
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

SALARIUS PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

2834
(Primary Standard Industrial
Classification Code Number)

46-5087339
(I.R.S. Employer
Identification Number)

**2450 Holcombe Blvd.
Suite X
Houston, TX 77021
(832) 834-9144**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**David J. Arthur
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Copies to:

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Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement, as determined by the selling stockholder.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. The selling stockholder named herein may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

**PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION
DATED DECEMBER 13, 2024**



Up to 6,733,334 Shares of Common Stock

This prospectus relates to the potential resale from time to time by C/M Capital Master Fund, LP, or the Selling Stockholder, of up to 6,733,334 shares of common stock, par value \$0.0001 per share, or common stock. The shares of common stock to which this prospectus relates consists of shares that have been or may be issued by us to the Selling Stockholder pursuant to a Securities Purchase Agreement, dated as of December 12, 2024, by and between us and the Selling Stockholder, or the Purchase Agreement, establishing an equity line of credit, or the Equity Financing. Such shares of our common stock include (i) up to 6,666,667 shares of common stock, or the Purchase Shares, that we may elect, in our sole discretion, subject to the restrictions and satisfaction of the conditions in the Purchase Agreement, to issue and sell to the Selling Stockholder, from time to time from and after the Commencement Date (as defined below) under the Purchase Agreement, and subject to applicable stock exchange rules (assuming the shares are sold at a price of \$1.50 per share) and (ii) up to 66,667 shares of common stock, or the Commitment Shares, that may be issued to the Selling Stockholder in connection with related issuances and sales of Purchase Shares as consideration for the Selling Stockholder's execution and delivery of the Purchase Agreement.

The actual number of shares of our common stock issuable will vary depending on the then-current market price of shares of our common stock sold to the Selling Stockholder under the Purchase Agreement, but will not exceed the number set forth in the preceding sentences unless we file an additional registration statement under the Securities Act of 1933, as amended, or the Securities Act, with the Securities Exchange Commission, or the SEC, and we obtain the approval of the issuance of shares of common stock by our stockholders in accordance with the applicable stock exchange rules.

Under the applicable rules of The Nasdaq Stock Market LLC, or Nasdaq, in no event may we issue to the Selling Stockholder shares of our common stock representing more than 19.99% of the total number of shares of common stock outstanding as of the date of the Purchase Agreement, unless (i) we obtain the approval of the issuance of such shares by our stockholders in accordance with the applicable stock exchange rules or (ii) the average price paid for all shares of common stock issued under the Purchase Agreement (including both Purchase Shares and Commitment Shares) is equal to or greater than \$1.528, which is a price equal to the lower of (A) the Nasdaq Official Closing Price immediately preceding the execution of the Purchase Agreement and (B) the average Nasdaq Official Closing Price of our common stock for the five trading days immediately preceding the execution of the Purchase Agreement, as calculated in accordance with the rules of Nasdaq, such that the sales of such common stock to the Selling Stockholder would not count toward such limit because they are "at market" under applicable stock exchange rules. See "*The Committed Equity Financing*" for a description of the Purchase Agreement and "*Selling Stockholder*" for additional information regarding the Selling Stockholder.

We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of the shares of our common stock by the Selling Stockholder. Additionally, we will not receive any proceeds from the issuance or sale of any Commitment Shares. However, we may receive up to \$10.0 million in aggregate gross

proceeds from the sale of the shares of common stock to the Selling Stockholder under the Purchase Agreement, from time to time in our discretion, subject to the restrictions and satisfaction of the conditions in the Purchase Agreement, after the date the registration statement that includes this prospectus is declared effective and after satisfaction of other conditions in the Purchase Agreement. The actual proceeds from the Selling Stockholder may be less than this amount depending on the number of shares of our common stock sold and the price at which the shares of our common stock are sold.

This prospectus provides you with a general description of such securities and the general manner in which the Selling Stockholder may offer or sell the securities. More specific terms of any securities that the Selling Stockholder may offer or sell may be provided in a prospectus supplement that describes, among other things, the specific amounts and prices of the securities being offered and the terms of the offering. The prospectus supplement may also add, update or change information contained in this prospectus.

The Selling Stockholder may offer, sell or distribute all or a portion of the shares of our common stock acquired under the Purchase Agreement and hereby registered publicly or through private transactions at prevailing market prices or at negotiated prices. We will bear all costs, expenses and fees in connection with the registration of the shares of our common stock, including with regard to compliance with state securities or “blue sky” laws. The timing and amount of any sales are within the sole discretion of the Selling Stockholder. The Selling Stockholder is an underwriter under the Securities Act with respect to the resale of shares held by it. Although the Selling Stockholder is obligated to purchase shares of our common stock under the terms and subject to the conditions and limitations of the Purchase Agreement to the extent we choose to sell such shares of our common stock to it (subject to certain conditions), there can be no assurances that we will choose to sell any shares of our common stock to the Selling Stockholder, or that the Selling Stockholder will sell any or all of the shares of our common stock, if any, purchased under the Purchase Agreement pursuant to this prospectus. The Selling Stockholder will bear all commissions and discounts, if any, attributable to its sale of shares of our common stock. See “*Plan of Distribution*.”

You should read this prospectus and any prospectus supplement or amendment carefully before you invest in our securities.

Our common stock is listed on The Nasdaq Capital Market under the symbol “SLRX.” On December 12, 2024, the last reported sale price of our common stock on The Nasdaq Capital Market was \$1.44 per share.

We are a “smaller reporting company” as defined under the federal securities laws and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus and the documents incorporated by reference herein, and may elect to comply with reduced public company reporting requirements in future filings. Please see “*Prospectus Summary — Implications of Being a Smaller Reporting Company*.”

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading “*Risk Factors*” beginning on page 7 of this prospectus, and under similar headings in any amendment or supplement to this prospectus or in any other documents incorporated by reference into this prospectus.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

Prospectus dated , 2024

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ABOUT THIS PROSPECTUS

The registration statement we filed with the Securities and Exchange Commission, or the SEC, includes exhibits that provide more detail of the matters discussed in this prospectus. You should read this prospectus, the related exhibits filed with the SEC, and the documents incorporated by reference herein before making your investment decision. You should rely only on the information provided in this prospectus and the documents incorporated by reference herein or any amendment thereto.

You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference herein or therein is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus is delivered, or securities are sold, on a later date. This prospectus contains or incorporates by reference summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been or will be filed or have been or will be incorporated by reference as exhibits to the registration statement of which this prospectus forms a part, and you may obtain copies of those documents as described in this prospectus under the heading “*Where You Can Find More Information.*”

You should rely only on the information that we have included or incorporated by reference in this prospectus. Neither we nor the Selling Stockholder has authorized any other person to provide you with different information. If anyone provides you with additional, different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Unless otherwise indicated, information contained in or incorporated by reference into this prospectus concerning our business and the industry and markets in which we operate, including with respect to our business prospects, our market position and opportunity, and the competitive landscape, is based on information from our management’s estimates, as well as from industry publications, surveys, and studies conducted by third parties. Our management’s estimates are derived from publicly available information, their knowledge of our business and industry, and assumptions based on such information and knowledge, which they believe to be reasonable. In addition, while we believe that information contained in the industry publications, surveys, and studies has been obtained from reliable sources, we have not independently verified any of the data contained in these third-party sources, and the accuracy and completeness of the information contained in these sources is not guaranteed. Although we are not aware of any misstatements regarding the market and industry data presented in this prospectus and the documents incorporated herein by reference, these estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” in this prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus, including in our Annual Report on Form 10-K filed on March 22, 2024, as amended on April 22, 2024, and our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. Accordingly, you should not place undue reliance on this information.

Basis of Presentation

On June 14, 2024, we filed a Certificate of Amendment to our amended and restated certificate of incorporation (the “Certificate of Amendment”) with the Secretary of State of the State of Delaware to effect a 1-for-8 reverse stock split of our issued and outstanding shares of common stock, par value \$0.0001 per share (the “reverse split”), which became effective on that date. All historical share and per share amounts reflected throughout this prospectus have been adjusted to reflect the reverse split. However, our periodic and current reports, and all other documents that were filed prior to June 14, 2024, do not give effect to the reverse split.

PROSPECTUS SUMMARY

This summary highlights certain information about us, this offering, and information contained elsewhere in this prospectus and in the documents we incorporate by reference. This summary is not complete and does not contain all of the information that you should consider before making an investment decision. To fully understand this offering and its consequences to you, you should read this entire prospectus carefully, including the factors described under the heading "Risk Factors" in this prospectus beginning on page 7, in our Annual Report on Form 10-K filed on March 22, 2024, as amended on April 22, 2024, our Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and the financial statements and all other information incorporated by reference in this prospectus. When used in this prospectus, except where the context otherwise requires, the terms the "Company," "we," "us," "our," "Salarius," or similar terms refer to Salarius Pharmaceuticals, Inc.

