Sientra, Inc.
Form 424B5
February 20, 2018
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Filed Pursuant to Rule 424(b)(5)
Registration No. 333-222453

Prospectus Supplement

(To Prospectus Dated February 2, 2018)

Up to $50,000,000

Common stock

We have entered into an At-the-Market Equity Offering Sales Agreement with Stifel, Nicolaus & Company, Incorporated, or Stifel, relating to shares of our common stock offered by this prospectus supplement. In accordance with the terms of the sales agreement, under this prospectus we may offer and sell shares of our common stock, $0.01 par value per share, having an aggregate offering price of up to $50,000,000 from time to time through Stifel, acting as sales agent.

Our common stock is listed on the Nasdaq Global Select Market under the symbol SIEN. On February 16, 2018, the last reported sale price of our common stock on the Nasdaq Global Select Market was $11.13 per share.

Sales of our common stock, if any, under this prospectus supplement may be made in sales deemed to be at the market offerings as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, or the Securities Act. While there is no requirement that Stifel sell any specific number or dollar amount of securities, it will act as sales agent on a best efforts basis and use commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us, consistent with its normal trading and sales practices, on mutually agreed terms between Stifel and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

Stifel will be entitled to compensation at a fixed commission rate of 3.0% of the gross sales price per share sold. In connection with the sale of our common stock on our behalf, Stifel will be deemed to be an underwriter within the meaning of the Securities Act and the compensation of Stifel will be deemed to be underwriting commissions or discounts.

INVESTING IN OUR COMMON STOCK INVOLVES RISK. SEE RISK FACTORS BEGINNING ON PAGE S-8.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus or the accompanying prospectus. Any representation to the contrary is a criminal offense.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus dated February 2, 2018, provides more general information about our common stock. To the extent the information contained in this prospectus supplement differs or varies from the information contained in the accompanying prospectus or the documents incorporated by reference, you should rely on the information in this prospectus supplement. Generally, when we refer to the prospectus, we are referring to this prospectus supplement and the accompanying prospectus combined.

You should rely only on the information contained in, or incorporated by reference into, this prospectus and in any free writing prospectus that we may authorize for use in connection with this offering. We have not, and Stifel, Nicolaus & Company, Incorporated , or Stifel, has not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and Stifel is not, making an offer to sell or soliciting an offer to buy our securities in any jurisdiction where an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus, the documents incorporated by reference into this prospectus, and in any free writing prospectus that we may authorize for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus, the documents incorporated by reference into this prospectus, and any free writing prospectus that we may authorize for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus entitled Where You Can Find More Information and Information Incorporated by Reference.

We are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the offering of the common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus supplement outside the United States. This prospectus supplement does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

MARKET, INDUSTRY AND OTHER DATA

Certain market and industry data and forecasts included or incorporated by reference in this prospectus supplement 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 supplement 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 supplement and in our Annual Report on Form 10-K for the year ended

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December 31, 2016 and our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2017, June 30, 2017 and September 30, 2017, as updated by our subsequent filings under the Securities Exchange Act of 1934, as amended, each of which are incorporated herein by reference, and Special Note Regarding Forward-Looking Statements in this prospectus supplement.

Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, studies and similar data prepared by third parties, industry, medical and general publications, government data and similar sources. In some cases, we do not expressly refer to the sources from which this data is derived. In that regard, when we refer to one or more sources of this type of data in any paragraph, you should assume that other data of this type appearing in the same paragraph is derived from the same sources, unless otherwise expressly stated or the context otherwise requires.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information appearing elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus, and may not contain all of the information that is important to you. This prospectus supplement and the accompanying prospectus include information about the offering as well as information regarding our business. You should read this prospectus supplement and the accompanying prospectus, including the information incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety. If you invest in our common stock, you are assuming a high degree of risk. See Risk Factors beginning on page S-8.

Unless the context indicates otherwise or we expressly state to the contrary, as used in this prospectus supplement and the accompanying prospectus, the terms the Company, Sientra, we, us and our refer to Sientra, Inc., a Delaware corporation.

