

SUBJECT TO COMPLETION, DATED JUNE 6, 2025

PRELIMINARY PROSPECTUS SUPPLEMENT
(To prospectus dated May 14, 2025)**Shares of Common Stock**

We are offering shares of our common stock, par value \$0.001 per share, pursuant to this prospectus supplement and the accompanying base prospectus in a registered public offering. The purchase price for each share of common stock is \$

Our common stock is traded on The Nasdaq Capital Market under the symbol "RSL.S." On June 5, 2025, the closing price of our common stock as reported on The Nasdaq Capital Market was \$4.25 per share.

We have retained Maxim Group LLC ("Maxim" or the "placement agent") to act as our exclusive placement agent in connection with the securities offered by this prospectus supplement and the accompanying prospectus. The placement agent has agreed to use its reasonable best efforts to solicit offers to purchase the securities offered by this prospectus. The placement agent is not purchasing or selling any of the securities we are offering, and the placement agent is not required to arrange the purchase or sale of any specific number or dollar amount of securities. Because there is no minimum offering amount required as a condition to closing in this offering, the actual offering amount, placement agent's fee and proceeds to us, if any, are not presently determinable and may be substantially less than the total maximum offering amounts described throughout this prospectus. We have agreed to pay the placement agent, the placement agent fees set forth in the table below and to provide certain other compensation to the placement agent. See "Plan of Distribution" for more information regarding these arrangements.

As of the date of this prospectus supplement, the aggregate market value of our outstanding common stock held by non-affiliates, computed by reference to the price at which our common stock was last sold on the Nasdaq Capital Market on April 10, 2025, which was \$14.17 per share, was \$18,843,875, based on 1,331,356 shares of our outstanding common stock as of as of June 6, 2025, of which 1,329,843 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 one-third of our public float in any 12-month period so long as our public float remains below \$75 million. During the 12 calendar months prior to and including the date of this prospectus supplement (excluding this offering), we have sold \$3,642,564 of securities pursuant to General Instruction I.B.6 of Form S-3.

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 S-7 of this prospectus supplement.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS SUPPLEMENT IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	Per Share	Total
Offering price		
Placement agent fees ⁽¹⁾		
Proceeds to us, before expenses ⁽²⁾		

- (1) We have agreed to pay the placement agent a cash fee of 7.0% of the gross proceeds raised in this offering.
- (2) We have also agreed to reimburse the placement agent for certain of its accountable expenses relating to the offering, including, but not limited to, the placement agent's legal fees and all travel and reasonable out of pocket expenses incurred in this offering. Additionally, we have agreed to issue to the placement agent, or its designees, warrants to purchase common stock equal to 5.0% of the shares issued in this offering. See "Plan of Distribution" for additional information about our compensation arrangements with the placement agent.

We expect that delivery of the shares of common stock being offered pursuant to this prospectus supplement and the accompanying base prospectus will be made on or about , 2025, subject to satisfaction of customary closing conditions.

Maxim Group LLC

The date of this prospectus supplement is June , 2025.

The information in this prospectus is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities, nor are they soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus form part of a registration statement on Form S-3 (the “Registration Statement”) that we filed with the Securities and Exchange Commission (“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-18 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 May 9, 2025, we amended our certificate of incorporation to effect a 1-for-25 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 the context otherwise requires, the terms “we,” “us,” “our,” “ReShape Lifesciences,” “ReShape,” and “the Company” refer to ReShape Lifesciences Inc., a Delaware corporation, and our subsidiaries.

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

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 securities. You should carefully read the entire prospectus supplement, including “Risk Factors” beginning on page S-5 and the financial statements and related notes and other documents incorporated by reference into this prospectus supplement, before making an investment decision.

Our Company

ReShape Lifesciences Inc. is a premier physician-led weight-loss solutions company, offering an integrated portfolio of proven products and services that manage and treat obesity and metabolic disease throughout the care continuum.

Our current portfolio includes the U.S. Food and Drug Administration approved and reimbursed Lap-Band® and the recently approved Lap-Band® 2.0 FLEX systems, which provide minimally invasive, long-term treatment of obesity and is a safer surgical alternative to more invasive and extreme surgical stapling procedures such as the gastric bypass or sleeve gastrectomy.

On July 8, 2024, we entered into an Agreement and Plan of Merger (the “Merger Agreement”) with Vyome Therapeutics, Inc. (“Vyome”), and Raider Lifesciences Inc., a Delaware corporation, and a direct, wholly owned subsidiary of the Company (“Merger Sub”). Pursuant to the Merger Agreement, and subject to the satisfaction or waiver of the conditions specified therein, including The Nasdaq Stock Market’s (“Nasdaq”) approval of a new listing application for the combined company, Merger Sub shall be merged with and into Vyome, with Vyome surviving as a subsidiary of the Company (the “Merger”). The combined company intends to change its name to Vyome Holdings, Inc. and will focus on Vyome’s business of advancing the development of its immuno-inflammatory assets and on identifying additional opportunities between the world-class Indian innovation corridor and the U.S. market. A description of Vyome’s business, including risks related to Vyome, is set forth under the heading “Vyome Information” in our Registration Statement on [Form S-4 \(Registration No. 333-282459\)](#), which was declared effective on May 14, 2025. Vyome’s audited financial statements for the year ended December 31, 2024 and unaudited financial statements for the quarter ended March 31, 2025, along with Management’s Discussion and Analysis of Financial Condition and Results of Operations of Vyome for both periods are incorporated by reference into this prospectus supplement.

Simultaneously with the execution of the Merger Agreement, we entered into an Asset Purchase Agreement, which was amended on April 25, 2025 (the “Asset Purchase Agreement”), with Ninjour Health International Limited, a company incorporated under the laws of the United Kingdom, which is an affiliate of Biorad Medisys Pvt. Ltd. (together, “Biorad”). Pursuant to the Asset Purchase Agreement, and subject to the satisfaction or waiver of the conditions specified therein, we will sell substantially all of our assets (excluding cash) to Biorad, and Biorad will assume substantially all of our liabilities, for a purchase price of \$2.25 million in cash, subject to adjustment based on our actual accounts receivable and accounts payable at the closing compared to such amounts as of March 31, 2024 (the “Asset Sale”). Biorad is party to a previously disclosed exclusive license agreement, dated September 19, 2023, with us for the Company’s Obalon® Gastric Balloon System.

Recent Developments

Between June 3, 2025 and June 6, 2025, we sold 593,000 shares of our common stock for gross proceeds of \$3,642,564 pursuant to an equity distribution agreement with Maxim in an “at-the-market” offering.

On May 28, 2025, we received a written notice from the Listing Qualifications Department of Nasdaq notifying us that Nasdaq has determined to delist our securities from Nasdaq. On November 25, 2024, Nasdaq notified us that the Company did not comply with the minimum \$2,500,000 stockholders’ equity requirement for continued listing set forth in Nasdaq Listing Rule 5550(b). However, Nasdaq granted our request for an extension until May 27, 2025 to comply with this requirement. Nasdaq has determined that the

Company did not meet the terms of the extension. We have appealed Nasdaq's decision to a hearings panel pursuant to the procedures set forth in the Nasdaq rules, which will stay the suspension of our securities pending the hearing panel's decision. We can provide no assurance that, following the hearing, the hearings panel will grant our request for continued listing or that we can maintain compliance with the other Nasdaq Listing Rules.

On May 9, 2025, at the commencement of trading, we effected a 1-for-25 reverse stock split. Accordingly, all share and per share data in this prospectus supplement gives effect to the reverse stock split. No fractional shares were issued in connection with the reverse stock split.

Summary of Risk Factors

The following is a summary of the principal risks and uncertainties that are incorporated by reference into this prospectus supplement that could materially adversely affect our business, results of operations, financial condition, cash flows, prospects and/or the price of our outstanding securities and make an investment in our securities speculative or risky. You should read this summary together with the more detailed description of the risk factors incorporated by reference herein and the risks of Vyome set forth under the heading "Vyome Information" in our Registration Statement on [Form S-4 \(Registration No. 333-282459\)](#) before making an investment in our securities.

Risks Relating to Ownership of our Common Stock

- We have received a delisting determination which we have appealed, but there is no assurance that we will be able to comply with the continued listing requirements of Nasdaq and maintain our listing on Nasdaq, whether due to our current deficiencies, future deficiencies or as a result of a public interest concern.
- The trading price of our common stock has been volatile and is likely to be volatile in the future.
- Sales of a substantial number of shares of our common stock in the public market by existing stockholders, or the perception that they may occur, could cause our stock price to decline.
- We have a significant number of outstanding warrants, 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.

Risks Related to our Business and Industry

- If we are unable to either substantially improve our operating results or obtain additional financing, we may be unable to continue as a going concern.
- We have recently undertaken a cost reduction plan and reorganization, and may do so again in the future. The assumptions underlying these activities may prove to be inaccurate, or we may fail to achieve the expected benefits therefrom.
- We may be unable to attract and retain management and other personnel we need to succeed.
- We cannot assure you that we will ever generate substantial revenue or be profitable.
- Previously, we recorded a non-cash indefinite-lived intangible and definite-lived assets impairment loss, which significantly impacted our results of operations, and we may be exposed to additional impairment losses that could be material.

Risks Related to the Pending Merger

- Fluctuations in the market price of our common stock will affect the value of the consideration to be paid in the Merger.
- The exchange ratio in the Merger Agreement is subject to adjustment based on our net cash as of a determination date prior to completion of the Merger, which could dilute further the ownership of either the ReShape or Vyome stockholders in the combined company following the Merger (the "Combined Company").

- The ownership percentages of the ReShape and Vyome stockholders, respectively, that will result from the exchange ratio in the Merger Agreement are calculated prior to the completion of a concurrent financing, which could dilute further the ownership of the ReShape stockholders in the Combined Company.
- The Merger may not be consummated unless important conditions are satisfied or waived and there can be no assurance that the Merger will be consummated.
- Although an application has been filed to list the ReShape shares issuable in the Merger on The Nasdaq Capital Market, there can be no assurance that the common stock will be so listed or, if listed, that the Combined Company will be able to comply with the continued listing standards.

