuance by us of 3,000,000 shares of common stock in this offering, there will be 17,942,696 shares of common stock outstanding upon the closing of this offering.

Dividend Rights

Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of outstanding shares of our common stock are entitled to receive dividends out of funds legally available at the times and in the amounts that our board of directors may determine.

Voting Rights

Holders of our common stock are entitled to one vote per share. We have not provided for cumulative voting for the election of directors in our amended and restated certificate of incorporation. The board of directors is divided into three classes, which are as nearly equal in number as possible, with each director elected at an annual stockholders' meeting following the date of our initial public offering serving a three-year term and one class being elected at each year's annual stockholder meeting.

Rights and Preferences

Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

Right to Receive Liquidation Distributions

Upon our liquidation, dissolution, distribution of assets or winding-up, the assets legally available for distribution to our stockholders would be distributable ratably among the holders of our common stock and any participating preferred stock outstanding at that time, if any, after payment of liquidation preferences, if any, on any outstanding shares of preferred stock and payment of other claims of creditors.

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Fully Paid and Non-Assessable

All of the outstanding shares of our common stock are, and the shares of our common stock to be issued pursuant to this offering will be, fully paid and non-assessable.

Preferred Stock

As of June 30, 2015, there were no shares of our preferred stock outstanding.

Under our amended and restated certificate of incorporation, our board of directors has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control that may otherwise benefit holders of our common stock and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. We have no current plans to issue any shares of preferred stock.

Options

As of June 30, 2015, options to purchase an aggregate of 2,231,748 shares of common stock were outstanding under our 2007 Plan and our 2014 Plan, at a weighted average exercise price of \$7.58 per share.

Warrants

As of June 30, 2015, we had outstanding warrants to purchase an aggregate of 47,710 shares of our common stock with an exercise price of \$14.671 per share, as follows:

| Class of Stock | Number of Shares of Stock Subject to Warrant | Exercise Price per Share | Expiration Date |
|----------------|--|--------------------------|-------------------|
| Common Stock | 7,156 | \$ 14.671 | January 17, 2020 |
| Common Stock | 8,179 | \$ 14.671 | January 17, 2020 |
| Common Stock | 3,067 | \$ 14.671 | August 1, 2020 |
| Common Stock | 2,044 | \$ 14.671 | August 1, 2020 |
| Common Stock | 5,112 | \$ 14.671 | December 13, 2020 |
| Common Stock | 5,112 | \$ 14.671 | December 13, 2020 |
| Common Stock | 8,520 | \$ 14.671 | June 30, 2021 |
| Common Stock | 8,520 | \$ 14.671 | June 30, 2021 |

Exclusive Jurisdiction

Unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of us, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to Sientra or our stockholders, (iii) any action asserting a

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claim arising pursuant to any provision of the General Corporation Law of the State of Delaware or our certificate of incorporation or bylaws, or (iv) any action asserting a claim against us governed by the internal affairs doctrine. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that, in connection with any action, a court could find the choice of forum provisions contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable in such action.

Registration Rights

Certain holders of our common stock, or their transferees, are entitled to the registration rights set forth below with respect to registration of the resale of such shares under the Securities Act pursuant to the investor rights agreement, as amended, by and among us and certain of our stockholders.

Demand Registration Rights

At any time, upon the written request of certain of the holders of the registrable securities then outstanding that we file a registration statement under the Securities Act covering the registration of the registrable securities resulting in net offering proceeds of at least \$35.0 million, we will be obligated to notify all holders of registrable securities of such request and to use our reasonable best efforts to register the sale of all registrable securities that holders may request to be registered. We are not required to effect more than three registration statements which are declared or ordered effective. We may postpone the filing of a registration statement for up to 90 days twice in any 12-month period if in the good faith judgment of our board of directors such registration would be detrimental to us. The underwriters of any underwritten offering will have the right to limit the number of shares having registration rights to be included in the registration statement.

"Piggyback" Registration Rights

If we register any securities for public sale, holders of registration rights will have the right to include their shares in the registration statement. The underwriters of any underwritten offering will have the right to limit the number of shares having registration rights to be included in the registration statement, but not below 25% of the total number of shares included in the registration statement.

Form S-3 Registration Rights

If we are eligible to file a registration statement on Form S-3, from any time after the one year anniversary of our initial public offering, holders of registrable securities have the right to demand that we file a registration statement on Form S-3 so long as the aggregate price to the public of the securities to be sold under the registration statement on Form S-3 is at least \$1.0 million. We may postpone the filing of a registration statement for up to 90 days twice in any 12-month period if in the good faith judgment of our board of directors such registration would be detrimental to us, and we are only obligated to effect up to two registrations on Form S-3 in any 12-month period. We may also postpone the filing of a registration statement if we notify the holders of the registrable securities within 30 days of our intention to make a public offering within 90 days.

Expenses of Registration

Generally, we are required to bear all registration and selling expenses incurred in connection with the demand, piggyback and Form S-3 registrations described above, other than underwriting discounts and commissions.

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Expiration of Registration Rights

The demand, piggyback and Form S-3 registration rights discussed above will terminate upon the earlier of (i) November 4, 2019 or (ii) as to any holder of registrable securities, the first date after our initial public offering on which such holder is able to dispose of all of its registrable securities without restriction under Rule 144 of the Securities Act.

Anti-Takeover Effects of Provisions of Our Amended and Restated Certificate of Incorporation, Our Amended and Restated Bylaws and Delaware Law

Delaware Anti-Takeover Law

We are subject to Section 203 of the General Corporation Law of the State of Delaware, or Section 203. Section 203 generally prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

the interested stockholder owned at least 85% of the voting stock of the corporation outstanding upon consummation of the transaction, excluding for purposes of determining the number of shares outstanding (a) shares owned by persons who are directors and also officers and (b) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

on or subsequent to the consummation of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least $66\frac{2}{3}\%$ of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

any merger or consolidation involving the corporation and the interested stockholder;

any sale, transfer, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;

subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder;

subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder; and

the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

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Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Provisions of our amended and restated certificate of incorporation and amended and restated bylaws may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our amended and restated certificate of incorporation and amended and restated bylaws provide that:

our board of directors may issue up to 10,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate (including the right to approve an acquisition or other change in our control);

the authorized number of directors may be changed only by resolution adopted by a majority of the board of directors;

the board of directors or any individual director may be removed only for cause and only by the affirmative vote of the holders of at least 66²/₃% of the voting power of all of our then outstanding common stock;

all vacancies, including newly created directorships, may, except as otherwise required by law or subject to the rights of holders of preferred stock as designated from time to time, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;

our board of directors shall be divided into three classes;

any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;

stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner and also specify requirements as to the form and content of a stockholder's notice;

there may not be cumulative voting (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);

special meetings of our stockholders may be called only by the chairman of the board, our Chief Executive Officer or by the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exists any vacancies); and

the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors or officers to us or our stockholders, (iii) any action asserting a claim against us arising pursuant to any provision of the DGCL or our certificate of incorporation or bylaws, or (iv) any action asserting a claim against us governed by the internal affairs doctrine.

