Table of Contents

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-225083

PROSPECTUS SUPPLEMENT
(To prospectus dated June 1, 2018)

374,572 Shares of Common Stock

We are offering 374,572 shares of our common stock, $0.01 par value per share, at a purchase price of $3.92 per share, to certain institutional and accredited investors pursuant to this prospectus supplement and the accompanying prospectus and securities purchase agreements with such investors. In a concurrent private placement, we are also selling to such investors warrants to purchase up to 280,929 shares of our common stock, which represent 75% of the number of shares of our common stock being purchased in this offering (the "Warrants"). The Warrants and the shares of our common stock issuable upon the exercise of the Warrants (the "Warrant Shares") are being offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act of 1933, as amended (the "Securities Act") and Rule 506(b) promulgated thereunder, and they are not being offered pursuant to this prospectus supplement and the accompanying prospectus. The Warrants being issued in the concurrent private placement are not listed, and we do not expect to list the Warrants, on any securities exchange.

Our common stock is listed on the Nasdaq Capital Market under the symbol "RSLS." The closing price of our common stock on June 6, 2018 was $3.92.

As of June 6, 2018, the aggregate market value of the outstanding common stock held by non-affiliates, computed by reference to the price at which our common stock was last sold on April 10, 2018, was $20,904,909.30, based on 2,495,748 shares of our outstanding common stock as of the date of this prospectus supplement, of which 2,019,798 shares were held by non-affiliates. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below $75.0 million. During the 12 calendar months prior to and including the date of this prospectus supplement (excluding this offering), we have not sold any securities pursuant to General Instruction I.B.6 of Form S-3.

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page S-10 of this prospectus supplement.

We have retained H.C. Wainwright & Co., LLC to act as our exclusive placement agent in connection with the shares of common stock offered by this prospectus supplement and the accompanying prospectus. The placement agent has agreed to use its reasonable best efforts to sell the shares of common stock offered by this prospectus supplement and the accompanying prospectus. We have agreed to pay the placement agent the placement agent fees set forth in the table below, which assumes that we sell all of the shares of common stock we are offering.

	Per Share	Total
Offering price	$3.92	$1,468,322.24
Placement agent fees(1)	$0.3136	$117,465.78
Proceeds, before expenses, to ReShape Lifesciences Inc.(2)	$3.6064	$1,350,856.46

(1) In addition, we have agreed to reimburse the placement agent for certain of its expenses and to grant warrants to purchase shares of our common stock to the placement agent as described under the "Plan of Distribution" on page S-19 of this prospectus supplement (the "Placement Agent Warrants").

(2) The amount of the offering proceeds to us presented in this table does not give effect to the sale or exercise, if any, of the Warrants being issued in the concurrent private placement or of the Placement Agent Warrants.

Neither the United States Securities and Exchange Commission, or the SEC, nor any state securities commission has approved or disapproved of the securities that may be offered under this prospectus supplement, nor have any of these regulatory authorities determined if this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

Delivery of the securities to the purchasers is expected to be made on June 8, 2018, subject to the satisfaction of certain closing conditions.

H.C. Wainwright & Co.

The date of this prospectus supplement is June 7, 2018

Table of Contents

TABLE OF CONTENTS

PROSPECTUS SUPPLEMENT

PROSPECTUS

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus form part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein from our filings with the SEC. The second part, the accompanying prospectus, provides more general information. Before you invest, you should carefully read this prospectus supplement, the accompanying prospectus, all information incorporated by reference herein and therein, as well as the additional information described under "Where You Can Find More Information" and "Incorporation of Documents by Reference" on page S-23 and S-24 of this prospectus supplement. These documents contain information you should consider when making your investment decision. This prospectus supplement may add, update or change information contained in the accompanying prospectus. To the extent that any statement that we make in this prospectus supplement is inconsistent with statements made in the accompanying prospectus or any documents incorporated by reference, the statements made in this prospectus supplement will be deemed to modify or supersede those made in the accompanying prospectus and such documents incorporated by reference.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein 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 agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

You should rely only on the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectuses we may provide to you in connection with this offering. Neither we nor the placement agent have authorized anyone to provide any information that is different from that contained in this prospectus supplement, the accompanying prospectus or in any free writing prospectus we may authorize to be delivered or made available to you. Neither we nor the placement agent take responsibility for, and can provide no assurance as to the reliability of, any other information that any others may give you. If anyone provides you with different or inconsistent information, you should not rely on it. The information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein or therein is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our securities.

We are offering to sell, and seeking offers to buy, our securities only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the securities in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do 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 and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

On June 1, 2018, we amended our certificate of incorporation to effect a one-for-15 reverse split of our outstanding shares of our common stock. All share and per share data in this prospectus supplement gives effect to the reverse stock split.

Unless otherwise stated, all references in this prospectus supplement and the accompanying prospectus to "we," "us," "our," "ReShape Lifesciences," "the Company" and similar designations refer, collectively, to ReShape Lifesciences Inc., a Delaware corporation, and its consolidated subsidiaries, unless otherwise specified.

To date, in the United States we have registered trademarks for vBLOC®, ENTEROMEDICS®, MAESTRO®, RESHAPE®, RESHAPE DUO®, and RESHAPE MEDICAL®, RESHAPE® DUAL BALLOON each registered with the United States Patent and Trademark Office, and trademark applications for vBLOC POWER TO CHOOSE, RESHAPE vBLOC, vBLOC ACHIEVE, RESHAPE VEST, and VBLOC POWER TO CHOOSE AND DESIGN. In addition, some or all of the marks vBLOC, ENTEROMEDICS, MAESTRO, MAESTRO SYSTEM ORCHESTRATING OBESITY SOLUTIONS, vBLOC POWER TO CHOOSE, vBLOC POWER TO CHOOSE AND DESIGN, RESHAPE, RESHAPE DUO, RESHAPE MEDICAL and RESHAPE LIFESCIENCES are the subject of either a trademark registration or application for registration in Australia, Brazil, Canada, China, the European Community, India, Kuwait, Mexico, Saudi Arabia, Switzerland and the United Arab Emirates. We believe that we have common law trademark rights to RESHAPE VEST. This prospectus supplement contains other trade names and trademarks and service marks of ReShape Lifesciences and of other companies.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained in greater detail elsewhere in this prospectus supplement or incorporated by reference into this prospectus supplement. This summary may not contain all of the information that you should consider before investing in our shares of common stock. You should carefully read the entire prospectus supplement, including "Risk Factors" beginning on page S-10 and the financial statements and related notes and other documents incorporated by reference into this prospectus supplement, before making an investment decision.

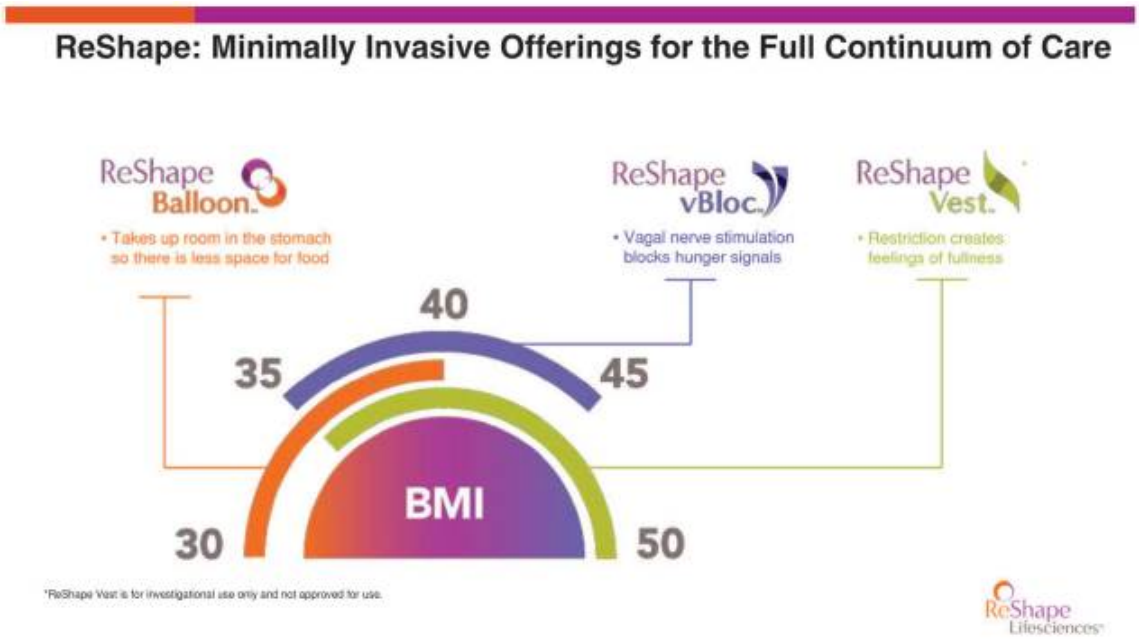
Our Company

Our vision is to be recognized as a leading medical technology company focused on the design, development and commercialization of transformative technologies to treat obesity and metabolic diseases. Our growing and differentiated product portfolio is utilized by bariatric surgeons, general surgeons, and gastroenterologists. We believe obesity is a global epidemic and that the majority of patients need treatment options that are anatomy friendly and provide for weight loss and comorbidity improvements along with long-term, ongoing obesity support and prevention.

Our Strategic Focus

Develop and Commercialize a Differentiated Portfolio of Products/Therapies

An overarching strategy for our company is to develop and commercialize a product portfolio that is differentiated from our competition by offering transformative technologies to bariatric surgeons and gastroenterologists that consists of a selection of patient friendly, non-anatomy-changing alternatives to traditional bariatric surgery. With ReShape vBloc, the ReShape Balloon, and the ReShape Vest (if approved for commercial use), we believe we will have three compelling and differentiated medical devices, two of which are currently FDA approved. We believe that we are well positioned for the existing market and can serve more of the overweight and obese population with our solutions and thereby help expand the addressable market for obesity.



Obtain Broad Coverage and Reimbursement

We are working to obtain coverage for our products from insurance carriers, local coverage entities and self-insured plans, including Integrated Delivery Networks (IDNs) and Medicare Administrative Contractors (MACs). Initial coverage for ReShape vBloc will likely occur in self-contained healthcare systems that operate as IDNs, as these systems are able to evaluate risk-benefit ratios in a closed environment. For example, in the first quarter of 2016, we announced that the Winthrop Hospital System in New York, a significant IDN in the northeast, would cover our therapy for their employees. Other similar arrangements are in active discussion.

While payers are not our direct customers, their coverage and reimbursement policies influence patient and physician selection of obesity treatment. Our commercialization is coverage-centric, focused on payer and employer engagement, in order to obtain support for ReShape vBloc and our ReShape Balloon. We plan to establish a market price for the ReShape vBloc in the United States that is competitive with other available weight loss surgical procedures and comparable to other active implantable devices such as implantable cardioverter defibrillators, neurostimulation devices for chronic pain and depression, and cochlear implant systems.

CMS issued a national coverage determination for several specific types of bariatric surgery in 2006, which we view as positive potential precedent and guidance factors that CMS might use in deciding to cover our vBloc Therapy. Although Medicare policies are often emulated or adopted by other third-party payers, other governmental and private insurance coverage currently varies by carrier and geographic location.

Drive the Adoption of Our Portfolio through Obesity Therapy Experts and Patient Ambassadors

Our clinical development strategy is to collaborate closely with regulatory bodies, obesity therapy experts and others involved in the obesity management process, patients and their advocates and scientific experts. We have established credible and open relationships with obesity therapy experts and have identified ReShape vBloc and ReShape Balloon patient ambassadors and we believe these individuals will be important in promoting patient awareness and gaining widespread adoption of the ReShape vBloc, the ReShape Balloon, and the ReShape Vest.

Expand and Protect Our Intellectual Property Position.

We believe that our issued patents and our patent applications encompass a broad platform of neuromodulation therapies, including vagal blocking and combination therapy focused on obesity, diabetes, hypertension and other gastrointestinal disorders. We also have broad patent coverage and pending patent applications for our ReShape Balloon and our ReShape Vest products. We intend to continue to pursue further intellectual property protection through U.S. and foreign patent applications.

Leverage our vBloc Technology for Other Disease States.

We intend to continue to conduct research and development for other potential applications for our vBloc Therapy and believe we have a broad technology platform that will support the development of additional clinical applications and therapies for other metabolic and gastrointestinal disorders in addition to obesity.

Alternative Weight Loss Solutions

If we are able to commercialize the ReShape Vest, we believe that we will be able to offer three distinct weight loss treatment solutions that may be selected by the physician depending on the severity of the patient's BMI or condition. Together, the ReShape Vest, ReShape vBloc and ReShape Balloon provide a minimally—invasive continuum of care for bariatric patients and their care providers.

Concentrate Our Resources on the U.S. Market while Achieving Measured International Expansion

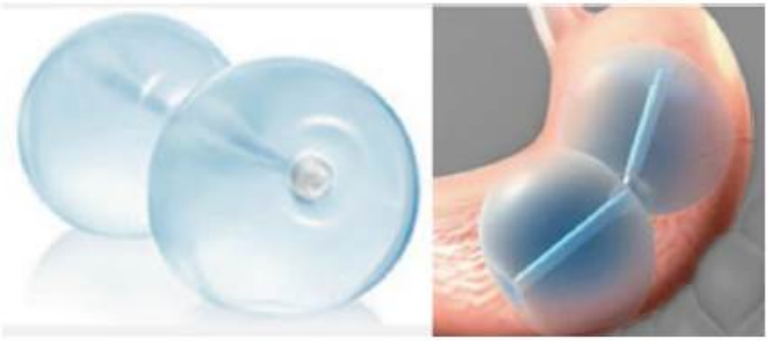
We intend to devote our near-term efforts toward our commercialization in the United States. We intend to explore select international markets to commercialize the ReShape vBloc and the ReShape Balloon as our resources permit, using direct, dealer and distributor sales models as the targeted market best dictates. With the ReShape Vest we intend on collecting data in our clinical trials sufficient to obtain future CE Mark approval and subsequent country approvals.

Our Product Portfolio

The ReShape Balloon

The ReShape Balloon technology, which we acquired in October 2017 in connection with our acquisition of ReShape Medical, is a non-surgical, removable, dual weight loss balloon technology that is approved for people with a body mass index between 30 and 40 with one or more related comorbid conditions who have failed previous attempts to lose weight through diet and exercise. Our ReShape Balloon adds a lower-cost option to our portfolio of products, allowing access to additional patients within the obesity market. This expansion further reinforces our strategy and commitment to the entire continuum of care in obesity.