Risks Related to the Business of the Combined Company After the Merger

- Combining the two companies may be more difficult, costly or time consuming than expected, and the Combined Company may not realize all of the anticipated benefits of the Merger.
- ReShape and Vyome will incur substantial direct and indirect costs as a result of the Merger and the Combined Company will incur substantial direct and indirect costs following the Merger.
- Both ReShape and Vyome have operated with a loss and negative cash flows for the entirety of their existence and it is expected the Combined Company will have to raise significant capital in the future that could be dilutive to stockholders of the Combined Company.
- If the perceived benefits of the Merger do not meet the expectations of investors or securities analysts, the market price of ReShape's securities or, following the Merger, Vyome Holdings, Inc. securities, may decline.

Risks Related to our Asset Sale

- While the ReShape Asset Sale is pending, it creates unknown impacts on ReShape's future which could materially and adversely affect its business, financial condition and results of operations.
- The failure to consummate the ReShape Asset Sale may materially and adversely affect ReShape's business, financial condition and results of operations.
- The Merger may be consummated despite the ReShape Asset Sale not closing under certain circumstances.
- The completion of the Asset Sale is contingent upon completion of the Merger.

Risks Associated with Development and Commercialization of ReShape's Lap-Band System, Lap-Band 2.0 System, Obalon Balloon System, and the DBSN Device

- Our efforts to increase revenue from our Lap-Band System, Lap-Band 2.0 System, Obalon Balloon System, and commercialize our DBSN device and expanded line of bariatric surgical accessories, including ReShape Calibration Tubes, may not succeed or may encounter delays which could significantly harm our ability to generate revenue.
- We may not be able to obtain required regulatory approvals for our DBSN device in a cost-effective manner or at all, which could adversely affect our business and operating results.
- We depend on clinical investigators and clinical sites to enroll patients in our clinical trials, and on other third parties to manage the trials and to perform related data collection and analysis, and, as a result, we may face costs and delays that are outside of our control.

Risks Related to our Intellectual Property

- If we are unable to obtain or maintain intellectual property rights relating to our technology and neuroblocking therapy, the commercial value of our technology and any future products will be adversely affected and our competitive position will be harmed.
- We may lose important patents or patent rights if we do not timely pay required patent fees or annuities.

- Many of our competitors have significant resources and incentives to apply for and obtain intellectual property rights that could limit or prevent our ability to commercialize our current or future products in the United States or abroad.

Risks Related to Vyome

- Vyome has a limited operating history and has not taken a product through to commercialization.
- Vyome has incurred losses since inception, and Vyome expects to incur significant losses for the foreseeable future and may not be able to achieve or sustain profitability in the future. Vyome has not generated any revenue from its assets and may never generate revenue or become profitable.
- Vyome's recurring losses from operations and financial condition could raise substantial doubt about its ability to continue as a going concern.
- Vyome's ability to use net operating losses carryforwards may be limited.
- Adverse developments affecting the financial services industry could adversely affect Vyome's current and projected business operations and Vyome's financial condition and results of operations.

Our Corporate Information

We were incorporated under the laws of Delaware on January 2, 2008. On June 15, 2021, we completed a merger with Obalon Therapeutics, Inc. ("Obalon"). Pursuant to the merger agreement, a wholly owned subsidiary of Obalon merged with and into ReShape, with ReShape surviving the merger as a wholly owned subsidiary of Obalon. As a result of the merger, Obalon, the parent company, was renamed "ReShape Lifesciences Inc." and ReShape was renamed ReShape Weightloss Inc. ReShape Lifesciences shares of common stock trade on The Nasdaq Capital Market under the symbol RSLI.

Our principal executive offices are located at 18 Technology Drive, Suite 110, Irvine, California 92618, 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 and should not be considered a part of this prospectus.

	The Offering
Issuer	ReShape Lifesciences Inc.
Common Stock Offered by Us	shares of our common stock
Price per share	\$ per share of common stock
Common Stock Outstanding Before this Offering	1,331,356 shares
Common Stock to be Outstanding After this Offering	shares
Best Efforts Offering	We have retained Maxim Group LLC to act as our exclusive placement agent to use its reasonable best efforts to solicit offers to purchase the securities offered by this prospectus. The placement agent is not required to buy or sell any specific number of the securities offered hereby. See “Plan of Distribution” beginning on page S-13.
Use of Proceeds	We intend to use the net proceeds of this offering for working capital and general corporate purposes, including expenses related to our previously announced proposed Merger with Vyome and sale of substantially all of our assets to Biorad. See “Use of Proceeds” on page S-10 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 “RSLIS”.
Risk Factors	See “Risk Factors” beginning on page S-5 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 in our common stock.
The above is based on 1,331,356 shares outstanding as of June 6, 2025 and excludes: • 3,261 shares of our common stock issuable upon the exercise of warrants outstanding as of June 6, 2025, with exercise prices ranging from \$333.50 to \$435,000; • 5 shares of common stock issuable upon the exercise of options outstanding as of June 6, 2025, with exercise prices ranging from \$85,550 to \$19,009,500 and having a weighted average exercise price of \$815,857 per share; • 1 share of common stock underlying restricted stock units unvested as of June 6, 2025; • 21,766 shares of our common stock reserved for future issuance under our 2022 Equity Incentive Plan as of June 6, 2025; and • 10 shares of our common stock issuable upon the conversion of 95,388 shares of series C convertible preferred stock outstanding as of June 6, 2025.	

RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully read and consider the risks described below related to this offering, as well as the risk factors that are incorporated by reference herein and the risks of Vyome set forth under the heading “Vyome Information” in our Registration Statement on [Form S-4 \(Registration No. 333-282459\)](#) along with 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

As an investor, you may lose all of your investment.

Investing in our securities involves a high degree of risk. As an investor, you may never recoup all, or even part, of your investment and you may never realize any return on your investment. You must be prepared to lose all of your investment.

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.

This is a best efforts offering, and no minimum number or dollar amount of securities is required to be sold, and we may not raise the amount of capital we believe is required for our business plans.

The placement agent has agreed to use its reasonable best efforts to solicit offers to purchase the securities in this offering. The placement agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. There is no required minimum number of securities that must be sold as a condition to completion of this offering. Because there is no minimum offering amount required as a condition to the closing of this offering, the actual offering amount, placement agent fees and proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth in this prospectus. We may sell fewer than all of the securities offered hereby, which may significantly reduce the amount of proceeds received by us, and investors in this offering will not receive a refund in the event that we do not sell an amount of securities sufficient to fund research and development of our lead product candidates, including clinical trial activities. Thus, we may not raise the amount of capital we believe is required for our operations in the short-term and may need to raise additional funds, which may not be available or available on terms acceptable to us.

The offering price will be set by our board of directors and does not necessarily indicate the actual or market value of our common stock.

Our board of directors will approve the offering price and other terms of this offering after considering, among other things: the number of shares authorized in our charter; the current market price of our common stock; trading prices of our common stock over time; the volatility of our common stock; our current financial condition and the prospects for our future cash flows; the availability of and likely cost of capital of other potential sources of capital; the characteristics of interested investors and market and economic conditions at the time of the offering. The offering price is not intended to bear any relationship to the

book value of our assets or our past operations, cash flows, losses, financial condition, net worth, or any other established criteria used to value securities. The offering price may not be indicative of the fair value of the common stock.

This offering may cause the trading price of our shares of common stock to decrease.

The price per share, together with the number of shares of common stock that we propose to issue and ultimately will issue if this offering is completed, may result in an immediate decrease in the market price of our shares. This decrease may continue after the completion of this offering.

Resales of our shares of common stock in the public market by our stockholders as a result of this offering may cause the market price of our shares of common stock to fall.

Sales of substantial amounts of our shares of common stock in the public market, or the perception that such sales might occur, could adversely affect the market price of our shares of common stock. The issuance of new shares of common stock could result in resales of our shares of common stock by our current shareholders concerned about the potential ownership dilution of their holdings. Furthermore, in the future, we may issue additional shares of common stock or other equity or debt securities exercisable or convertible into shares of common stock. Any such issuance could result in substantial dilution to our existing shareholders and could cause our stock price to decline.

Purchasers who purchase our securities in this offering pursuant to a securities purchase agreement may have rights not available to purchasers that purchase without the benefit of a securities purchase agreement.

In addition to rights and remedies available to all purchasers in this offering under federal securities and state law, the purchasers that enter into a securities purchase agreement will also be able to bring claims of breach of contract against us. The ability to pursue a claim for breach of contract provides those investors with the means to enforce the covenants uniquely available to them under the securities purchase agreement including, but not limited to (i) timely delivery of securities, (ii) agreement to not issue any shares or securities convertible into shares for a period of days from closing of the offering, subject to certain exceptions and (iii) indemnification for breach of contract.

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 expected to be substantially higher than the net tangible book value per share of our outstanding common stock. After giving effect to the sale of shares of common stock in the aggregate amount of \$_____ at a public offering price of \$_____ per share, and after deducting placement agent fees and commissions payable by us, you will experience immediate dilution of \$_____ per share. Because the sales of the shares offered hereby will be made directly into the market, the prices at which we sell these shares will vary and these variations may be significant. Purchasers of the shares we sell, as well as our existing stockholders, will experience significant dilution if we sell shares at prices significantly below the price at which they invested. See “Dilution” on page S-12 of this prospectus supplement for a more detailed discussion of the dilution you will incur if you purchase shares in this offering.

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

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

We received a written notice from Nasdaq that it has determined to delist our common stock from the Nasdaq Stock Market.