Overview

We are a clinical-stage biopharmaceutical company that has been focused on developing effective treatments for parties with cancer with high, unmet medical need. Specifically, we have been concentrated on developing treatments for cancers caused by dysregulated gene expression (i.e., genes which are incorrectly turned on or off). We have two classes of drugs that address gene dysregulation: targeted protein inhibitors and targeted protein degraders. Our technologies have the potential to work in both liquid and solid tumors. Our current pipeline consists of two small molecule drugs: 1) SP-3164, targeted protein degrader, and 2) seclidemstat ("SP-2577"), a targeted inhibitor.

On August 8, 2023, we announced that we retained Canaccord Genuity, LLC to lead a comprehensive review of strategic alternatives focusing on maximizing stockholder value, including but not limited to, an acquisition, merger, reverse merger, divestiture of assets, licensing, or other strategic transactions involving our company. In connection with the evaluation of strategic alternatives and in order to extend our resources, we implemented multiple cost-savings plans to extend our expected cash runway in the first half of 2025.

For more information about our company, please refer to other documents that we have filed with the SEC and that are incorporated by reference into this prospectus, as listed under the heading "*Incorporation of Certain Information by Reference*."

The Purchase Agreement with C/M Capital Master Fund, LP

On December 12, 2024, we entered into the Purchase Agreement with the Selling Stockholder, pursuant to which we, subject to the restrictions and satisfaction of the conditions in the Purchase Agreement, have the right, but not the obligation, to sell to the Selling Stockholder, and the Selling Stockholder is obligated to purchase, up to the lesser of (i) \$10 million of newly issued shares (the "Purchase Shares") of our common stock and (ii) the Exchange Cap (as defined below). As consideration for the Selling Stockholder's execution and delivery of the Purchase Agreement, we have agreed to issue to the Selling Stockholder, simultaneously with the delivery of any and all Purchase Shares purchased under the Purchase Agreement, a number of shares of common stock equal to one percent (1%) of the number of Purchase Shares actually sold in each sale under the Purchase Agreement (the "Commitment Shares" and, together with the Purchase Shares, the "Securities").

We do not have a right to commence any sales of common stock to the Selling Stockholder under the Purchase Agreement until the Commencement Date (as defined in the Purchase Agreement). Over the 36-month period from and after the Commencement Date (unless the Purchase Agreement is terminated earlier in accordance with its terms), the Selling Stockholder has no right to require us to sell any shares of common stock to the Selling Stockholder, but the Selling Stockholder is obligated to make purchases as we direct, subject to certain conditions. There are no upper limits on the price per share that the Selling Stockholder must pay for shares of common stock. Actual sales of shares of common stock to the Selling Stockholder will depend on a variety of factors to be determined by us from time to time, including, among others, market conditions, the trading price of the our common stock and determinations by us as to the appropriate sources of funding for us and our operations.

At any time from and after the Commencement Date, on any business day on which the previous business day's closing sale price of common stock was equal to or greater than \$1.00 (the "Purchase Date"), we may direct the Selling Stockholder to purchase a specified number of shares of common stock (a "Fixed Purchase") not to exceed \$200,000, at a purchase price equal to the lesser of 95% of (i) the daily volume weighted average price (the "VWAP") of the common stock for the five trading days immediately preceding the applicable Purchase Date for such Fixed Purchase and (ii) the closing price of a share of common stock on the trading day immediately prior to such applicable Purchase Date.

In addition, at any time from and after the Commencement Date, on any business day on which the previous business day's closing sale price of the common stock is equal to or greater than \$1.00 and such business day is also the Purchase Date for a Fixed Purchase of an amount of shares of Common Stock not less than the applicable Fixed Purchase Maximum Amount (as defined in the Purchase Agreement) (the "VWAP Purchase Date"), we may also direct the Selling Stockholder to purchase an additional number of shares of common stock in an amount up to the VWAP Purchase Maximum Amount (as defined in the Purchase Agreement) (a "VWAP Purchase") at a purchase price equal to the lesser of 95% of (i) the closing price of a share of common stock on the trading day immediately prior to such applicable Purchase Date and (ii) the VWAP during the period on the applicable VWAP Purchase Date beginning at the opening of trading and ending at the VWAP Purchase Termination Time (as defined in the Purchase Agreement).

At any time from and after the Commencement Date, on any business day that is also the VWAP Purchase Date for a VWAP Purchase, we may also direct the Selling Stockholder to purchase, on such same business day (the "Additional VWAP Purchase Date"), an additional number of shares of common stock in an amount up to the Additional VWAP Purchase Maximum Amount (as defined in the Purchase Agreement) (an "Additional VWAP Purchase") at a purchase price equal to the lesser of 95% of (i) the closing price of a share of common stock on the trading day immediately prior to such applicable Purchase Date and (ii) the VWAP during the Additional VWAP Purchase Period (as defined in the Purchase Agreement) on the applicable Additional VWAP Purchase Date.

If we make certain issuances of our securities within a specified period of time after a Purchase Date and such securities are issued at prices (the "New Issuance Price") less than the prices to be paid by the Selling Stockholder in such Fixed Purchase, VWAP Purchase or Additional VWAP Purchase, the purchase price for such applicable Fixed Purchase, VWAP Purchase and Additional VWAP Purchase would be reduced to the New Issuance Price, subject to the terms and conditions set forth in the Purchase Agreement.

Under the Purchase Agreement, in no event may the aggregate amount of Purchase Shares submitted in any single or combination of VWAP Purchase notices and/or Additional VWAP Purchase notices on a particular date require a payment from the Selling Stockholder to us that exceeds \$2,500,000, unless such limitation is waived by the Selling Stockholder.

In no event shall we issue or sell any shares of common stock pursuant to the Purchase Agreement to the extent that after giving effect thereto, the aggregate number of shares of common stock that would be issued pursuant to the Purchase Agreement (including the Commitment Shares) would exceed 19.99% of the total number of shares of common stock issued and outstanding immediately preceding the execution of the Purchase Agreement (the "Exchange Cap"), subject to adjustment as set forth in the Purchase Agreement, unless and until (i) we obtain the approval of the issuance of such shares by our stockholders in accordance with the applicable stock exchange rules or (ii) the average price paid for all shares of common stock issued under the Purchase Agreement (including Commitment Shares) is equal to or in excess of \$1.528, which is the lower of (A) the closing price on the Nasdaq Capital Market on December 11, 2024 and (B) the average of the closing prices of the common stock for the five business days immediately preceding December 12, 2024, as calculated in accordance with the rules of the Nasdaq Capital Market, such that the sales of such common stock to the Selling Stockholder would not count toward the Exchange Cap because they are "at market" under applicable stock exchange rules.

In addition, the Selling Stockholder is not obligated to buy any shares of common stock pursuant to the Purchase Agreement if such shares of common stock, when aggregated with all other common stock then beneficially owned by the Selling Stockholder and its affiliates (as calculated pursuant to Section 13(d) of the Securities Exchange Act of 1934, as amended, and Rule 13d-3 promulgated thereunder), would result in the Selling Stockholder beneficially owning common stock in excess of 4.99% of the then-outstanding shares of common stock

(the “Beneficial Ownership Limitation”), provided, however, the Selling Stockholder may increase the Beneficial Ownership Limitation up to 9.99% at its sole discretion upon sixty-one days’ prior written notice to us.

For the avoidance of doubt, the Beneficial Ownership Limitation in no event will exceed 19.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock pursuant to the Purchase Agreement.

The net proceeds under the Purchase Agreement to us will depend on the frequency and prices at which we sell shares of our stock to the Selling Stockholder. We expect that any proceeds received by us from such sales to the Selling Stockholder will be used for working capital and other general corporate purposes.

We have the right to terminate the Purchase Agreement at any time, upon one business day’s notice, at no cost or penalty. During any “suspension event” under the Purchase Agreement, the Selling Stockholder does not have the right to terminate the Purchase Agreement; however, we may not initiate any regular or other purchase of shares by the Selling Stockholder, until such event of default is cured. In addition, in the event of bankruptcy proceedings by or against us, the Purchase Agreement will automatically terminate in accordance with its terms.

There are substantial risks to our stockholders as a result of the sale and issuance of common stock to the Selling Stockholder under the Purchase Agreement. These risks include substantial dilution, significant declines in our stock price and our inability to draw sufficient funds when needed. See “Risk Factors.” The sale of our common stock to the Selling Stockholder under the Purchase Agreement will not affect the rights or privileges of our other stockholders, except that the economic and voting interests of our existing stockholders will be diluted as a result of any such sale. Although the number of shares of common stock that our other stockholders own will not decrease, the shares owned by our other stockholders will represent a smaller percentage of our total outstanding shares after any such sale to the Selling Stockholder under the Purchase Agreement.