Table of Contents



Benefits: The ReShape Balloon is a non-invasive weight loss solution ideal for patients who have failed at diet and exercise, and who are not indicated for or are afraid of surgery. The ReShape Balloon offers the following benefits:

- **Satiety:** The ReShape Balloon has more potential fill volume to aid in patients' weight loss than any other product on the market. The larger fill volume takes up more room in the stomach, so that patients eat less and feel full longer.
- **Patient Comfort:** Unlike other balloons, we believe that our device differentiates itself with two interconnected balloons designed to better fit the natural contour of the stomach, thereby increasing the level of patient comfort.
- **Designed for Safety:** The ReShape Balloon is the only intragastric balloon designed to mitigate the potential risk of migration. The dual balloon design allows for one balloon to remain inflated and in the stomach, in the unlikely event the other balloon deflates. Other single balloons can deflate and risk migrating. The ReShape Balloon is inserted through the mouth—endoscopically—during a 20-minute outpatient procedure—with no incisions or scars. After six months, the balloon is removed endoscopically, in a procedure similar to the insertion procedure.

- **Customized Aftercare:** For the six months the balloon is in and for six months after the balloon removal, patients obtain monthly customized coaching focused on changing behaviors and relationships with food.

The ReShape Balloon was approved by the FDA in July 2015, and to date, more than 4,000 patients have been treated with this technology. The ReShape Balloon also has received CE Mark approval, but due to limited capital resources, ReShape Medical had not focused on penetrating European markets. The ReShape Balloon was made available to three areas in the Middle East in 2017: Kuwait, Qatar and UAE. Further expansion opportunities will be evaluated based on market opportunity and resources to manage expansion.

The ReShape Balloon provides a new option for individuals who have not succeeded at diet and exercise alone, and do not want or do not qualify for bariatric surgery. Two connected balloons are placed into the stomach during a short, outpatient endoscopic procedure. The balloons remain in the stomach for six months and are then removed endoscopically. During balloon treatment, and for six more months following removal of the balloons, the patient receives access to nutritional counseling and access to exclusive tools to help them achieve their weight loss goals. The ReShape Balloon was approved by the FDA in July of 2015 and has had CE-marking in Europe since 2011.

The ReShape Vest

The ReShape Vest, which we acquired in May 2017 in connection with our acquisition of BarioSurg, is an investigational, minimally invasive, laparoscopically implanted medical device being studied for weight loss in morbidly obese patients with a BMI of at least 35. This device is designed to restrict the intake of food and provide the feeling of fullness without cutting or permanently removing portions of the stomach, or bypassing, any portion of the gastrointestinal tract. The implantation of the device mimics a traditional weight-loss surgery without permanently altering the anatomy and may not require vitamin supplementation.

Table of Contents

In a small pilot study conducted outside the U.S., at 12 months, ReShape Vest patients demonstrated a mean percent excess weight loss (%EWL) of 85% and a mean percent total body weight loss (%TBWL) of 30.2%, an average drop in HbA1c (Hemoglobin A1c) of 2.1 points, an average decrease of systolic blood pressure of 13mmHg, an average waist circumference reduction of 38 centimeters, or approximately 15 inches, and an average increase in HDL “good cholesterol” of 29 mg/dl.

Benefits. The ReShape Vest, if approved for sale, would allow us to offer an additional weight loss solution that emulates the effect of conventional weight loss surgery through a procedure that is minimally invasive. The ReShape Vest potentially offers the following benefits:

- **Minimizes Changes to Normal Anatomy.** The ReShape Vest emulates the effects of conventional weight-loss surgery without stapling, cutting or removing any portion of the stomach.
- **Minimally Invasive Procedure.** Unlike conventional weight loss surgery, which typically is performed in a hospital setting under general anesthesia and requires a hospital stay of up to four days, the ReShape Vest is inserted laparoscopically in an outpatient procedure.
- **Removable/Reversible.** The ReShape Vest is designed to be removed laparoscopically, permitting the removal of the device at a later time, if that is desired.
- **Allows Continued Ingestion and Digestion of Foods Found in a Typical, Healthy Diet.** Because the ReShape Vest also leaves the digestive anatomy largely unaltered, patients are able to maintain a more consistent nutritional balance compared to conventional surgical approaches, thus allowing them to effect positive changes in their eating behavior in a non-forced and potentially more consistent way.

ReShape vBloc

ReShape vBloc, our initial product, uses vBloc Therapy to block the gastrointestinal effects of the vagus nerve using high-frequency, low-energy electrical impulses to intermittently interrupt naturally occurring neural impulses on the vagus nerve between the brain and the digestive system. Our therapy controls hunger sensations between meals, limits the expansion of the stomach and reduces the frequency and intensity of stomach contractions, leading to earlier fullness. The resulting physiologic effects of vBloc Therapy produce a feeling of early and prolonged fullness following smaller meal portions. By intermittently blocking the vagus nerve and allowing it to return to full function between therapeutic episodes, our therapy limits the body’s natural tendency to circumvent the therapy, which can result in long-term weight loss.

Benefits. We have designed ReShape vBloc to address a significant market opportunity that we believe exists for a patient-friendly, safe, effective, less-invasive and durable therapy that is intended to address the underlying causes of hunger and obesity. Our ReShape vBloc offers each of the following benefits, which we believe could lead to the adoption of vBloc Therapy as the surgical therapy of choice for obesity and its comorbidities:

- **Preserves Normal Anatomy.** The ReShape vBloc is designed to deliver therapy that blocks the neural signals that influence a patient’s hunger and sense of fullness without altering digestive system anatomy. Accordingly, patients should experience fewer and less severe side effects compared to treatments that incorporate anatomical alterations.
- **Allows Continued Ingestion and Digestion of Foods Found in a Typical, Healthy Diet.** Because our therapy leaves the digestive anatomy unaltered, patients are able to maintain a more consistent nutritional balance compared to conventional surgical approaches, thus allowing them to effect positive changes in their eating behavior in a non-forced and potentially more consistent way.
- **May be Implanted on an Outpatient Basis and Adjusted Non-Invasively.** The ReShape vBloc is designed to be laparoscopically implanted within a 60-90 minute procedure, allowing patients to leave the hospital or clinic on the same day. The implantable system is designed to be

turned off and left in place for patients who reach their target weight. When desired, the follow-up physician can simply and non-invasively turn the therapy back on. Alternatively, the implantable system can be removed in a laparoscopic procedure.

Table of Contents

- **Offers Favorable Safety Profile.** We have designed our clinical trials to demonstrate the safety of the ReShape vBloc. In our clinical trials to date, including the ReCharge trial, we have not observed any mortality related to our device or any unanticipated adverse device effects. We have also not observed any long-term problematic clinical side effects in any patients, including in those patients who have been using vBloc Therapy for more than one year.

- **Targets Multiple Factors that Contribute to Hunger and Obesity.** We designed vBloc Therapy to target the digestive, metabolic and information transmission functions of the vagus nerve and to affect the perception of hunger and fullness, which together contribute to obesity and its metabolic consequences.

On January 14, 2015, the vBloc® System, which we now refer to as ReShape vBloc, received U.S. Food and Drug Administration (FDA) approval for vBloc Therapy, delivered via the ReShape vBloc, for the treatment of adult patients with obesity who have a Body Mass Index (BMI) of at least 40 to 45 kg/m2, or a BMI of at least 35 to 39.9 kg/m2 with a related health condition such as high blood pressure or high cholesterol levels, and who have tried to lose weight in a supervised weight management program and failed within the past five years. vBloc Therapy is delivered via a pacemaker-like device that helps patients feel full and eat less by intermittently blocking hunger signals on the vagus nerve. Our therapy is designed to limit the expansion of the stomach, help control hunger sensations between meals, reduce the frequency and intensity of stomach contractions and produce a feeling of early and prolonged fullness. We believe the ReShape vBloc offers obese patients a minimally-invasive treatment that can result in significant, durable and sustained weight loss. We believe that our ReShape vBloc allows bariatric surgeons to offer a new option to obese patients who are concerned about the risks and complications associated with currently available anatomy-altering, restrictive or malabsorptive surgical procedures.

In 2015, we began a controlled commercial launch of the ReShape vBloc at select surgical centers in the United States and had our first commercial sales. During 2015, we initiated a controlled expansion of our commercial operations and started the process of building a sales force. In January 2016, we hired new executives to oversee this expansion. Throughout 2016, our sales force called directly on key opinion leaders and bariatric surgeons at commercially-driven surgical centers that met our certification criteria. Additionally, beginning in 2016, through a distribution agreement with Academy Medical, LLC, U.S. Department of Veterans Affairs (VA) medical facilities began to offer the ReShape vBloc as a treatment option for veterans, at little to no cost to veterans in accordance with their veteran healthcare benefits. Our goal for the ReShape vBloc remains broad coverage and reimbursement for vBloc Therapy. We believe that the most significant barrier to adoption for patients who want vBloc Therapy has been cost and lack of payer coverage.

Our Intellectual Property

Our success will depend in part on our ability to obtain and defend patent protection for our products and processes, to preserve our trade secrets and to operate without infringing or violating the proprietary rights of third parties. We own numerous U.S. and foreign patents, and have numerous patent applications pending, most of which pertain to treating gastrointestinal disorders and we believe provide us with broad intellectual property protection covering electrically-induced vagal blocking and methods for treating obesity. Assuming timely payment of maintenance fees as they become due, many of these patents will expire in 2023. Our acquisition of the ReShape Vest included four U.S. patents, one pending U.S. patent application, four foreign patents, and five pending foreign patent applications. The patents we acquired related to the ReShape Vest will expire between 2028 and 2034. We have also received or applied for patents in Europe, Australia, China, India and Japan. These applications primarily pertain to our vagal blocking technology and its application to obesity as well as other gastrointestinal disorders. The applications that we acquired related to the ReShape Vest primarily pertain to methods of gastric restriction for treating obesity. Our acquisition of the ReShape Balloon included broad coverage for multi-balloon gastric implants and methods for its placement and retrieval. Patent coverage also includes methods of manufacturing and additional therapy applications. There are 35 patents granted in the US, Europe, Canada, and Japan with additional U.S. and international patent applications pending. The key patents we acquired in connection with our acquisition of ReShape Medical will expire between 2027 and 2030.

Our Market

The Obesity and Metabolic Disease Epidemic

Obesity is a disease that has been increasing at an alarming rate with significant medical repercussions and associated economic costs. Since 1980, the worldwide obesity rate has more than doubled, with about 13% of the world's adult population now being obese. The World Health Organization (WHO) currently estimates that as many as 600 million people worldwide are obese and more than 1.9 billion adults are overweight. Being overweight or obese is also the fifth leading risk for global deaths, with approximately 3.4 million adults dying each year as a result.

Table of Contents

According to the World Health Organization, there are over 70 progressive obesity-related diseases and disorders associated with obesity, which are also known as comorbidities, including Type 2 diabetes, hypertension, infertility and certain cancers. Worldwide, 44% of the diabetes burden, 23% of the heart disease burden and between 7% and 41% of certain cancer burdens are attributable to overweight and obesity.

We believe that this epidemic will continue to grow worldwide given dietary trends in developed nations that favor highly processed sugars, larger meals and fattier foods, as well as increasingly sedentary lifestyles. Despite the growing obesity rate, increasing public interest in the obesity epidemic and

significant medical repercussions and economic costs associated with obesity, there continues to be a significant unmet need for effective treatments.

The United States Market

Obesity has been identified by the U.S. Surgeon General as the fastest growing cause of disease and death in the United States, and according to a 2014 McKinsey Report is the leading cause of preventable death in the U.S. Currently, the Center for Disease Control (the CDC) estimates that 35.7% of U.S. adults (or approximately 73 million people) are obese, having a BMI of 30 or higher. BMI is calculated by dividing a person's weight in kilograms by the square of their height in meters. It is estimated that if obesity rates stay consistent, 51% of the U.S. population will be obese by 2030. According to data from the U.S. Department of Health and Human Services, almost 80% of adults with a BMI above 30 have comorbidity, and almost 40% have two or more of these comorbidities. According to The Obesity Society and the CDC, obesity is associated with many significant weight-related comorbidities including Type 2 diabetes, high blood-pressure, sleep apnea, certain cancers, high cholesterol, coronary artery disease, osteoarthritis and stroke. According to the American Cancer Society, 572,000 Americans die of cancer each year, over one-third of which are linked to excess body weight, poor nutrition and/or physical inactivity. Over 75% of hypertension cases are directly linked to obesity, and approximately two-thirds of U.S. adults with Type 2 diabetes are overweight or have obesity.

Currently, medical costs associated with obesity in the U.S. are estimated to be up to $210 billion per year and nearly 21% of medical costs in the U.S. can be attributed to obesity. An estimated approximately $1.5 billion was spent in 2015 alone in the U.S. on approximately 200,000 bariatric surgical procedures to treat obesity. By 2025, it is estimated that up to $3.8 billion will be spent in the U.S. on approximately 800,000 bariatric surgical procedures to treat obesity. Researchers estimate that if obesity trends continue, obesity related medical costs could rise by another $44-$66 billion each year in the U.S. by 2030. The medical costs paid by third-party payers for people who are obese were $2,741 per year, or 42% higher than those of people who are normal weight and the average cost to employers is $6,627 to $8,067 per year per obese employee (BMI of 35 to 40 and higher).

Current Treatment Options and Their Limitations

We believe existing bariatric surgery and endoscopic procedural options for the treatment of obesity have seen limited adoption to date, with approximately 1% of the obese population qualifying for treatment actually seeking treatment, due to patient concerns and potential side effects including permanently altered anatomy and morbidity.

The principal treatment alternatives available today for obesity include:

- **Behavioral modification.** Behavioral modification, which includes diet and exercise, is an important component in the treatment of obesity; however, most obese patients find it difficult to achieve and maintain significant weight loss with a regimen of diet and exercise alone.

- **Pharmaceutical therapy.** Pharmaceutical therapies often represent a first option in the treatment of obese patients but carry significant safety risks and may present troublesome side effects and compliance issues.

- **Bariatric Surgery and Endoscopic Procedures.** In more severe cases of obesity, patients may pursue more aggressive surgical treatment options such as gastric banding, sleeve gastrectomy and gastric bypass. These procedures promote weight loss by surgically restricting the stomach's capacity and outlet size. While largely effective, these procedures generally result in major lifestyle changes, including dietary restrictions and food intolerances, and they may present substantial side effects and carry short- and long-term safety and side effect risks that have limited their adoption.