On May 28, 2025, we received a written notice from the Listing Qualifications Department of Nasdaq notifying us that they have determined to delist our securities from Nasdaq based on our continued non-compliance with Nasdaq Listing Rule 5550(b)(1), which requires companies listed on the Nasdaq Capital Market to maintain a minimum of \$2.5 million in stockholders' equity for continued listing. As of March 31, 2025, our stockholders' equity was \$1.2 million.

We have appealed Nasdaq's decision to a hearings panel pursuant to the procedures set forth in the Nasdaq rules, which will stay the suspension of our securities pending the hearing panel's decision. We can provide no assurance that, following the hearing, the hearings panel will grant our request for continued listing or that we can maintain compliance with the other Nasdaq Listing Rules.

If we are delisted from Nasdaq, our common stock may be eligible for trading on an over-the-counter market. If we are not able to obtain a listing on another stock exchange or quotation service for our common stock, it may be extremely difficult or impossible for stockholders to sell their shares of common stock. Moreover, if we are delisted from Nasdaq, but obtain a substitute listing for our common stock, it will likely be on a market with less liquidity, and therefore experience potentially more price volatility than experienced on Nasdaq. Stockholders may not be able to sell their shares of common stock on any such substitute market in the quantities, at the times, or at the prices that could potentially be available on a more liquid trading market. As a result of these factors, if our common stock is delisted from Nasdaq, the price of our common stock is likely to decline. A delisting of our common stock from Nasdaq could also adversely affect our ability to obtain financing for our operations and/or result in a loss of confidence by investors or employees. Furthermore, approval for listing on the Nasdaq Capital Market of shares of our common stock issuable to stockholders of Vyome in connection with our Merger with Vyome is a condition to the Merger. If our common stock is delisted, we may be unable to complete the Merger.

The trading price of our common stock has been volatile and is likely to be volatile in the future.

The trading price of our common stock has been highly volatile. The market price for our common stock will be affected by a number of factors, including:

- the denial or delay of regulatory clearances or approvals of our product or receipt of regulatory approval of competing products;
- our ability to accomplish clinical, regulatory and other product development milestones and to do so in accordance with the timing estimates we have publicly announced;
- changes in policies affecting third-party coverage and reimbursement in the United States and other countries;
- changes in government regulations and standards affecting the medical device industry and our product;
- ability of our products to achieve market success;
- the performance of third-party contract manufacturers and component suppliers;
- our ability to develop sales and marketing capabilities;
- actual or anticipated variations in our results of operations or those of our competitors;
- announcements of new products, technological innovations or product advancements by us or our competitors;
- developments with respect to patents and other intellectual property rights;
- sales of common stock or other securities by us or our stockholders in the future;
- additions or departures of key scientific or management personnel;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;

- the trading volume of our common stock;
- changes in earnings estimates or recommendations by securities analysts, failure to obtain or maintain analyst coverage of our common stock or our failure to achieve analyst earnings estimates;
- public statements by analysts or clinicians regarding their perceptions of our clinical results or the effectiveness of our products;
- decreases in market valuations of medical device companies;
- our pending Merger and Asset Sale; and
- general market conditions and other factors unrelated to our operating performance or the operating performance of our competitors.

The stock prices of many companies in the medical device industry have experienced wide fluctuations that have often been unrelated to the operating performance of these companies. Following periods of volatility in the market price of a company's securities, securities class action litigation often has been initiated against a company. If class action litigation is initiated against us, we may incur substantial costs and our management's attention may be diverted from our operations, which could significantly harm our business.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

Certain statements contained in this prospectus supplement, or filings with the SEC and our public releases, that are not purely historical are forward-looking statements within the meaning of applicable securities laws. Our forward-looking statements include, but are not limited to, statements regarding our “expectations,” “hopes,” “beliefs,” “intentions” or “strategies” regarding the future. In addition, any statements that refer to projections, forecasts, or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “possible,” “potential,” “predict,” “project,” “should” and “would,” as well as similar expressions, may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward looking. Such statements include, but are not limited to, statements contained in this prospectus supplement relating to the best efforts offering, its potential impacts and the use of proceeds therefrom. Forward-looking statements are based on our current expectations and assumptions regarding our business, 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. Our actual results may differ materially from those contemplated by the forward-looking statements. They are neither statements of historical fact nor guarantees of assurance of future performance. We caution you therefore against relying on any of these forward-looking statements. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, without limitation, our ability to raise capital to fund continuing operations; our ability to protect our intellectual property rights; the impact of any infringement actions or other litigation brought against us; competition from other providers and products; our ability to develop and commercialize products and services; changes in government regulation; our ability to complete capital raising transactions; and other factors (including the risks contained in the section of this prospectus supplement entitled “Risk Factors”) relating to our industry, our operations and results of operations. Actual results may differ significantly from those anticipated, believed, estimated, expected, intended or planned.

Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We cannot guarantee future results, levels of activity, performance or achievements. Except as required by applicable law, including the securities laws of the United States, we do not intend to update any of the forward-looking statements to conform these statements to actual results.

This prospectus supplement may contain assumptions, expectations, projections, intentions and beliefs about future events. These statements are intended as forward-looking statements. We may also from time to time make forward-looking statements in other documents and reports that are filed with or submitted to the SEC, in other information sent to our security holders, and in other written materials. We also caution that assumptions, expectations, projections, intentions and beliefs about future events may and often do vary from actual results and the differences can be material.

USE OF PROCEEDS

We estimate the net proceeds from this offering will be approximately \$, based on the offering price of \$ per share, after deducting placement agent fees and commissions payable by us. However, this is a best efforts offering, with no minimum number of securities or amount of proceeds as a condition to closing, and we may not sell all or any of these securities offered pursuant to this prospectus; as a result, we may receive significantly less in net proceeds.

We intend to use the net proceeds of this offering for working capital and general corporate purposes, including expenses related to our previously announced proposed Merger with Vyome and sale of substantially all of our assets to Biorad.

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.

CAPITALIZATION

The following table sets forth our cash and capitalization as of March 31, 2025:

- on an actual basis;
- on a proforma basis, after giving effect to the sale of 593,000 shares of our common stock for gross proceeds of \$3,642,564 pursuant to an equity distribution agreement with Maxim in an “at-the-market” offering; and
- on an adjusted basis, after giving effect to the sale of the shares in this offering at a public offering price of \$ per share, after placement agent fees and commissions and estimated offering expenses.

The information in this table is illustrative only, and our capitalization following the closing of the offering will be adjusted based upon the actual public offering price and other terms of this offering determined at pricing.

(in thousands, except share and per share values)	As of March 31, 2025		
	Unaudited, Actual	Proforma Adjustment	Unaudited, As Adjusted
Cash and cash equivalents	\$ 2,515	3,643	\$
Stockholders' equity:			
Preferred stock, 10,000,000 shares authorized:			
Series C convertible preferred stock, \$0.001 par value; 95,388 shares issued and outstanding at March 31, 2025	\$ —		\$
Common stock, \$0.001 par value; 300,000,000 shares authorized at March 31, 2025; 133,081 shares issued and outstanding at March 31, 2025	\$ —	1	\$
Additional paid-in capital	\$ 642,570	3,642	\$
Accumulated deficit	\$(641,230)		\$
Accumulated other comprehensive loss	\$ (110)		\$
Total Stockholders' Equity	\$ 1,230	3,643	\$
Total Capitalization	\$ 8,998		\$

The above discussion and table are based on 133,081 shares outstanding as of March 31, 2025 and excludes:

- 3,261 shares of our common stock issuable upon the exercise of warrants outstanding as of March 31, 2025, with exercise prices ranging from \$333.50 to \$435,000;
- 5 shares of common stock issuable upon the exercise of options outstanding as of March 31, 2025, with exercise prices ranging from \$85,550 to \$19,009,500 and having a weighted average exercise price of \$815,857 per share;
- 1 share of common stock underlying restricted stock units unvested as of March 31, 2025;
- 21,766 shares of our common stock reserved for future issuance under our 2022 Equity Incentive Plan as of March 31, 2025; and
- 10 shares of our common stock issuable upon the conversion of 95,388 shares of series C convertible preferred stock outstanding as of March 31, 2025.

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 in this offering and the net tangible book value per share of our common stock immediately after this offering. As of March 31, 2025, our historical net tangible book value was approximately \$1.2 million, or \$9.24 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, 2025.

After giving effect to the issuance of 576,416 shares of common stock in conjunction with a warrant exercise, the sale of 593,000 shares in connection with our at-the-market offering between June 3, 2025 and June 6, 2025 and the removal of \$1.1 million of warrant liability in connection with the exercise subsequent to March 31, 2025 (the “Pro Forma Adjustment”), our pro forma net tangible book value as of March 31, 2025 would have been approximately \$6.0 million, or \$4.50 per share of common stock.

After giving effect to the sale of shares of our common stock in this offering at the public offering price of \$ per share, and after deducting placement agent fees and commissions payable by us, our pro forma as adjusted net tangible book value as of March 31, 2025 would have been \$ million, or \$ per share of our common stock. This amount represents an immediate increase of net tangible book value to our existing stockholders of \$ per share and an immediate dilution of \$ 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	\$
Historical net tangible book value per share as of March 31, 2025	\$9.24
Decrease in net tangible book value per share attributable to Pro Forma Adjustment	\$4.74
Pro forma net tangible book value per share as of March 31, 2025	\$4.50
Increase in pro forma as adjusted net tangible book value per share attributable to sale of shares by us in this offering	\$
Pro forma as adjusted net tangible book value per share as of March 31, 2025 giving effect to this offering	\$
Dilution per share to investors in this offering	\$

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

The above discussion and table are based on 133,081 shares outstanding as of March 31, 2025 and excludes:

- 3,261 shares of our common stock issuable upon the exercise of warrants outstanding as of March 31, 2025, with exercise prices ranging from \$333.50 to \$435,000;
- 5 shares of common stock issuable upon the exercise of options outstanding as of March 31, 2025, with exercise prices ranging from \$85,550 to \$19,009,500 and having a weighted average exercise price of \$815,857 per share;
- 1 share of common stock underlying restricted stock units unvested as of March 31, 2025;
- 21,766 shares of our common stock reserved for future issuance under our 2022 Equity Incentive Plan as of March 31, 2025; and
- 10 shares of our common stock issuable upon the conversion of 95,388 shares of series C convertible preferred stock outstanding as of March 31, 2025.