The amendment of any of these provisions, with the exception of the ability of our board of directors to issue shares of preferred stock and designate any rights, preferences and privileges thereto, would require the affirmative vote of the holders of at least 66²/₃% of the voting power of all of our then outstanding common stock.

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Annual Stockholder Meetings

Our amended and restated bylaws provide that annual stockholder meetings will be held at a date, time and place as exclusively selected by our board of directors.

Listing

Our common stock is listed on The NASDAQ Global Select Market under the symbol "SIEN."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A., or Computershare. The address of Computershare is 250 Royall Street, Canton, Massachusetts 02021 and the telephone number is (877) 373-6374.

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PRINCIPAL STOCKHOLDERS

The following table and accompanying footnotes set forth certain information with respect to the beneficial ownership of our common stock, as of August 7, 2015, and as adjusted to reflect the shares of common stock to be issued and sold in this offering, assuming no exercise of the underwriters' option to purchase additional shares, by:

each person, or group of affiliated persons, known by us to be the beneficial owner of more than 5% of our outstanding shares of common stock;

each of our directors;

each of our executive officers; and

all our current executive officers and directors as a group.

For purposes of the table below, the percentage ownership calculations for beneficial ownership prior to this offering are based on 14,986,946 shares of our common stock outstanding as of August 7, 2015. The information relating to the number and percentage of shares beneficially owned after the offering assumes the sale by us of 3,000,000 shares of common stock in this offering. The percentage ownership information assumes no exercise of the underwriters' option to purchase additional shares.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the securities. Shares of common stock that may be acquired by an individual or group within 60 days of August 7, 2015, pursuant to the exercise of options, warrants or other rights, are deemed to be outstanding for the purpose of computing the percentage ownership of such individual or group, but are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person shown in the table. This table is based upon information supplied by officers, directors and principal stockholders and Schedules 13G and 13D filed with the SEC.

Except as indicated in footnotes to this table, we believe that the stockholders named in this table have sole voting and investment power with respect to all shares of common stock shown to be beneficially owned by them, based on information provided to us by such stockholders. The address for each

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director and executive officer listed below is: c/o Sientra, Inc., 420 South Fairview Avenue, Suite 200, Santa Barbara, California 93117.

| Name of Beneficial Owner | Shares Beneficially Owned | Percentage of Shares Beneficially Owned | |
|---|---------------------------------|--|-----------------------|
| | | Before the Offering | After the Offering |
| 5% Stockholders: | | | |
| Entities affiliated with Abingworth Bioventures V LP ⁽¹⁾ | 2,199,012 | 14.67% | 12.23% |
| Entities affiliated with OrbiMed Private Investments III, LP. ⁽²⁾ | 3,185,306 | 21.25 | 17.71 |
| Clarus Lifesciences I, L.P. ⁽³⁾ | 2,730,765 | 18.22 | 15.18 |
| Entities affiliated with Private Equity Managers (Healthcare) Offshore Holdings LP ⁽⁴⁾ | 783,002 | 5.22 | 4.35 |
| Visium Balanced Master Fund, Ltd. ⁽⁵⁾ | 1,475,000 | 9.84 | 8.20 |
| Executive Officers and Directors: | | | |
| Hani Zeini ⁽⁶⁾ | 651,408 | 4.19 | 3.51 |
| Matthew Pigeon ⁽⁷⁾ | 108,802 | * | * |
| Charles Huiner ⁽⁸⁾ | 32,243 | * | * |
| Joel Smith ⁽⁹⁾ | 87,685 | * | * |
| Nicholas Simon ⁽¹⁰⁾ | 2,732,526 | 18.23 | 15.19 |
| Timothy Haines ⁽¹¹⁾ | 2,200,773 | 14.68 | 12.23 |
| R. Scott Greer ⁽¹²⁾ | 15,574 | * | * |
| Kevin O'Boyle ⁽¹³⁾ | 5,574 | * | * |
| Jeffrey Nugent ⁽¹⁴⁾ | 5,574 | * | * |
| All executive officers and directors as a group (9 persons) ⁽¹⁵⁾ | 5,840,159 | 36.98% | 31.08% |

* Represents beneficial ownership of less than 1.0%

- (1) Consists of (i) 1,099,506 shares held of record by Abingworth Bioventures V LP, or ABV V, and (ii) 1,099,506 shares held of record by Abingworth Bioventures V Co-Invest Growth Equity Fund LP., or AGE. ABV V and AGE are collectively referred to as the "Abingworth Funds." The investment manager of the Abingworth Funds is Abingworth LLP, or Abingworth. Abingworth Bioventures V GP LP, a Scottish limited partnership, serves as the general partner of each of the Abingworth Funds. Abingworth Bioventures V GP LP has delegated to Abingworth all investment and dispositive power over the shares held by the Abingworth Funds. An investment committee of Abingworth, comprised of Joseph Anderson, Michael F. Bigham, Timothy Haines, one of our directors, Genghis Lloyd-Harris and Stephen W. Bunting, approves investment and voting decisions by a majority vote, and no individual member has the sole control or voting power over the shares held by the Abingworth Funds. Each of Abingworth Bioventures V GP LP, Abingworth Bioventures V LP Limited, Joseph Anderson, Michael F. Bigham, Timothy Haines, one of our directors, Genghis Lloyd-Harris and Stephen W. Bunting disclaims beneficial ownership of all shares held of record held by the Abingworth Funds. The address for the Abingworth Funds is c/o Abingworth LLP, 38 Jermyn Street, London SW1Y 6DN, United Kingdom.
- (2) Consists of (i) 3,155,258 shares held of record by OrbiMed Private Investments III, LP, or OPI III, and (ii) 30,048 shares held of record by OrbiMed Associates III, LP, or Associates III. OPI III and Associates III are collectively referred to as the "OrbiMed Funds". OrbiMed Capital GP III LC, or GP III, is the sole general partner of OPI III and as such may be deemed to beneficially own the shares held of record by OPI III. OrbiMed Advisors LLC, or OrbiMed, is the general partner of Associates III and the sole managing member of GP III, and may be deemed to beneficially own the shares held of record by the OrbiMed Funds. Samuel D. Isaly is the managing member of and owner of a controlling interest in OrbiMed and may be deemed to have voting and investment power over shares held by OPI III and Associates III. Mr. Isaly disclaims beneficial ownership over such shares, except to the extent of his pecuniary interest therein. Mr. Isaly disclaims beneficial ownership of all shares held of record by the OrbiMed Funds in which he does not have a pecuniary interest. Rishi Gupta, one of our directors, is a private equity partner at OrbiMed and may be deemed to have voting and investment power over shares held by the OrbiMed Funds. Mr. Gupta disclaims beneficial ownership over such shares, except to the extent of his pecuniary interest therein. The address for the OrbiMed Funds entities is c/o OrbiMed Advisors LLC, 601 Lexington Avenue, 54th Floor, New York, NY 10024
- (3) Consists of 2,730,765 shares held of record by Clarus Lifesciences I, L.P., or Clarus I. Clarus Ventures I Management, L.P., or Clarus I GPLP, is the sole general partner of Clarus I and may be deemed to beneficially own certain of the shares held by Clarus I. Clarus I GPLP disclaims beneficial ownership of all shares held of record by Clarus I in which Clarus I GPLP does not have a pecuniary interest. Clarus Ventures I, LLC, or Clarus I GPLLC, is the sole general partner of Clarus I GPLP, and may be deemed to beneficially own certain of the shares held of record by Clarus I. Clarus I GPLLC disclaims beneficial ownership of all shares held of record by Clarus I in which it does not have a pecuniary interest. Each of Messrs. Henner, Liptak, Galakatos, Simon, one of our directors, Steinmetz and Wheeler, as individual managing directors of Clarus I GPLLC, may be deemed to beneficially own certain of the shares held of record by Clarus I. Each of Messrs. Galakatos, Henner, Liptak, Simon, Steinmetz and Wheeler disclaims beneficial ownership of all shares held of record by Clarus I in which he does not have a pecuniary interest. The address for Clarus I is 101 Main Street, Suite 1210, Cambridge, MA 02142.