Table of Contents

Our Corporate Information

We were incorporated in Minnesota in December 2002 as two separate legal entities, Alpha Medical, Inc. and Beta Medical, Inc., both of which were owned 100% by a common stockholder. In October 2003, the two entities were combined and we changed our name to EnteroMedics Inc. In 2004 we reincorporated in Delaware. On October 23, 2017 we changed the company name from EnteroMedics Inc. to ReShape Lifesciences Inc. (Nasdaq: RSLS) in recognition of our expansion and growth in developing and commercializing transformative technologies to address the continuum of care for obesity and its associated health conditions. The ReShape brand name is strong and well-established in the marketplace and we expect this to not only help our other products succeed, but we also believe it will accelerate growth in our industry overall. In connection with our acquisition of ReShape Medical, we moved our principal executive offices from St. Paul, Minnesota to San Clemente, California. In December 2017, we rebranded the three products under the ReShape Lifesciences brand. Our portfolio of transformative technologies, designed to help patients lose weight and live a healthier life, includes two FDA-approved devices, ReShape™ vBloc (formerly vBloc) and ReShape™ Balloon, as well as the investigational ReShape™ Vest (formerly Gastric Vest System).

On May 22, 2017, we acquired the Gastric Vest System™, which we now refer to as the ReShape Vest, through our acquisition of BarioSurg. The ReShape Vest is an investigational, minimally invasive, laparoscopically implanted medical device being studied for weight loss in morbidly obese patients. The device wraps around the stomach, emulating the effect of conventional weight-loss surgery, and is intended to enable gastric volume reduction without permanently changing patient anatomy.

On October 2, 2017, we acquired ReShape Medical, Inc., a privately-held medical technology company that develops, manufactures and markets the ReShape® Integrated Dual Balloon, which we refer to as the ReShape Balloon, an FDA-approved, minimally invasive intragastric balloon designed to treat obesity patients with a BMI between 30 and 40, with at least one related comorbidity.

We file reports and other information with the Securities and Exchange Commission (SEC) including annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and proxy or information statements. Those reports and statements as well as all amendments to those documents filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (1) are available at the SEC's Public Reference Room at 100 F Street, N.E., Washington, DC 20549, (2) may be obtained by sending an electronic message to the SEC at *publicinfo@sec.gov* or

by sending a fax to the SEC at 1-202-777-1027, (3) are available at the SEC's internet site (http://www.sec.gov), which contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC and (4) are available free of charge through our website as soon as reasonably practicable after electronic filing with, or furnishing to, the SEC. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

Our principal executive offices are located at 1001 Calle Amanecer, San Clemente, California 92673, and our telephone number is (949) 429-6680. Our website address is *www.reshapelifesciences.com*. The information on, or that may be accessed through, our website is not incorporated by reference into this prospectus supplement and should not be considered a part of this prospectus supplement.

Recent Developments

On June 4, 2018, we provided an explanation and clarifying details to a letter dated June 4, 2018 that the U.S. Food and Drug Administration (FDA) posted on their website addressed to Health Care Providers. The FDA letter updates the agency's August 10, 2017 letter regarding the potential risks of death associated with liquid-filled intragastric balloons manufactured by Apollo Endosurgery and ReShape Lifesciences.

FDA's most recent communication updates the healthcare community regarding additional reports of deaths they have received since August 2017 and discusses the collaborative effort taken with industry to understand these occurrences and enhance product labeling accordingly. In relation to the ReShape Balloon:

- ReShape Balloon is approved by the FDA as safe and effective for weight reduction when used in conjunction with diet and exercise, in obese patients with a Body Mass Index (BMI) of 30 - 40 kg/m^2 and one or more obesity-related comorbid conditions. It is indicated for use in adult patients who have failed weight reduction with diet and exercise alone.

Table of Contents

- There has been one (1) reported death of a patient implanted with a ReShape Balloon since the August 10, 2017 letter from FDA.
- The patient death was due to a pulmonary embolization secondary to a surgical repair of a gastric perforation.
- We have received no product liability-related claims in connection with this case.

The Offering

Issuer	ReShape Lifesciences Inc.
Common stock offered	374,572 shares of common stock
Offering price	$3.92 per share of common stock
Shares of common stock outstanding before this offering(1)	2,495,748 shares
Shares of common stock to be outstanding after this offering	2,870,320 shares
Concurrent private placement of Warrants	We are offering 374,572 shares of our common stock in this offering pursuant to this prospectus supplement and the accompanying base prospectus and securities purchase agreements at a price of $3.92 per share. In a concurrent private placement, we are also selling to investors, at a purchase price of $0.125 per Warrant, Warrants to purchase an additional 280,929 shares of our common stock which represent 75% of the number of shares of our common stock purchased in this offering. Each Warrant will be exercisable for one share of our common stock at an exercise price of $3.93 per share for a period of five and one-half years. The Warrants and the Warrant Shares are not being registered under the Securities Act, pursuant to the registration statement of which this prospectus supplement and the accompanying base prospectus form a part nor are such Warrants and Warrant Shares being offered pursuant to such prospectus supplement and base prospectus and are being offered pursuant to an exemption provided in Section 4(a)(2) of the Securities Act and Rule 506(b) promulgated thereunder. The Warrants are not and will not be listed for trading on any national securities exchange. Each purchaser will be an "accredited investor" as such term is defined in Rule 501(a) under the Securities Act.
Use of Proceeds	We estimate that the net proceeds to us from the sale of shares of common stock in this offering will be approximately $1.3 million. We intend to use net proceeds from this offering to continue our commercialization efforts, for clinical and product development activities and for other working capital and general corporate purposes. See "Use of Proceeds" on page S-14 of this prospectus supplement for additional information.
Market for the Common Stock	Our common stock is listed on the Nasdaq Capital Market under the symbol "RSLS".
Risk Factors	See "Risk Factors" beginning on page S-10 and other information included in, or incorporated by reference into, this prospectus supplement for a discussion of factors that you should consider carefully before deciding to invest this offering.

(1) The number of shares of our common stock that will be outstanding immediately before and after this offering is based on 2,495,748 shares outstanding as of June 6, 2018 and excludes:

- 3,181,917 shares of our common stock issuable upon the exercise of warrants outstanding as of June 6, 2018 at a weighted average exercise price of $8.54 per share, which will decrease to $7.85 pursuant to anti-dilution adjustments in certain of such warrants as a result of this offering;

- 603,725 shares of common stock issuable upon the exercise of options outstanding as of June 6, 2018 at a weighted average exercise price of $113.85 per share;

Table of Contents

- 437,880 shares of our common stock reserved for future issuance under our Second Amended and Restated 2003 Stock Incentive Plan as of June 6, 2018;

- 869,033 shares of our common stock issuable upon the conversion of 4,041 shares of series B convertible preferred stock outstanding as of June 6, 2018, which will increase to approximately 1.03 million shares of common stock pursuant to anti-dilution adjustments in the series B convertible preferred stock as a result of this offering;

- 635,920 shares of our common stock issuable upon the conversion of 95,388 shares of series C convertible preferred stock outstanding as of June 6, 2018;

- 1,129,033 shares of our common stock issuable upon the conversion of 5,250 shares of series D convertible preferred stock outstanding as of June 6, 2018, which will increase to approximately 1.34 million shares of common stock pursuant to anti-dilution adjustments in the series D convertible preferred stock as a result of this offering;

- 374,572 shares of our common stock to be sold in this offering;

- 280,929 shares of our common stock issuable upon the exercise of the Warrants to be sold in the private placement concurrent with this offering at an exercise price of $3.93 per share; and

- 26,220 shares of our common stock issuable upon the exercise of the Placement Agent Warrants issued as compensation to the placement agent for this offering at an exercise price of $5.01 per share.

Except as otherwise indicated herein, all information in this prospectus supplement, including the number of shares that will be outstanding after this offering, does not assume or give effect to the exercise of the Warrants offered in the concurrent private placement or to the Placement Agent Warrants.

Table of Contents

RISK FACTORS

An investment in our shares of common stock involves a high degree of risk. You should carefully read and consider the risks described below, as well as the other information in this prospectus supplement and other information incorporated by reference herein, before deciding to invest in our securities. The occurrence of any of the following risks could have a material adverse effect on our business, financial condition, results of operations or cash flows. In that case, the trading price of our common stock could decline, and you could lose all or part of your investment.

Risks Relating to this Offering

We have a significant number of outstanding warrants, options and shares of convertible preferred stock, some of which contain full-ratchet anti-dilution protection, which may cause significant dilution to our stockholders, have a material adverse impact on the market price of our common stock and make it more difficult for us to raise funds through future equity offerings.

As of June 6, 2018, we had outstanding 2,495,748 shares of common stock. In addition, as of that date we had outstanding warrants to acquire 3,181,917 shares of common stock, options to acquire 603,725 shares of common stock and shares of convertible preferred stock convertible into an aggregate of 2,633,986 shares of common stock. The issuance of shares of common stock upon the exercise of warrants or options or conversion of preferred stock would dilute the percentage ownership interest of all stockholders, might dilute the book value per share of our common stock and would increase the number of our publicly traded shares, which could depress the market price of our common stock.

In addition, a substantial number of our outstanding warrants and shares of convertible preferred stock contain so-called full-ratchet anti-dilution provisions which, subject to limited exceptions, would reduce the exercise price of the warrants (but not increase the number of shares issuable) and reduce the conversion price of the convertible preferred stock (and increase the number of shares issuable) in the event that we in the future issue common stock, or securities convertible into or exercisable to purchase common stock, at a lower price per share, to such lower price. Of our outstanding warrants as of June 6, 2018, warrants exercisable to purchase 3,042,892 shares of common stock at an exercise price of $4.65 per share contained a full-ratchet anti-dilution provision, and shares of convertible preferred stock convertible into 1,998,066 shares of common stock at a conversion price of $4.65 per share contained a full-ratchet anti-dilution provision. These anti-dilution provisions will be triggered in connection with this offering, which will cause a reduction in the exercise price of our warrants exercisable to purchase 3,042,892 shares from $4.65 per share to $3.92 per share, and will cause shares of our convertible preferred stock convertible before the offering into 1,998,066 shares of common stock at a conversion price of $4.65 per share to become convertible after the offering into approximately 2.37 million shares of common stock at a conversion price of $3.92 per share. These full ratchet anti-dilution provisions would be triggered by the future issuance by us of shares of our common stock or common stock equivalents at a price per share below the then-exercise price of the warrants and the then-conversion price of the convertible preferred stock, subject to limited exceptions.

In addition to the dilutive effects described above, the perceived risk of dilution as a result of the significant number of outstanding warrants, options and shares of convertible preferred stock may cause our common stockholders to be more inclined to sell their shares, which would contribute to a downward movement in the price of our common stock. Moreover, the perceived risk of dilution and the resulting downward pressure on our common stock price could encourage investors to engage in short sales of our common stock, which could further contribute to price declines in our common stock. The fact that our stockholders, warrant holders and option holders can sell substantial amounts of our common stock in the public market, whether or not sales have occurred or are occurring, as well as the existence of full-ratchet anti-dilution provisions in a substantial number of our outstanding warrants and shares of convertible preferred stock, could make it more difficult for us to raise additional funds through the sale of equity or equity-related securities in the future at a time and price that we deem reasonable or appropriate, or at all.

Table of Contents

The U.S. Food and Drug Administration (FDA) has published an announcement to alert health care providers of unanticipated deaths involving the ReShape Balloon, which could harm our business.

On August 10, 2017, the FDA published an announcement to alert health care providers of five reports of unanticipated deaths that occurred within one month of the placement of an intragastric balloon, one of which involved the ReShape Balloon. The announcement indicated that the root cause or incidence of patient death in these cases had not been found and the FDA was not able to definitively attribute the deaths to the balloon devices or their respective insertion procedures. The announcement also indicated that the FDA had received an additional report of a death related to potential complications associated with an esophageal perforation related to the ReShape Balloon. On June 4, 2018, the FDA published an update to that announcement and identified an additional five reports of unanticipated deaths in patients with liquid-filled intragastric balloons since the August 10, 2017 announcement, one of which related to a patient implanted with a ReShape Balloon. Since 2016, the FDA has received reports of a total of 12 deaths that occurred in patients with liquid-filled intragastric balloon systems worldwide. Seven of these 12 deaths were patients in the U.S., three of which were with the ReShape Balloon. If these adverse events occur more frequently or other serious adverse effects are detected in liquid-filled intragastric balloons, the ReShape Balloon product may be subject to adverse FDA action or additional communications from the FDA, which could harm our business. In addition, we believe that the FDA announcement has negatively impacted, and may continue to negatively impact, our sales of the ReShape Balloon, which could have an adverse effect on our business, results of operations, liquidity and financial condition.

Because our management will have broad discretion and flexibility as to how the net proceeds from this offering are used, our management may use the net proceeds in ways with which you disagree or which may not prove effective.

We currently intend to use the net proceeds from this offering as discussed under “Use of Proceeds” in this prospectus supplement. We have not allocated specific amounts of the net proceeds from this offering for any of the purposes set forth in that section. Accordingly, our management will have significant discretion and flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the net proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for us. The failure of our management to use such funds effectively could have a material adverse effect on our business, financial condition, operating results and cash flow.

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

The offering price per share of our common stock being offered is substantially higher than the net tangible book value per share of our outstanding common stock. As a result, the investor purchasing shares of our common stock in this offering will incur immediate dilution of $6.18 per share, after giving effect to the sale of an aggregate of 374,572 shares of our common stock at an offering price of $3.92 per share, and after deducting placement agent fees and estimated offering expenses payable by us. See “Dilution” on page S-18 of this prospectus supplement for a more detailed discussion of the dilution you will incur if you purchase shares in this offering.

A substantial number of shares of our common stock may be sold in this offering, which could cause the price of our common stock to decline.