Corporate Information

We were incorporated as Flex Pharma, Inc. (“Flex Pharma”), in Delaware in February 2014. In July 2019, our wholly owned subsidiary, Falcon Acquisition Sub, LLC, merged with and into Saliarius Pharmaceuticals, LLC (“Private Saliarius”), with Private Saliarius becoming our wholly owned subsidiary (the “Merger”), and we changed our name to Saliarius Pharmaceuticals, Inc. Our principal executive offices are located at 2450 Holcombe Blvd., Suite X, Houston, Texas 77021, and our telephone number is 713-632-1400. Our website address is www.saliariuspharma.com. We do not incorporate the information on, or accessible through, our website into this prospectus, and you should not consider any information on, or accessible through, our website as part of this prospectus.

Implications of Being a Smaller Reporting Company

We are a smaller reporting company as defined in the Securities Exchange Act of 1934, as amended (the “Exchange Act”). We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as (i) the market value of our voting and non-voting common stock held by non-affiliates is less than \$250 million as of June 30 of such fiscal year or (ii) our annual revenue is less than \$100 million during the most recently completed fiscal year and the market value of our voting and non-voting common stock held by non-affiliates is less than \$700 million measured as of June 30 of such fiscal year. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Reports on Form 10-K and have reduced disclosure obligations regarding executive compensation, and, as long as we are a smaller reporting company with less than \$100 million in annual revenue, we are not required to obtain an attestation report on internal control over financial reporting from our independent registered public accounting firm.

THE OFFERING

The following summary contains basic information about this offering. The summary is not intended to be complete. You should read the full text and more specific details contained elsewhere in this prospectus.

Shares of common stock offering by the Selling Stockholder	Up to 6,733,334 shares of common stock, consisting of (i) up to 6,666,667 Purchase Shares that have been or may be issued by us to the Selling Stockholder, from time to time at our sole discretion, pursuant to the Purchase Agreement, and (ii) up to 66,667 Commitment Shares.
Shares of common stock outstanding immediately prior to this offering	1,441,157 shares as of December 12, 2024.
Shares of common stock outstanding immediately following this offering	8,174,491 shares.
Terms of the offering	The Selling Stockholder will determine when and how it will dispose of any shares of our common stock that are registered under this prospectus for resale. See “Plan of Distribution.”
Use of proceeds	We will not receive any of the proceeds from the sale of shares of our common stock offered by the Selling Stockholder. Additionally, we will not receive any proceeds from the issuance or sale of any Commitment Shares. We may receive up to \$10.0 million in aggregate gross proceeds from the Selling Stockholder under the Purchase Agreement in connection with sales of our shares of our common stock to the Selling Stockholder pursuant to the Purchase Agreement after the date of this prospectus. However, the actual proceeds may be less than this amount depending on the number of shares of our common stock sold and the price at which the shares of our common stock are sold. We intend to use any net proceeds that we receive under the Purchase Agreement for working capital and other general corporate purposes. However, as of the date of this prospectus, we cannot specify with certainty all of the particular uses, and the respective amounts we may allocate to those uses, for any net proceeds we receive. See “Use of Proceeds” on page 22 of this prospectus.
Nasdaq Capital Market symbol	Our shares of common stock are traded on The Nasdaq Capital Market under the symbol “SLRX”.
Transfer Agent and Registrar	Equiniti Trust Company, LLC

Outstanding Shares

The number of shares of our common stock to be outstanding after this offering is based on 1,441,157 shares of our common stock outstanding as of November 30, 2024, and excludes:

- 31,554 shares of our common stock issuable upon the exercise of stock options outstanding as of November 30, 2024 at a weighted-average exercise price of \$66.75 per share;
- 131 shares of our common stock issuable upon the settlement of restricted stock units outstanding as of November 30, 2024;
- 560,839 shares of our common stock issuable upon the exercise of warrants outstanding as of November 30, 2024 at a weighted average exercise price of \$34.23 per share;
- 9,844 shares of our common stock available for future issuance under our 2015 Equity Incentive Plan as of November 30, 2024; and
- 25,501 shares of our common stock reserved for future issuance under our 2015 Employee Stock Purchase Plan, or the ESPP, as of November 30, 2024.

Unless otherwise indicated, all information in this prospectus assumes no exercise or settlement of outstanding options, restricted stock units or warrants.

RISK FACTORS

Investing in our securities involves a high degree of risk. This prospectus does not describe all of those risks. You should consider the risk factors described in this prospectus, as well as those described under the caption "Risk Factors" in the documents incorporated by reference herein, including our Annual Report on Form 10-K filed on March 22, 2024, as amended on April 22, 2024, and our subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K filed with the SEC, together with other information contained in or incorporated by reference in this prospectus, the information and documents incorporated by reference herein. The occurrence of any of the events or developments described below could materially and adversely affect our business, financial condition, results of operations and prospects. In such an event, the market price of our common stock could decline and you may lose all or part of your investment.

Risks Related to the Committed Equity Financing

It is not possible to predict the actual number of shares of our common stock, if any, we will sell under the Purchase Agreement, or the actual gross proceeds resulting from those sales or the dilution to you from those sales. Further, we may not have access to the full amount available under the Purchase Agreement.

Pursuant to the Purchase Agreement, the Selling Stockholder shall, subject to the restrictions and satisfaction of the conditions in the Purchase Agreement, purchase from us up to the lesser of (a) \$10.0 million of shares of common stock and (b) 19.99% of the total number of shares of common stock outstanding as of the date of the Purchase Agreement, or the Exchange Cap, upon the terms and subject to the conditions and limitations set forth in the Purchase Agreement, or the Commitment Amount; provided, however, that such limitations will not apply if we obtain stockholder approval to issue additional shares of common stock and, accordingly, we have registered 6,733,334 shares for issuance under the Purchase Agreement and resale pursuant to this prospectus, assuming that such stockholder approval is obtained and that \$10.0 million of shares are issued and sold at a price of \$1.50 per share. The shares of our common stock that may be issued under the Purchase Agreement may be sold, subject to the restrictions and satisfaction of the conditions in the Purchase Agreement, by us to the Selling Stockholder at our discretion from time to time from the Commencement Date (as defined below) until the earliest to occur of (i) the first day of the month next following the 36-month anniversary of the Commencement Date, (ii) the date on which the Selling Stockholder shall have purchased the Commitment Amount, (iii) the ninetieth day after the date on which, pursuant to or within the meaning of any bankruptcy law, we commence a voluntary case or any person commences a proceeding against us, in each case that is not discharged or dismissed prior to such ninetieth day, and (iv) the date on which, pursuant to or within the meaning of any bankruptcy law, a custodian is appointed for us or for all or substantially all of our property, or we make a general assignment for the benefit of our creditors, or each, a Termination Event.

We do not have a right to commence any sales of common stock to the Selling Stockholder under the Purchase Agreement until the time when all of the conditions to our right to commence sales of common stock to the Selling Stockholder set forth in the Purchase Agreement have been satisfied, or the Commencement Date, including the effectiveness of the registration statement of which this prospectus forms a part. Over the 36-month period from and after the Commencement Date, we will generally have the right to control the timing and amount of any sales of our common stock to the Selling Stockholder under the Purchase Agreement. Sales of our common stock, if any, to the Selling Stockholder under the Purchase Agreement will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to the Selling Stockholder all, some or none of the common stock that may be available for us to sell to the Selling Stockholder pursuant to the Purchase Agreement. Accordingly, we cannot guarantee that we will be able to sell all of the Commitment Amount or how much in proceeds we may obtain under the Purchase Agreement. If we cannot sell securities under the Committed Equity Financing, we may be required to utilize more costly and time-consuming means of accessing the capital markets, which could have a material adverse effect on our liquidity and cash position.

Because the purchase price per share of common stock to be paid by the Selling Stockholder for the common stock that we may elect to sell to the Selling Stockholder under the Purchase Agreement, if any, will fluctuate based on the market prices of our common stock at the time we make such election, it is not possible for us to predict, as of the date of this prospectus and prior to any such sales, the number of shares of common stock that we will sell to the Selling Stockholder under the Purchase Agreement, the purchase price per share that the Selling Stockholder will

pay for shares of common stock purchased from us under the Purchase Agreement, or the aggregate gross proceeds that we will receive from those purchases the Selling Stockholder under the Purchase Agreement.

We are registering 6,733,334 shares of our common stock under this prospectus. As of December 12, 2024, there were 1,441,157 shares of common stock outstanding. If all of the 6,733,334 shares of our common stock offered for resale by the Selling Stockholder under this prospectus were issued and outstanding as of December 12, 2024, such shares would represent approximately 82.4% of total number of shares of our common stock outstanding.