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- (4) Consists of (i) 102,311 shares held of record by Private Equity Managers (Healthcare) Offshore Holdings LP, or PEM Healthcare Offshore, (ii) 128,482 shares held of record by Private Equity Partners 2000 Direct Investment Fund LP, or PEP 2000 Direct, (iii) 222,282 shares held of record by Private Equity Partners 2000 LP, or PEP 2000, (iv) 125,469 shares held of record by Private Equity Partners 2000 Offshore Holdings LP, or PEP 2000 Offshore, (v) 37,642 shares held of record by Private Equity Partners 2002 Direct Investment Fund LP, or PEP 2002 Direct, and (vi) 166,816 shares held of record by Private Equity Partners 2002 Offshore Holdings LP, or PEP 2002 Offshore. PEM Healthcare Offshore, PEP 2000 Direct, PEP 2000, PEP 2000 Offshore, PEP 2002 Direct and PEP 2002 Offshore are collectively referred to as the "GS Funds." The investment manager of the GS Funds is Goldman Sachs Asset Management, L.P., or GSAM. GSAM Gen-Par, LLC, a Delaware limited liability company, serves as the managing member of the general partner of those GS Funds organized in Delaware, and as the director of the general partner of those GS Funds organized in the Cayman Islands. GSAM Gen-Par, LLC has signing authority for the GS Funds and GSAM has all investment and dispositive power over the shares held of record by the GS Funds. An investment committee of senior members of The AIMS Private Equity Group of GSAM comprised of Michael J. Brandmeyer, Michael R. Miele, Marc O. Boheim, Harold P. Hope III, Julia Feldman, Suzanne Gauron, Stephen Lessar, Gabriel Mollerberg, Konnin Tam and Christian von Schimmelmann approves investment and voting decisions by a majority vote, and no individual member has the sole control or voting power over the shares held of record by the GS Funds. Each of such members disclaims beneficial ownership of all shares held of record held by the GS Funds. The address for the GS Funds is c/o The AIMS Private Equity Group, 200 West Street, New York, NY 10282.
- (5) Consists of 1,475,000 shares held of record by Visium Balanced Master Fund, Ltd, a Cayman Island corporation, or VBMF. Visium Asset Management, L.P, a Delaware limited partnership, or VAM, is an investment manager to VBMF and may be deemed to beneficially own the shares held by VBMF. VAM disclaims beneficial ownership of all shares held of record by VBMF in which VAM does not have a pecuniary interest. JG Asset, LLC, a Delaware limited liability company, or JG Asset, is the general partner of VAM and may be deemed to beneficially own the shares held by VBMF. JG Asset disclaims beneficial ownership of all shares held of record by VBMF in which JG Asset does not have a pecuniary interest. Jacob Gottlieb, or Gottlieb, is the Managing Member of JG Asset and may be deemed to beneficially own the shares held by VBMF. Gottlieb disclaims beneficial ownership of all shares held of record by VBMF in which Gottlieb does not have a pecuniary interest. The address for VBMF is c/o Visium Asset Management, LP, 888 Seventh Avenue, New York, NY 10019.
- (6) Consists of (i) 91,848 shares held of record by Mr. Zeini and (ii) options to purchase 559,560 shares exercisable within 60 days of August 7, 2015.
- (7) Consists of (i) 473 shares held of record by Mr. Pigeon and (ii) options to purchase 108,329 shares exercisable within 60 days of August 7, 2015.
- (8) Consists of (i) 1,933 shares held of record by Mr. Huiner and (ii) options to purchase 30,310 shares exercisable within 60 days of August 7, 2015.
- (9) Consists of (i) 1,481 shares held of record by Mr. Smith and (ii) options to purchase 86,204 shares exercisable within 60 days of August 7, 2015.
- (10) Consists of: (i) options to purchase 1,761 shares exercisable by Mr. Simon within 60 days of August 7, 2015 and (ii) the shares held of record by Clarus I and disclosed in footnote (3) above. Mr. Simon is a managing director of Clarus I GPLLC and may be deemed to beneficially own certain of the shares held of record by Clarus I, as disclosed in footnote (3). Mr. Simon disclaims beneficial ownership of all shares held of record by Clarus I, except to the extent of his pecuniary interest therein.
- (11) Consists of (i) options to purchase 1,761 shares exercisable by Mr. Haines within 60 days of August 7, 2015 and (ii) the shares held of record by the Abingworth Funds and disclosed in footnote (1) above. Abingworth approves investment and voting decisions by a majority vote, and no individual member of Abingworth has the sole control or voting power over the shares held by the Abingworth Funds. Mr. Haines is a member of the investment committee of Abingworth and may be deemed to beneficially own certain of the shares held of record by Abingworth, as disclosed in footnote (1). Mr. Haines disclaims beneficial ownership of all shares held of record by the Abingworth Funds, except to the extent of his pecuniary interest therein.
- (12) Consists of (i) 10,000 shares held of record by Mr. Greer and (ii) options to purchase 5,574 shares exercisable within 60 days of August 7, 2015.
- (13) Consists of options to purchase 5,574 shares exercisable within 60 days of August 7, 2015.
- (14) Consists of options to purchase 5,574 shares exercisable within 60 days of August 7, 2015.
- (15) Consists of (i) 5,035,512 shares beneficially owned by our current executive officers and directors and (ii) options to purchase 804,647 shares exercisable within 60 days of August 7, 2015.