Our Business

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 choices 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 tissue expanders 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.

On June 11, 2017, we entered into a Merger Agreement with miraDry (f/k/a Miramar) pursuant to which we commenced a tender offer to purchase all of the outstanding shares of miraDry s common stock. Pursuant to the transaction, which closed on July 25, 2017, we added the miraDry® System, the only U.S. Food and Drug Administration, or FDA, cleared device to reduce underarm sweat, odor and hair of all colors to our aesthetics portfolio. Following our acquisition of miraDry in July 2017, we began selling the miraDry® System and bioTips . As a result of the Miramar acquisition, we determined that we will conduct our business in two operating segments. The Breast Product segment is comprised of our breast implants, tissue expanders and scar management products. The miraDry® segment is comprised of our newly acquired miraDry® System.

We sell our products in North America through a direct sales organization, which as of September 30, 2017, consisted of 63 employees, including 53 sales representatives and 10 sales managers. We primarily leverage a distributor network for sales outside of North America.

We have two reporting segments: Breast Product and miraDry®. The Breast Product segment focuses on sales of our breast implants, tissue expanders and scar management products under the brands Sientra®, AlloX2®, Dermaspan , Softspan and BIOCORNEUM®. The miraDry® segment focuses on sales of the miraDry® System, consisting of a console and a handheld device which uses consumable single-use bioTips .

Breast Product Segment

Our primary products are silicone gel breast implants for use in breast augmentation and breast reconstruction procedures, which we offer in approximately 400 variations of shapes, sizes, fill volumes and textures. Our breast implants are primarily used in elective procedures that are generally performed on a cash-pay basis. Many of our proprietary breast implants incorporate one or more technologies that differentiate us from our competitors, including

High-Strength Cohesive silicone gel and shell texturing. Our breast implants offer a desired balance

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between strength, shape retention and softness due to the silicone shell and High-Strength Cohesive silicone gel used in our implants. The texturing on Sientra s implant shell is designed to reduce the incidence of malposition, rotation and capsular contracture.

Our breast implants were approved by the 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 implants in the United States and includes 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 prior to FDA approval. Post-approval, all patients in the long-term clinical trial are subject to serial MRI screenings as part of the clinical protocol. The clinical data we collected over a ten-year follow-up period demonstrated rupture rates, capsular contracture rates and reoperation rates that were 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 studies run by independent laboratories that we believe further demonstrate the advantages of our breast implants over those of our competitors.

In addition, we offer BIOCORNEUM®, an advanced silicone scar treatment, directly to physicians and the AlloX2®, and Dermaspan lines of breast tissue expanders, as well as the Softspan line of general tissue expanders.

We sell our silicone gel breast implants and tissue expanders 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. We seek to provide Plastic Surgeons with differentiated services, including enhanced customer service offerings and an industry-leading ten-year limited warranty that provides patients with 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 continue to focus on our efforts on securing and qualifying an alternate manufacturing supplier. In July 2017, we entered into a Settlement Agreement with Silimed, our previous contract manufacturer. On August 9, 2016, we announced our collaboration with Vesta Intermediate Funding, Inc., or Vesta, a Lubrizol Lifesciences company, pursuant to which we are working with Vesta towards establishing a dedicated contract manufacturing facility for our breast implants. On March 14, 2017, we announced that we had executed a definitive manufacturing agreement with Vesta for the manufacture and supply of our breast implants and that we had submitted a PMA supplement to the FDA for the manufacturing of our PMA-approved breast implants by Vesta.

miraDry® Segment

In July 2017, we completed our acquisition of miraDry, following which we began selling the miraDry® System, the only FDA cleared device to reduce underarm sweat, odor and hair of all colors through the precise and non-invasive delivery of microwave energy to the region where sweat glands reside. The energy generates heat at the dermal-fat interface which results in destruction of the sweat glands. At the same time, a continuous hydro-ceramic cooling system protects the superficial dermis and keeps the heat focused at the dermal-fat interface where the sweat glands reside. Because sweat glands do not regenerate after the procedure, we believe the results are lasting. Microwaves are the ideal technology as the energy can be focused directly at the dermal-fat interface where the glands reside.