PLAN OF DISTRIBUTION

Maxim Group LLC has agreed to act as the exclusive placement agent in connection with this offering. The placement agent is not purchasing or selling any of the shares of our common stock offered by this prospectus supplement but will use their best efforts to arrange for the sale of the Securities offered by this prospectus supplement. Therefore, we may not sell the entire amount of securities being offered.

Investors purchasing securities offered hereby will have the option to execute a securities purchase agreement with us. In addition to the rights and remedies available to all investors in this offering under federal and state securities laws, the investors which enter into a securities purchase agreement will also be able to bring claims of breach of contract against us. Investors who do not enter into a securities purchase agreement shall rely solely on this prospectus in connection with the purchase of our securities in this offering.

Fees and Expenses

We have agreed to pay the placement agent an aggregate placement agent fee of up to \$, which represents 7.0% of the aggregate purchase price of the shares of our common stock sold in this offering. The following table shows the per share and total cash placement agent fees we will pay to the placement agent in connection with the sale of the shares of our common stock offered pursuant to this prospectus supplement and the accompanying prospectus.

	Per Share	Total
Offering price		
Placement agent fees ⁽¹⁾		
Proceeds to us, before expenses		

- (1) In addition, subject to compliance with FINRA Rule 5110(f)(2)(D), we have agreed to reimburse the placement agent for all reasonable travel and other necessary out-of-pocket expenses of third parties incurred directly in connection with the placement agency agreement, including the placement agent's legal fees in an amount equal to \$125,000.

Placement Agent Warrants

We have agreed to issue to the placement agent, or its designees, warrants to purchase shares of our common stock in an amount equal to 5.0% of the aggregate number of shares of common stock sold in this offering (the "Placement Agent's Warrants"). The Placement Agent's Warrants will be exercisable at a per share exercise price of \$, equal to 110% of the public offering price per share in this offering. The Placement Agent's Warrants are exercisable at any time, from time to time, in whole or in part, during the five year period commencing from the commencement of sales of the securities in this offering.

The Placement Agent's Warrants will provide for cashless exercise and for registration rights (including a one-time demand registration right and unlimited piggyback rights) consistent with FINRA Rule 5110(g) (8). The Placement Agent's Warrants will also provide for customary anti-dilution provisions (for stock dividends and splits and recapitalizations) consistent with FINRA Rule 5110.

Determination of Offering Price

The public offering price of the shares of common stock we are offering was negotiated between us and the investors, in consultation with the placement agent based on the trading of our common stock prior to the offering, among other things. Other factors considered in determining the public offering price of our common stock we are offering include the history and prospects of the Company, the stage of development of our business, our business plans for the future and the extent to which they have been implemented, an assessment of our management, general conditions of the securities markets at the time of the offering and such other factors as were deemed relevant.

Indemnification

We have agreed to indemnify the placement agent against certain liabilities, including liabilities under the Securities Act of 1933, as amended (the "Securities Act"), and to contribute to payments that the placement agent may be required to make in respect of those 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 shares 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 of 1934, as amended (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 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 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.

Lock-up Agreements

We have agreed to a lock-up that, subject to certain exceptions, prevents us from entering into any agreement to issue or announce the issuance or proposed issuance of any shares of common stock or securities convertible into, exchangeable for, exercisable for, or repayable with common stock or file any registration statement or amendment or supplement thereto for a period of fifteen (15) days (the “lock-up period”) after the closing date of this offering. In addition, subject to certain exceptions, we have agreed, for a period of days following the closing date of the offering, not to issue any securities that are subject to a price reset based on the trading price of our common stock or upon a specified or contingent event in the future, or enter into any agreement to issue securities at a future determined price, except that, following the expiration of the lock-up period, the forgoing limitation will not apply to an “at-the-market” offering facility.

The lock-up may be waived by the written consent of the Company, the placement agent, and a majority of the purchasers that execute a securities purchase agreement (representing at least 50.1% in interest of the shares of common stock based on the initial subscription amounts thereunder).

Tail Financing Payments

We have also agreed to pay the placement agent a tail fee equal to the compensation as disclosed herein if the Company completes any financing of equity, equity-linked or debt or other capital raising activity with, or receives any proceeds from, any of the investors contacted or introduced by the Placement Agent for a period of twelve (12) months after expiration or termination (other than for cause as defined in FINRA Rule 5110(g)(5)(B)) of the engagement with the placement agent.

Regulation M

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
- 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, Maxim 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 Maxim for any further services.

Electronic Distribution

A prospectus supplement in electronic format may be made available on a website maintained by the placement agent. In connection with the offering, the placement agent or selected dealers may distribute prospectuses electronically. No forms of electronic prospectus supplements other than prospectuses supplements that are printable as Adobe® PDF will be used in connection with this offering.

Other than the prospectus supplement in electronic format, the information on each of the placement agent's websites and any information contained in any other website maintained by the placement agent is not part of the prospectus supplement or the registration statement of which this prospectus supplement forms a part, has not been approved and/or endorsed by us or either placement agent in its capacity as placement agent and should not be relied upon by investors.

Certain Relationships

The placement agent and its affiliates have and may in the future provide, from time to time, investment banking and financial advisory services to us in the ordinary course of business, for which they may receive customary fees and commissions.

On June 19, 2024, the Company retained Maxim to provide financial advisory services to the Company's Board of Directors in evaluating the Vyome proposal and in rendering an opinion to the Board as to the fairness of the Exchange Ratio in the Merger from a financial perspective to the Company's stockholders. Maxim was paid \$300,000 related to these services in June and July 2024.

Maxim has also acted as an exclusive M&A advisor to the Company pursuant to an agreement dated September 20, 2023, as amended on June 19, 2024. Pursuant to that agreement, the Company paid Maxim certain cash fees in November 2023 and has agreed to pay Maxim upon the consummation of the Merger a fixed cash fee of \$1.5 million.

Maxim is also acting as our sales agent in our at-the-market offering pursuant to an Equity Distribution Agreement with Maxim, dated May 30, 2025.

Listing

Our common stock is listed on The Nasdaq Capital Market under the symbol "RSL.S."

Selling Restrictions

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

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

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the placement agents are not required to comply with the disclosure requirements of NI 33-105 regarding placement agents conflicts of interest in connection with this offering.

European Economic Area. In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") an offer to the public of any securities may not be made in that Relevant Member State, except that an offer to the public in that Relevant

Member State of any securities may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

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

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

Israel. This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Securities Law, and has not been filed with or approved by the Israel Securities Authority. In the State of Israel, this document is being distributed only to, and is directed only at, and any offer of the shares is directed only at, investors listed in the first addendum, or the Addendum, to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, placement agents, venture capital funds, entities with equity in excess of NIS 50 million and “qualified individuals”, each as defined in the Addendum (as it may be amended from time to time), collectively referred to as qualified investors (in each case purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified investors will be required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of same and agree to it.

United Kingdom. Each placement agent has represented and agreed that:

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

Switzerland. The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (the “SIX”) or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of securities has not been and will not be authorized

under the Swiss Federal Act on Collective Investment Schemes (“CISA”). Accordingly, no public distribution, offering or advertising, as defined in CISA, its implementing ordinances and notices, and no distribution to any non-qualified investor, as defined in CISA, its implementing ordinances and notices, shall be undertaken in or from Switzerland, and the investor protection afforded to acquirers of interests in collective investment schemes under CISA does not extend to acquirers of securities.

Australia. No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission (“ASIC”), in relation to the offering.

This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (the “Corporations Act”) and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

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

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

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

Notice to Prospective Investors in the Cayman Islands. No invitation, whether directly or indirectly, may be made to the public in the Cayman Islands to subscribe for our securities.

Taiwan. The securities have not been and will not be registered with the Financial Supervisory Commission of Taiwan pursuant to relevant securities laws and regulations and may not be sold, issued or offered within Taiwan through a public offering or in circumstances which constitutes an offer within the meaning of the Securities and Exchange Act of Taiwan that requires a registration or approval of the Financial Supervisory Commission of Taiwan. No person or entity in Taiwan has been authorized to offer, sell, give advice regarding or otherwise intermediate the offering and sale of the securities in Taiwan.

Notice to Prospective Investors in Hong Kong. The contents of this prospectus have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution in relation to the offer. If you are in any doubt about any of the contents of this prospectus, you should obtain independent professional advice. Please note that (i) our shares may not be offered or sold in Hong Kong, by means of this prospectus or any document other than to “professional investors” within the meaning of Part I of Schedule 1 of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) (“SFO”) and any rules made thereunder, or in other circumstances which do not result in the document being a “prospectus” within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong) (“CO”) or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO, and (ii) no advertisement, invitation or document relating to our shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere) which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the shares which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” within the meaning of the SFO and any rules made thereunder.

Notice to Prospective Investors in the People's Republic of China. This prospectus may not be circulated or distributed in the PRC and the shares may not be offered or sold and will not offer or sell to any person for re-offering or resale directly or indirectly to any resident of the PRC except pursuant to applicable laws, rules and regulations of the PRC. For the purpose of this paragraph only, the PRC does not include Taiwan and the special administrative regions of Hong Kong and Macau.

LEGAL MATTERS

Fox Rothschild LLP, Minneapolis, Minnesota, will issue a legal opinion as to the validity of the securities offered by this prospectus. Ellenoff Grossman & Schole LLP represented the placement agent in connection with this offering.