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SHARES ELIGIBLE FOR FUTURE SALE

Future sales of substantial amounts of our common stock in the public market, or the perception that such sales could occur, could adversely affect market prices prevailing from time to time and could impair our ability to raise capital through the sale of our equity securities. Furthermore, because only a limited number of shares will be available for sale shortly after this offering due to existing contractual and legal restrictions on resale as described below, there may be sales of substantial amounts of our common stock in the public market after the restrictions lapse. This may adversely affect the prevailing market price and our ability to raise equity capital in the future.

As of June 30, 2015, based on the number of shares of our common stock then outstanding, upon the closing of this offering, and assuming no exercise of outstanding options or warrants, we would have had outstanding an aggregate of approximately 17,942,696 shares of common stock. Of these shares, the 5,750,000 shares sold in our initial public offering (other than any shares purchased by our then-existing investors and directors and officers), all of the shares of common stock to be sold in this offering and any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable in the public market without restriction or further registration under the Securities Act of 1933, as amended, or the Securities Act, unless the shares are held by any of our "affiliates" as such term is defined in Rule 144 of the Securities Act.

9,152,269 shares of our common stock will be "restricted securities," as that term is defined in Rule 144 under the Securities Act upon the closing of this offering. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rules 144 or 701 under the Securities Act, which are summarized below.

As a result of the lock-up agreements described below and the provisions of Rules 144 and 701 under the Securities Act, each of which is described below, these restricted securities will be available for sale in the public market as follows:

5,035,512 shares will be eligible for sale beginning 90 days after the date of this prospectus, subject, in the case of shares held by our affiliates, to the volume limitations under Rule 144; and

4,116,757 shares that are already issued and outstanding are immediately available for sale in the public market subject to securities laws and our insider trading policy.

In addition, as of August 7, 2015, options to purchase an aggregate of 2,237,248 shares of our common stock were outstanding under our 2007 Plan and our 2014 Plan, which have been registered on a Registration Statement on Form S-8. In addition, 662,612 shares of common stock that are reserved for issuance under our 2014 Plan are registered on the Registration Statement on Form S-8. These shares can be freely sold in the public market upon issuance and once vested. Furthermore, all of the 47,710 shares of our common stock that were issuable upon the exercise of warrants outstanding as of June 30, 2015 were exercisable as of that date, and upon exercise these shares of common stock will be eligible for sale subject to Rule 144.

Rule 144

In general, under Rule 144, as currently in effect, a person, or persons whose shares are aggregated, who is not deemed to be or have been one of our affiliates for purposes of the Securities Act at the time, or at any time during the 90 days preceding a sale and who has beneficially owned their shares for at least six months, including the holding period of any prior owner other than one of our affiliates, may sell such shares without registration, provided current public information about us is

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available. If such a person has beneficially owned the shares for at least one year, including the holding period of any prior owner other than one of our affiliates, then such person is entitled to sell such shares without regard to whether current public information about us is available.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares on behalf of our affiliates, who have met the six-month holding period for beneficial ownership of "restricted shares" of our common stock, are entitled to sell within any three-month period, a number of shares that does not exceed the greater of:

1% of the number of shares of our common stock then outstanding, which will equal approximately 179,427 shares immediately after this offering; or

the average reported weekly trading volume of our common stock on The NASDAQ Global Select Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Sales of restricted shares under Rule 144 held by our affiliates or persons selling shares on behalf of our affiliates are also subject to requirements regarding the manner of sale, notice and the availability of current public information about us. Rule 144 also provides that affiliates relying on Rule 144 to sell shares of our common stock that are not restricted shares must nonetheless comply with the same restrictions applicable to restricted shares, other than the holding period requirement.

Rule 701

Rule 701 generally allows a stockholder who purchased shares of our common stock pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding 90 days to sell these shares in reliance upon Rule 144, but without being required to comply with the public information, holding period, volume limitation, or notice provisions of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144.

Lock-Up Agreements

We, our executive officers and directors (and certain stockholders affiliated with our directors) have agreed with the underwriters that for a period of 90 days, or the "restricted period," after the date of this prospectus, subject to specified exceptions, we or they will not offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, make any short sale or otherwise transfer or dispose of, directly or indirectly, any shares of common stock or any securities convertible into, or exercisable or exchangeable for, or that represent the right to receive shares of common stock, or enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock or demand that we file a registration statement related to our common stock. Piper Jaffray & Co. and Stifel, Nicolaus & Company, Incorporated may, in their sole discretion release all or any portion of the shares from restrictions in such agreement. Upon expiration of the restricted period, certain of our stockholders will have the right to require us to register their shares under the Securities Act.

After this offering, certain of our employees, including our executive officers and/or directors, may enter into written trading plans that are intended to comply with Rule 10b5-1 under the Exchange Act. Sales under these trading plans would not be permitted until the expiration of the lock-up agreements relating to the offering described above.

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Registration Rights

As of August 7, 2015, the holders of 7,620,083 shares of our common stock were entitled to request that we register the sale of their shares under the Securities Act. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction, except for shares purchased by affiliates, immediately upon the effectiveness of that registration statement. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock. See "Description of Capital Stock - Registration Rights."

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**MATERIAL UNITED STATES FEDERAL INCOME
TAX CONSIDERATIONS FOR NON-U.S. HOLDERS**

The following discussion describes the material U.S. federal income tax considerations relating to the purchase, ownership and disposition of our common stock by Non-U.S. Holders (defined below). This summary does not address all aspects of U.S. federal income taxes, does not discuss the potential application of the alternative minimum tax or the 3.8% Medicare tax on net investment income, does not deal with U.S. taxes other than income taxes such as gift or estate taxes (except to the limited extent set forth below), and does not deal with state, local or non-U.S. tax consequences that may be relevant to Non-U.S. Holders of our common stock. This discussion is based upon the Code, the Treasury regulations promulgated or proposed thereunder and administrative and judicial interpretations thereof, all in effect and available as of the date hereof and all of which are subject to differing interpretations and to change, revocation or repeal at any time, possibly on a retroactive basis. We have not sought, and will not seek, any ruling from the U.S. Internal Revenue Service, or the IRS, with respect to the tax consequences discussed herein, and there can be no assurance that the IRS will not take a position contrary to the tax consequences discussed below or that any position taken by the IRS would not be sustained.