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The miraDry® System MD4000 has been cleared by the FDA as indicated for use in the treatment of primary axillary hyperhidrosis, or a condition characterized by abnormal sweating in excess of that required for regulation of body temperature, plus unwanted underarm hair removal, and permanent reduction of underarm hair of all colors for Fitzpatrick skin types I IV. Permanent hair reduction is defined as long-term, stable reduction in the number of hairs regrowing when measured at 6, 9 and 12 months after the completion of a treatment regime. When used for the treatment of primary axillary hyperhidrosis, the miraDry® System MD4000 may reduce underarm odor. In addition, the miraDry® System received CE mark approval for the treatment of primary axillary hyperhidrosis and approval in several other countries.

The miraDry® System provides patients with a non-invasive and durable procedure to selectively ablate underarm sweat glands for both severely hyperhidrotic patients and those that are bothered by their underarm sweat. The miraDry® System is clinically proven to reduce sweat in one or more procedures of approximately 60-minutes, allowing most patients to achieve immediately noticeable and durable results without the pain, expense, downtime, or repeat visits associated with surgical and other minimally-invasive procedures. The sweat glands in the treated area are ablated through targeted heating of the tissue, and because the body does not regenerate sweat glands, we believe the results will be lasting, although some patients may need to repeat the miraDry® procedure to achieve the lasting results.

The miraDry® System consists of a console and a handheld device which uses consumable single-use bioTips . The miraDry® procedure is not technique-dependent, does not require significant training or skill for the treatment provider, and the user-interface guides the provider through each step of the procedure for each treatment. We sell our miraDry® System and consumable single-use bioTips only to physicians, consisting of dermatologists, plastic surgeons, aesthetic specialists and physicians specializing in the treatment of hyperhidrosis. Aesthetic specialists are physicians who elect to offer aesthetic procedures as a significant part of their practices but are generally not board-certified dermatologists or plastic surgeons. Physicians can market the miraDry® procedure as a premium, highly-differentiated, non-surgical sweat reduction procedure. Based on our commercial data, we believe physicians can recoup their capital expenditures within 12 months on average, assuming modest use of the miraDry® System, even though the cost of the miraDry® procedure is not reimbursed by any third party payors. We are approved to sell the miraDry® System in over 40 international markets outside of North America, including countries in Asia, Europe, the Middle East and South America.

Recent Events

Fourth Quarter Preliminary Financial Results

As of December 31, 2017, we had cash and cash equivalents of approximately $26.6 million. For the quarter ended December 31, 2017, we had total revenue of approximately $11.4 million, which include segmented Breast Product revenue of $8.2 million and miraDry revenue of $3.2 million.

miraDry Fresh Protocol

On February 16, 2018, we announced the launch of a new, improved treatment protocol for the miraDry® system. The new, optimized miraDry® *fresh* treatment protocol and software upgrade offers miraDry® providers several significant benefits, including a reduction in overall procedure time by up to 35%, enabling miraDry® treatments to be performed in one hour or less, a revised anesthesia process, that is simpler, faster and enables the treatment to be delegated more easily, and a simplified Template System that better conforms to miraDry® clinician needs and usage patterns. The new Template System is now consolidated into only four treatment templates and offers an improved visual design which simplifies the procedure, increases ease of use and provides better tattoo transfer to the treatment area.

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Regulatory Review

On January 30, 2018, we announced the FDA has granted approval of the site-change pre-market approval, or PMA, supplement for our contract manufacturer, Vesta, to manufacture our silicone gel breast implants. In support of our move to the Vesta manufacturing facility, we also implemented new manufacturing process improvements which, in consultation with the FDA, required three (3) additional PMA supplements. In addition to approving the manufacturing site-change supplement, the FDA has approved two (2) of these three (3) process enhancement supplements, while requesting additional information for the third submission. We continue to work closely with the FDA to address their information requests related to this third and final outstanding submission in order to resolve these matters in a timely manner.