The actual number of shares of our common stock issuable will vary depending on the then current market price of shares of our common stock sold to the Selling Stockholder in this offering and the number of shares of our common stock we ultimately elect to sell to the Selling Stockholder under the Purchase Agreement. If it becomes necessary for us to issue and sell to the Selling Stockholder under the Purchase Agreement more than the 6,733,334 shares of our common stock being registered for resale under this prospectus in order to receive aggregate gross proceeds equal to \$10.0 million under the Purchase Agreement, we must file with the SEC one or more additional registration statements to register under the Securities Act the resale by the Selling Stockholder of any such additional shares of our common stock we wish to sell from time to time under the Purchase Agreement, which the SEC must declare effective, in each case before we may elect to sell any additional shares of our common stock under the Purchase Agreement. Under applicable Nasdaq rules, in no event may we issue to the Selling Stockholder shares of our common stock representing more than 19.99% of the total number of shares of common stock outstanding immediately prior to the execution of the Purchase Agreement, or 288,087 shares of common stock, unless (i) we obtain the approval of the issuance of additional shares by our stockholders in accordance with the applicable stock exchange rules or (ii) the average price paid for all shares of common stock issued under the Purchase Agreement (including both Purchase Shares and Commitment Shares) is equal to or greater than \$1.528, which is a price equal to the lower of (A) the Nasdaq Official Closing Price immediately preceding the execution of the Purchase Agreement and (B) the average Nasdaq Official Closing Price of our common stock for the five trading days immediately preceding the execution of the Purchase Agreement, as calculated in accordance with the rules of Nasdaq, such that the sales of such common stock to the Selling Stockholder would not count toward such limit because they are “at market” under applicable stock exchange rules.

In addition, the Selling Stockholder is not obligated to buy any common stock under the Purchase Agreement if such shares, when aggregated with all other common stock then beneficially owned by the Selling Stockholder and its affiliates (as calculated pursuant to Section 13(d) of the Securities Exchange Act, and Rule 13d-3 promulgated thereunder), would result in the Selling Stockholder beneficially owning common stock in excess of 4.99% of the then-outstanding shares of common stock, or the Beneficial Ownership Limitation; provided, however, the Selling Stockholder may increase the Beneficial Ownership Limitation up to 9.99% at its sole discretion upon sixty-one days’ prior written notice to us; provided, that for the avoidance of doubt, the Beneficial Ownership Limitation in no event will exceed 19.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock pursuant to the Purchase Agreement. Our inability to access a portion or the full amount available under the Purchase Agreement, in the absence of any other financing sources, could have a material adverse effect on our business or results of operation.

The Selling Stockholder will pay less than the then-prevailing market price for our common stock, which could cause the price of our common stock to decline.

The purchase price of our common stock to be sold to the Selling Stockholder under the Purchase Agreement is derived from the market price of our common stock on Nasdaq. Shares to be sold to the Selling Stockholder pursuant to the Purchase Agreement will be purchased at a discounted price.

For example, we may effect sales to the Selling Stockholder pursuant to a Fixed Purchase Notice (as defined below) at a purchase price equal to the lesser of 95% of (i) the closing sale price of a share of common stock on the business day immediately preceding the applicable Fixed Purchase Date (as defined below) and (ii) the daily volume weighted average price of the common stock for the five trading days immediately preceding the applicable Fixed Purchase Date. See “The Committed Equity Financing” for more information.

As a result of this pricing structure, the Selling Stockholder may sell the shares they receive immediately after receipt of such shares, which could cause the price of our common stock to decrease.

Investors who buy shares of common stock from the Selling Stockholder at different times will likely pay different prices.

Pursuant to the Purchase Agreement, we have discretion (subject to the restrictions and satisfaction of the conditions in the Purchase Agreement) to vary the timing, price and number of shares of common stock we sell to the Selling Stockholder. If and when we elect to sell shares of common stock to the Selling Stockholder pursuant to the Purchase Agreement, after the Selling Stockholder has acquired such shares, the Selling Stockholder may resell all, some or none of such shares at any time or from time to time in its sole discretion and at different prices. As a result, investors who purchase shares from the Selling Stockholder in this offering at different times will likely pay different prices for those shares, and so may experience different levels of dilution and in some cases substantial dilution and different outcomes in their investment results. Investors may experience a decline in the value of the shares they purchase from the Selling Stockholder in this offering as a result of future sales made by us to the Selling Stockholder at prices lower than the prices such investors paid for their shares in this offering. In addition, if we sell a substantial number of shares to the Selling Stockholder under the Purchase Agreement, or if investors expect that we will do so, the actual sales of shares or the mere existence of our arrangements with the Selling Stockholder may make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect such sales.

Future resales and/or issuances of shares of common stock, including pursuant to this prospectus, or the perception that such sales may occur, may cause the market price of our shares to drop significantly.

On December 12, 2024, we entered into the Purchase Agreement, pursuant to which the Selling Stockholder shall, subject to the restrictions and satisfaction of the conditions in the Purchase Agreement, purchase from us up to an aggregate of \$10.0 million of shares of common stock, upon the terms and subject to the conditions and limitations set forth in the Purchase Agreement.

The shares of our common stock that may be issued under the Purchase Agreement may be sold, subject to the restrictions and satisfaction of the conditions in the Purchase Agreement, by us to the Selling Stockholder at our discretion from time to time from the date of effectiveness of the registration statement of which this prospectus forms a part until the earliest to occur of (i) the first day of the month next following the 36-month anniversary of the Commencement Date, (ii) the date on which the Selling Stockholder shall have purchased the Commitment Amount, (iii) the ninetieth day after the date on which, pursuant to or within the meaning of any bankruptcy law, we commence a voluntary case or any person commences a proceeding against us, in each case that is not discharged or dismissed prior to such ninetieth day, and (iv) the date on which, pursuant to or within the meaning of any bankruptcy law, a custodian is appointed for us or for all or substantially all of our property, or we make a general assignment for the benefit of our creditors, or each, a Termination Event.

The purchase price for shares of our common stock that we may sell to the Selling Stockholder under the Purchase Agreement will fluctuate based on the trading price of shares of our common stock. Depending on market liquidity at the time, sales of shares of our common stock may cause the trading price of shares of our common stock to decrease. We generally have the right to control the timing and amount of any future sales of shares of our common stock to the Selling Stockholder. Additional sales of shares of our common stock, if any, to the Selling Stockholder will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to the Selling Stockholder all, some or none of the additional shares of our common stock that may be available for us to sell pursuant to the Purchase Agreement. If and when we do sell shares of our common stock to the Selling Stockholder, after the Selling Stockholder has acquired shares of our common stock, the Selling Stockholder may resell all, some or none of such shares of our common stock at any time or from time to time in its discretion and at different prices. Therefore, sales to the Selling Stockholder by us could result in substantial dilution to the interests of other holders of shares of our common stock. In addition, if we sell a substantial number of shares of our common stock to the Selling Stockholder under the Purchase Agreement, or if investors expect that we will do so, the shares held by the Selling Stockholder will represent a significant portion of our public float and may result in substantial decreases to the price of our common stock. The actual sales of shares of our common stock or the mere existence of our arrangement with the Selling Stockholder may also make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect such sales.

In addition, shares of our common stock issuable upon exercise or vesting of incentive awards under our incentive plans are, once issued, eligible for sale in the public market, subject to any lock-up agreements and, in some cases, limitations on volume and manner of sale applicable to affiliates under Rule 144. Furthermore, shares of our common stock reserved for future issuance under our incentive plan may become available for sale in future.

As of November 30, 2024, we had (i) outstanding options to purchase 31,554 shares of our common stock under our 2015 Equity Incentive Plan, (ii) outstanding restricted stock units to acquire 131 shares of our common stock under our 2015 Equity Incentive Plan, (iii) 9,844 shares of our common stock reserved for future issuance under our 2015 Equity Incentive Plan and (iv) 25,501 shares of our common stock reserved for future issuance under our 2015 Employee Stock Purchase Plan. We have registered or intend to register the shares of common stock available for issuance under our 2015 Equity Incentive Plan and 2015 Employee Stock Purchase Plan under the Securities Act on Registration Statements on Form S-8. The registered shares can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates, to the extent applicable.

As of November 30, 2024, we also had 560,839 outstanding warrants exercisable for shares of our common stock with a weighted-average exercise price of \$34.23 per share. The shares of our common stock underlying such warrants will, upon issuance, be freely tradeable without restriction or further registration under the Securities Act.

The market price of shares of our common stock could drop significantly if the holders described above sell or are perceived by the market as intending to sell. These factors could also make it more difficult for us to raise additional funds through future offerings of shares of our common stock or other securities.

We may use proceeds from sales of our common stock made pursuant to the Purchase Agreement in ways with which you may not agree or in ways which may not yield a significant return.