This summary assumes that Non-U.S. Holders will hold our common stock as a "capital asset" within the meaning of the Code (generally, property held for investment). This summary does not purport to deal with all aspects of U.S. federal income taxation that might be relevant to particular Non-U.S. Holders in light of their particular investment circumstances or status, nor does it address specific tax considerations that may be relevant to particular persons (including, for example, banks, financial institutions or other financial services entities, broker-dealers and traders in securities, insurance companies, partnerships or other pass-through entities or entities that are treated as disregarded entities for U.S. federal income tax purposes (regardless of their places of organization or formation), certain U.S. expatriates, tax-exempt organizations, pension plans, tax-qualified retirement plans, "controlled foreign corporations," "passive foreign investment companies," corporations that accumulate earnings to avoid U.S. federal income tax, real estate investment trusts, regulated investment companies, persons deemed to sell our common stock under the constructive sale provisions of the Code, persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation, or persons in special situations, such as those who have elected to mark securities to market or those who hold common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment or risk reduction strategy).

For purposes of this summary, a "Non-U.S. Holder" means a beneficial owner of common stock that for U.S. federal income tax purposes is not classified as a partnership (or entity or arrangement treated as a partnership for U.S. federal income tax purposes) and is not:

an individual who is a citizen or resident of the United States;

a corporation or any other organization taxable as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States, any state thereof or the District of Columbia;

an estate, the income of which is included in gross income for U.S. federal income tax purposes regardless of its source; or

a trust if (1) a U.S. court is able to exercise primary supervision over the trust's administration and one or more "United States persons" (within the meaning of Section 7701(a)(3) of the Code) have the authority to control all of the trust's substantial decisions or (2) the trust has a valid election in effect under applicable Treasury regulations to be treated as a U.S. person.

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If an entity that is treated as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of persons treated as its partners for U.S. federal income tax purposes will generally depend upon the status of the partner and the activities of the partnership. Partnerships and other entities that are classified as partnerships for U.S. federal income tax purposes and persons holding our common stock through a partnership or other entity treated as a partnership for U.S. federal income tax purposes are urged to consult their own tax advisors.

THIS SUMMARY IS FOR GENERAL INFORMATION ONLY AND IS NOT TAX ADVICE. NON-U.S. HOLDERS ARE URGED TO CONSULT THEIR TAX ADVISORS CONCERNING THE U.S. FEDERAL INCOME AND NON-INCOME TAXATION, STATE, LOCAL AND NON-U.S. TAXATION AND OTHER TAX CONSEQUENCES TO THEM OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK.

Distributions on Our Common Stock

As described in the section entitled "Dividend Policy," we do not anticipate declaring or paying dividends to holders of our common stock in the foreseeable future. However, in the event that we make a distribution of cash or property (other than certain stock distributions) with respect to our common stock (or in the case of certain redemptions that are treated as distributions with respect to our common stock), any such distributions generally will constitute dividends for U.S. federal income tax purposes to the extent of our current and accumulated earnings and profits, if any, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will constitute a return of capital and will first reduce the holder's adjusted tax basis in our common stock, but not below zero. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in "Gain on Sale, Exchange or Other Disposition of Our Common Stock." Any such distribution would also be subject to the discussion below under the sections titled "Additional Withholding and Reporting Requirements" and "Backup Withholding and Information Reporting."

Dividends paid to a Non-U.S. Holder generally will be subject to a 30% U.S. federal withholding tax unless such Non-U.S. Holder provides us or our agent, as the case may be, with the appropriate IRS Form W-8, such as:

IRS Form W-8BEN or W-8BEN-E (or successor form) certifying, under penalties of perjury, a reduction in withholding under an applicable income tax treaty, or

IRS Form W-8ECI (or successor form) certifying that a dividend paid on our common stock is not subject to withholding tax because it is effectively connected with a trade or business in the United States of the Non-U.S. Holder (in which case such dividend generally will be subject to regular graduated U.S. tax rates as described below).

The certification requirement described above must be provided to us or our agent prior to the payment of dividends and must be updated periodically. The certification also may require a Non-U.S. Holder that provides an IRS form or that claims treaty benefits to provide its U.S. taxpayer identification number. Special certification and other requirements apply in the case of certain Non-U.S. Holders who hold shares of our common stock through intermediaries or who are pass-through entities for U.S. federal income tax purposes.

Dividends that are effectively connected with a trade or business in the United States of a Non-U.S. Holder (and, if required by an applicable income tax treaty, attributable to a U.S. permanent establishment or fixed base), generally will not be subject to U.S. withholding tax (provided that the certifications described above are satisfied), but instead generally will be subject to U.S. federal income

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tax on a net income basis in the same manner as if the Non-U.S. Holder were a resident of the United States. A corporate Non-U.S. Holder that receives effectively connected dividends may be subject to an additional branch profits tax at a rate of 30%, or a lower rate prescribed by an applicable income tax treaty.

Non-U.S. Holders that do not timely provide us or our agent with the required certification, but which are eligible for a reduced rate of U.S. federal withholding tax pursuant to an income tax treaty, may obtain a refund or credit of any excess amount withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

Gain on Sale, Exchange or Other Disposition of Our Common Stock

Subject to the discussion below under the sections titled " Additional Withholding and Reporting Requirements" and " Backup Withholding and Information Reporting," in general, a Non-U.S. Holder will not be subject to any U.S. federal income tax or withholding tax on gain realized upon such holder's sale, exchange or other disposition of shares of our common stock unless (i) such gain is effectively connected with a trade or business carried on by the Non-U.S. Holder within the United States (and, if required by an applicable income tax treaty, is attributable to a permanent establishment or fixed base maintained by such Non-U.S. Holder in the United States), (ii) such Non-U.S. Holder is a nonresident alien individual who is present in the United States for 183 days or more in the taxable year of disposition, and certain other conditions are met; or (iii) we are or have been a "United States real property holding corporation," or USRPHC, for U.S. federal income tax purposes, at any time within the shorter of the five-year period preceding the disposition and the Non-U.S. Holder's holding period in the shares of our common stock, and, in the case where shares of our common stock are regularly traded on an established securities market, the Non-U.S. Holder owns, or is treated as owning, more than five percent of our common stock at any time during the foregoing period.