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 telephone number is (805) 562-3500. Our website is located at www.sientra.com, and our investor relations website is located at http://investors.sientra.com. The information found on our website is not part of this prospectus supplement.

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THE OFFERING

Common stock offered by us	Shares of our common stock having an aggregate offering price of up to $50,000,000.
Common stock to be outstanding after this offering	Up to 4,492,362 shares (as more fully described in the notes following this table) of our common stock in this offering at an assumed offering price of $11.13 per share, which was the last reported sale price of our common stock on the Nasdaq Global Select Market on February 16, 2018, for aggregate proceeds of up to $50,000,000. The actual number of shares issued will vary depending on the sales price under this offering.
Manner of offering	At the market offering that may be made from time to time through our sales agent, Stifel, Nicolaus & Company, Incorporated See Plan of Distribution on page S-13.
Use of proceeds	We intend to use the net proceeds from this offering, if any, for general corporate purposes, which may include, among other things, increasing our working capital and funding research and development, the development of our products, sales and marketing initiatives, expansion of our U.S. and global commercial organizations, general administrative expenses, and capital expenditures. See Use of Proceeds on page S-11.
Risk factors	Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page S-8.
Symbol on the Nasdaq Global Select Market	SIEN

The number of shares of common stock to be outstanding after this offering is based on 19,365,251 shares of common stock outstanding as of September 30, 2017, and excludes, in each case as of September 30, 2017:

- 2,204,926 shares of common stock issuable upon the exercise of outstanding stock options, having a weighted average exercise price of $7.66 per share
- 900,377 shares of common stock issuable upon the vesting of outstanding restricted stock units; and
- 395,637 shares of common stock reserved for issuance under the 2014 Equity Incentive Plan, the 2014 Employee Stock Purchase Plan and the Inducement Plan.

Unless otherwise stated, all information contained in this prospectus supplement reflects an assumed public offering price of $11.13 per share, which was the last reported sale price of our common stock on the Nasdaq Global Select Market on February 16, 2018.

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RISK FACTORS

You should consider carefully the risks described below and discussed under the section captioned Risk Factors contained in our annual report on Form 10-K for the year ended December 31, 2016, and in our quarterly reports for the quarterly periods ended March 31, 2017, June 30, 2017 and September 30, 2017, as updated by our subsequent filings under the Securities Exchange Act of 1934, as amended, or the Exchange Act, each of which is incorporated by reference in this prospectus supplement in their entirety, together with other information in this prospectus supplement, and the information and documents incorporated by reference in this prospectus supplement, and any free writing prospectus that we have authorized for use in connection with this offering before you make a decision to invest in our common stock. If any of the following events actually occur, our business, operating results, prospects or financial condition could be materially and adversely affected. This could cause the trading price of our common stock to decline and you may lose all or part of your investment. The risks described below are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also affect our business operations.

Risks Relating to this Offering

We will need to raise additional equity or debt capital, which may not be available on acceptable terms, or at all. If we are unable to raise additional funds during the first quarter of 2018, there may be substantial doubt in our ability to continue as a going concern.

As of December 31, 2017, we had cash and cash equivalents of approximately $26.6 million, which we believe will be sufficient to fund our operating and capital needs into the second quarter of 2018. To fund our ongoing operating and capital needs, we will need to raise additional equity or debt capital. There can be no assurance, however, that we will be successful in completing an equity or debt financing on a timeframe that coincides with our cash needs, on acceptable terms, or completing it at all. In addition, while we have the ability, upon receipt of FDA certifications of the manufacturing facility operated by Vesta by March 31, 2018, to receive a $10.0 million term loan pursuant to our credit agreement with MidCap Financial Trust, there can be no assurance when we will receive such approval by March 31, 2018.

Failure to obtain this necessary capital when needed may force us to delay, limit or terminate our product development efforts or other operations and may result in substantial doubt in our ability to continue as a going concern.