EXPERTS

The consolidated financial statements of ReShape Lifesciences Inc. as of December 31, 2024 and for the year ended December 31, 2024 have been audited by Haskell & White LLP, an independent registered public accounting firm, as stated in their report thereon (which report expresses an unqualified opinion and includes an explanatory paragraph relating to substantial doubt about ReShape Lifesciences Inc.'s ability to continue as a going concern), and incorporated by reference into this prospectus supplement in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of ReShape Lifesciences Inc. as of December 31, 2023 and for the year ended December 31, 2023 have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report thereon (which report expresses an unqualified opinion and includes an explanatory paragraph relating to substantial doubt about ReShape Lifesciences Inc.'s ability to continue as a going concern), and incorporated by reference into this prospectus supplement in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

The financial statements of Vyome Therapeutics, Inc. as of and for the years ended December 31, 2024 and 2023 have been audited by Kreit & Chiu CPA LLP, an independent registered public accounting firm, as stated in their report appearing herein (which report expresses an unqualified opinion on the financial statements and includes an explanatory paragraph relating to substantial doubt about Vyome Therapeutics, Inc.'s ability to continue as a going concern). Such financial statements are incorporated by reference into this prospectus supplement in reliance upon the report of such firm given upon their authority as experts in accounting and auditing. The office of Kreit & Chiu CPA LLP is located at 733 Third Avenue, Floor 16, #1014 New York, NY 10017, the United States.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and the accompanying prospectus are part of the Registration Statement we filed with the SEC under the Securities Act and do not contain all the information set forth in the Registration Statement. Whenever a reference is made in this prospectus supplement or the accompanying prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the Registration Statement or the exhibits to the reports or other documents incorporated by reference in this prospectus supplement and the accompanying prospectus for a copy of such contract, agreement or other document. In addition, we file annual, quarterly and current reports, proxy statements and other information with the SEC.

You may also obtain the documents that we file electronically on the SEC's website at www.sec.gov or on our website at www.reshapelifesciences.com. Information contained on our website is not incorporated by reference herein and does not constitute part of this prospectus.

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 for the year ended December 31, 2024](#);
- Our [Quarterly Report on Form 10-Q for the quarter ended March 31, 2025](#);
- Our Current Reports on Form 8-K (only to the extent information is "filed" and not "furnished") filed with the SEC on [January 21, 2025](#), [February 20, 2025](#), [March 20, 2025](#), [April 2, 2025](#), [April 21, 2025](#), [April 28, 2025](#), [May 9, 2025](#), [May 28, 2025](#), [May 30, 2025](#) and [May 30, 2025](#); and

- the description of securities contained in [Exhibit 4.1](#) to our Annual Report on Form 10-K for the year ended December 31, 2024.

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 Exchange Act 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 or the accompanying prospectus, except for exhibits which are specifically incorporated by reference into those documents, at no cost, by writing or telephoning us at:

ReShape Lifesciences Inc.
18 Technology Dr., Suite 110
Irvine, California 92618
Attention: Secretary
(949) 429-6680

PROSPECTUS

**\$50,000,000****Common Stock
Preferred Stock
Warrants
Units**

We may from time to time offer to sell any combination of common stock, preferred stock, warrants for the purchase of shares of our common stock or preferred stock, and units consisting of any combination of the other types of securities offered under this prospectus in one or more series, each as described in this prospectus, in one or more offerings. The aggregate initial offering price of all securities sold under this prospectus will not exceed \$50,000,000.

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. See the sections of this prospectus entitled “About this Prospectus” and “Plan of Distribution” for more information.

Our common stock is traded on The Nasdaq Capital Market under the symbol “RSL.S.” On May 7, 2025, the closing price of our common stock as reported on The Nasdaq Capital Market was \$8.84 per share.

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 6 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 May 14, 2025.

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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 \$50,000,000.

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 subsidiaries.

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

On May 9, 2025, at the commencement of trading, we effected a 1-for-25 reverse stock split of its common stock. Accordingly, all share and per share amounts for the periods presented in this prospectus have been adjusted retroactively, where applicable, to reflect the reverse stock split.

RESHAPE LIFESCIENCES INC.

Our Company

ReShape Lifesciences Inc. is a premier physician-led weight-loss solutions company, offering an integrated portfolio of proven products and services that manage and treat obesity and metabolic disease throughout the care continuum.

Our current portfolio includes the U.S. Food and Drug Administration (“FDA”) approved and reimbursed Lap-Band® and the recently approved Lap-Band® 2.0 FLEX systems, which provide minimally invasive, long-term treatment of obesity and is a safer surgical alternative to more invasive and extreme surgical stapling procedures such as the gastric bypass or sleeve gastrectomy.

Our growth strategy is designed to deliver profitability.

KEY GROWTH PILLARS

1. Executing disciplined, metrics-driven business operations
2. Expanding the product portfolio and future product pipeline
3. Ensuring that our portfolio spans the weight loss care continuum and is evidence-based



ReShape’s Pillars for Growth

In August of 2022, Paul F. Hickey joined ReShape as President and Chief Executive Officer. Under this new leadership, our Company has pivoted its business strategy with the intent of helping to ensure growth and profitability. Our Company has executed the following three growth strategies, or pillars for growth:

• **Growth Pillar I: Executing disciplined, metrics-driven business operations.**

In executing the first growth pillar, our Company is focused on revenue growth and profitability. The timeline for profitability is dependent on many factors, including revenue growth from new product introductions, or strategic investments not yet foreseen.

This first growth pillar remains, in our Company’s opinion, paramount for ReShape to deliver shareholder value and, ultimately, profitability. Starting shortly after Mr. Hickey’s appointment, ReShape has made several operational changes to help ensure future performance and return on investment by prioritizing investments supporting revenue growth.

Our Company has prioritized investments, including marketing automation to support scalable lead acquisition, segmented consumer-centric messaging via an updated website for improved patient engagement, and a frictionless booking system with qualified providers. Early metrics from these marketing efforts have been shown to help increase Lap-Band procedures and ultimately revenue, despite the headwinds created by the widespread marketing and adoption of GLP-1 receptor agonists, including Wegovy, Ozempic, and

Zepbound. Additionally, our Company 2024 cost reduction plan, had led to approximately 43% lower operating expenses in 2024, compared to last year, excluding one-time costs. Our Company has also taken steps to right-size the organization in several areas to ensure sustainability and scalability.

• **Growth Pillar II: Expanding the product portfolio and future product pipeline.**

ReShape's second growth pillar is intended to further differentiate our Company as a leading provider of innovative products and services to meet unmet customer needs. ReShape is committed to drive and scale its new product development and commercialization capacity, providing a cadence of new product introductions and revenue growth. The growth can either be through organic internal Research and Development efforts, or through strategic partnerships, mergers, or acquisitions. Key growth drivers within second growth pillar include:

Lap-Band 2.0 FLEX System — New product revenues for the Lap-Band 2.0 FLEX system ("Lap-Band 2.0"), for which our Company received FDA approval during December 2023 and completed the first successful surgeries in early 2024. Similar to the current Lap-Band, the Lap-Band 2.0 is adjustable, postoperatively, to increase or decrease the opening of the band to optimize an individual's eating habits and comfort, thereby improving therapy effectiveness. At the same time, a new feature of the Lap-Band 2.0 is a band reservoir technology that serves as a relief valve. Pieces of food that are too large to pass through the narrowed passage, created by the current band, can pass through because the new feature allows the band to relax momentarily and then return to its resting diameter. This could potentially allow for increased Lap-Band constriction and resultant satiety, while helping to minimize discomfort from swallowing large pieces of food, which may otherwise require emergency in-office patient band adjustments. Based on customer feedback, Lap-Band 2.0 will allow us to engage new surgeons and reengage many of those who have used the Lap-Band, historically.

ReShape Obalon Balloon — The ReShape Obalon® Balloon system is the first and only swallowable, gas filled, FDA-approved balloon system. In 2023 our company established an OEM partnership with Biorad Medisys ("Biorad"), based in India that will support the successful relaunch and commercialization of the balloon system. We anticipate having access to the Obalon Balloon system late in 2025 for the distribution in the U.S. and other regions globally. In addition, the strategic partnership with Biorad contemplates potential manufacturing transfer of other products to further improve ReShape's overall gross margin.

DBSN Device — ReShape remains committed to furthering our proprietary Diabetes Bloc-Stim Neuromodulation (DBSNTM) technology that can potentially reduce the dependence on medications by those with type 2 diabetes. The DBSN device is a technology under development as a new treatment for type 2 diabetes mellitus. The device is expected to use bioelectronics to manage blood glucose in the treatment of diabetes and individualized 24/7 glucose control. Preclinical evidence on the DBSN device was presented at multiple conferences. The DBSN technology development has received approximately \$1.15 million dollars of nondilutive NIH grant support.

• **Growth Pillar III: Ensuring that our portfolio spans the weight loss care continuum and is evidence based.**

ReShape's third growth pillar represents our company's commitment to collaborate with healthcare professionals worldwide and further develop evidence supporting ReShape's portfolio of treatment options. Aligned with goal of pillar three, in early 2023, ReShape established their first-ever global Scientific Advisory Board (SAB) to provide needed expertise and feedback on initiatives related to our company's growth pillars. The SAB is a valuable resource to help validate company strategies to collect and publish data on both our Lap-Band 2.0 and data on Lap-Band patients who are also using GLP-1s as a combination therapy. Combination therapies comprising GLP-1s and other gastric surgeries, including the Lap-Band, are being prescribed today, to help those who have plateaued with their weight loss.

Our Product Portfolio

Lap-Band System

The Lap-Band System is designed to provide minimally invasive long-term treatment of severe obesity and is an alternative to more invasive surgical stapling procedures such as the gastric bypass or sleeve

gastrectomy. Unlike other invasive anatomy altering procedures, the Lap-Band System is adjustable post-operatively via a saline-filled silicone band that is laparoscopically placed around the upper part of the stomach through small laparoscopic incisions, creating a small pouch at the top of the stomach, which slows the passage of food and creates a sensation of fullness. The procedure can normally be performed as an outpatient procedure and patients can go home the day of the procedure without the need for an overnight hospital stay.