We will have broad discretion over the use of proceeds from sales of our common stock made pursuant to the Purchase Agreement, including for any of the purposes described in the section entitled "Use of Proceeds," and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. Because of the number and variability of factors that will determine our use of the net proceeds, their ultimate use may vary substantially from their currently intended use. While we expect to use the net proceeds from this offering as set forth in "Use of Proceeds," we are not obligated to do so. The failure by us to apply these funds effectively could harm our business, and the net proceeds may be used for corporate purposes that do not increase our operating results or enhance the value of our common stock.

Risks Related to Our Financial Position and Capital Needs

We do not currently have sufficient working capital to fund our planned operations for the next twelve months and may not be able to continue as a going concern. There is uncertainty regarding our ability to maintain liquidity sufficient to operate our business, which raises substantial doubt about our ability to continue as a going concern.

Our auditor's report on our financial statements for the year ended December 31, 2023 includes an explanatory paragraph related to the existence of substantial doubt about our ability to continue as a going concern. As of September 30, 2024, our cash and cash equivalents totaled \$3.3 million, which were held in bank deposit accounts and a money market account. As of September 30, 2024, we have incurred an accumulated deficit of \$80.5 million.

As a result, we believe our existing cash resources are sufficient to meet our anticipated needs into the first half of 2025, even after taking into account our significantly reduced operations, we would need to raise additional capital in the next several months in order to avoid a wind down and dissolution of our company. Our ability to continue as a going concern is dependent upon our ability to obtain additional equity or debt financing, attain further operating efficiencies, reduce expenditures, and, ultimately, to generate revenue. Since inception, we have incurred net losses and negative cash flows from operations. We may not ever obtain additional financing. Our existing cash and cash equivalents will not be sufficient to enable us to continue the clinical development and commercialization of our product candidates for any indications or to in license any other product candidates and develop them. Although we are currently exploring various strategic alternatives, these strategic alternatives may not be successful in the next several months prior to our cash position getting to the point that we will need to pursue the winding

down and dissolution of our company. If we do not raise capital in the next several months or engage a strategic partner, we will be forced to cease operations and liquidate our assets and seek bankruptcy protection or engage in a similar process. As such, we cannot conclude that such plans will be effectively implemented within one year after the date of this prospectus and there is uncertainty regarding our ability to maintain liquidity sufficient to operate our business effectively, which raises substantial doubt about our ability to continue as a going concern.

If we do not successfully complete a strategic transaction or raise additional capital, we will need to pursue a dissolution and liquidation of our company. In such an event, the amount of cash available for distribution to our stockholders will depend heavily on the timing of such liquidation as well as the amount of cash that will need to be reserved for commitments and contingent liabilities.

There can be no guarantee that the process to identify a strategic transaction will result in a successfully completed transaction. If no strategic transaction is completed and we are unable to raise additional capital in the next several months, we will be forced to cease operations, liquidate assets and possibly seek bankruptcy protection or engage in a similar process. In that event, the amount of cash available for distribution to our stockholders will depend heavily on the timing of such decision and, ultimately, such liquidation, since the amount of cash available for distribution continues to decrease as we fund our operations and evaluate our strategic alternatives. In addition, if our board of directors were to approve and recommend, and our stockholders were to approve, a dissolution of our company, we would be required under Delaware corporate law to pay our outstanding obligations, as well as to make reasonable provision for contingent and unknown obligations, prior to making any distributions in liquidation to our stockholders. As a result of this requirement, a portion of our assets may need to be reserved pending the resolution of such obligations. In addition, we may be subject to litigation or other claims related to a dissolution and liquidation of our company. If a dissolution and liquidation were pursued, our board of directors, in consultation with its advisors, would need to evaluate these matters and make a determination about a reasonable amount to reserve. Accordingly, holders of our common stock could lose all or a significant portion of their investment in the event of a dissolution, liquidation or winding up of our company.

Our common stock may be subject to delisting from Nasdaq.

Our common stock is currently listed on The Nasdaq Capital Market, or Nasdaq. To maintain our listing on Nasdaq, we are required to maintain: (i) a minimum bid price of \$1.00 per share; (ii) a market value of publicly held securities of \$1 million; (iii) a certain number of round lot stockholders; and (iv) one of the following: a net income from continuing operations (in the latest fiscal year or two of the three last fiscal years) of at least \$500,000, a market value of listed securities of at least \$35 million or a stockholders' equity of at least \$2.5 million (the "Stockholders' Equity Requirement"). Nasdaq has the authority to delist our common stock if we fail to maintain these minimum requirements. In addition, Nasdaq may delist us if, based on Nasdaq's review of our company and pursuant to Nasdaq Listing Rule 5101, Nasdaq believes that we are a "public shell" and that the continued listing of our securities is no longer warranted. We have no current plans to delist our shares of common stock from Nasdaq. However, following the decision to close the clinical development of seclidemstat for Ewing sarcoma, we may be treated as a public shell under Nasdaq rules. Although Nasdaq evaluates whether a listed company is a public shell company based on a facts and circumstances determination, a Nasdaq-listed company with no or nominal operations and either no or nominal assets, assets consisting solely of cash and cash equivalents, or assets consisting of any amount of cash and cash equivalents and nominal other assets is generally considered to be a public shell company. Listed companies determined to be public shell companies by Nasdaq may be subject to delisting proceedings or additional and more stringent listing criteria.

On August 9, 2024, we reported in our Quarterly Report on Form 10-Q that for the three months ended June 30, 2024, our stockholders' equity was approximately \$2.3 million. As further disclosed in that Quarterly Report on Form 10-Q, subsequent to June 30, 2024, we sold 564,730 shares of our common stock for gross proceeds of approximately \$1.5 million pursuant to that certain At the Market Offering Agreement, dated as of February 5, 2021, with Ladenburg Thalmann & Co. Inc. (the "ATM Financing Transaction"). On August 13, 2024, we reported via Current Report on Form 8-K that we regained compliance with the Stockholders' Equity Requirement after giving effect to the ATM Financing Transaction. Notwithstanding the foregoing, Nasdaq will continue to monitor our ongoing compliance with the Stockholders' Equity Requirement and, if at the time of the next periodic report we do not evidence compliance, our common stock may be subject to delisting.

We are actively monitoring the market value of our publicly held securities and our stockholders' equity and will consider any and all options available to us to maintain compliance. There can be no assurance, however, that we will be able to maintain compliance and meet Nasdaq's continued listing requirements.

If our common stock is delisted from Nasdaq, whether because Nasdaq determines we are a "public shell" or we fail to maintain compliance with the continued listed requirements, or otherwise, our securities may qualify for trading over-the-counter, or OTC, in the United States on a market colloquially referred to as the "Pink Sheets." Securities quoted on OTC are generally subject to lesser requirements than securities listed for trading on a U.S. national stock exchange, such as Nasdaq, including reduced corporate governance and public reporting standards. If Nasdaq should delist our common stock from trading, a reduction in some or all of the following may occur, each of which could have a material adverse effect on holders of our common stock: the liquidity of our common stock; the market price of our common stock; the number of institutional and general investors that will consider investing in our common stock; the number of investors in general that will consider investing in our common stock; the number of market makers in our common stock; the availability of information concerning the trading prices and volume of our common stock; and the number of broker-dealers willing to execute trades in our common stock. In addition to the foregoing, there are certain consequences under the Securities Act of being a public shell company, including the unavailability of Rule 144 thereunder for the resale of restricted securities and the inability to utilize Form S-8 for the registration of employee benefit plan securities.

We are substantially dependent on our remaining employees and consultants to operate our business.

As of December 12, 2024, we had only two full-time employees, one of which is our Chief Financial Officer, and one consultant acting as our Chief Executive Officer. Our ability to operate our business and successfully complete any strategic transaction depends in large part on our ability to retain certain remaining personnel. Despite our efforts to retain these employees, one or more may terminate their employment or consulting arrangement with us on short notice. The loss of the services of certain employees could potentially harm our ability to successfully complete any strategic transaction or to run our day-to-day business operations, as well as to fulfill our reporting obligations as a public company.

Risks Related to Our Common Stock

The terms of our outstanding warrants could impede our ability to enter into certain transactions or obtain additional financing.

The terms of certain of our outstanding warrants to purchase shares of our common stock require us, upon the consummation of any "fundamental transaction" (as defined in the securities), to, among other obligations, cause any successor entity resulting from the fundamental transaction to assume all of our obligations under the warrants and the associated transaction documents. In addition, holders of warrants are entitled to participate in any fundamental transaction on an as-converted or as-exercised basis, which could result in the holders of our common stock receiving a lesser portion of the consideration from a fundamental transaction. The terms of the warrants could also impede our ability to enter into certain transactions or obtain additional financing in the future.

Future sales of a significant number of our shares of common stock in the public markets, or the perception that such sales could occur, could depress the market price of our shares of our common stock or cause our stock price to decline.