Net gain realized by a Non-U.S. Holder described in clause (i) above generally will be subject to U.S. federal income tax in the same manner as if the Non-U.S. Holder were a resident of the United States. Any gains of a corporate Non-U.S. Holder described in clause (i) above may also be subject to an additional "branch profits tax" at a 30% rate, or such lower rate as may be specified by an applicable income tax treaty.

Gain realized by an individual Non-U.S. Holder described in clause (ii) above will be subject to a flat 30% tax (or such lower rate specified by an applicable income tax treaty), which gain may be offset by U.S. source capital losses, even though the individual is not considered a resident of the United States, provided the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

For purposes of clause (iii) above, a corporation is a USRPHC if the fair market value of its United States real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. We believe that we are not, and we do not anticipate that we will become, a United States real property holding corporation.

Non-U.S. Holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

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Additional Withholding and Reporting Requirements

Under Sections 1471 to 1474 of the Code (such Sections of the Code commonly referred to as the Foreign Account Tax Compliance Act, or FATCA), a U.S. federal withholding tax of 30% may apply to dividends and the gross proceeds of a disposition of our common stock paid to a "foreign financial institution" (as specially defined under applicable rules) unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding certain U.S. account holders of such institution (which includes certain equity holders of such institution, as well as certain account holders that are foreign entities with U.S. owners). FATCA withholding will also apply to payments of dividends and the gross proceeds of a disposition of our common stock paid to a "non-financial foreign entity" (as specially defined under applicable rules) unless such entity either certifies it does not have any substantial U.S. owners or provides the withholding agent with a certification identifying substantial direct and indirect U.S. owners of the entity. FATCA withholding will not apply if the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from the rules. Under certain circumstances, a Non-U.S. Holder might be eligible for refunds or credits of such taxes. The United States has entered into intergovernmental agreements with certain countries that modify these general rules for entities located in those countries. Prospective investors are encouraged to consult with their tax advisors regarding the possible implications of withholding under FATCA, on their investment in our common stock.

FATCA withholding generally applies to payments of dividends and will apply to payments of gross proceeds from a sale or other disposition of common stock on or after January 1, 2017.

Backup Withholding and Information Reporting

Generally, we must report annually to the IRS and to each Non-U.S. Holder the gross amount of the distributions on our common stock paid to the holder and the tax withheld, if any, with respect to distributions that constitute dividends. These information reporting requirements apply even if withholding was not required because the dividends were effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States or withholding was reduced by an applicable income tax treaty. Non-U.S. Holders may have to comply with specific certification procedures to establish that the holder is not a United States person (as defined in the Code) in order to avoid backup withholding at the applicable rate, currently 28%, with respect to dividends on our common stock. Dividends paid to Non-U.S. Holders subject to the U.S. withholding tax, as described above under the section titled "Distributions on Our Common Stock", generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding will generally apply to the proceeds of a disposition of our common stock by a Non-U.S. Holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a Non-U.S. Holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a Non-U.S. Holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Prospective investors should consult their tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the Non-U.S. Holder resides or, in which the Non-U.S. Holder is incorporated, under the provisions of a specific treaty or agreement.

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Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a Non-U.S. Holder can be refunded or credited against the Non-U.S. Holder's U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS.

U.S. Federal Estate Tax

Common stock owned (or treated as owned) by an individual who is not a citizen or a resident of the United States (as defined for U.S. federal estate tax purposes) at the time of death will be included in the individual's gross estate for U.S. federal estate tax purposes unless an applicable estate or other tax treaty provides otherwise, and therefore, may be subject to U.S. federal estate tax.

Table of Contents**UNDERWRITING**

Piper Jaffray & Co. and Stifel, Nicolaus & Company, Incorporated are acting as representatives of each of the underwriters named below. Subject to the terms and conditions set forth in an underwriting agreement among us and the underwriters, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the number of shares of our common stock set forth opposite its name below.

| Underwriters | Number of Shares |
|--|-------------------------|
| Piper Jaffray & Co. | 1,050,000 |
| Stifel, Nicolaus & Company, Incorporated | 1,050,000 |
| Leerink Partners LLC | 450,000 |
| William Blair & Company, L.L.C. | 450,000 |
| Total | 3,000,000 |

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act relating to losses or claims resulting from material misstatements in or omissions from this prospectus, the registration statement of which this prospectus is a part, any documents incorporated by reference herein, certain free writing prospectuses that may be used in the offering and in any marketing materials used in connection with this offering and to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officers' certificates and legal opinions.

Discounts and Commissions

The representatives have advised us that the underwriters propose initially to offer the shares to the public at the public offering price set forth on the cover page of this prospectus and to dealers at that price less a concession not in excess of \$0.792 per share. After the initial offering, the public offering price, concession or any other term of this offering may be changed. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

The following table shows the public offering price, underwriting discounts and commissions and proceeds, before expenses, to us. The information assumes either no exercise or full exercise by the underwriters of their option to purchase additional shares.

| | Per Share | Without Option | With Option |
|--|------------------|---------------------------|------------------------|
| Public offering price | \$ 22.00 | \$ 66,000,000 | \$ 75,900,000 |
| Underwriting discounts and commissions | \$ 1.32 | \$ 3,960,000 | \$ 4,554,000 |
| Proceeds, before expenses, to us | \$ 20.68 | \$ 62,040,000 | \$ 71,346,000 |

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The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' option to purchase additional shares described below. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased.

Option to Purchase Additional Shares

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to 450,000 additional shares of common stock at the public offering price listed on the cover page of this prospectus, less the underwriting discounts and commissions. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the table above bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions, are approximately \$0.5 million. We have also agreed to reimburse the underwriters for certain of their expenses, including up to an aggregate amount of \$25,000 in connection with the clearance of this offering with the Financial Industry Regulatory Authority, Inc. as set forth in the underwriting agreement.

No Sales of Similar Securities

We, our executive officers and directors (and certain stockholders affiliated with our directors) have agreed not to sell or transfer any shares of our common stock or securities convertible into, exchangeable or exercisable for, or that represent the right to receive shares of our common stock, for 90 days after the date of this prospectus without first obtaining the written consent of Piper Jaffray & Co. and Stifel, Nicolaus & Company, Incorporated. Specifically, we and these other persons have agreed, with certain limited exceptions, not to directly or indirectly:

offer, pledge, announce the intention to sell, sell or contract to sell any shares of our common stock;

sell any option or contract to purchase any shares of our common stock;

purchase any option or contract to sell any shares of our common stock;

grant any option, right or warrant to purchase any shares of our common stock;

make any short sale or otherwise transfer or dispose of any shares of our common stock;

enter into any swap or other agreement that transfers, in whole or in part, the economic consequences of ownership of any shares of our common stock whether any such swap or transaction is to be settled by delivery of shares or other securities, in cash or otherwise; or

demand that we file a registration statement related to our common stock.