In this offering we are selling 374,572 shares of common stock, which represents approximately 15.0% of our outstanding common stock as of June 6, 2018 after giving effect to the sale of the shares of our common stock in this offering. In addition, the investors in this offering will receive, pursuant to the concurrent private placement, unregistered Warrants to purchase up to 280,929 shares of our common stock which represent 75% of the number of

shares of our common stock purchased in this offering. This sale and any future sales of a substantial number of shares of our common stock in the public market, or the perception that such sales may occur, could adversely affect the price of our common stock on the Nasdaq Capital Market. We cannot predict the effect, if any, that market sales of those shares of our common stock or the availability of those shares of our common stock for sale will have on the market price of our common stock.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the information incorporated by reference in it contain “forward—looking statements” within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Forward—looking statements can be identified by words such as “anticipate,” “intend,” “plan,” “goal,” “seek,” “believe,” “project,” “estimate,” “expect,” “strategy,” “future,” “likely,” “may,” “should,” “will” and similar references to future periods. Forward—looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations and assumptions regarding the future of our business, financial condition and results of operations, future plans and strategies, projections, anticipated events and trends, the economy and other future conditions. Because forward—looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results and financial condition may differ materially from those indicated in the forward—looking statements. Therefore, you should not place undue reliance on any of these forward—looking statements. Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward—looking statements include, but are not limited to, those listed below.

Without limiting the foregoing, all statements relating to our future outlook, anticipated capital expenditures, future cash flows and borrowings, and sources of funding are forward-looking statements. If one or more of these risks or uncertainties occur, or if our underlying assumptions prove to be incorrect, actual events or results may vary significantly from those implied or projected by the forward-looking statements. Such risks and uncertainties include, among others:

- risks and uncertainties related to our acquisitions of ReShape Medical, Inc. and BarioSurg, Inc.;
- risks related to the U.S. Food and Drug Administration’s announcement, including updates thereto, to alert health care providers of unanticipated deaths involving the ReShape Balloon;
- our proposed ReShape Vest product may not be successfully developed and commercialized;
- our ability to continue as a going concern if we are unable to either substantially improve our operating results or obtain additional financing after this offering;
- our limited history of operations; our losses since inception and for the foreseeable future;
- our limited commercial sales experience;
- the competitive industry in which we operate;
- our ability to maintain compliance with the Nasdaq continued listing requirements;
- our dependence on third parties to initiate and perform our clinical trials;
- the need to obtain regulatory approval for our ReShape Vest and any modifications to our vBloc system or ReShape Balloon;
- physician adoption of our products;
- our ability to obtain third party coding, coverage or payment levels;
- ongoing regulatory compliance;
- our dependence on third party manufacturers and suppliers;
- the successful development of our sales and marketing capabilities;
- our ability to raise additional capital when needed;
- international commercialization and operation;
- our ability to attract and retain management and other personnel and to manage our growth effectively;

Table of Contents

- potential product liability claims;
- the cost and management time of operating a public company;
- potential healthcare fraud and abuse claims;
- healthcare legislative reform; and
- our ability to obtain and maintain intellectual property protection for our technology and products.

These and additional risks and uncertainties are described more fully our filings with the Securities and Exchange Commission. Any forward-looking statement in this prospectus supplement reflects our current views with respect to future events and is subject to these and other risks, uncertainties and assumptions relating to our operations, results of operations, industry and future growth. Except as required by law, we assume no obligation to publicly update or revise any forward-looking statements contained in this prospectus supplement, whether as a result of new information, future events or otherwise.

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds to us from the sale of common stock offered by us in this offering will be approximately $1.3 million, after deducting the placement agent fees and estimated offering expenses payable by us.

We intend to use the net proceeds of this offering to continue our commercialization efforts, for clinical and product development activities and for other working capital and general corporate purposes. We have not yet determined with certainty the manner in which we will allocate these net proceeds. Accordingly, our management will have broad discretion in the application of the net proceeds, and investors will be relying on the judgment of our management regarding the application of the proceeds of this offering. The amounts and timing of these expenditures will vary depending upon a number of factors, including our success in implementing our commercialization strategy for our product, the success of our research and product development efforts, future sales growth, cash generated from future operations and actual expenses to operate our business. Pending the uses described above, we intend to invest the net proceeds in United States government securities and other short-term, investment-grade, interest-bearing instruments.

Absent this offering, additional capital may not be available on terms favorable to us, or at all. If we raise additional funds by issuing equity securities, our stockholders may experience dilution. Debt financing, if available, may involve restrictive covenants or additional security interests in our assets. Any additional debt or equity financing that we complete may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or products, or grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to delay, reduce the scope of, or eliminate some or all of, our development programs or liquidate some or all of our assets.

Table of Contents

CAPITALIZATION

The following table sets forth our unaudited actual cash and cash equivalents and our capitalization as of March 31, 2018, adjusted to give effect to the sale of the securities offered hereby and the use of proceeds, as described in the section entitled “Use of Proceeds.”

You should read this information in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and related notes appearing in our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2018, which is incorporated by reference into this prospectus supplement.

	As of March 31, 2018	
	Actual	As Adjusted
Cash and cash equivalents	$841,643	$2,141,643
Common stock warrant liability	$443	$443
Stockholders’ equity:		
Preferred stock, $0.01 par value; 5,000,000 shares authorized, actual and as adjusted		
Series B convertible preferrred stock, $0.01 par value, 20,000 shares issued and 6,055 shares outstanding, actual and adjusted	$61	$61
Series C convertible preferrred stock, $0.01 par value, 187,772 shares issued and 95,388 shares outstanding, actual and adjusted	$954	$954
Common stock, $0.01 par value; 275,000,000 shares authorized, actual and as adjusted; 2,063,808 shares issued and outstanding, actual, and 2,438,380, as adjusted	$2,064	$2,438
Additional paid-in capital	$411,556,015	$412,856,015
Accumulated deficit	$(345,992,803)	$(345,992,803)
Total stockholders’ equity	$65,873,798	$67,173,798

Table of Contents

In the discussion and table above, we assume no exercise of outstanding options or warrants. The above discussion and table are based on 2,063,808 shares outstanding as of March 31, 2018 and excludes:

- 953,581 shares of our common stock issuable upon the exercise of warrants outstanding as of March 31, 2018 at a weighted average exercise price of $46.95 per share;
- 228,774 shares of common stock issuable upon the exercise of options outstanding as of March 31, 2018 at a weighted average exercise price of $109.65 per share;
- 400,958 shares of our common stock reserved for future issuance under our Second Amended and Restated 2003 Stock Incentive Plan as of March 31, 2018;
- 374,572 shares of our common stock to be sold in this offering;

- 280,929 shares of our common stock issuable upon the exercise of the Warrants to be sold in the private placement concurrent with this offering at an exercise price of $3.93 per share; and

- 26,220 shares of our common stock issuable upon the exercise of the Placement Agent Warrants issued as compensation to the placement agent for this offering at an exercise price of $5.01 per share.

Market For Our Common Stock

Our common stock has been traded on Nasdaq under the symbol “RSLS” since we changed our corporate name to ReShape Lifesciences Inc. on October 23, 2017.

As of June 6, 2018, there were approximately 64 holders of record of our common stock and 2,495,748 shares of common stock outstanding. No dividends have been paid on our common stock to date, and we do not anticipate paying any dividends in the foreseeable future.

The following table sets forth the high and low sales prices of our common stock as quoted on the Nasdaq Capital Market for the periods indicated. These prices have been adjusted to reflect the 1-for-15 reverse split of our common stock that was effected after trading on January 6, 2016, the 1-for-70 reverse split of our common stock that was effected after trading on December 27, 2016, and the 1-for-15 reverse stock split of our common stock that was effected after trading on June 1, 2018.

Price Range of Common Stock

	Price Range	
	High	**Low**
Fiscal 2016		
First Quarter	$2361.56	$861.85
Second Quarter	$1301.54	$285.08
Third Quarter	$472.12	$118.61
Fourth Quarter	$152.20	$29.25
Fiscal 2017		
First Quarter	$465.13	$26.25
Second Quarter	$97.19	$60.00
Third Quarter	$78.00	$24.00
Fourth Quarter	$39.00	$18.45
Fiscal 2018		
First Quarter	$26.83	$19.80
Second Quarter (through June 6, 2018)	$10.80	$3.75

The closing price for our common stock as reported by the Nasdaq Capital Market on June 6, 2018 was $3.92 per share.

Table of Contents

Dividend Policy

We have never paid cash dividends on our common stock. The board of directors presently intends to retain all earnings for use in our business and does not anticipate paying cash dividends in the foreseeable future. We do not have a dividend reinvestment plan or a direct stock purchase plan.

Table of Contents

DILUTION

Your interest in the shares of common stock offered hereunder may be diluted to the extent of the difference between the price you pay for each share of common stock and the net tangible book value per share of our common stock immediately after this offering. As of March 31, 2018, our historical net tangible book value was spproximately $(6.8) million, or $(3.29) per share of common stock. Our historical net tangible book value per share represents the amount of our total tangible assets reduced by the amount of our total liabilities, divided by the total number of shares of our common stock outstanding as of March 31, 2018 (as adjusted for our 1-for-15 reverse stock split on June 1, 2018).

After giving effect to our sale in this offering of 374,572 shares of common stock, and after deducting the placement agent fees and estimated offering expenses payable by us, our net tangible book value as of March 31, 2018 would have been $(5.5) million, or $(2.26) per share of our common stock. This amount represents an immediate increase of net tangible book value to our existing stockholders of $1.03 per share and an immediate dilution of $6.18 per share to the new investors purchasing securities in this offering.

The following table illustrates this per share dilution:

Offering price per share in this offering		$ 3.92
Historical net tangible book value per share as of March 31, 2018	$ (3.29)	
Increase per share attributable to sale of shares by us in this offering	$ 1.03	
Net tangible book value per share, as adjusted to give effect to this offering		$ (2.26)
Dilution per share to investors in this offering		$ 6.18

The above discussion and table are based on 2,063,808 shares outstanding as of March 31, 2018 and excludes:

- 953,581 shares of our common stock issuable upon the exercise of warrants outstanding as of March 31, 2018 at a weighted average exercise price of $46.95 per share;
- 228,774 shares of common stock issuable upon the exercise of options outstanding as of March 31, 2018 at a weighted average exercise price of $109.65 per share;
- 400,958 shares of our common stock reserved for future issuance under our Second Amended and Restated 2003 Stock Incentive Plan as of March 31, 2018;
- 175,596 shares of our common stock issuable upon the conversion of 6,055 shares of series B convertible preferred stock outstanding as of March 31, 2018;
- 374,572 shares of our common stock to be sold in this offering;
- 280,929 shares of our common stock issuable upon the exercise of the Warrants to be sold in the private placement concurrent with this offering at an exercise price of $3.93 per share; and
- 26,220 shares of our common stock issuable upon the exercise of the Placement Agent Warrants issued as compensation to the placement agent for this offering at an exercise price of $5.01 per share.

To the extent that outstanding options or warrants are exercised, you 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 additional capital is raised through the sale of additional equity, the issuance of these shares could result in further dilution to our stockholders.

Table of Contents

DESCRIPTION OF SECURITIES

We are offering a maximum of 374,572 shares of our common stock. The material terms and provisions of our common stock and other outstanding securities convertible into or exercisable for shares of our common stock are described under the headings “Description of Common Stock” and “Description of Preferred Stock” in the accompanying prospectus.

PLAN OF DISTRIBUTION

Pursuant to an engagement letter agreement dated May 8, 2018, we have engaged H.C. Wainwright & Co., LLC (“Wainwright” or the “placement agent”) to act as our exclusive placement agent in connection with this offering of our shares of common stock pursuant to this prospectus supplement and accompanying prospectus. Under the terms of the engagement letter, the placement agent has agreed to be our exclusive placement agent, on a reasonable best efforts basis, in connection with the issuance and sale by us of our shares of common stock in this takedown from our shelf registration statement. The terms of this offering were subject to market conditions and negotiations between us, the placement agent and prospective investors. The engagement letter does not give rise to any commitment by the placement agent to purchase any of our shares of common stock, and the placement agent will have no authority to bind us by virtue of the engagement letter. Further, the placement agent does not guarantee that it will be able to raise new capital in any prospective offering. The placement agent may engage sub-agents or selected dealers to assist with this offering.

The placement agent proposes to arrange for the sale of the shares we are offering pursuant to this prospectus supplement and accompanying prospectus to one or more investors through securities purchase agreements directly between the purchasers and us.

We expect to deliver the shares of our common stock being offered pursuant to this prospectus supplement on or about June 8, 2018.

We have agreed to pay the placement agent a total cash fee equal to 8.0% of the gross proceeds of this offering. We will also pay the placement agent $65,000 for expenses. We estimate the total expenses payable by us for this offering will be approximately $200,000, which amount includes the placement agent fees and reimbursable expenses. In addition, we have agreed to issue to the placement agent warrants to purchase up to 7.0% of the aggregate number of shares of common stock sold in this offering (26,220 shares). The Placement Agent Warrants will have substantially the same terms as the Warrants issued to the investors in the concurrent private placement, except that the Placement Agent Warrants will have an exercise price equal to $5.01, or 125% of the offering price per share in this offering, and such Placement Agent Warrants will be exercisable for five years from the effective date of this offering. Pursuant to FINRA Rule 5110(g), the Placement Agent Warrants and any shares issued upon exercise of the Placement Agent Warrants shall not be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of this offering, except the transfer of any security: (i) by operation of law or by reason of our reorganization; (ii) to any FINRA member firm participating in this offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction set forth above for the remainder of the time period; (iii) if the aggregate amount of our securities held by the placement agent or related persons do not exceed 1% of the securities being offered; (iv) that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund and the participating members in the aggregate do not own more than 10% of the equity in the fund; or (v) the exercise or conversion of any security, if all securities remain subject to the lock-up restriction set forth above for the remainder of the time period.

We have agreed to indemnify the placement agent and specified other persons against certain liabilities relating to or arising out of the placement agent’s activities under the placement agency agreement and to contribute to payments that the placement agent may be required to make in respect of such liabilities.

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the securities sold by it while acting as principal might be deemed to be underwriting discounts or

commissions under the Securities Act. As an underwriter, the placement agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares of common stock and warrants by the placement agent acting as principal. Under these rules and regulations, the placement agent:

- may not engage in any stabilization activity in connection with our securities; and

Table of Contents

- may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

From time to time, the placement agent may provide in the future various advisory, investment and commercial banking and other services to us in the ordinary course of business, for which they have received and may continue to receive customary fees and commissions. However, except as disclosed in this prospectus supplement, we have no present arrangements with the placement agent for any further services. The placement agent acted as our placement agent in connection with an agreement with certain of our institutional intestors to reprice and exercise their warrants that we consummated in May 2018, for which it received compensation.