Sales of a substantial number of our shares of common stock in the public markets, or the perception that such sales could occur, including from the exercise of warrants or sales of common stock issuable thereunder, as well as from any sales of our common stock made pursuant to the Purchase Agreement, could cause the market price of our shares of common stock to decline and impair our ability to raise capital through the sale of additional equity securities. We cannot predict the effect that future sales of our shares of common stock, including shares issuable upon the exercise of warrants or sales of our common stock that may be made pursuant to the Purchase Agreement, would have on the market price of our shares of common stock.

We do not currently intend to pay dividends on our common stock, and any return to investors is expected to come, if at all, only from potential increases in the price of our common stock.

At the present time, we intend to use available funds to finance our operations. Accordingly, while payment of dividends rests within the discretion of our board of directors, we have no intention of paying any such dividends in the foreseeable future. Any return to investors is expected to come, if at all, only from potential increases in the price of our common stock.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents we have filed with the SEC that are incorporated by reference in this prospectus contain forward-looking statements that involve risks and uncertainties. These statements relate to future periods, future events or our future operating or financial plans or performance. All statements other than statements of fact, including statements identified by words such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “plan,” “intend,” “expect,” and similar expressions are forward-looking statements, and include but are not limited to the following:

- our ability to continue as a going concern to support our operations in the first half of 2025;
- our expectations regarding the exploration of strategic alternatives;
- our strategy, including significantly reducing our expenditures on operational and research and development activities and taking other cost savings measures in connection with our ongoing review of strategic alternatives;
- our expectations regarding the benefits of our cost-saving measures;
- our ability to preserve capital while we continue to assess potential strategic alternatives;
- the expected timing for incurring costs associated with the cost savings measures;
- our expectations regarding our clinical trials and any investigator-initiated clinical trials, including our assessment of potential options to continue the clinical development of SP-2577 for Ewing sarcoma;
- our liquidity position, the expected sufficiency of such position for anticipated operating and capital requirements;
- our expectations regarding our ability to remain listed on Nasdaq; and
- other risks and uncertainties, including those described or incorporated by reference under the caption “Risk Factors” in this prospectus.

We have based these forward-looking statements on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, strategy, short- and long-term business operations and objectives, and financial requirements. These statements are subject to known and unknown risks, uncertainties and assumptions that could cause actual results to differ materially from those projected or otherwise implied by the forward-looking statements, including the following: risks and uncertainties associated with our ability to manage our business plans, strategies, and outlooks and any business-related forecasts or projections; the availability of sufficient resources to meet our business objectives and operational requirements; the ability to project future cash utilization and reserves needed for contingent future liabilities and business operations; the fact that the results of earlier studies and trials may not be predictive of future clinical trial results; the ability to protect our intellectual property rights; risks related to the drug development and the regulatory approval process; and the impact of competitive products and technological changes; the impact of new legislation or regulations, or of judicial decisions, on our business; legal and regulatory uncertainties; our ability to compete against third parties; the economic environment; our ability to manage future growth; the market price of our common stock; and foreign currency exchange rate fluctuations. You should not place undue reliance on these forward-looking statements.

We discuss in greater detail, and incorporate by reference into this prospectus and the accompanying prospectus, many of these risks, uncertainties and assumptions under the heading “Risk Factors.” Additional cautionary statements or discussions of risks, uncertainties, and assumptions that could affect our results or the achievement of the expectations described in forward-looking statements are also contained in the documents we incorporate by reference into this prospectus. Any forward-looking statement made by us in this prospectus, or any of the documents incorporated by reference in this prospectus speaks only as of the date on which it was made. We

expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions, or circumstances on which any such statement is based. You should, however, review additional disclosures we make in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K filed with the SEC.

You should read this prospectus and the documents that we incorporated by reference in this prospectus completely and with the understanding that our actual future results, levels of activity, and performance as well as other events and circumstances may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

THE COMMITTED EQUITY FINANCING

Overview

On December 12, 2024, we entered into the Purchase Agreement with the Selling Stockholder. Sales of our common stock to the Selling Stockholder under the Purchase Agreement, and the timing of any sales, will be determined by us from time to time in our sole discretion and will depend on a variety of factors, including, among other things, market conditions, the trading price of our common stock and determinations by us regarding the use of proceeds from any sale of such common stock. The net proceeds from any sales under the Committed Equity Financing will depend on the frequency with, and prices at, which the common stock are sold to the Selling Stockholder. To the extent we sell shares under the Purchase Agreement, we currently plan to use the net proceeds for working capital and other general corporate purposes. We cannot predict whether the net proceeds invested will yield a favorable return.

In accordance with our obligations under the Purchase Agreement and the Registration Rights Agreement, dated as of December 12, 2024, between us and the Selling Stockholder, or the Registration Rights Agreement, pursuant to which we agreed to provide the Selling Stockholder with customary registration rights related to the shares issued under the Purchase Agreement, we have filed a registration statement of which this prospectus forms a part in order to register the resale of up to: (i) 6,666,667 Purchase Shares that we may elect, in our sole discretion, to issue and sell to the Selling Stockholder, from time to time after the Commencement Date upon the terms and subject to the conditions and limitations of the Purchase Agreement, subject to applicable stock exchange rules (assuming the shares are sold at a price of \$1.50 per share); and (ii) 66,667 Commitment Shares that may be issued to the Selling Stockholder in connection with related issuances and sales of Purchase Shares as consideration for the Selling Stockholder's execution and delivery of the Purchase Agreement.

Under applicable Nasdaq rules, in no event may we issue to the Selling Stockholder shares of our common stock representing more than 19.99% of the total number of shares of common stock outstanding immediately prior to the date of the Purchase Agreement, unless we obtain prior stockholder approval or if such approval is not required in accordance with the applicable Nasdaq rules, or the Exchange Cap. In addition, the Selling Stockholder is not obligated to buy any common stock under the Purchase Agreement if such shares, when aggregated with all other common stock then beneficially owned by the Selling Stockholder and its respective affiliates (as calculated pursuant to Section 13(d) of the Exchange Act and Rule 13d-3 promulgated thereunder), would result in the Selling Stockholder beneficially owning common stock in excess of 4.99% of the then-outstanding shares of common stock, or the Beneficial Ownership Limitation; provided, however, the Selling Stockholder may increase the Beneficial Ownership Limitation up to 9.99% at its sole discretion upon sixty-one days' prior written notice to us; provided, that for the avoidance of doubt, the Beneficial Ownership Limitation in no event will exceed 19.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock pursuant to the Purchase Agreement. Our inability to access a portion or the full amount available under the Purchase Agreement, in the absence of any other financing sources, could have a material adverse effect on our business or results of operation.

The Purchase Agreement and Registration Rights Agreement contain customary registration rights, representations, warranties, conditions and indemnification obligations by each party. The representations, warranties and covenants contained in such agreements were made only for purposes of such agreements and as of specific dates, were solely for the benefit of the parties to such agreements and are subject to certain important limitations.

Purchase Agreement

Pursuant to the Purchase Agreement, the Selling Stockholder shall, subject to the restrictions and satisfaction of the conditions in the Purchase Agreement, purchase from us up to the lesser of (i) \$10.0 million of shares of our common stock and (ii) the Exchange Cap, upon the terms and subject to the conditions and limitations set forth in the Purchase Agreement, or the Commitment Amount; provided, however, that such limitations will not apply if we obtain stockholder approval to issue additional shares of common stock and, accordingly, we have registered 6,733,334 shares for issuance under the Purchase Agreement and resale pursuant to this prospectus, assuming that such stockholder approval is obtained and that \$10.0 million of shares are issued and sold at a price of \$1.50 per

share. The shares of our common stock that may be issued under the Purchase Agreement may be sold, subject to the restrictions and satisfaction of the conditions in the Purchase Agreement, by us to the Selling Stockholder at our discretion from time to time from the Commencement Date until the earliest to occur of (i) the first day of the month next following the 36-month anniversary of the Commencement Date, (ii) the date on which the Selling Stockholder shall have purchased the Commitment Amount, (iii) the ninetieth day after the date on which, pursuant to or within the meaning of any bankruptcy law, we commence a voluntary case or any person commences a proceeding against us, in each case that is not discharged or dismissed prior to such ninetieth day, and (iv) the date on which, pursuant to or within the meaning of any bankruptcy law, a custodian is appointed for us or for all or substantially all of our property, or we make a general assignment for the benefit of our creditors, or each, a Termination Event.

Purchases of Shares of our Common Stock Under the Purchase Agreement

During the term described above, on any business day on which the closing sale price of the common stock is equal to or greater than \$1.00, or the Fixed Purchase Date, we will have the right, but not the obligation, from time to time at our sole discretion, subject to the restrictions and satisfaction of the conditions in the Purchase Agreement, to direct the Selling Stockholder, by delivery of an irrevocable written notice, or a Fixed Purchase Notice, to purchase a number of shares of our common stock, or the Fixed Purchase, up to \$200,000, or the Fixed Purchase Maximum Amount, at a purchase price equal to the lesser of 95% of (i) the closing sale price of a share of common stock on the business day immediately preceding the applicable Fixed Purchase Date, or the Fixed Purchase Price and (ii) the daily VWAP (as defined below) of the common stock for the five trading days immediately preceding the applicable Fixed Purchase Date.