Lap-Band 2.0 FLEX System

The Lap-Band 2.0 FLEX, like the original Lap-Band System, is designed to provide minimally invasive long-term treatment of severe obesity and is an alternative to more invasive surgical stapling procedures such as the gastric bypass or sleeve gastrectomy. Unlike more invasive and anatomy altering surgeries, the Lap-Band 2.0 is adjustable postoperatively to increase or decrease the pressure to the band in order to optimize an individual's comfort and therapy effectiveness. The Lap-Band 2.0 system includes a FLEX reservoir technology designed to minimize postoperative in-office patient band adjustments, thereby potentially improving an individual's tolerance for the Lap-Band 2.0. As of October 2024, we have completed our early launch phase of the Lap-Band 2.0 FLEX and are analyzing data and metrics that will be used to support our widespread commercial launch. Additionally, we received approval for the Lap-Band® 2.0 FLEX from Health Canada, which represents yet another important growth catalyst for the Lap-Band franchise as we look to gain regulatory approvals world-wide.

ReShape Calibration Tubes

The ReShape Calibration tubes are multifunctional devices compared to reusable bougies and disposable gastric tubes. The Calibration tubes are designed to fit the lesser curvature of the stomach more easily and quickly reach the pylorus. In August of 2022, we announced FDA clearance of three new sizes — 32, 36, and 40 French — all designed to simplify bariatric procedures such as laparoscopic sleeve gastrectomy, gastric bypass, and adjustable gastric banding. During the first quarter of 2023, we fully released this product and continue to ramp production.

ReShape Obalon Balloon System

The FDA PMA approved Obalon Balloon System, is not currently manufactured and distributed for commercial sales, consists of a swallowable capsule that contains an inflatable balloon attached to a microcatheter; the Obalon Navigation System console, has FDA PMA supplemental approval, is a combination of hardware and software used to dynamically track and display the location of the balloon during placement; the Obalon Touch Inflation Dispenser, which is a semi-automated, hand-held inflation device used to inflate the balloon once it is placed; and a disposable canister filled with our proprietary mixture of gas.

DBSN Device

The DBSN device, that is not currently available for commercial sales, is a technology under development as a new treatment for type 2 diabetes mellitus (T2DM). It combines ReShape Lifesciences' proprietary Vagus Nerve Block (vBloc) technology platform in combination with Vagus nerve stimulation. This new dual Vagus nerve neuromodulation device selectively modulates vagal blocking and stimulation to the liver and pancreas to manage blood glucose. Our DBSN device is expected to use bioelectronics to manage blood glucose in treatment of diabetes and individualized 24/7 glucose control. The goal is to reduce costs of treatment and complications that arise from poorly controlled blood glucose and non-compliance to T2DM medication.

Recent Developments

On February 25, 2025, we entered into an exclusive distribution agreement with Liaison Medical Ltd. for the Lap-Band® 2.0 FLEX system and Tubing Kit, expanding our commercial presence into Canada. Under the terms of the agreement, Liaison Medical was granted the exclusive right to market and distribute the covered products to licensed medical professionals within the Canadian territory. The initial term of

the agreement runs through December 31, 2028, with automatic one-year renewal periods thereafter unless terminated by either party with at least 90 days' prior written notice before the end of the then-current term.

On February 15, 2025, we entered into a Securities Purchase Agreement to issue and sell 103,005 shares of common stock and warrants to purchase up to 103,005 shares of common stock at an initial price of \$145.75 per share, subject to adjustments. The securities were sold at a price of \$58.25 per unit. Following the required stockholder approval, which we obtained on April 1, 2025, all of the holders of warrants elected a "zero exercise price" alternative pursuant to which they received an aggregate number of shares equal to the product of (x) the aggregate number of shares of common stock that would be issuable upon a cash exercise of the warrant and (y) 1.2, without the holder having to make any exercise payment. The exercise price of the warrants was reset to the floor price of \$31.25 per share, which resulted in the issuance of 576,495 shares of common stock for the warrants issued to the investors in the offering. On April 2, 2025, a total of 590,314 shares were issued upon the cashless exercise of the warrants for no exercise price.

On February 3, 2025, we were granted a key international patent from the State of Israel for its Diabetes Neuromodulation technology. This patent for "Simultaneous Multi-Site Vagus Nerve Modulation for Improved Glycemic Control Systems and Methods," will provide protection until December 4, 2039. The Diabetes Neuromodulation system utilizes its proprietary vagus nerve block (vBloc™) technology platform, combined with vagus nerve stimulation, for the treatment of Type 2 diabetes, a prominent disorder associated with obesity.

Our Corporate Information

We were incorporated under the laws of Delaware on January 2, 2008. On June 15, 2021, we completed a merger with Obalon Therapeutics, Inc. ("Obalon"). Pursuant to the merger agreement, a wholly owned subsidiary of Obalon merged with and into ReShape, with ReShape surviving the merger as a wholly owned subsidiary of Obalon. As a result of the merger, Obalon, the parent company, was renamed "ReShape Lifesciences Inc." and ReShape was renamed ReShape Weightloss Inc. ReShape Lifesciences shares of common stock trade on the Nasdaq under the symbol RSLS.

Our principal executive offices are located at 18 Technology Drive, Suite 110, Irvine, California 92618, 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 and should not be considered a part of this prospectus.

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 (the “Exchange Act”), 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.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

Certain statements contained in this prospectus, or filings with the SEC and our public releases, that are not purely historical are forward-looking statements within the meaning of applicable securities laws. Our forward-looking statements include, but are not limited to, statements regarding our “expectations,” “hopes,” “beliefs,” “intentions” or “strategies” regarding the future. In addition, any statements that refer to projections, forecasts, or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “possible,” “potential,” “predict,” “project,” “should” and “would,” as well as similar expressions, may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward looking. Such statements include, but are not limited to, statements contained in this prospectus relating to our business strategy, our future operating results and liquidity and capital resources outlook. Forward-looking statements are based on our current expectations and assumptions regarding our business, 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. Our actual results may differ materially from those contemplated by the forward-looking statements. They are neither statements of historical fact nor guarantees of assurance of future performance. We caution you therefore against relying on any of these forward-looking statements. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, without limitation, our ability to raise capital to fund continuing operations; our ability to protect our intellectual property rights; the impact of any infringement actions or other litigation brought against us; competition from other providers and products; our ability to develop and commercialize products and services; changes in government regulation; our ability to complete capital raising transactions; and other factors (including the risks contained in the section of this prospectus entitled “Risk Factors”) relating to our industry, our operations and results of operations. Actual results may differ significantly from those anticipated, believed, estimated, expected, intended or planned.

Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We cannot guarantee future results, levels of activity, performance or achievements. Except as required by applicable law, including the securities laws of the United States, we do not intend to update any of the forward-looking statements to conform these statements to actual results.

This prospectus may contain assumptions, expectations, projections, intentions and beliefs about future events. These statements are intended as forward-looking statements. We may also from time to time make forward-looking statements in other documents and reports that are filed with or submitted to the SEC, in other information sent to our security holders, and in other written materials. We also caution that assumptions, expectations, projections, intentions and beliefs about future events may and often do vary from actual results and the differences can be material.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of the securities as set forth in the applicable prospectus supplement.

DESCRIPTION OF CAPITAL STOCK

The following is a summary of the rights of our common and preferred stock and some of the provisions of our charter and bylaws and of the Delaware General Corporation Law, or DGCL. Our authorized capital stock consists of 300,000,000 shares of common stock, \$0.001 par value per share, and 10,000,000 shares of undesignated preferred stock, \$0.001 par value per share.

As of May 9, 2025, there were 738,277 shares of our common stock outstanding, held by approximately 40 stockholders of record, and 95,388 shares of our series C convertible preferred stock outstanding.

Common Stock

Voting rights

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders. We do not provide for cumulative voting for the election of directors in our charter. Accordingly, holders of a majority of the shares of our common stock are able to elect all of our directors. Our charter establishes a classified board of directors, to be divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Subject to the supermajority votes for some matters, other matters shall be decided by the affirmative vote of our stockholders having a majority in voting power of the votes cast by the stockholders present or represented and voting on such matter. Our charter and bylaws provide that our directors may be removed only for cause and only by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon. In addition, the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon is required to amend or repeal, or to adopt any provision inconsistent with, several of the provisions of our charter.

Dividend rights

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

No preemptive or similar rights

Our common stock is not entitled to preemptive or subscription rights, and is not subject to conversion, redemption or sinking fund provisions. The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

Right to receive liquidation distributions

Upon our liquidation, dissolution or winding-up, the assets legally available for distribution to our stockholders would be distributable ratably among the holders of our common stock and any participating preferred stock outstanding at that time, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights of and the payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

Preferred Stock

Pursuant to our charter, our Board is authorized, subject to limitations prescribed by Delaware law, to issue from time to time up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and rights of the shares of each series and any of their qualifications, limitations or restrictions, in each case without further vote or action by our stockholders. Our Board is able to increase or decrease the number of shares of any series of preferred stock, but not below the number of shares of that series then outstanding,

without any further vote or action by our stockholders. Our Board may be able to authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of our company and might adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock.

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. 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. There are currently 95,388 shares of our series C convertible preferred stock outstanding. As of the date of this prospectus, each of the 10 holders of Series C Preferred Stock is entitled to convert all of their shares of Series C Preferred Stock into an aggregate of one share of common stock per holder. Therefore, there is a total of 10 shares of common stock that may be issued upon the conversion of all of the shares of Series C Preferred 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. Holders of Series C Preferred Stock are entitled to vote for the election of directors of the Company, voting on an as-converted to common stock basis and voting together as a single class with the holders of shares of common stock.

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, 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 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.

Stock Options

As of May 9, 2025, we had outstanding options to purchase an aggregate of six shares of our common stock.

Restricted Stock Units

As of May 9, 2025, we had one unvested restricted stock unit outstanding.

Warrants

As of May 9, 2025, we had outstanding warrants to purchase an aggregate of 3,256 shares of our common stock.