Resales of our common stock in the public market during this offering by our stockholders may cause the market price of our common stock to fall.

We may issue common stock from time to time in connection with this offering. The issuance from time to time of these new shares of our common stock, or our ability to issue new shares of common stock in this offering, could result in resales of our common stock by our current stockholders concerned about the potential dilution of their holdings. In turn, these resales could have the effect of depressing the market price for our common stock.

You may experience immediate and substantial dilution in the net tangible book value per share of the common stock you purchase.

The price per share of our common stock being offered may be higher than the net tangible book value per share of our common stock outstanding prior to this offering. Assuming that an aggregate of 4,492,362 shares are sold at a price of $11.13 per share, the last reported sale price of our common stock on the Nasdaq Global Select Market on February 16, 2018, for aggregate proceeds of $50,000,000 in this offering, and after deducting commissions and

estimated aggregate offering expenses payable by us, you will suffer immediate and substantial dilution of $8.62 per share, representing the difference between the as adjusted net tangible book value per share

of our common stock as of September 30, 2017 after giving effect to this offering and the assumed offering price. See the section entitled Dilution below for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering.

If securities and/or industry analysts fail to continue publishing research about our business, if they change their recommendations adversely or if our results of operations do not meet their expectations, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline. In addition, it is likely that in some future period our operating results will be below the expectations of securities analysts or investors. If one or more of the analysts who cover us downgrade our stock, or if our results of operations do not meet their expectations, our stock price could decline.

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

Our management will have broad discretion over the use of proceeds from this offering. The net proceeds from this offering will be used for general corporate purposes, which may include, among other things, increasing our working capital and funding research and development, the development of our products, sales and marketing initiatives, expansion of our U.S. and global commercial organizations, general administrative expenses, and capital expenditures, as more fully described in the section entitled Use of Proceeds. Our management will have considerable discretion in the application of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The net proceeds may be used for corporate purposes that do not increase our operating results or enhance the value of our common stock. 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. 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 short-term, investment-grade, interest-bearing securities. 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.

Because we do not intend to declare cash dividends on our shares of common stock in the foreseeable future, stockholders must rely on appreciation of the value of our common stock for any return on their investment.

We have never declared or paid cash dividends on our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or

paying any cash dividends in the foreseeable future. In addition, the terms of any existing or future debt agreements may preclude us from paying dividends. As a result, we expect that only appreciation of the price of our common stock, if any, will provide a return to investors in this offering for the foreseeable future.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, the documents we have filed with the SEC that are incorporated herein by reference and any free writing prospectus that we have authorized for use in connection with this offering contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based on our management s current beliefs, expectations and assumptions about future events, conditions and results and on information currently available to us. Discussions containing these forward-looking statements may be found, among other places, in the Sections entitled Business, Risk Factors and Management s Discussion and Analysis of Financial Condition and Results of Operations incorporated by reference from our most recent Annual Report on Form 10-K and in our Quarterly Reports on Form 10-Q, as well as any amendments thereto, filed with the SEC. This prospectus supplement, the accompanying prospectus, and the documents incorporated by reference herein also contain estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

All statements, other than statements of historical fact, included or incorporated herein regarding our strategy, future operations, financial position, future revenues, projected costs, plans, prospects and objectives are forward-looking statements. Words such as expect, anticipate, intend, plan, believe, seek, estimate, think, may, coul should, continue, potential, likely, opportunity and similar expressions or variations of such words are intended t identify forward-looking statements, but are not the exclusive means of identifying forward-looking statements. Additionally, statements concerning future matters such as our expectations of business and market conditions, development and commercialization of new products, enhancements of existing products or technologies, and other statements regarding matters that are not historical are forward-looking statements. Such statements are based on currently available operating, financial and competitive information and are subject to various risks, uncertainties and assumptions that could cause actual results to differ materially from those anticipated or implied in our forward-looking statements due to a number of factors including, but not limited to, those set forth above under the section entitled Risk Factors in this prospectus supplement. Given these risks, uncertainties and other factors, many of which are beyond our control, you should not place undue reliance on these forward-looking statements.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to revise any forward-looking statements to reflect events or developments occurring after the date of this prospectus supplement, even if new information becomes available in the future.