In our case, such restrictions shall not apply to:

the shares of our common stock to be sold in this offering;

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the issuance of shares of common stock upon the exercise of an option or warrant or the settlement of any other stock-based awards outstanding on the date of the underwriting agreement which is described in this prospectus;

the grant of stock options or other stock-based awards (or the issuance of shares of common stock upon exercise thereof) to eligible participants pursuant to our employee benefit or equity incentive plans described in this prospectus; *provided that*, prior to the grant of any such stock options or other stock-based awards that vest within 90 days after the date of this prospectus, each recipient of such grant shall sign and deliver a lock-up agreement;

the securities issued in connection with any joint venture, commercial or collaborative relationship or the acquisition or license by the Company of the securities, businesses, property or other assets of another person or entity or pursuant to any employee benefit plan assumed by the Company in connection with any such acquisition; *provided, however*, the recipients of such securities must deliver a lock-up agreement, or

the filing of a registration statement on Form S-8 with respect to the registration of securities to be offered under any of our employee benefit or equity incentive plans described in this prospectus to our employees.

In the case of our executive officers and directors (and certain stockholders affiliated with our directors), and subject to certain conditions, such restrictions shall not apply to transfers of securities:

as a bona fide gift or gifts;

to an immediate family member or any trust, corporation, partnership, limited liability company or other business entity for the direct or indirect benefit of the stockholder or an immediate family member of the stockholder;

if the stockholder is a corporation, partnership, limited liability company, trust or other business entity (i) transfers to another corporation, partnership, limited liability company, trust or other business entity that is a direct or indirect affiliate of the stockholder or (ii) distributions of shares of our common stock to limited partners, limited liability company members or stockholders of the stockholder, or to any investment fund or other entity that controls or manages the stockholder;

if the stockholder is a trust, to the beneficiary of such trust;

by testate succession or intestate succession;

from an employee to us upon death, disability or termination or employment of such employee;

if such securities were acquired in open market transactions after the completion of this offering;

pursuant to the underwriting agreement;

pursuant to an order of a court or regulatory agency;

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the exercise of stock options granted pursuant to our equity plans;

the conversion or exercise of warrants into common stock;

forfeitures to satisfy tax withholding obligations in connection with the conversion or exercise of our options or warrants;

transfers pursuant to a "change of control" of our company; or

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the establishment of any 10b5-1 plan, provided that no sales of common stock will be made under such plans for 90 days after the date of this prospectus;

provided, in the case of a transfer described in bullets one through seven above, that such transfer does not involve a disposition for value, and each transferee agrees to be subject to the restrictions described in the immediately preceding paragraph and that no filing by any party under Section 16(a) of the Exchange Act, shall be required or shall be made voluntarily in connection with such transfer.

See "Shares Eligible for Future Sale" for a discussion of certain transfer restrictions.

Listing

Our common stock is listed on The NASDAQ Global Select Market under the symbol "SIEN."

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares is completed, SEC rules may limit underwriters and selling group members from bidding for and purchasing shares of our common stock. However, the underwriters may engage in transactions that stabilize the price of our common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with this offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in this offering. "Covered" short sales are sales made in an amount not greater than the underwriters' overallotment option described above. The underwriters may close out any covered short position by either exercising their overallotment option or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the overallotment option. "Naked" short sales are sales in excess of the overallotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering. Stabilizing transactions consist of various bids for or purchases of shares of our common stock made by the underwriters in the open market prior to the closing of this offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. The underwriters may conduct these transactions on The NASDAQ Global Select Market, in the over-the-counter market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common

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stock. In addition, neither we nor any of the underwriters make any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Electronic Offer, Sale and Distribution of Shares

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail. In addition, one or more of the underwriters may facilitate Internet distribution for this offering to certain of their Internet subscription customers. Any such underwriter may allocate a limited number of shares for sale to its online brokerage customers. An electronic prospectus is available on the Internet websites maintained by any such underwriter. Other than the prospectus in electronic format, the information on the websites of any such underwriter is not part of this prospectus.

Other Relationships

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They have received, or may in the future receive, customary fees and commissions for these transactions.

In the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of the issuer. The underwriters and their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Selling Restrictions

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive, or each, a Relevant Member State, an offer to the public of any shares of our common stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares of our common stock may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or
- (c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares of our common stock shall result in a requirement for the publication

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by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our common stock to be offered so as to enable an investor to decide to purchase any shares of our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom

Each underwriter has represented and agreed that:

- (a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the "FSMA")) received by it in connection with the issue or sale of the shares of our common stock in circumstances in which Section 21(1) of the FSMA does not apply to us; and
- (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of our common stock in, from or otherwise involving the United Kingdom.

Canada

The shares of common stock may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the shares of common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Switzerland

The common shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or the SIX, or on any other stock exchange or regulated trading facility in Switzerland. This

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document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the common shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, or the common shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of common shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of common shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. Accordingly, no public distribution, offering or advertising, as defined in CISA, its implementing ordinances and notices, and no distribution to any non-qualified investor, as defined in CISA, its implementing ordinances and notices, shall be undertaken in or from Switzerland, and the investor protection afforded to acquirers of interests in collective investment schemes under CISA does not extend to acquirers of common shares.

France

This prospectus (including any amendment, supplement or replacement thereto) is not being distributed in the context of a public offering in France within the meaning of Article L. 411-1 of the French Monetary and Financial Code (Code monétaire et financier).

This prospectus has not been and will not be submitted to the French Autorité des Marchés Financiers, or the AMF, for approval in France and accordingly may not and will not be distributed to the public in France.

Pursuant to Article 211-3 of the AMF General Regulation, French residents are hereby informed that:

1. the transaction does not require a prospectus to be submitted for approval to the AMF;
2. persons or entities referred to in Point 2°, Section II of Article L.411-2 of the Monetary and Financial Code may take part in the transaction solely for their own account, as provided in Articles D. 411-1, D. 734-1, D. 744-1, D. 754-1 and D. 764-1 of the Monetary and Financial Code; and
3. the financial instruments thus acquired cannot be distributed directly or indirectly to the public otherwise than in accordance with Articles L. 411-1, L. 411-2, L. 412-1 and L. 621-8 to L. 621-8-3 of the Monetary and Financial Code.

This prospectus is not to be further distributed or reproduced (in whole or in part) in France by the recipients of this prospectus. This prospectus has been distributed on the understanding that such recipients will only participate in the issue or sale of our common stock for their own account and undertake not to transfer, directly or indirectly, our common stock to the public in France, other than in compliance with all applicable laws and regulations and in particular with Articles L. 411-1 and L. 411-2 of the French Monetary and Financial Code.