Anti-Takeover Provisions

The provisions of Delaware law, our charter and our bylaws could have the effect of delaying, deferring or discouraging another person from acquiring control of our company. These provisions, which are summarized below, may have the effect of discouraging takeover bids. They are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms.

Delaware law

We are subject to the provisions of Section 203 of the DGCL, or Section 203, regulating corporate takeovers. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years following the date on which the person became an interested stockholder unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- 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, but not the outstanding voting stock owned by the interested stockholder, (i) shares owned by persons who are directors and also officers and (ii) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to the date of the transaction, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66.67% of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction or series of transactions together resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation’s outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 may also discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

Charter and bylaw provisions

Our charter and our bylaws include a number of provisions that could deter hostile takeovers or delay or prevent changes in control of our company, including the following:

- *Board of Directors Vacancies.* Our charter and bylaws authorize only our Board to fill vacant directorships, including newly created seats. In addition, the number of directors constituting our Board will be permitted to be set only by a resolution adopted by a majority vote of our entire Board. These provisions would prevent a stockholder from increasing the size of our Board and then gaining control of our board of directors by filling the resulting vacancies with its own nominees. This makes it more difficult to change the composition of our Board but promotes continuity of management.
- *Classified Board.* Our charter and bylaws provide that our Board be classified into three classes of directors, each with staggered three-year terms. A third party may be discouraged from making a tender offer or otherwise attempting to obtain control of us as it is more difficult and time-consuming for stockholders to replace a majority of the directors on a classified board of directors.
- *Stockholder Action; Special Meetings of Stockholders.* Our charter provides that our stockholders may not take action by written consent but may only take action at annual or special meetings of our stockholders. As a result, a holder controlling a majority of our capital stock would not be able to amend our bylaws or remove directors without holding a meeting of our stockholders called in accordance with our restated bylaws. Further, our restated bylaws and charter provide that special meetings of our stockholders may be called only by a majority of our Board, the chairman of our Board, our Chief Executive Officer or our President, thus prohibiting a stockholder from calling a special meeting. These provisions might delay the ability of our stockholders to force consideration of a proposal or for stockholders controlling a majority of our capital stock to take any action, including the removal of directors.
- *Advance Notice Requirements for Stockholder Proposals and Director Nominations.* Our bylaws provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders or to nominate candidates for election as directors at our annual meeting of stockholders. Our bylaws also specify certain requirements regarding the form and content of a stockholder's notice. These provisions might preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders if the proper procedures are not followed. We expect that these provisions might also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempt to obtain control of our company.
- *No Cumulative Voting.* The DGCL provides that stockholders are not entitled to the right to cumulate votes in the election of directors unless a corporation's certificate of incorporation provides otherwise. Our charter does not provide for cumulative voting.
- *Directors Removed Only for Cause.* Our charter provides that stockholders may remove directors only for cause and only by the affirmative vote of the holders of at least two-thirds of our outstanding common stock.
- *Amendment of Charter Provisions.* Any amendment of the above expected provisions in our charter would require approval by holders of at least two-thirds of our outstanding common stock, unless such amendment is approved by at least two-thirds of our directors, in which case the amendment may be approved by the holders of a majority of our outstanding common stock.
- *Issuance of Undesignated Preferred Stock.* Our Board has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by our Board. The existence of authorized but unissued shares of preferred stock would enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or other means.
- *Choice of Forum.* Our charter provides that the Court of Chancery of the State of Delaware will be the exclusive forum for: any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the DGCL, our charter or our bylaws; any action to interpret, apply, enforce or determine the validity of our charter or our bylaws; or any action asserting a claim against us that is governed by the internal

affairs doctrine. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Equiniti Trust Company, LLC. The transfer agent's address is 48 Wall Street, 22nd Floor, New York, NY 10005, and its telephone number is (800) 937-5449.

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of shares of our common stock or preferred stock. We may issue warrants independently or together with other securities, and the warrants may be attached to or separate from any offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and the investors or a warrant agent. The following summary of material provisions of the warrants and warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to a particular series of warrants. The terms of any warrants offered under a prospectus supplement may differ from the terms described below. We urge you to read the applicable prospectus supplement and any related free writing prospectus, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants.

The particular terms of any issue of warrants will be described in the prospectus supplement relating to the issue. Those terms may include:

- the number of shares of common stock or preferred stock purchasable upon the exercise of warrants to purchase such shares and the price at which such number of shares may be purchased upon such exercise;
- the designation, stated value and terms (including, without limitation, liquidation, dividend, conversion and voting rights) of the series of preferred stock purchasable upon exercise of warrants to purchase preferred stock;
- the date, if any, on and after which the warrants and the related preferred stock or common stock will be separately transferable;
- the terms of any rights to redeem or call the warrants;
- the date on which the right to exercise the warrants will commence and the date on which the right will expire;
- United States Federal income tax consequences applicable to the warrants; and
- any additional terms of the warrants, including terms, procedures, and limitations relating to the exchange, exercise and settlement of the warrants.

Holders of equity warrants will not be entitled:

- to vote, consent or receive dividends;
- receive notice as stockholders with respect to any meeting of stockholders for the election of our directors or any other matter; or
- exercise any rights as stockholders of ReShape.

Each warrant will entitle its holder to purchase the number of shares of preferred stock or common stock at the exercise price set forth in, or calculable as set forth in, the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

A holder of warrant certificates may exchange them for new warrant certificates of different denominations, present them for registration of transfer and exercise them at the corporate trust office of

the warrant agent or any other office indicated in the applicable prospectus supplement. Until any warrants to purchase common stock or preferred stock are exercised, the holders of the warrants will not have any rights of holders of the underlying common stock or preferred stock, including any rights to receive dividends or payments upon any liquidation, dissolution or winding up on the common stock or preferred stock, if any.

DESCRIPTION OF UNITS

We may issue units consisting of any combination of the other types of securities offered under this prospectus in one or more series. We may evidence each series of units by unit certificates that we will issue under a separate agreement. We may enter into unit agreements with a unit agent. Each unit agent will be a bank or trust company that we select. We will indicate the name and address of the unit agent in the applicable prospectus supplement relating to a particular series of units.

The following description, together with the additional information included in any applicable prospectus supplement, summarizes the general features of the units that we may offer under this prospectus. You should read any prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the series of units being offered, as well as the complete unit agreements that contain the terms of the units. Specific unit agreements will contain additional important terms and provisions and we will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from another report that we file with the SEC, the form of each unit agreement relating to units offered under this prospectus.

If we offer any units, certain terms of that series of units will be described in the applicable prospectus supplement, including, without limitation, the following, as applicable:

- the title of the series of units;
- identification and description of the separate constituent securities comprising the units;
- the price or prices at which the units will be issued;
- the date, if any, on and after which the constituent securities comprising the units will be separately transferable;
- a discussion of certain United States federal income tax considerations applicable to the units; and
- any other terms of the units and their constituent securities.

GLOBAL SECURITIES

Book-Entry, Delivery and Form

Unless we indicate differently in any applicable prospectus supplement or free writing prospectus, the securities initially will be issued in book-entry form and represented by one or more global notes or global securities, or, collectively, global securities. The global securities will be deposited with, or on behalf of, The Depository Trust Company, New York, New York, as depositary, or DTC, and registered in the name of Cede & Co., the nominee of DTC. Unless and until it is exchanged for individual certificates evidencing securities under the limited circumstances described below, a global security may not be transferred except as a whole by the depositary to its nominee or by the nominee to the depositary, or by the depositary or its nominee to a successor depositary or to a nominee of the successor depositary.

DTC has advised us that it is:

- a limited-purpose trust company organized under the New York Banking Law;
- a “banking organization” within the meaning of the New York Banking Law;
- a member of the Federal Reserve System;
- a “clearing corporation” within the meaning of the New York Uniform Commercial Code; and
- a “clearing agency” registered pursuant to the provisions of Section 17A of the Exchange Act. DTC holds securities that its participants deposit with DTC. DTC also facilitates the settlement among

its participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book-entry changes in participants' accounts, thereby eliminating the need for physical movement of securities certificates. "Direct participants" in DTC include securities brokers and dealers, including underwriters, banks, trust companies, clearing corporations and other organizations. DTC is a wholly owned subsidiary of The Depository Trust & Clearing Corporation, or DTCC. DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others, which we sometimes refer to as indirect participants, that clear through or maintain a custodial relationship with a direct participant, either directly or indirectly. The rules applicable to DTC and its participants are on file with the SEC.

Purchases of securities under the DTC system must be made by or through direct participants, which will receive a credit for the securities on DTC's records. The ownership interest of the actual purchaser of a security, which we sometimes refer to as a beneficial owner, is in turn recorded on the direct and indirect participants' records. Beneficial owners of securities will not receive written confirmation from DTC of their purchases. However, beneficial owners are expected to receive written confirmations providing details of their transactions, as well as periodic statements of their holdings, from the direct or indirect participants through which they purchased securities. Transfers of ownership interests in global securities are to be accomplished by entries made on the books of participants acting on behalf of beneficial owners. Beneficial owners will not receive certificates representing their ownership interests in the global securities, except under the limited circumstances described below.

To facilitate subsequent transfers, all global securities deposited by direct participants with DTC will be registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of securities with DTC and their registration in the name of Cede & Co. or such other nominee will not change the beneficial ownership of the securities. DTC has no knowledge of the actual beneficial owners of the securities. DTC's records reflect only the identity of the direct participants to whose accounts the securities are credited, which may or may not be the beneficial owners. The participants are responsible for keeping account of their holdings on behalf of their customers.

So long as the securities are in book-entry form, you will receive payments and may transfer securities only through the facilities of the depository and its direct and indirect participants. We will maintain an office or agency in the location specified in the prospectus supplement for the applicable securities, where notices and demands in respect of the securities may be delivered to us and where certificated securities may be surrendered for payment, registration of transfer or exchange.