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USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to $50,000,000 from time to time. The amount of proceeds from this offering will depend upon the number of shares of our common stock sold and the market price at which they are sold. There can be no assurance that we will be able to sell any shares under or fully utilize the sales agreement with Stifel as a source of financing. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time.

We intend to use the net proceeds, if any, from this offering for general corporate purposes, which may include, among other things, increasing our working capital and funding research and development, the development of our products, sales and marketing initiatives, expansion of our U.S. and global commercial organizations, general administrative expenses, and capital expenditures.

As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses of the net proceeds of this offering. Our management will have significant flexibility in applying the net proceeds from this offering, and investors will be relying on the judgment of our management regarding the application of these net proceeds. Pending the uses described above, we intend to invest the net proceeds from this offering in short-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock and do not anticipate paying any cash dividends in the foreseeable future. We expect to retain available cash to finance ongoing operations and the potential growth of our business. Any future determination to pay dividends on our common stock will be at the discretion of our board of directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, business prospects and other factors our board of directors may deem relevant, and subject to the restrictions contained in any future financing instruments.

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DILUTION

Our net tangible book value as of September 30, 2017 was approximately $11.6 million, or $0.60 per share. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of September 30, 2017. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the as adjusted net tangible book value per share of our common stock immediately after giving effect to this offering.

After giving effect to the sale of our common stock in the aggregate amount of $50,000,000 in this offering at an assumed offering price of $11.13, the last reported sale price of our common stock on the Nasdaq Global Select Market on February 16, 2018, and after deducting commissions and estimated aggregate offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2017 would have been approximately $58.9 million, or $2.51 per share. This represents an immediate increase in net tangible book value of $1.91 per share to existing stockholders and immediate dilution in net tangible book value of $8.62 per share to new investors purchasing our common stock in this offering. The following table illustrates this dilution on a per share basis:

Assumed public offering price per share		$ 11.13
Net tangible book value per share as of September 30, 2017	$ 0.60	
Increase per share attributable to the offering	$ 1.91	
As adjusted net tangible book value per share after this offering	$ 2.51	
Dilution per share to new investors		$ 8.62

The shares sold in this offering, if any, will be sold from time to time at various prices. An increase of $1.00 per share in the price at which the shares are sold from the assumed offering price of $11.13 per share shown in the table above, assuming all of our common stock in the aggregate amount of $50,000,000 is sold at that price, would cause our as adjusted net tangible book value per share after the offering to be $2.55 per share and would increase the dilution in net tangible book value per share to new investors to $9.58 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of $1.00 per share in the price at which the shares are sold from the assumed offering price of $11.13 per share shown in the table above, assuming all of our common stock in the aggregate amount of $50,000,000 is sold at that price, would cause our as adjusted net tangible book value per share after the offering to be $2.46 per share and would decrease the dilution in net tangible book value per share to new investors to $7.67 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only.

To the extent that outstanding options are exercised or outstanding restricted stock or market-based stock units vest, investors purchasing our common stock in this offering will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The above discussion and table are based on 19,365,251 shares of common stock outstanding as of September 30, 2017, and exclude as of that date:

2,204,926 shares of common stock issuable upon the exercise of outstanding stock options, having a weighted average exercise price of $7.66 per share

900,377 shares of common stock issuable upon the vesting of outstanding restricted stock units; and

395,637 shares of common stock reserved for issuance under the 2014 Equity Incentive Plan, the 2014 Employee Stock Purchase Plan and the Inducement Plan.

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PLAN OF DISTRIBUTION

We have entered into a At-the-Market Equity Offering Sales Agreement with Stifel under which we may issue and sell shares of our common stock having an aggregate gross sales price of up to $50,000,000 from time to time through Stifel acting as agent.