In addition, at any time from and after the Commencement Date, on any business day on which the closing sale price of the common stock is equal to or greater than \$1.00 and such business day is also the Fixed Purchase Date for a Fixed Purchase of an amount of shares of common stock not less than the applicable Fixed Purchase Maximum Amount (calculated as of the applicable Fixed Purchase Date), we may also direct the Selling Stockholder, by delivery of an irrevocable written notice, or a VWAP Purchase Notice, to purchase, on the immediately following business day, or the VWAP Purchase Date, an additional number of shares of common stock in an amount equal to the lesser of (i) 300% of the number of shares of common stock directed by us to be purchased by the Selling Stockholder for the applicable Fixed Purchase and (ii) 30% of the trading volume in our common stock on Nasdaq during the applicable VWAP Purchase Period (as defined in the Purchase Agreement) on the applicable VWAP Purchase Date, or the VWAP Purchase, at a purchase price equal to the lesser of 95% of (i) the closing sale price of the common stock on the business day immediately preceding the applicable VWAP Purchase Date and (ii) the VWAP during the applicable VWAP Purchase Period, or the VWAP Purchase Price.

At any time from and after the Commencement Date, on any business day that is also the VWAP Purchase Date for a VWAP Purchase, we may also direct the Selling Stockholder, by delivery of an irrevocable written notice, or an Additional VWAP Purchase Notice and, together with a Fixed Purchase Notice and a VWAP Purchase Notice, a Purchase Notice, to purchase, on the same business day, or the Additional VWAP Purchase Date and, together with a Fixed Purchase Date and a VWAP Purchase Date, the Purchase Dates, an additional number of shares of common stock in an amount equal to the lesser of (i) 300% of the number of shares of common stock directed by us to be purchased by the Selling Stockholder pursuant to the corresponding Fixed Purchase and (ii) 30% of the trading volume in our common stock on Nasdaq during the applicable Additional VWAP Purchase Period (as defined in the Purchase Agreement) on the applicable VWAP Purchase Date, or an Additional VWAP Purchase, and together with a Fixed Purchase and a VWAP Purchase, the Purchases, at a purchase price equal to the lesser of 95% of (i) the closing sale price of the common stock on the business day immediately preceding the applicable Additional VWAP Purchase Date and (ii) the VWAP for the applicable Additional VWAP Purchase Period (as defined in the Purchase Agreement).

Notwithstanding the above, in no event may the aggregate amount of Purchase Shares submitted in any single or combination of VWAP Purchase notices and/or Additional VWAP Purchase notices on a particular date require a payment from the Selling Stockholder to us that exceeds \$2,500,000, unless such limitation is waived by the Selling Stockholder

For purposes of the Purchase Agreement, "VWAP" shall mean the daily volume weighted average price of the common stock on Nasdaq as reported by Bloomberg through its "AQR" function.

All such determinations shall be appropriately adjusted for any sales of shares of common stock through block transactions, any reorganization, non-cash dividend, stock split, reverse stock split, stock combination, recapitalization or other similar transaction during such period.

Commitment Shares and Fees

As consideration for its irrevocable commitment to purchase our common stock under the Purchase Agreement, we have agreed to issue to the Selling Stockholder 1.0% of the shares of common stock issued in each Fixed Purchase, VWAP Purchase or Additional VWAP Purchase, as the case may be.

We have also agreed to pay to the Selling Stockholder \$25,000 in cash as reimbursement for the reasonable, out-of-pocket expenses incurred by the Selling Stockholder, including the legal fees and disbursements of the Selling Stockholder's legal counsel, in connection with its due diligence investigation of our company and in connection with the preparation, negotiation and execution of the Purchase Agreement.

Conditions Precedent to Commencement

Our right to commence delivering Purchase Notices under the Purchase Agreement and the Selling Stockholder's obligation to accept such Purchase Notices, are subject to the initial satisfaction, at the Commencement Date, of the conditions precedent thereto set forth in the Purchase Agreement, which conditions include, among others, the following:

- the accuracy in all material respects of our representations and warranties included in the Purchase Agreement;
- us having performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by the Purchase Agreement and the Registration Rights Agreement to be performed, satisfied or complied with by us;
- the absence of any material misstatement or omission in the registration statement that includes this prospectus;
- this prospectus, in final form, and all reports, schedules, registrations, forms, statements, information and other documents required to have been filed by us with the SEC pursuant to the reporting requirements of the Exchange Act having been so filed;
- the common stock not having been suspended by the SEC, Nasdaq or FINRA and there not having been imposed any suspension of, or restriction on, accepting additional deposits of common stock by The Depository Trust Company;
- no condition, occurrence, state of facts or event constituting a Material Adverse Effect (as defined in the Purchase Agreement) shall have occurred and be continuing;
- customary compliance with laws and bankruptcy-related conditions; and
- the receipt by the Selling Stockholder of a customary legal opinion, as required under the Purchase Agreement.

Termination of the Purchase Agreement

Unless earlier terminated as provided in the Purchase Agreement, the Purchase Agreement will terminate automatically on the earliest to occur of:

- the first day of the month next following the 36-month anniversary of the Commencement Date;
- the date on which the Selling Stockholder shall have purchased the Commitment Amount;

- the ninetieth day after the date on which, pursuant to or within the meaning of any bankruptcy law, we commence a voluntary case or any person commences a proceeding against us, in each case that is not discharged or dismissed prior to such ninetieth day; and
- the date on which, pursuant to or within the meaning of any bankruptcy law, a custodian is appointed for us or for all or substantially all of our property, or we make a general assignment for the benefit of our creditors.

We have the right to terminate the Purchase Agreement at any time after Commencement Date, at no cost or penalty, upon one business day's prior written notice to the Selling Stockholder, subject to us satisfying all existing obligations related to any shares of common stock issued to the Selling Stockholder prior to the date of termination. We or the Selling Stockholder may also terminate the Purchase Agreement at the close of business on the one year anniversary of the signing of the Purchase Agreement or thereafter, in the event the Commencement Date shall not have occurred prior to such one year anniversary due to our failure to satisfy the conditions precedent to commencement. We and the Selling Stockholder may also terminate the Purchase Agreement at any time by mutual written consent. No termination of the Purchase Agreement by us or by the Selling Stockholder will affect any of our respective rights and obligations under (i) the Purchase Agreement with respect to any pending Purchase, and both we and the Selling Stockholder have agreed to complete our respective obligations with respect to any such pending Purchase under the Purchase Agreement, and (ii) the Registration Rights Agreement, which shall survive any termination of the Purchase Agreement. Further, no termination of the Purchase Agreement will be deemed to release us or the Selling Stockholder from any liability for intentional misrepresentation or willful breach of the Purchase Agreement, the Registration Rights Agreement or any other related transaction documents.

Dilutive Issuances and Purchase Price Adjustment

For as long as the Selling Stockholder owns any of our common stock, if within three trading days immediately following a Purchase Date, we make certain issues of our securities and such securities are issued at prices (the "New Issuance Price") less than the prices to be paid by the Selling Stockholder in such Fixed Purchase, VWAP Purchase or Additional VWAP Purchase, the purchase price for such applicable Fixed Purchase, VWAP Purchase or Additional VWAP Purchase would be reduced to the New Issuance Price, subject to the terms and conditions set forth in the Purchase Agreement.

No Short-Selling or Hedging

The Selling Stockholder has agreed that neither it nor any entity managed or controlled by it will engage in, directly or indirectly, any (A) "short sale" (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our common stock or (B) hedging transaction, which, with respect to items (A) and (B), establishes a net short position with respect to the common stock, during the term of the Purchase Agreement. The Selling Stockholder has also agreed that neither it nor any entity managed or controlled by it will engage in or effect, in any manner whatsoever, directly or indirectly, any "short sale" (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our common stock.