Conveyance of notices and other communications by DTC to direct participants, by direct participants to indirect participants and by direct participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any legal requirements in effect from time to time.

Redemption notices will be sent to DTC. If less than all of the securities of a particular series are being redeemed, DTC's practice is to determine by lot the amount of the interest of each direct participant in the securities of such series to be redeemed.

Neither DTC nor Cede & Co. (or such other DTC nominee) will consent or vote with respect to the securities. Under its usual procedures, DTC will mail an omnibus proxy to us as soon as possible after the record date. The omnibus proxy assigns the consenting or voting rights of Cede & Co. to those direct participants to whose accounts the securities of such series are credited on the record date, identified in a listing attached to the omnibus proxy.

So long as securities are in book-entry form, we will make payments on those securities to the depository or its nominee, as the registered owner of such securities, by wire transfer of immediately available funds. If securities are issued in definitive certificated form under the limited circumstances described below, we will have the option of making payments by check mailed to the addresses of the persons entitled to payment or by wire transfer to bank accounts in the United States designated in writing to the applicable trustee or other designated party at least 15 days before the applicable payment date by the persons entitled to payment, unless a shorter period is satisfactory to the applicable trustee or other designated party.

Redemption proceeds, distributions and dividend payments on the securities will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit direct participants' accounts upon DTC's receipt of funds and corresponding detail information from us on the payment date in accordance with their respective holdings shown on DTC records. Payments by participants to beneficial owners will be governed by standing instructions and customary practices, as is the case with securities held for the account of customers in bearer form or registered in "street name." Those payments will be the responsibility of participants and not of DTC or us, subject to any statutory or regulatory requirements in effect from time to time. Payment of redemption proceeds, distributions and dividend payments to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC, is our responsibility, disbursement of payments to direct participants is the responsibility of DTC, and disbursement of payments to the beneficial owners is the responsibility of direct and indirect participants.

Except under the limited circumstances described below, purchasers of securities will not be entitled to have securities registered in their names and will not receive physical delivery of securities. Accordingly, each beneficial owner must rely on the procedures of DTC and its participants to exercise any rights under the securities.

The laws of some jurisdictions may require that some purchasers of securities take physical delivery of securities in definitive form. Those laws may impair the ability to transfer or pledge beneficial interests in securities.

DTC may discontinue providing its services as securities depository with respect to the securities at any time by giving reasonable notice to us. Under such circumstances, in the event that a successor depository is not obtained, securities certificates are required to be printed and delivered.

As noted above, beneficial owners of a particular series of securities generally will not receive certificates representing their ownership interests in those securities. However, if:

- DTC notifies us that it is unwilling or unable to continue as a depository for the global security or securities representing such series of securities or if DTC ceases to be a clearing agency registered under the Exchange Act at a time when it is required to be registered and a successor depository is not appointed within 90 days of the notification to us or of our becoming aware of DTC's ceasing to be so registered, as the case may be;
- we determine, in our sole discretion, not to have such securities represented by one or more global securities; or
- an event of default has occurred and is continuing with respect to such series of securities,

we will prepare and deliver certificates for such securities in exchange for beneficial interests in the global securities. Any beneficial interest in a global security that is exchangeable under the circumstances described in the preceding sentence will be exchangeable for securities in definitive certificated form registered in the names that the depository directs. It is expected that these directions will be based upon directions received by the depository from its participants with respect to ownership of beneficial interests in the global securities.

Euroclear and Clearstream

If so provided in the applicable prospectus supplement, you may hold interests in a global security through Clerstream Banking S.A., which we refer to as "Clearstream," or Euroclear Bank S.A./N.V., as operator of the Euroclear System, which we refer to as "Euroclear," either directly if you are a participant in Clearstream or Euroclear or indirectly through organizations which are participants in Clearstream or Euroclear. Clearstream and Euroclear will hold interests on behalf of their respective participants through customers' securities accounts in the names of Clearstream and Euroclear, respectively, on the books of their respective U.S. depositories, which in turn will hold such interests in customers' securities accounts in such depositories' names on DTC's books.

Clearstream and Euroclear are securities clearance systems in Europe. Clearstream and Euroclear hold securities for their respective participating organizations and facilitate the clearance and settlement of securities transactions between those participants through electronic book-entry changes in their accounts, thereby eliminating the need for physical movement of certificates.

Payments, deliveries, transfers, exchanges, notices and other matters relating to beneficial interests in global securities owned through Euroclear or Clearstream must comply with the rules and procedures of those systems. Transactions between participants in Euroclear or Clearstream, on one hand, and other participants in DTC, on the other hand, are also subject to DTC's rules and procedures.

Investors will be able to make and receive through Euroclear and Clearstream payments, deliveries, transfers and other transactions involving any beneficial interests in global securities held through those systems only on days when those systems are open for business. Those systems may not be open for business on days when banks, brokers and other institutions are open for business in the United States.

Cross-market transfers between participants in DTC, on the one hand, and participants in Euroclear or Clearstream, on the other hand, will be effected through DTC in accordance with the DTC's rules on behalf of Euroclear or Clearstream, as the case may be, by their respective U.S. depositaries; however, such cross-market transactions will require delivery of instructions to Euroclear or Clearstream, as the case may be, by the counterparty in such system in accordance with the rules and procedures and within the established deadlines (European time) of such system. Euroclear or Clearstream, as the case may be, will, if the transaction meets its settlement requirements, deliver instructions to its U.S. depositary to take action to effect final settlement on its behalf by delivering or receiving interests in the global securities through DTC, and making or receiving payment in accordance with normal procedures for same-day fund settlement. Participants in Euroclear or Clearstream may not deliver instructions directly to their respective U.S. depositaries.

Due to time zone differences, the securities accounts of a participant in Euroclear or Clearstream purchasing an interest in a global security from a direct participant in DTC will be credited, and any such crediting will be reported to the relevant participant in Euroclear or Clearstream, during the securities settlement processing day (which must be a business day for Euroclear or Clearstream) immediately following the settlement date of DTC. Cash received in Euroclear or Clearstream as a result of sales of interests in a global security by or through a participant in Euroclear or Clearstream to a direct participant in DTC will be received with value on the settlement date of DTC but will be available in the relevant Euroclear or Clearstream cash account only as of the business day for Euroclear or Clearstream following DTC's settlement date.

Other

The information in this section of this prospectus concerning DTC, Clearstream, Euroclear and their respective book-entry systems has been obtained from sources that we believe to be reliable, but we do not take responsibility for this information. This information has been provided solely as a matter of convenience. The rules and procedures of DTC, Clearstream and Euroclear are solely within the control of those organizations and could change at any time. Neither we nor the trustee nor any agent of ours or of the trustee has any control over those entities and none of us takes any responsibility for their activities. You are urged to contact DTC, Clearstream and Euroclear or their respective participants directly to discuss those matters. In addition, although we expect that DTC, Clearstream and Euroclear will perform the foregoing procedures, none of them is under any obligation to perform or continue to perform such procedures and such procedures may be discontinued at any time. Neither we nor any agent of ours will have any responsibility for the performance or nonperformance by DTC, Clearstream and Euroclear or their respective participants of these or any other rules or procedures governing their respective operations.

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 of 1933, as amended (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.

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 of ReShape Lifesciences Inc. as of December 31, 2024 and for the year ended December 31, 2024 have been audited by Haskell & White LLP, an independent registered public accounting firm, as stated in their report thereon (which report expresses an unqualified opinion and includes an explanatory paragraph expressing substantial doubt about ReShape Lifesciences Inc.'s ability to continue as a going concern), and included in this Prospectus and Registration Statement in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of ReShape Lifesciences Inc. as of December 31, 2023 and for the year ended December 31, 2023 have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report thereon (which report expresses an unqualified opinion and includes an explanatory paragraph relating to substantial doubt about ReShape Lifesciences Inc.'s ability to continue as a going concern), and included in this Prospectus and Registration Statement in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

The financial statements of Vyome Therapeutics, Inc. as of and for the years ended December 31, 2024 and 2023 filed as Exhibit 99.2 have been audited by Kreit & Chiu CPA LLP, an independent registered public accounting firm, as stated in their report appearing herein (which report expresses an unqualified opinion on the financial statements and includes an explanatory paragraph relating to substantial doubt about Vyome Therapeutics, Inc.'s ability to continue as a going concern). Such financial statements are included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing. The office of Kreit & Chiu CPA LLP is located at 733 Third Avenue, Floor 16, #1014 New York, NY 10017, the United States.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act that registers the distribution of the securities offered under this prospectus. The registration statement, including the attached exhibits and schedules, contains additional relevant information about us and the securities. The rules and regulations of the SEC allow us to omit from this prospectus certain information included in the registration statement. In addition, we file annual, quarterly and current reports, proxy statements and other information with the SEC.

You may also obtain the documents that we file electronically on the SEC's website at www.sec.gov or on our website at www.reshapelifesciences.com. Information contained on our website is not incorporated by reference herein and does not constitute part of this prospectus.

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:

- [Our Annual Report on Form 10-K for the year ended December 31, 2024](#) (the consolidated financial statements included in this Annual Report on Form 10-K have been retrospectively adjusted to apply the reverse stock split effected May 9, 2025, which updated consolidated financial statements are attached as Exhibit 99.3);
- Our Current Reports on Form 8-K (only to the extent information is "filed" and not "furnished") filed with the SEC on [January 21, 2025](#), [February 20, 2025](#), [March 20, 2025](#), [April 2, 2025](#), [April 21, 2025](#), [April 28, 2025](#) and [May 9, 2025](#); and
- the description of securities contained in [Exhibit 4.1](#) to our Annual Report on Form 10-K for the year ended December 31, 2024.

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 Exchange Act 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.
18 Technology Dr., Suite 110
Irvine, California 92618
Attention: Secretary
(949) 429-6680



Shares of Common Stock

PROSPECTUS SUPPLEMENT

Maxim Group LLC

June , 2025