Dubai International Financial Centre

This prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority, or DFSA. This prospectus is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or

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relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth herein and has no responsibility for the prospectus. The shares to which this prospectus relates may be illiquid and subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus you should consult an authorized financial advisor.

Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission, or ASIC, in relation to the offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001, or the Corporations Act, and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the shares may only be made to persons, or the Exempt Investors who are "sophisticated investors" (within the meaning of section 708(8) of the Corporations Act), "professional investors" (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the shares without disclosure to investors under Chapter 6D of the Corporations Act.

The shares applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring shares must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Hong Kong

The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

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Japan

The shares have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended) and, accordingly, will not be offered or sold, directly or indirectly, in Japan, or for the benefit of any Japanese Person or to others for re-offering or resale, directly or indirectly, in Japan or to any Japanese Person, except in compliance with all applicable laws, regulations and ministerial guidelines promulgated by relevant Japanese governmental or regulatory authorities in effect at the relevant time. For the purposes of this paragraph, "Japanese Person" shall mean any person resident in Japan, including any corporation or other entity organized under the laws of Japan.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or SFA (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

- (a) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- (b) where no consideration is or will be given for the transfer;
- (c) where the transfer is by operation of law;
- (d) as specified in Section 276(7) of the SFA; or

as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

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LEGAL MATTERS

The validity of the shares of common stock being offered in this offering will be passed upon for us by Cooley LLP, Santa Monica, California. Certain legal matters relating to this offering will be passed upon for the underwriters by Latham & Watkins LLP, Costa Mesa, California.

CHANGE IN INDEPENDENT ACCOUNTANTS

As described in our prospectus, which formed a part of our registration statement on Form S-1, filed with the SEC on October 29, 2014, PricewaterhouseCoopers LLP, or PwC, was previously our independent auditors since 2007. On December 13, 2013, we dismissed PwC and KPMG LLP was engaged as our independent auditors. The decision to change our independent auditors was approved by our board of directors.

During the years ended December 31, 2011 and 2012 and the subsequent interim period through December 13, 2013, there were no (1) disagreements with PwC on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedures which disagreements if not resolved to PwC's satisfaction would have caused them to make reference thereto in their reports on the financial statements for such years, or (2) reportable events as defined in Item 304(a)(1)(v) of Regulation S-K, except as described below. PwC did not issue any audit reports for the years ended December 31, 2012 and 2013.

During October 2013, PwC notified us that it was in disagreement with our revenue recognition policies relating to the timing of revenue recognition given our terms and conditions and practices regarding returns. The subject matter of this disagreement was not discussed between our board of directors and PwC prior to PwC's dismissal. We authorized PwC to respond fully to the inquiries of KPMG LLP concerning the subject matter of this disagreement. We requested PwC to provide us with a letter addressed to the SEC stating whether or not PwC agrees with the above disclosures. A copy of PwC's letter, dated September 1, 2015, is attached as Exhibit 16.1 to this registration statement on Form S-1 of which this prospectus is a part.

KPMG LLP audited our financial statements for the years ended December 31, 2012 and 2013 and the audit reports of KPMG LLP for such years did not contain an adverse opinion or a disclaimer of opinion, nor were they qualified or modified as to uncertainty, audit scope or accounting principles. During the two fiscal years ended December 31, 2012 and through the subsequent interim period prior to KPMG LLP becoming the Company's independent auditors, the Company did not consult with KPMG LLP on either (1) the application of accounting principles to a specified transaction, either completed or proposed, (2) the type of audit opinion that may be rendered on the Company's financial statements; or (3) any matter that was either the subject of a disagreement, as defined in Item 304(a)(1)(iv) of Regulation S-K, or a reportable event. We are unable to quantify the impact of the matters subject to the disagreement and cannot state what the effect on our financial statements would have been as an evaluation of such matters was not completed prior to the dismissal of our former independent auditors.

EXPERTS

The financial statements and related financial statement schedules of Sientra, Inc. as of December 31, 2014 and 2013 and for each of the years in the three-year period ended December 31, 2014, have been incorporated herein by reference and in the registration statement in reliance upon the report of KPMG LLP, an independent registered public accounting firm, incorporated herein by reference, and upon the authority of said firm as experts in accounting and auditing.

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WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-1 with the Securities and Exchange Commission, or the SEC, with respect to the common stock offered by this prospectus. Although this prospectus, which forms a part of the registration statement, contains all material information included in the registration statement, parts of the registration statement have been omitted as permitted by rules and regulations of the SEC. We refer you to the registration statement and its exhibits for further information about us, our common stock and this offering. The registration statement and its exhibits, as well as any other documents that we have filed with the SEC, may be inspected and copied at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information about the operation of the public reference room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains a website at www.sec.gov that contains registration statements, reports, proxy and information statements, and other information regarding issuers like us that file electronically with the SEC.

We are subject to the information reporting requirements of the Exchange Act and file annual, quarterly and current reports, proxy statements and other information with the SEC. These reports, proxy statements and other information are available for inspection and copying at the public reference room and web site of the SEC referred to above. We also maintain a website at www.sientra.com, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on our website is not a part of this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus. We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC (Commission File No. 001-36709):

our Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on March 18, 2015;

the information specifically incorporated by reference into the Form 10-K for the year ended December 31, 2014 from our definitive proxy statement on Schedule 14A, filed with the SEC on April 30, 2015;

our Quarterly Reports on Form 10-Q for the three months ended March 31, 2015 and June 30, 2015, filed with the SEC on May 14, 2015 and August 13, 2015, respectively; and

our Current Reports on Form 8-K, filed with the SEC on June 30, 2015 and September 3, 2015.

Notwithstanding the statements in the preceding paragraphs, no document, report or exhibit (or portion of any of the foregoing) or any other information that we have "furnished" to the SEC pursuant to the Exchange Act shall be incorporated by reference into this prospectus.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus, including exhibits to these documents. You

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should direct any requests for documents to Sientra, Inc., Attn: Director of Investor Relations, 420 South Fairview Avenue, Suite 200, Santa Barbara, California 93117.

You also may access these filings on our website at www.sientra.com. We do not incorporate the information on our website into this prospectus or any supplement to this prospectus and you should not consider any information on, or that can be accessed through, our website as part of this prospectus or any supplement to this prospectus (other than those filings with the SEC that we specifically incorporate by reference into this prospectus or any supplement to this prospectus).

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus modifies, supersedes or replaces such statement.

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3,000,000 Shares
SIENTRA, INC.
Common Stock

PROSPECTUS

Piper Jaffray

Leerink Partners

Stifel

William Blair

September 17, 2015