PRIVATE PLACEMENT OF WARRANTS

In a concurrent private placement, we are selling to each of the investors in this offering for consideration of $0.125 per underlying Warrant Share, a Warrant to purchase an additional 75% of the number of shares purchased in this offering by each such investor. The aggregate number of Warrant Shares exercisable pursuant to the Warrants is 280,929. The Warrants will be exercisable at an exercise price of $3.93 per share. The exercise price and number of Warrant Shares issuable upon the exercise of the Warrants will be subject to adjustment in the event of any stock dividend and split, reverse stock split, recapitalization, reorganization or similar transaction, as described in the Warrants.

Each Warrant shall be exercisable immediately upon the date of issuance and have a term of exercise equal to five and one-half years from the initial exercise date. A holder of Warrants will have the right to exercise the Warrants on a “cashless” basis in certain circumstances as described in the Warrants, including, among others, while there is no effective registration statement registering the Warrant Shares issuable upon exercise of the Warrants. Subject to limited exceptions, a holder of Warrants will not have the right to exercise any portion of its Warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to such exercise, provided that the holder may increase or decrease the beneficial ownership limitation up to 9.99%, provided, further, that any increase in the beneficial ownership limitation shall not be effective until 61 days following notice of such change to the Company.

The Warrants and the Warrant Shares are not being registered under the Securities Act pursuant to the registration statement of which this prospectus supplement and the accompanying base prospectus form a part and are not being offered pursuant to this prospectus supplement and the accompanying base prospectus. The Warrants and the Warrant Shares are being offered pursuant to the exemption provided in Section 4(a)(2) of the Securities Act and Rule 506(b) promulgated thereunder. All purchasers are required to be “accredited investors” as such term is defined in Rule 501(a) under the Securities Act.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES

The following is a general discussion of material U.S. federal income considerations relating to the purchase, ownership and disposition of our common stock. This discussion is based on current provisions of the Internal Revenue Code of 1986 (the “Internal Revenue Code”), existing and proposed U.S. Treasury Regulations promulgated or proposed thereunder and current administrative and judicial interpretations thereof, all as in effect as of the date of this prospectus supplement and all of which are subject to change or to differing interpretation, possibly with retroactive effect. We have not sought and will not seek any rulings from the Internal Revenue Service (the “IRS”) regarding the matters discussed below. There can be no assurance that the IRS or a court will not take a contrary position.

This discussion is limited to U.S. holders and non-U.S. holders who hold our common stock as capital assets within the meaning of Section 1221 of the Internal Revenue Code (generally, as property held for investment). This discussion does not address all aspects of U.S. federal income taxation, such as the U.S. alternative minimum income tax and the additional tax on net investment income, nor does it address any aspect of state, local or non-U.S. taxes, or U.S. federal taxes other than income taxes, such as federal estate taxes. This discussion does not consider any specific facts or circumstances that may apply to a holder and does not address the special tax considerations that may be applicable to particular holders, such as:

- insurance companies;
- tax-exempt organizations;

Table of Contents

- financial institutions;
- brokers or dealers in securities;
- regulated investment companies;
- pension plans;
- controlled foreign corporations;

- passive foreign investment companies;
- corporations that accumulate earnings to avoid U.S. federal income tax;
- certain U.S. expatriates;
- persons that have a "functional currency" other than the U.S. dollar;
- persons that acquire our common stock as compensation for services;
- owners that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment; and
- partnerships or other entities treated as partnerships for U.S. federal income tax purposes.

If any entity taxable as a partnership for U.S. federal income tax purposes holds our common stock, the U.S. federal income tax treatment of a partner in the partnership generally will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. A partner in a partnership or other transparent entity that holds our common stock should consult his, her or its own tax advisor regarding the applicable tax consequences.

For purposes of this discussion, the term "U.S. holder" means a beneficial owner of our common stock that is, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized in or under the laws of the United States or of any political subdivision of the United States;
- an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust, if (1) a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have authority to control all substantial decisions of the trust, or (2) the trust has a valid election to be treated as a U.S. person under applicable U.S. Treasury Regulations.

A "non-U.S. holder" is a beneficial owner of our common stock that is not a U.S. holder.

Prospective investors should consult their own tax advisors regarding the U.S. federal, state, local and non-U.S. income and other tax considerations of purchasing, holding and disposing of our common stock.

U.S. Holders

Distributions on Common Stock

If we pay distributions of cash or property with respect to our common stock, those distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the U.S. holder's investment, up to such holder's tax basis in its shares of our common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below under the heading "—Gain on Sale, Exchange or Other Taxable Disposition."

Table of Contents

Gain on Sale, Exchange or Other Taxable Disposition

Upon the sale or other taxable disposition of common shares, a U.S. holder generally will recognize capital gain or loss in an amount equal to the difference between (a) the amount of cash plus the fair market value of any property received and (b) such U.S. holder's tax basis in such common shares sold or otherwise disposed of. Such gain or loss generally will be long-term capital gain or loss if, at the time of the sale or other disposition, the common shares have been held by the U.S. holder for more than one year. Preferential tax rates may apply to long-term capital gain of a U.S. holder that is an individual, estate, or trust. Deductions for capital losses are subject to significant limitations.

Non-U.S. Holders

Distributions on Common Stock

If we pay distributions of cash or property with respect to our common stock, those distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such holder's tax basis in its shares of our common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below under the heading "—Gain on Sale, Exchange or Other Taxable Disposition." Dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence. In the case of any constructive distribution, it is possible that this tax would be withheld from any amount owed to the non-U.S. holder, including, but not limited to, distributions of cash, common stock or sales proceeds subsequently paid or credited to that holder. If we are unable to determine, at the time of payment of a distribution, whether the distribution will constitute a dividend, we may nonetheless choose to withhold any U.S. federal income tax on the distribution as permitted by U.S. Treasury Regulations.

Distributions that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States are generally not subject to the 30% withholding tax if the non-U.S. holder provides a properly executed IRS Form W-8ECI stating that the distributions are not subject to

withholding because they are effectively connected with the non-U.S. holder's conduct of a trade or business in the United States. If a non-U.S. holder is engaged in a trade or business in the United States and the distribution is effectively connected with the conduct of that trade or business, the distribution will generally have the consequences described above for a U.S. holder (subject to any modification provided under an applicable income tax treaty). Any U.S. effectively connected income received by a non-U.S. holder that is treated as a corporation for U.S. federal income tax purposes may also, under certain circumstances, 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).

A non-U.S. holder who claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E, as applicable, and satisfy applicable certification and other requirements. A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty generally may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim with the IRS. Non-U.S. holders should consult their own tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Gain on Sale, Exchange or Other Taxable Disposition

Subject to the discussion below in "—Information Reporting and Backup Withholding" and "—Foreign Account Tax Compliance Act," a non-U.S. holder generally will not be subject to U.S. federal income tax on gain recognized on a sale, exchange or other taxable disposition of our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States and, if an applicable income tax treaty so provides, the gain is attributable to a permanent establishment maintained by the non-U.S. holder in the United States; in these cases, the non-U.S. holder will be taxed on a net income basis at the regular graduated rates and in the manner applicable to a U.S. holder, and, if the non-U.S. holder is a corporation, an additional branch profits tax at a rate of 30%, or a lower rate as may be specified by an applicable income tax treaty, may also apply;

- the non-U.S. holder is an individual present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax (or

Table of Contents

such lower rate as may be specified by an applicable income tax treaty) on the amount by which such non-U.S. holder's capital gains allocable to U.S. sources exceed capital losses allocable to U.S. sources during the taxable year of the disposition; or

- we are or were a "U.S. real property holding corporation" during the shorter of the five-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. Generally, a corporation is a "U.S. real property holding corporation" if the fair market value of its "U.S. real property interests" (within the meaning of the Internal Revenue Code) 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 currently, and we do not anticipate becoming, a "U.S. real property holding corporation" for U.S. federal income tax purposes.

Information Reporting and Backup Withholding

Distributions on, and the payment of the proceeds of a disposition of, our common stock generally will be subject to information reporting if made within the United States or through certain U.S.-related financial intermediaries. Information returns are required to be filed with the IRS and copies of information returns may be made available to the tax authorities of the country in which a holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding may also apply if the holder fails to provide certification of exempt status or a correct U.S. taxpayer identification number and otherwise comply with the applicable backup withholding requirements. Generally, a holder will not be subject to backup withholding if it provides a properly completed and executed IRS Form W-9 or appropriate IRS Form W-8, as applicable. Backup withholding is not an additional tax. Amounts withheld under the backup withholding rules may be refunded or credited against the holder's U.S. federal income tax liability, if any, provided certain information is timely filed with the IRS.

Foreign Account Tax Compliance Act

Legislation commonly referred to as the Foreign Account Tax Compliance Act, or FATCA, generally imposes a U.S. federal withholding tax of 30% on payments to certain non-U.S. entities (including certain intermediaries) unless such persons comply with FATCA's information reporting and withholding regime. This regime and its requirements are different from, and in addition to, the certification requirements described elsewhere in this discussion. The FATCA withholding rules apply to dividend payments and, in the case of certain sales or other dispositions occurring after December 31, 2018 (including a distribution to the extent it is treated as a return of capital or capital gain), the gross proceeds of such disposition.

The United States has entered into, and continues to negotiate, intergovernmental agreements (each, an "IGA") with a number of other jurisdictions to facilitate the implementation of FATCA. An IGA may significantly alter the application of FATCA and its information reporting and withholding requirements with respect to any particular investor. FATCA is particularly complex and its application remains uncertain. Prospective investors should consult their own tax advisors regarding how these rules may apply in their particular circumstances.

LEGAL MATTERS

Fox Rothschild LLP, Minneapolis, Minnesota, will issue a legal opinion as to the validity of the securities offered by this prospectus supplement.

EXPERTS

The consolidated financial statements incorporated in this prospectus supplement by reference from our Annual Report on Form 10-K for the year ended December 31, 2017, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report which is

incorporated herein by reference. Such consolidated financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public through the Internet at the SEC's web site at *www.sec.gov*. You may also read and copy any

Table of Contents

document we file with the SEC at the SEC's public reference room at 100 F Street N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information about its public reference facilities and their copy charges.

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities offered by this prospectus supplement. When used in this prospectus supplement, the term "registration statement" includes amendments to the registration statement as well as the exhibits, schedules, financial statements and notes filed as part of the registration statement. This prospectus supplement, which constitutes a part of the registration statement, does not contain all of the information in the registration statement. This prospectus supplement omits information contained in the registration statement as permitted by the rules and regulations of the SEC. For further information with respect to us and the securities offered by this prospectus supplement, reference is made to the registration statement. Statements herein concerning the contents of any contract or other document are not necessarily complete and in each instance reference is made to the copy of such contract or other document filed with the SEC as an exhibit to the registration statement, each such statement being qualified by and subject to such reference in all respects.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information we file with them. This allows us to disclose important information to you by referencing those filed documents. We have previously filed the following documents with the SEC and are incorporating them by reference into this prospectus supplement:

- Our Annual Report on Form 10-K (including the portions of our Proxy Statement on Schedule 14A for our annual meeting filed with the SEC on April 30, 2018 that are incorporated by reference therein) for the fiscal year ended December 31, 2017, filed with the SEC on April 2, 2018;
- Our Quarterly Report on Form 10-Q for the period ended March 31, 2018, filed with the SEC on May 15, 2018;
- Our Current Reports on Form 8-K filed with the SEC on January 31, 2018, March 21, 2018, April 3, 2018, April 14, 2018, April 24, 2018, May 18, 2018, May 25, 2018, and June 1, 2018 (other than the portions of such documents not deemed to be filed); and
- The description of our common stock contained in any registration statement on Form 8-A that we have filed, and any amendment or report filed with the SEC for the purpose of updating the description.

We also are incorporating by reference any future information filed (rather than furnished) by us with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, after the date of the initial filing of the registration statement of which this prospectus supplement is a part and before the effective date of the registration statement and after the date of this prospectus supplement until the termination of the offering. The most recent information that we file with the SEC automatically updates and supersedes more dated information.

You can obtain a copy of any documents which are incorporated by reference in this prospectus supplement, except for exhibits which are specifically incorporated by reference into those documents, at no cost, by writing or telephoning us at:

ReShape Lifesciences Inc.
1001 Calle Amanecer
San Clemente, California 92673
(949) 429-6680

Table of Contents

PROSPECTUS

$125,000,000

Common Stock
Preferred Stock

Securities Warrants
Units

We may from time to time offer to sell any combination of common stock, preferred stock, securities warrants and units described in this prospectus in one or more offerings. The aggregate initial offering price of all securities sold under this prospectus will not exceed $125,000,000.

This prospectus provides a general description of the securities that we may offer. Each time we sell securities, we will provide the specific terms of the securities offered in a supplement to this prospectus. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement carefully 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.

We may from time to time offer and sell our securities in one offering or in separate offerings, to or through underwriters, dealers and agents or directly to purchasers. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters and any applicable fees, commissions or discounts.

Our common stock is traded on the NASDAQ Capital Market under the symbol “RSLS.” On May 18, 2018, the closing price of our common stock as reported on the NASDAQ Capital Market was $0.38 per share. On April 2, 2018, the date we filed our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, we became subject to the offering limits in General Instruction I.B.6 of Form S-3. As of the date of this prospectus, the aggregate market value of our common stock held by non-affiliates pursuant to General Instruction I.B.6 of Form S-3 is $38,537,904.25, which is calculated based on 26,577,865 shares of our common stock outstanding held by non-affiliates and a price of $1.45 per share, the closing price of our common stock on March 29, 2018, which is the highest closing sale price of our common stock on the NASDAQ Capital Market within the prior 60 days of this prospectus. During the prior 12 calendar month period that ends on and includes the date hereof, we have not offered or sold any shares of our common stock pursuant to General Instruction I.B.6 to Form S-3. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities registered on this registration statement in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below $75.0 million.

Investing in our securities involves risks. You should consider carefully the risks and uncertainties set forth in the section entitled “Risk Factors” beginning on page 3 of this prospectus and in the documents we file with the Securities and Exchange Commission that are incorporated by reference in this prospectus before making a decision to purchase our securities.

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 June 1, 2018.

Table of Contents

TABLE OF CONTENTS

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission (SEC) utilizing a “shelf” registration process. Under this shelf registration process, we may offer and sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of $125,000,000.

This prospectus provides you with a general description of the respective securities that 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. The prospectus supplement may also add, update or change information contained in this prospectus. To the extent that any statement that we make in a prospectus supplement is inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in the prospectus supplement. You should read both this prospectus and any prospectus supplement, including all documents incorporated herein or therein by reference, together with additional information described under “Where You Can Find More Information” and “Incorporation of Documents by Reference.”