Upon delivery of a placement notice and subject to the terms and conditions of the sales agreement, Stifel may sell our common stock by any method permitted by law deemed to be an at the market offering as defined in Rule 415 promulgated under the Securities Act. We may instruct Stifel not to sell common stock if the sales cannot be effected at or above the price designated by us from time to time. We or Stifel may suspend the offering of common stock upon notice and subject to other conditions.

We will pay Stifel commissions, in cash, for its services in acting as agent in the sale of our common stock. Stifel will be entitled to compensation at a fixed commission rate of 3.0% of the gross sales price per share sold. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. We have also agreed to reimburse Stifel for certain specified expenses, including the fees and disbursements of its legal counsel, in an amount not to exceed $50,000. We estimate that the total expenses for the offering, excluding compensation and reimbursement payable to Stifel under the terms of the sales agreement, will be approximately $150,000.

Settlement for sales of common stock will occur on the second business day following the date on which any sales are made, or on some other date that is agreed upon by us and Stifel in connection with a particular transaction, in return for payment of the net proceeds to us. Sales of our common stock as contemplated in this prospectus supplement will be settled through the facilities of The Depository Trust Company or by such other means as we and Stifel may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

Stifel will use its commercially reasonable efforts, consistent with its sales and trading practices, to solicit offers to purchase the common stock shares under the terms and subject to the conditions set forth in the sales agreement. In connection with the sale of the common stock on our behalf, Stifel will be deemed to be an underwriter within the meaning of the Securities Act and the compensation of Stifel will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to Stifel against certain civil liabilities, including liabilities under the Securities Act.

The offering of our common stock pursuant to the sales agreement will terminate automatically upon the sale of all shares of our common stock subject to the sales agreement or as otherwise permitted therein. We and Stifel may each terminate the sales agreement at any time upon ten days prior written notice.

Stifel and its affiliates may in the future provide various investment banking, commercial banking and other financial services for us and our affiliates, for which services they may in the future receive customary fees. To the extent required by Regulation M, Stifel will not engage in any market making activities involving our common stock while the offering is ongoing under this prospectus supplement.

This prospectus supplement in electronic format may be made available on a website maintained by Stifel and Stifel may distribute this prospectus supplement electronically.

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LEGAL MATTERS

DLA Piper LLP (US), San Diego, California will pass for us upon the validity of the securities being offered by this prospectus supplement. Stifel is being represented in connection with this offering by Duane Morris LLP, Newark, New Jersey.

EXPERTS

The consolidated financial statements, and the related financial statement schedule, of Sientra, Inc. as of December 31, 2016 and 2015, and for each of the years in the three-year period ended December 31, 2016, have been incorporated by reference herein, in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, of which this prospectus supplement forms a part. The rules and regulations of the SEC allow us to omit from this prospectus supplement certain information included in the registration statement. For further information about us and the securities we are offering under this prospectus supplement, you should refer to the registration statement and the exhibits and schedules filed with the registration statement. With respect to the statements contained in this prospectus supplement regarding the contents of any agreement or any other document, in each instance, the statement is qualified in all respects by the complete text of the agreement or document, a copy of which has been filed as an exhibit to the registration statement.

We file reports, proxy statements and other information with the SEC under the Exchange Act. You may read and copy this information from the Public Reference Room of the SEC, 100 F Street, N.E., Room 1580, Washington, D.C. 20549, at prescribed rates. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800- SEC-0330. The SEC also maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is *www.sec.gov*.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to incorporate by reference information that we file with it into this prospectus supplement, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus supplement. Information in this prospectus supplement supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus supplement, while information that we file later with the SEC will automatically update and supersede the information in this prospectus supplement. We incorporate by reference into this registration statement and prospectus supplement the following documents, and any future filings we will make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial registration statement but prior to effectiveness of the registration statement and after the date of this prospectus supplement but prior to the termination of the offering of the securities covered by this prospectus supplement (other than current reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K):

Our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 14, 2017, including the information specifically incorporated by reference into the Annual Report on Form 10-K from our definitive proxy statement for the 2017 Annual Meeting of Stockholders;

Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017, filed with the SEC on May 9, 2017;

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Our Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, filed with the SEC on August 9, 2017;

Our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, filed with the SEC on November 7, 2017;

Our Current Reports on Form 8-K filed with the SEC on February 7, 2017, June 12, 2017, June 26, 2017, June 27, 2017, July 25, 2017 (as amended on October 6, 2017), August 1, 2017, January 8, 2018 and January 25, 2018; and

The description of our common stock contained in our registration statement on Form 8-A filed with the SEC on October 24, 2014, and any amendment or report filed with the SEC for the purpose of updating the description.

We will provide each person, including any beneficial owner, to whom a prospectus supplement is delivered, a copy of any or all of the information that has been incorporated by reference into this prospectus supplement but not delivered with this prospectus supplement upon written or oral request at no cost to the requester. Requests should be directed to: Sientra, Inc., 420 South Fairview Avenue, Suite 200, Santa Barbara, CA 93117, Telephone: (805) 562-3500.

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PROSPECTUS

SIENTRA, INC.

$150,000,000

Common Stock

Preferred Stock

Debt Securities

Warrants

Units

We may from time to time offer to sell any combination of the securities described in this prospectus, either individually or in units, in one or more offerings. The aggregate initial offering price of all securities sold under this prospectus will not exceed $150,000,000.

This prospectus provides a general description of the securities we may offer. Each time we sell securities, we will provide specific terms of the securities offered in a supplement to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference herein or therein before you invest in any securities. This prospectus may not be used to consummate a sale of securities unless accompanied by the applicable prospectus supplement.

Our common stock is listed on the Nasdaq Global Select Market under the symbol SIEN. On January 5, 2018, the last reported sale price for our common stock was $13.49 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on the Nasdaq Global Select Market or any securities market or other exchange of the securities, if any, covered by the prospectus supplement.

Investing in our securities involves risks. See Risk Factors beginning on page 7.

We may sell these securities directly to investors, through agents designated from time to time or to or through underwriters or dealers. For additional information on the methods of sale, you should refer to the section entitled Plan of Distribution in this prospectus. If any underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such underwriters and any applicable commissions or discounts will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

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 date of this prospectus is February 2, 2018.

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, utilizing a shelf registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of $150,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities under this shelf registration, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading Where You Can Find Additional Information.

You should rely only on the information that we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you. We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus, the accompanying prospectus supplement or related free writing prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted.

This prospectus, the accompanying supplement to this prospectus and any related free writing prospectus, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus, the accompanying supplement to this prospectus or any related free writing prospectus, if any, constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference therein is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any applicable prospectus supplement or any related free writing prospectus is delivered or the applicable securities are sold on a later date.

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SUMMARY

This summary highlights selected information from this prospectus and the documents incorporated herein by reference and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, including the risks of investing in our securities discussed under Risk Factors beginning on page 7 of this prospectus, the information incorporated herein by reference, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part. All references in this prospectus to we, us, our, Sientra, the Company and similar designations refer to Sientra, Inc. and its consolidated subsidiaries, unless otherwise indicated or as the context otherwise requires.

Business 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 choices 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 tissue expanders 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.

On June 11, 2017, we entered into a Merger Agreement with Miramar pursuant to which we commenced a tender offer to purchase all of the outstanding shares of Miramar s common stock. Pursuant to the transaction, which closed on July 25, 2017 we added the miraDry® System, the only FDA cleared device to reduce underarm sweat, odor and hair of all colors to our aesthetics portfolio. Following our acquisition of Miramar in July 2017, we began selling the miraDry® System and bioTips . As a result of the Miramar acquisition, we determined that we will conduct our business in two operating segments. The Breast Product segment is comprised of our breast implants, tissue expanders and scar management products. The miraDry® segment is comprised of our newly acquired miraDry® System.