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 and the accompanying prospectus supplement. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or the accompanying prospectus supplement. This prospectus and the accompanying prospectus supplement 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 and the accompanying prospectus supplement 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 and the accompanying prospectus supplement 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 is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

Unless the context otherwise requires, the terms "we," "us," "our," "ReShape Lifesciences," and "the Company" refer to ReShape Lifesciences Inc., a Delaware corporation, and our subsidiary.

All references in this prospectus to "$," "U.S. Dollars" and "dollars" are to United States dollars.

In the United States we have registered trademarks for vBLOC®, ENTEROMEDICS®, MAESTRO®, RESHAPE®, RESHAPE DUO®, and RESHAPE MEDICAL®, each registered with the United States Patent and Trademark Office, and trademark applications for RESHAPE VEST, RESHAPE VBLOC, RESHAPE BALLOON, vBLOC POWER TO CHOOSE and VBLOC POWER TO CHOOSE AND DESIGN. In addition, some or all of the marks vBLOC, ENTEROMEDICS, MAESTRO, MAESTRO SYSTEM ORCHESTRATING OBESITY SOLUTIONS, vBLOC POWER TO CHOOSE, vBLOC POWER TO CHOOSE AND DESIGN, RESHAPE, RESHAPE DUO, RESHAPE MEDICAL and RESHAPE LIFESCIENCES are the subject of either a trademark registration or application for registration in Australia, Brazil, Canada, China, the European Community, India, Kuwait, Mexico, Saudi Arabia, Switzerland and the United Arab Emirates. We believe that we have common law trademark rights to GASTRIC VEST.

Table of Contents

RESHAPE LIFESCIENCES INC.

Our vision is to be recognized as a leading medical technology company focused on the design, development and commercialization of transformative technology to treat obesity and metabolic diseases. Our growing and differentiated product portfolio is utilized by bariatric surgeons, general surgeons, and gastroenterologists. We believe obesity is a global epidemic and that the majority of patients need treatment options that are anatomy friendly and provide for weight loss and comorbidity improvements along with long-term, ongoing obesity support and prevention.

We were incorporated in Minnesota in December 2002 as two separate legal entities, Alpha Medical, Inc. and Beta Medical, Inc., both of which were owned 100% by a common stockholder. In October 2003, the two entities were combined and we changed our name to EnteroMedics Inc. In 2004 we reincorporated in Delaware. In October 2017, we changed our company name to ReShape Lifesciences Inc.

In January 2015, the vBloc® System, our initial product, which we now refer to as ReShape vBloc, received U.S. Food and Drug Administration (FDA) approval for vBloc Therapy, delivered via the ReShape vBloc, for the treatment of adult patients with obesity who have a Body Mass Index (BMI) of at least 40 to 45 kg/m2, or a BMI of at least 35 to 39.9 kg/m2 with a related health condition such as high blood pressure or high cholesterol levels, and who have tried to lose weight in a supervised weight management program and failed within the past five years. vBloc Therapy is delivered via a pacemaker-like device that helps patients feel full and eat less by intermittently blocking hunger signals on the vagus nerve. Our therapy limits the expansion of the stomach, helps control hunger sensations between meals, reduces the frequency and intensity of stomach contractions and produces a feeling of early and prolonged fullness. We believe the ReShape vBloc offers obese patients a minimally-invasive treatment that can result in significant, durable and sustained weight loss. We believe that our ReShape vBloc allows bariatric surgeons to offer a new option to obese patients who are concerned about the risks and complications associated with currently available anatomy-altering, restrictive or malabsorptive surgical procedures.

In May 2017, we acquired the Gastric Vest System™, which we now refer to as the ReShape Vest, through our acquisition of BarioSurg, Inc. The ReShape Vest is an investigational, minimally invasive, laparoscopically implanted medical device being studied for weight loss in morbidly obese patients. The device wraps around the stomach, emulating the effect of conventional weight-loss surgery, and is intended to enable gastric volume reduction without permanently changing patient anatomy.

In October 2017, we acquired ReShape Medical, Inc., a privately-held medical technology company that develops, manufactures and markets the ReShape® Integrated Dual Balloon, which now we refer to as the ReShape Balloon, an FDA-approved, minimally invasive intragastric balloon designed to treat obesity patients with a BMI between 30 and 40, with at least one related comorbidity. The ReShape Balloon provides a new option for individuals who have not succeeded at diet and exercise alone, and do not want or do not qualify for bariatric surgery. Two connected balloons are placed into the stomach during a short, outpatient endoscopic procedure. The balloons remain in the stomach for six months and are then removed endoscopically. During balloon treatment, and for six more months following removal of the balloons, the patient receives access to nutritional counseling and access to exclusive tools to help them achieve their weight loss goals. The ReShape Balloon was approved by the FDA in July of 2015 and has had CE-marking in Europe since 2011.

On October 23, 2017 we changed our company name from EnteroMedics Inc. to ReShape Lifesciences Inc. in recognition of our expansion and growth in developing and commercializing transformative technologies to address the continuum of care for obesity and its associated health conditions. The ReShape brand name is strong and well-established in the marketplace and we expect this to not only help our other products succeed, but we also believe it will accelerate growth in our industry overall. In December, 2017, we rebranded the three products under the ReShape Lifesciences brand. Our portfolio of transformative technologies, designed to help patients lose weight and live a healthier life, includes two FDA-approved devices, ReShape™ vBloc (formerly vBloc) and ReShape™ Balloon, as well as the investigational ReShape™ Vest (formerly Gastric Vest System).

As of December 31, 2017, we had 83 employees, all of which are located in the United States. Our principal executive offices are located at 1001 Calle Amanecer, San Clemente, California 92673, and our telephone number is (949) 429-6680.

Table of Contents

RISK FACTORS

Investment in any securities offered pursuant to this prospectus and the applicable prospectus supplement involves risks. You should carefully consider the risk factors incorporated by reference to our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K we file after the date of this prospectus, and all other information contained or incorporated by reference into this prospectus, as updated by our subsequent filings under the Securities Exchange Act of 1934, as amended, and the risk factors and other information contained in the applicable prospectus supplement before acquiring any of such securities. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

Table of Contents

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference may contain forward-looking statements with respect to the financial condition, results of operations, plans, objectives, future performance and business of ReShape Lifesciences. Statements preceded by, followed by or that include words such as "may," "will," "expect," "anticipate," "continue," "estimate," "project," "believes" or similar expressions are intended to identify some of the forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and are included, along with this statement, for purposes of complying with the safe harbor provisions of that Act. These forward-looking statements involve risks and uncertainties. Actual results may differ materially from those contemplated by the forward-looking statements due to, among others, the risks and uncertainties described in this prospectus, including under "Risk Factors," and the documents incorporated by reference in this prospectus. Any forward-looking statement contained in this prospectus and the documents incorporated by reference speaks only as of the date on which the statement is made, and ReShape Lifesciences undertakes no obligation to update any forward-looking statement or statements to reflect events or circumstances that occur after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for ReShape Lifesciences to predict all of the factors, nor can ReShape Lifesciences assess the effect of each factor on its 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 statement.

Table of Contents

USE OF PROCEEDS

Unless otherwise indicated in the prospectus supplement, we intend to use the net proceeds from the sale of securities and exercise of warrants under this prospectus to continue our commercialization efforts, for clinical and product development activities and for other working capital and general corporate purposes. The prospectus supplement relating to a particular offering of securities by us will identify the use of proceeds for that offering.

Table of Contents

DESCRIPTION OF COMMON STOCK

The following summary of the terms of the common stock we may offer using this prospectus does not purport to be complete and is subject to and qualified in its entirety by reference to our Sixth Amended and Restated Certificate of Incorporation, as amended (certificate of incorporation), and our Amended and Restated Bylaws (bylaws), copies of which have been previously filed by us with the SEC and are incorporated by reference in this prospectus. See "Incorporation of Documents by Reference."

General

We are authorized to issue 275,000,000 shares of common stock, $0.01 par value per share, and 5,000,000 shares of preferred stock, $0.01 par value per share. As of May 11, 2018, our capitalization was as follows:

- 33,717,115 shares of our common stock were issued and outstanding, which were held of record by approximately 62 stockholders of record;
- 4,735 shares of series B convertible preferred stock were outstanding, which shares are convertible into 6,313,318 shares of our common stock;
- 95,388 shares of series C convertible preferred stock were outstanding, which shares are convertible into 9,538,800 shares of our common stock;
- 5,250 shares of our series D convertible preferred stock were outstanding, which shares are convertible into 6,999,983 shares of our common stock;
- 9,055,871 shares of common stock were issuable upon the exercise of outstanding options; and
- 49,303,715 shares of common stock were issuable upon the exercise of outstanding warrants.

Common Stock

Holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, and do not have cumulative voting rights. Accordingly, the holders of a majority of the shares of our common stock entitled to vote can elect all of the directors standing for election. However, as long as the former holders of ReShape Medical, Inc. securities own at least 10% of our outstanding common stock (for this purpose treating as outstanding the shares of common stock issuable upon conversion of the series C convertible preferred stock issued to the former ReShape Medical holders), the committee representing the former ReShape Medical holders will have the right to designate for nomination two directors to our Board of

Directors, and we will nominate and use commercially reasonable efforts to appoint each such person to our Board, although any nominees must be reasonably acceptable to our then current Board members. At the closing of our acquisition of ReShape Medical, Michael Y. Mashaal, M.D. was appointed to the Board as a designee of the former ReShape Medical holders and the committee has not yet designated its second director nominee.

Subject to preferences that may be applicable to any outstanding shares of preferred stock, holders of our common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by our board of directors out of funds legally available for dividend payments. All outstanding shares of our common stock are fully paid and nonassessable, and the shares of our common stock to be sold pursuant to this prospectus supplement will be fully paid and nonassessable. The holders of common stock have no preferences or rights of conversion, exchange, pre- emption or other subscription rights. There are no redemption or sinking fund provisions applicable to our common stock. In the event of any liquidation, dissolution or winding-up of our affairs, holders of our common stock will be entitled to share ratably in our assets that are remaining after payment or provision for payment of all of our debts and obligations and after liquidation payments to holders of outstanding shares of preferred stock, if any.

Anti-Takeover Effects of Delaware Law and Certain Provisions of our Certificate of Incorporation and Bylaws

We have elected to be governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally will have an anti-takeover effect for transactions not approved in advance by our Board of Directors, including discouraging attempts that might result in a premium over the market price for our common stock. In general,

Table of Contents

Section 203 prohibits a publicly-held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that the stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. A "business combination" includes, among other things, a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An "interested stockholder" is a person who, together with affiliates and associates, owns, or did own within three years prior to the determination of interested stockholder status, 15% or more of the corporation's voting stock. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, the board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances; or
- at or after the time the stockholder became interested, the business combination was approved by the board and authorized at a stockholder meeting by the affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

Our certificate of incorporation and bylaws provide for the Board to be divided into three classes of directors serving staggered, three-year terms. The classification of the Board has the effect of requiring at least two annual stockholder meetings, instead of one, to replace a majority of members of the Board. Subject to the rights of the holders of any outstanding series of preferred stock, our certificate of incorporation will authorize only the Board to fill vacancies, including newly created directorships. Accordingly, this provision could prevent a stockholder from obtaining majority representation on the Board by enlarging the Board of Directors and filling the new directorships with its own nominees. Our certificate of incorporation will also provide that directors may be removed by stockholders only for cause and only by the affirmative vote of holders of a majority of the outstanding shares of our voting stock.

Under our bylaws, any vacancy on our Board of Directors resulting from an enlargement of our Board or the death, resignation, retirement, disqualification or other cause (other than removal for cause), may only be filled by vote of a majority of our directors then in office, even if less than a quorum. The limitations on the removal of directors and filling of vacancies could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from attempting to acquire, control of us.

The affirmative vote of the holders of at least a majority of our voting stock is required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our certificate of incorporation or bylaws described in the prior two paragraphs.

Our certificate of incorporation provides that stockholders may not take any action by written consent in lieu of a meeting and our bylaws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting. In addition, our bylaws provide that only our Board of Directors or our chairman may call a special meeting of stockholders. Business transacted at any special meeting of stockholders must be limited to matters relating to the purpose stated in the notice of the special meeting.

To be "properly brought" before an annual meeting, the proposals or nominations must be:

- specified in the notice of meeting;
- brought before the meeting by or at the direction of our Board of Directors; or
- brought before the meeting by a stockholder entitled to vote at the meeting who has given to our corporate secretary the required advance written notice, in proper form, of the stockholder's intention to bring that proposal or nomination before the meeting and who was a stockholder of record on the date on which notice is given.

Table of Contents

In addition to other applicable requirements, for a stockholder proposal or nomination to be properly brought before an annual meeting by a stockholder, the stockholder generally must have given notice in proper written form to our corporate secretary not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year's annual meeting of stockholders. In the event that no annual meeting was held in the previous year or the annual meeting is called for a date that is not within 30 days from the anniversary date of the preceding year's annual meeting date, written notice by a stockholder in order to be timely must be received not later than the 10th day following the day on which the first public disclosure of the date of the annual meeting was made. Although our bylaws do not give our Board of Directors the power to approve or disapprove stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting, our bylaws may have the effect of precluding the consideration of some business at a meeting if the proper procedures are not followed or may discourage or defer a potential acquiror from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempting to obtain control of us.

Delaware law provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless the certificate of incorporation or bylaws require a greater percentage. Our bylaws may be amended or repealed by a majority vote of our Board of Directors, subject to any limitations set forth in the bylaws, and may also be amended or repealed by the stockholders by the affirmative vote of the holders of a majority of the votes that all the stockholders would be entitled to cast in any annual election of directors. The majority stockholder vote would be in addition to any separate class vote that might in the future be required pursuant to the terms of any series of preferred stock that might be outstanding at the time any of these amendments are submitted to stockholders.

Liability Limitations and Indemnification

Our bylaws provide that we must indemnify our directors and officers and that we must advance expenses, including attorneys' fees, to our directors and officers in connection with legal proceedings, subject to very limited exceptions. In addition, our certificate of incorporation provides that our directors will not be personally liable for monetary damages to us for breaches of their fiduciary duty as directors, except to the extent that the Delaware law statute prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

These provisions may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duties. These provisions may also have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. Furthermore, you may lose some or all of your investment in our common stock if we pay the costs of settlement or damage awards against our directors and officers under these provisions. We believe these provisions, the director and officer insurance we maintain, and the indemnification agreements we have entered into with our directors and officers are necessary to attract and retain talented and experienced directors and officers.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is EQ Shareowner Services.

Table of Contents

DESCRIPTION OF PREFERRED STOCK

This section summarizes the general terms and provisions of the preferred stock that we may offer using this prospectus. This section is only a summary and does not purport to be complete. You must look at our certificate of incorporation and the relevant certificate of designations for a full understanding of all the rights and preferences of any series of preferred stock. Our certificate of incorporation and the certificates of designations have been or will be filed or incorporated by reference as exhibits to the registration statement of which this prospectus is a part. See "Where You Can Find More Information" for information on how to obtain copies.

A prospectus supplement will describe the specific terms of any particular series of preferred stock offered under that prospectus supplement, including any of the terms in this section that will not apply to that series of preferred stock, and any special considerations, including tax considerations, applicable to investing in that series of preferred stock.

General

Pursuant to our certificate of incorporation, we currently have authorized 5,000,000 shares of preferred stock, $0.01 par value per share. As of May 11, 2018, we have the following shares of preferred stock outstanding:

- 4,735 shares of series B convertible preferred stock were outstanding, which shares are convertible into 6,313,318 shares of our common stock;
- 95,388 shares of series C convertible preferred stock were outstanding, which shares are convertible into 9,538,800 shares of our common stock; and
- 5,250 shares of our series D convertible preferred stock were outstanding, which shares are convertible into 6,999,983 shares of our common stock.

Prior to issuance of shares of each series of our undesignated preferred stock, our Board of Directors is required by the Delaware General Corporate Law and our certificate of incorporation to adopt resolutions and file a certificate of designations with the Secretary of State of the State of Delaware, fixing for each such series the designations, powers, preferences, rights, qualifications, limitations and restrictions of the shares of such series. Our Board of Directors could authorize the issuance of shares of preferred stock with terms and conditions which could have the effect of discouraging a takeover or other transaction which holders of some, or a majority, of such shares might believe to be in their best interests or in which holders of some, or a majority, of such shares might receive a premium for their shares over the then-market price of such shares.

Subject to limitations prescribed by the Delaware General Corporation Law, our certificate of incorporation and our bylaws, our Board of Directors is authorized to fix the number of shares constituting each series of preferred stock and the designations, powers, preferences, rights, qualifications, limitations and restrictions of the shares of such series, including such provisions as may be desired concerning voting, redemption, dividends, dissolution or the distribution of assets, conversion or exchange, and such other subjects or matters as may be fixed by resolution of the Board of Directors. Each series of

preferred stock that we offer under this prospectus will, when issued, be fully paid and nonassessable and will not have, or be subject to, any preemptive or similar rights.

The applicable prospectus supplement(s) will describe the following terms of the series of preferred stock in respect of which this prospectus is being delivered:

- the title and stated value of the preferred stock;
- the number of shares of the preferred stock offered, the liquidation preference per share and the purchase price of the preferred stock;
- the dividend rate(s), period(s) and/or payment date(s) or the method(s) of calculation for dividends;
- whether dividends shall be cumulative or non-cumulative and, if cumulative, the date from which dividends on the preferred stock shall accumulate;

Table of Contents

- the procedures for any auction and remarketing, if any, for the preferred stock;
- the provisions for a sinking fund, if any, for the preferred stock;
- the provisions for redemption, if applicable, of the preferred stock;
- any listing of the preferred stock on any securities exchange or market;
- the terms and conditions, if applicable, upon which the preferred stock will be convertible into common stock or another series of our preferred stock, including the conversion price (or its manner of calculation) and conversion period;
- voting rights, if any, of the preferred stock;
- a discussion of any material and/or special U.S. federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of our affairs;
- any limitations on issuance of any series of preferred stock ranking senior to or on a parity with the preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of our affairs; and
- any other specific terms, preferences, rights, limitations or restrictions on the preferred stock.

Unless otherwise specified in the prospectus supplement, with respect to dividend rights and rights upon our liquidation, dissolution or winding up, the preferred stock will rank:

- senior to all classes or series of our common stock, and to all equity securities issued by us the terms of which specifically provide that such equity securities rank junior to the preferred stock with respect to dividend rights or rights upon the liquidation, dissolution or winding up of us;
- on a parity with all equity securities issued by us that do not rank senior or junior to the preferred stock with respect to dividend rights or rights upon the liquidation, dissolution or winding up of us; and
- junior to all equity securities issued by us the terms of which do not specifically provide that such equity securities rank on a parity with or junior to the preferred stock with respect to dividend rights or rights upon the liquidation, dissolution or winding up of us (including any entity with which we may be merged or consolidated or to which all or substantially all of our assets may be transferred or which transfers all or substantially all of our assets).

We currently have outstanding the follows series of preferred stock:

Series B Convertible Preferred Stock

The material terms and provisions of the shares of series B convertible preferred stock (“Series B Preferred Stock”) are summarized below. This summary of some of the provisions of the Series B Preferred Stock is not complete. For the complete terms of the Series B Preferred Stock, you should refer to the Certificate of Designation (the “Series B Certificate of Designation”) filed as an exhibit to this prospectus and incorporated herein by reference.

Conversion; Anti-Dilution. Each share of Series B Preferred Stock is convertible at any time at the holder’s option into a number of shares of common stock equal to $1,000 divided by the conversion price of the Series B Preferred Stock, which currently is $0.75, and is subject to adjustment for stock splits, stock dividends, distributions, subdivisions and combinations. In addition, if at any time while the Series B Preferred Stock is outstanding we sell or grant any option to purchase or sell or grant any right to reprice, or otherwise dispose of or issue, any of our common stock or securities

Table of Contents

convertible into or exercisable for shares of our common stock at an effective price per share that is lower than the then conversion price of the Series B Preferred Stock, then the conversion price will be reduced to such lower price, subject to an exception for certain issuances to employees, officer or directors pursuant to a stock incentive plan, certain issuances upon the conversion of outstanding convertible securities and issuances for certain acquisitions. This anti-dilution provision was triggered by our registered offering in April 2018 of convertible preferred stock with a conversion price of $0.75 per share and warrants with an exercise price of $0.75, which caused shares of the Series B Preferred Stock convertible before the offering into 2,633,925 shares of common stock at a conversion price of $2.30 per share to become convertible after the offering into approximately 8.1 million shares of common stock at a conversion price of $0.75 per share.

Exercise Limitations. The Series B Certificate of Designation provides that we may not effect any conversion of Series B Preferred Stock, with certain exceptions, to the extent that, after giving effect to an attempted conversion, the holder of shares of Series B Preferred Stock (together with such holder's affiliates, and any persons acting as a group together with such holder or any of such holder's affiliates) would beneficially own a number of shares of common stock in excess of 4.99% (or, at the election of the holder, 9.99%) of the shares of our common stock then outstanding after giving effect to such exercise; provided, however, that upon notice to the company, the holder may increase or decrease such beneficial ownership limitation, provided that in no event will such beneficial ownership limitation exceed 9.99% and any increase in such beneficial ownership limitation will not be effective until 61 days following notice of such increase from the holder to us.

Dividends. The Series B Certificate of Designation provides that we will not pay any dividends on shares of common stock (other than dividends in the form of common stock) unless and until such time as we pay dividends on each share of Series B Preferred Stock on an as converted basis. Other than as set forth in the previous sentence, the Series B Certificate of Designation provides that no other dividends will be paid on the Series B Preferred Stock and that we will pay no dividends (other than dividends in the form of common stock) on shares of common stock unless we simultaneously comply with the previous sentence.

Liquidation. In the event of a liquidation, the holders of Series B Preferred Stock are entitled to participate on an as converted to common stock basis with holders of the common stock in any distribution of assets of the company to the holders of the common stock. In addition, in the event we consummate a merger or consolidation with or into another person or other reorganization event in which our shares of common stock are converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the shares of Series B Preferred Stock will be entitled to receive upon conversion of the Series B Preferred Stock the same kind and amount of securities, cash or property which the holders would have received had they converted the Series B Preferred immediately prior to such fundamental transaction. Any successor to us or surviving entity is required to assume the obligations under the Series B Preferred Stock.

Notwithstanding the foregoing, in the event we are not the surviving entity of a fundamental transaction or in the event of a reverse merger or similar transaction where we are the surviving entity, then, automatically and contemporaneous with the consummation of such transaction, the surviving entity (or our company in the event of a reverse merger or similar transaction) will purchase the then outstanding shares of Series B Preferred Stock by paying and issuing, in the event that such consideration given to the holders of our common stock is non cash consideration, as the case may be, to each holder an amount equal to the greater of (i) the cash consideration plus the non-cash consideration in the form issuable to the holders of our common stock (in the case of a reverse merger or similar transaction, shares of common stock issuable to the holders of the acquired company) per share of our common stock in the fundamental transaction multiplied by the number of shares of common stock underlying the shares of Series B Preferred Stock held by the holder on the date immediately prior to the consummation of the fundamental transaction or (ii) 130% of the conversion price of the Series B Preferred Stock then outstanding on the date of the consummation of the fundamental transaction. Such amount will be paid in the same form and mix (whether securities, cash or property, or any combination of the foregoing) as the consideration received by holders of our common stock in the fundamental transaction.

Voting Rights. With certain exceptions, as described in the Series B Certificate of Designation, the shares of Series B Preferred Stock have no voting rights. However, as long as any shares of Series B Preferred Stock remain outstanding, the Series B Certificate of Designation provides that we may not, without the affirmative vote of holders of a majority of the then outstanding shares of Series B Preferred Stock, (a) alter or change adversely the powers, preferences or rights given to the Series B Preferred Stock or alter or amend the Series B Certificate of Designation, (b) increase the number

Table of Contents

of authorized shares of Series B Preferred Stock, (c) amend our certificate of incorporation or other charter documents in any manner that adversely affects any rights of holders of shares of Series B Preferred Stock, or (d) enter into any agreement with respect to the foregoing.

Series C Convertible Preferred Stock

The material terms and provisions of the shares of series C convertible preferred stock ("Series C Preferred Stock") are summarized below. All of the outstanding shares of Series C Preferred Stock were issued to the former holders of ReShape Medical, Inc. securities in connection with our acquisition of ReShape Medical. This summary of some provisions of the Series C Preferred Stock is not complete. For the complete terms of the Series C Preferred Stock, you should refer to the Certificate of Designation (the "Series C Certificate of Designation") filed as an exhibit to this prospectus and incorporated herein by reference.

Conversion. Each outstanding share of Series C Preferred Stock is convertible, at the option of the holders, into 100 shares of common stock, subject to adjustment for stock splits, stock dividends, distributions, subdivisions and combinations. In addition, if the volume weighted average price of the common stock exceeds $5.00 per share for at least 20 trading days, then all outstanding shares of Series C Preferred Stock will automatically convert into shares of common stock.

Dividends. The Series C Preferred Stock is entitled to receive dividends (on an as-if-converted-to-common stock basis) actually paid on shares of common stock when, as and if such dividends are paid on shares of common stock. No other dividends will be paid on shares of Series C Preferred Stock.

Voting Rights. In general, the Series C Preferred Stock does not have voting rights. However, as long as any shares of Series C Preferred Stock remain outstanding, the Series C Certificate of Designation provides that we cannot, without the affirmative vote of holders of a majority of the then-outstanding shares of Series C Preferred Stock, (a) alter or change adversely the powers, preferences or rights given to the Series C Preferred Stock (including by the designation, authorization, or issuance of any shares of preferred stock that purports to have equal rights with, or be senior in rights or preferences to, the

Series C Preferred Stock), (b) alter or amend the Series C Certificate of Designation, (c) amend our certificate of incorporation or other charter documents in any manner that adversely affects any rights of the holders of Series C Preferred Stock, (d) increase the number of authorized shares of Series C Preferred Stock, (e) except for stock dividends or distributions for which adjustments are to be made pursuant to the Series C Certificate of Designation, pay dividends on any shares of capital stock of the company, or (f) enter into any agreement with respect to any of the foregoing.

As long the former holders of ReShape Medical, Inc. securities own at least 10% of our outstanding common stock (for this purpose treating as outstanding the shares of common stock issuable upon conversion of the Series C Preferred Stock issued to the former ReShape Medical holders), the committee representing the former ReShape Medical holders will have the right to designate for nomination two directors to our Board of Directors, and we will nominate and use commercially reasonable efforts to appoint each such person to our Board, although any nominees must be reasonably acceptable to our then current Board members. At the closing of our acquisition of ReShape Medical, Michael Y. Mashaal, M.D. was appointed to the Board as a designee of the former ReShape Medical holders and the committee has not yet designated its second director nominee.

Liquidation. In the event of a liquidation, the holders of shares of Series C Preferred Stock are entitled to be paid, after and subject to the payment in full of all amounts required to be distributed to the holders of any other shares of the company outstanding as of the date of our acquisition of ReShape Medical ranking on liquidation prior and in preference to the Series C Preferred Stock, but before any payments to be made to the holders of common stock or any other series of preferred stock, an amount per share equal to the greater of (i) $274.8774 ($2.748774 per share on an as-converted-to-common stock basis), plus any dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had all shares of Series C Preferred Stock been converted to common stock immediately prior to such liquidation. In addition, in the event we consummate a merger or consolidation with or into another person or other reorganization event in which our common shares are converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the Series C Preferred Stock will be entitled to receive upon conversion of the Series C Preferred Stock the same kind and amount of securities, cash or property which the holders would have received had they converted the

Table of Contents

Series C Preferred Stock immediately prior to such fundamental transaction. Any successor to us or surviving entity must assume the obligations under the Series C Certificate of Designation with respect to the Series C Preferred Stock.

Series D Convertible Preferred Stock

The material terms and provisions of the shares of series D convertible preferred stock ("Series D Preferred Stock") are summarized below. This summary of some of the provisions of the Series D Preferred Stock is not complete. For the complete terms of the Series D Preferred Stock, you should refer to the Certificate of Designation (the "Series D Certificate of Designation") filed as an exhibit to this prospectus and incorporated herein by reference.

Conversion; Anti-Dilution. Each share of Series D Preferred Stock is convertible at any time at the holder's option into a number of shares of common stock equal to $1,000 divided by the conversion price of the Series D Preferred Stock, which currently is $0.75, and is subject to adjustment for stock splits, stock dividends, distributions, subdivisions and combinations. In addition, if at any time while the Series D Preferred Stock is outstanding we sell or grant any option to purchase or sell or grant any right to reprice, or otherwise dispose of or issue, any of our common stock or securities convertible into or exercisable for shares of our common stock at an effective price per share that is lower than the then conversion price of the Series D Preferred Stock, then the conversion price will be reduced to equal such lower price, subject to an exception for certain issuances to employees, officer or directors pursuant to a stock incentive plan, certain issuances upon the conversion of outstanding convertible securities and issuances for certain acquisitions.

Exercise Limitations. The Series D Certificate of Designation provides that we may not effect any conversion of Series D Preferred Stock, with certain exceptions, to the extent that, after giving effect to an attempted conversion, the holder of shares of Series D Preferred Stock (together with such holder's affiliates, and any persons acting as a group together with such holder or any of such holder's affiliates) would beneficially own a number of shares of common stock in excess of 4.99% (or, at the election of the holder, 9.99%) of the shares of our common stock then outstanding after giving effect to such exercise; provided, however, that upon notice to the company, the holder may increase or decrease such beneficial ownership limitation, provided that in no event will such beneficial ownership limitation exceed 9.99% and any increase in such beneficial ownership limitation will not be effective until 61 days following notice of such increase from the holder to us.

Dividends. The Series D Certificate of Designation provides, among other things, that we will not pay any dividends on shares of common stock (other than dividends in the form of common stock) unless and until such time as we pay dividends on each share of Series D Preferred Stock on an as converted basis. Other than as set forth in the previous sentence, the Series D Certificate of Designation provides that no other dividends will be paid on the Series D Preferred Stock and that we will pay no dividends (other than dividends in the form of common stock) on shares of common stock unless we simultaneously comply with the previous sentence.

Liquidation. In the event of a liquidation, after any distribution or payment to the holders of our series C convertible preferred stock the holders of Series D Preferred Stock are entitled to participate on an as converted to common stock basis with holders of the common stock in any distribution of assets of the Company to the holders of the common stock. In addition, in the event we consummate a merger or consolidation with or into another person or other reorganization event in which our shares of common stock are converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the shares of Series D Preferred Stock will be entitled to receive upon conversion of the Series D Preferred Stock the same kind and amount of securities, cash or property which the holders would have received had they converted the Series D Preferred immediately prior to such fundamental transaction. Any successor to us or surviving entity is required to assume the obligations under the Series D Preferred Stock.

Notwithstanding the foregoing, in the event we are not the surviving entity of a fundamental transaction or in the event of a reverse merger or similar transaction where we are the surviving entity, then, automatically and contemporaneous with the consummation of such transaction, the surviving entity (or our company in the event of a reverse merger or similar transaction) will purchase the then outstanding shares of Series D Preferred Stock by paying and issuing, in the event that such consideration given to the holders of our common stock is non cash consideration, as the case may be, to each holder an amount equal to the greater of (i) the cash consideration plus the non-cash consideration in the form issuable to the holders of our common stock (in the case of a reverse merger or similar transaction, shares of common stock issuable to the holders of the acquired company) per share of our common stock in the fundamental transaction

Table of Contents

multiplied by the number of shares of common stock underlying the shares of Series D Preferred Stock held by the holder on the date immediately prior to the consummation of the fundamental transaction or (ii) 130% of the conversion price of the Series D Preferred Stock then outstanding on the date of the consummation of the fundamental transaction. Such amount will be paid in the same form and mix (whether securities, cash or property, or any combination of the foregoing) as the consideration received by holders of our common stock in the fundamental transaction.

Voting Rights. With certain exceptions, as described in the Series D Certificate of Designation, the shares of Series D Preferred Stock have no voting rights. However, as long as any shares of Series D Preferred Stock remain outstanding, the Series D Certificate of Designation provides that we may not, without the affirmative vote of holders of a majority of the then outstanding shares of Series D Preferred Stock, (a) alter or change adversely the powers, preferences or rights given to the Series D Preferred Stock or alter or amend the Series D Certificate of Designation, (b) increase the number of authorized shares of Series D Preferred Stock, (c) amend our certificate of incorporation or other charter documents in any manner that adversely affects any rights of holders of shares of Series D Preferred Stock, or (d) enter into any agreement with respect to the foregoing.

Optional Exchange. The securities purchase agreement pursuant to which the shares of Series D Preferred Stock were issued provides that as long as the holder continue to hold at least 20% of the initial number of shares of Series D Preferred Stock issued, if we issue any new securities in a subsequent financing the holder may exchange all of the shares of Series D Preferred Stock at their stated value for the securities issued in the subsequent financing on the same terms of such subsequent financing.

Outstanding Warrants

As of May 11, 2018, there were warrants outstanding to purchase a total of 49,303,715 shares of our common stock, which expire between November 18, 2018 and August 16, 2024. Each of these warrants entitles the holder to purchase one share of common stock at prices ranging from $0.75 to $4,095.00 per common share, with a weighted average exercise price of $1.44 per share. Certain of these warrants have a net exercise provision under which its holder may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares based on the fair market value of our common stock at the time of exercise of the warrant after deduction of the aggregate exercise price. Each of these warrants also contains provisions for the adjustment of the exercise price and the aggregate number of shares issuable upon the exercise of the warrant in the event of dividends, share splits, reorganizations and reclassifications and consolidations. Certain of these warrants contain a provision requiring a reduction to the exercise price in the event we issue common stock, or securities convertible into or exercisable for common stock, at a price per share lower than the warrant exercise price.

Transfer Agent and Registrar

The transfer agent and registrar for any series of preferred stock will be set forth in the applicable prospectus supplement.

Certain Provisions of Certificate of Incorporation and Bylaws

For a description of some additional provisions of our certificate of incorporation and bylaws, see “Description of Common Stock—Anti-Takeover Effects of Delaware Law and Certain Provisions of our Certificate of Incorporation and Bylaws.”

Table of Contents

DESCRIPTION OF SECURITIES WARRANTS

The following summary of the general terms and provisions of the securities warrants represented by warrant agreements and warrant certificates that we may offer using this prospectus is only a summary and does not purport to be complete. You must look at the applicable forms of warrant agreement and warrant certificate for a full understanding of the specific terms of any securities warrant. The forms of the warrant agreement and the warrant certificate will be filed or incorporated by reference as exhibits to the registration statement to which this prospectus is a part. See “Where You Can Find More Information” for information on how to obtain copies.

A prospectus supplement will describe the specific terms of the securities warrants offered under that prospectus supplement, including any of the terms in this section that will not apply to those securities warrants, and any special considerations, including tax considerations, applicable to investing in those securities warrants.

General

We may issue securities warrants alone or together with other securities offered by the applicable prospectus supplement. The securities warrants may be issued independently or together with any securities and may be attached to or separate from the securities. Each series of securities warrants will be issued under a separate warrant agreement between us and a bank or trust company, as warrant agent, as described in the applicable prospectus supplement. The warrant agent will act solely as our agent in connection with the securities warrants and will not act as an agent or trustee for any holders or beneficial owners of the securities warrants.

The prospectus supplement relating to any securities warrants we offer will describe the specific terms relating to the offering. These terms may include some or all of the following:

- the offering price;
- the currencies in which the securities warrants will be offered;

- the total number of shares that may be purchased if all of the holders exercise the securities warrants and, in the case of securities warrants for the purchase of shares of preferred stock, the designation, total number and terms of the series of preferred stock that can be purchased upon exercise of the securities warrants;
- the number of shares of preferred stock or common stock that may be purchased if a holder exercises any one securities warrant and the price at which and currencies in which the shares of preferred stock or common stock may be purchased upon exercise;
- the designation and terms of any series of securities with which the securities warrants are being offered, and the number of securities warrants offered with each security;
- the date on and after which the holder of the securities warrants can transfer them separately from the related series of securities;
- the date on which the right to exercise the securities warrants begins and expires;
- the triggering event and the terms upon which the exercise price and the number of underlying securities that the securities warrants are exercisable into may be adjusted;
- whether the securities warrants will be issued in registered or bearer form;
- the identity of any warrant agent with respect to the securities warrants and the terms of the warrant agency agreement with that warrant agent;
- a discussion of material U.S. federal income tax consequences; and
- any other terms of the securities warrants.

Table of Contents

A holder of securities warrants may:

- exchange them for new securities warrants of different denominations;
- present them for registration of transfer, if they are in registered form; and
- exercise them at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement.

Until the securities warrants are exercised, holders of the warrants will not have any of the rights of holders of the underlying securities.

Exercise of Securities Warrants

Each holder of a securities warrant is entitled to purchase the number of shares of common stock or preferred stock, as the case may be, at the exercise price described in the applicable prospectus supplement. After the close of business on the day when the right to exercise terminates (or a later date if we extend the time for exercise), unexercised securities warrants will become void.

Holders of securities warrants may exercise them by

- delivering to the warrant agent the payment required to purchase the underlying securities, as stated in the applicable prospectus supplement;
- properly completing and signing the reverse side of their warrant certificate(s), if any, or other exercise documentation; and
- delivering their warrant certificate(s), if any, or other exercise documentation to the warrant agent within the time specified by the applicable prospectus supplement.

If you comply with the procedures described above, your securities warrants will be considered to have been exercised when warrant agent receives payment of the exercise price. As soon as practicable after you have completed these procedures, we will issue and deliver to you the shares of common stock or preferred stock, as the case may be, that you purchased upon exercise. If you exercise fewer than all of the securities warrants represented by a warrant certificate, we will issue to you a new warrant certificate for the unexercised amount of securities warrants.

Amendments and Supplements to Warrant Agreements

We may amend or supplement a warrant agreement or warrant certificates without the consent of the holders of the securities warrants if the changes are not inconsistent with the provisions of the securities warrants and do not adversely affect the interests of the holders.

Table of Contents

DESCRIPTION OF UNITS

We may, from time to time, issue units comprised of one or more of the other securities described in this prospectus in any combination. A prospectus supplement will describe the specific terms of the units offered under that prospectus supplement, and any special considerations, including tax considerations, applicable to investing in those units. You must look at the applicable prospectus supplement and any applicable unit agreement for a full

understanding of the specific terms of any units. The form of unit agreement will be filed or incorporated by reference as an exhibit to the registration statement to which this prospectus is a part. See "Where You Can Find More Information" for information on how to obtain copies.

Table of Contents

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities separately or together:

- through one or more underwriters or dealers in a public offering and sale by them;
- through agents; and/or
- directly to one or more purchasers.

We may distribute the securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may solicit directly offers to purchase the respective securities being offered by this prospectus. We may also designate agents to solicit offers to purchase the respective securities from time to time. We will name in a prospectus supplement any agent involved in the offer or sale of our securities.

If we utilize a dealer in the sale of the respective securities being offered by this prospectus, we will sell the respective securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

If we utilize an underwriter in the sale of the respective securities being offered by this prospectus, we will execute an underwriting agreement with the underwriter at the time of sale and we will provide the name of any underwriter in the prospectus supplement that the underwriter will use to make resales of the securities to the public. In connection with the sale of the securities, we or the purchasers of securities for whom the underwriter may act as agent may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell the securities to or through dealers, and the underwriter may compensate those dealers in the form of discounts, concessions or commissions.

We will provide in the applicable prospectus supplement any compensation we will pay to underwriters, dealers or agents in connection with the offering of the respective securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act, and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof.

The securities may or may not be listed on a national securities exchange. To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involve the sale by persons participating in the offering of more securities than we sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if securities sold by them is repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. The transactions may be discontinued at any time.

Table of Contents

We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the respective securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the parties may sell securities covered by this prospectus and the applicable prospectus supplement, including short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be identified in the applicable prospectus supplement or a post-effective amendment to this registration statement. In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business.

LEGAL MATTERS

Fox Rothschild LLP, Minneapolis, Minnesota, will issue a legal opinion as to the validity of the securities offered by this prospectus.

EXPERTS

The consolidated financial statements incorporated in this prospectus by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2017 have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report which is incorporated herein by reference (which report expresses an unqualified opinion on the consolidated financial statements and includes an explanatory paragraph referring to going concern). Such consolidated financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public through the Internet at the SEC's web site at *www.sec.gov*. You may also read and copy any document we file with the SEC at the SEC's public reference room at 100 F Street N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information about its public reference facilities and their copy charges.

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities offered by this prospectus. When used in this prospectus, the term "registration statement" includes amendments to the registration statement as well as the exhibits, schedules, financial statements and notes filed as part of the registration statement. This prospectus, which constitutes a part of the registration statement, does not contain all of the information in the registration statement. This prospectus omits information contained in the registration statement as permitted by the rules and regulations of the SEC. For further information with respect to us and the common stock offered by this prospectus, reference is made to the registration statement. Statements herein concerning the contents of any contract or other document are not necessarily complete and in each instance reference is made to the copy of such contract or other document filed with the SEC as an exhibit to the registration statement, each such statement being qualified by and subject to such reference in all respects.

Table of Contents

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information we file with them. This allows us to disclose important information to you by referencing those filed documents. We have previously filed the following documents with the SEC and are incorporating them by reference into this prospectus:

- Annual Report on Form 10-K for the year ended December 31, 2017;
- Quarterly Report on Form 10-Q for the quarter ended March 31, 2018;
- Current Reports on Form 8-K (only to the extent information is "filed" and not "furnished") filed with the SEC on January 31, 2018, March 21, 2018, April 3, 2018, April 14, 2018 and April 24, 2018;
- the information set forth in Item 9.01 of our Current Report on Form 8-K filed with the SEC on May 23, 2017 as amended by our Form 8-K/A filed with the SEC on July 10, 2017 and the information set forth in Item 9.01 of our Current Report on Form 8-K filed with the SEC on October 3, 2017 as amended by our Form 8-K/A filed with the SEC on December 15, 2017; and
- the description of our common stock contained in any registration statement on Form 8-A that we have filed, and any amendment or report filed for the purpose of updating this description.

We also are incorporating by reference any future information filed (rather than furnished) by us with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, after the date of the initial filing of the registration statement of which this prospectus is a part and before the effective date of the registration statement and after the date of this prospectus until the termination of the offering. The most recent information that we file with the SEC automatically updates and supersedes more dated information.

You can obtain a copy of any documents which are incorporated by reference in this prospectus or prospectus supplement, except for exhibits which are specifically incorporated by reference into those documents, at no cost, by writing or telephoning us at:

ReShape Lifesciences Inc.
1001 Calle Amanecer
San Clemente, California 92673
Attention: Secretary
(949) 429-6680

374,572 Shares of Common Stock

PROSPECTUS SUPPLEMENT

H.C. Wainwright & Co.

June 6, 2018