Effect of Sales of our Common Stock under the Purchase Agreement on our Stockholders

The common stock being registered for resale in this offering may be issued and sold by us to the Selling Stockholder from time to time at our discretion, during the terms described above. The resale by the Selling Stockholder of a significant quantity of shares registered for resale in this offering at any given time, or the perception that these sales may occur, could cause the market price of our common stock to decline and to be highly volatile. Sales of our common stock, if any, to the Selling Stockholder under the Purchase Agreement will be determined by us in our sole discretion, subject to the satisfaction of certain conditions in the Purchase Agreement, and will depend upon market conditions and other factors. We may ultimately decide to sell to the Selling Stockholder all, some or none of the common stock that may be available for us to sell to the Selling Stockholder pursuant to the Purchase Agreement. If we elect to sell common stock to the Selling Stockholder pursuant to the Purchase Agreement, after the Selling Stockholder has acquired such shares, the Selling Stockholder may resell all, some or none of such common stock at any time or from time to time in its discretion and at different prices. As a result, investors who purchase common stock from the Selling Stockholder in this offering at different times will

likely pay different prices for those shares of common stock, and so may experience different levels of dilution and in some cases substantial dilution and different outcomes in their investment results. See “*Risk Factors-Risks Related to the Committed Equity Financings-Investors who buy shares of common stock from the Selling Stockholder at different times will likely pay different prices.*”

Investors may experience a decline in the value of the common stock they purchase from the Selling Stockholder in this offering as a result of future sales made by us to the Selling Stockholder at prices lower than the prices such investors paid for their shares in this offering. In addition, if we sell a substantial number of shares of common stock to the Selling Stockholder under the Purchase Agreement, or if investors expect that we will do so, the actual sales of common stock or the mere existence of our arrangement with the Selling Stockholder may make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect such sales.

Because the purchase price per share to be paid by the Selling Stockholder for the common stock that we may elect to sell to the Selling Stockholder under the Purchase Agreement, if any, will fluctuate based on the market prices of our common stock at the time we make such election, as of the date of this prospectus, it is not possible for us to predict the number of shares of common stock that we will sell to the Selling Stockholder under the Purchase Agreement, the actual purchase price per share to be paid by the Selling Stockholder for those shares of common stock, or the actual gross proceeds to be raised by us from those sales, if any. As of December 12, 2024, there were 1,441,157 shares of common stock outstanding. If all of the 6,733,334 shares of our common stock offered for resale by the Selling Stockholder under this prospectus were issued and outstanding as of December 12, 2024, such shares would represent approximately 82.4% of total number of shares of our common stock outstanding. The actual number of shares of our common stock issuable will vary depending on the then current market price of shares of our common stock sold to the Selling Stockholder in this offering.

The number of shares of common stock ultimately offered for sale by the Selling Stockholder for resale under this prospectus is dependent upon the number of shares of common stock, if any, we ultimately sell to the Selling Stockholder under the Purchase Agreement. Further, if and when we elect to sell shares of common stock to the Selling Stockholder pursuant to the Purchase Agreement, after the Selling Stockholder has acquired such shares, the Selling Stockholder may resell all, some or none of such shares of common stock at any time or from time to time in its discretion and at different prices.

The issuance of our shares of common stock to the Selling Stockholder pursuant to the Purchase Agreement will not affect the rights or privileges of our existing stockholders, except that the economic and voting interests of each of our existing stockholders will be diluted. Although the number of shares of common stock that our existing stockholders own will not decrease, the shares of common stock owned by our existing stockholders will represent a smaller percentage of our total outstanding shares of common stock after any such issuance.

The following table sets forth the amount of gross proceeds we may receive from the Selling Stockholder from our sale of Purchase Shares that we may issue and sell to the Selling Stockholder from time to time under the Purchase Agreement assuming that all such Purchase Shares are sold at varying purchase prices designated below:

Assumed Purchase Price Per Share ⁽¹⁾	Total Number of Purchase Shares to be Issued	Percentage of Outstanding Common Stock After Giving Effect to the Issuance of the Purchase Shares to the Selling Stockholder ⁽²⁾	Proceeds from the Sale of the Purchase Shares to the Selling Stockholder ⁽³⁾
\$ 1.00	288,087	16.7%	\$ 288,087
\$ 1.368 (4)	288,087	16.7%	\$ 394,103
\$ 1.528(5)	6,544,503	82.0%	\$ 10,000,000
\$ 2.00	5,000,000	77.6%	\$ 10,000,000
\$ 4.00	2,500,000	63.4%	\$ 10,000,000
\$ 6.00	1,666,667	53.6%	\$ 10,000,000

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- (1) The purchase prices assume a discount to the market price of our shares, in accordance with the terms of the Purchase Agreement.
 - (2) The denominator is based on 1,441,157 shares of our common stock outstanding as of December 11, 2024, adjusted to include the issuance of the number of Purchase Shares set forth in the adjacent column which we would have issued to the Selling Stockholder based on the applicable assumed purchase price per share.
 - (3) The Company will not receive any proceeds from the issuance of any Commitment Shares. The proceeds reflected in this column would be reduced by an amount equal to the product of the final Commitment Shares multiplied by the assumed purchase price per share of common stock.
 - (4) Represents the last reported sales price of our common stock on December 12, 2024, as reported by Nasdaq, less a 5% discount.
 - (5) Represents the minimum price for which the average price paid for all shares of common stock issued under the Purchase Agreement must be in order for the sales to be considered “at market” under applicable stock exchange rules and therefore not subject to the 19.99% issuance limit.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of shares of our common stock offered by the Selling Stockholder. In addition, we will not receive any proceeds from the issuance or sale of the Commitment Shares. We may receive up to \$10.0 million in aggregate gross proceeds from the Selling Stockholder under the Purchase Agreement in connection with sales of our shares of our common stock to the Selling Stockholder pursuant to the Purchase Agreement after the date of this prospectus. However, the actual proceeds may be less than this amount depending on the number of shares of our common stock sold and the price at which the shares of our common stock are sold.

We intend to use any net proceeds that we receive under the Purchase Agreement for working capital and other general corporate purposes. We may also use a portion of the net proceeds from this offering to in-license, acquire or invest in complementary businesses, technologies, products or assets. Although we currently have no agreements, commitments or obligations to do so, we evaluate such opportunities and engage in related discussions with third parties from time to time.

Our expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual expenditures and the extent of our preclinical, clinical and future development activities may vary significantly depending on numerous factors, including the progress of our development efforts, the status of and results from our planned clinical trials, our ability to take advantage of expedited programs or to obtain regulatory approval for product candidates, the timing and costs associated with the manufacture and supply of product candidates for clinical development or commercialization and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

Pending the uses described above, we plan to invest the net proceeds from this offering in short-term, interest-bearing obligations, investment-grade instruments or other securities.

MARKET INFORMATION

Our common stock is listed on The Nasdaq Capital Market (“Nasdaq”) under the symbol “SLRX.”

On December 12, 2024, the last reported sale price of our common stock on Nasdaq was \$1.44 per share. As of December 12, 2024, we had approximately 139 stockholders of record. The actual number of holders of our common stock is greater than this number of record holders and includes stockholders who are beneficial owners, but whose shares are held in street name by brokers or held by other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

DIVIDEND POLICY

We do not expect to pay any cash dividends to our stockholders in the foreseeable future. Payment of future cash dividends, if any, will be at the discretion of our board of directors and will depend on a number of factors, including our results of operations, financial condition, future prospects, contractual restrictions, restrictions imposed by applicable law, and other factors our board of directors deems relevant.

DILUTION

The sale of our common stock to the Selling Stockholder pursuant to the Purchase Agreement will have a dilutive impact on our stockholders. In addition, the lower our stock price is at the time we exercise our right to sell shares to the Selling Stockholder, the more shares of our common stock we will have to issue to the Selling Stockholder pursuant to the Purchase Agreement, and our existing stockholders would experience greater dilution.

After giving effect to (i) the sale of up to 6,666,667 shares of our common stock to the Selling Stockholder pursuant to the Purchase Agreement at an assumed sale price of \$1.50 per share of our common stock and (ii) the issuance of an additional 66,667 shares of our common stock to the Selling Stockholder pursuant to the Purchase Agreement and after deducting estimated offering expenses payable by us, our as-adjusted net tangible book value as of September 30, 2024 would have been approximately \$12.2 million, or \$1.49 per share. This represents an immediate decrease in net tangible book value of \$0.51 per share to existing stockholders and an immediate dilution of \$0.01 per share to new investors. The table below illustrates this per share dilution:

Assumed offering price per share		\$ 1.50
Historical net tangible book value per share as of September 30, 2024	\$ 2.00	
Decrease per share attributable to this offering	\$ 0.51	
As adjusted net tangible book value per share after this offering		\$ 1.49
Dilution per share to new investors		\$ 0.01

The number of shares of our common stock to be outstanding immediately after this offering in the table above is based on 1,441,157 shares of our common stock outstanding as of November 30, 2024, and excludes:

- 31,554 shares of our common stock issuable upon the exercise of stock options outstanding as of November 30, 2024 at a weighted-average exercise price of \$66.75 per share;
- 131 shares of our common stock issuable upon the settlement of restricted stock units outstanding as of November 30, 2024;
- 560,839 shares of our common stock issuable upon the exercise of warrants outstanding as of November 30, 2024 at a weighted average exercise price of \$34.23 per share;
- 9,844 shares of our common stock available for future issuance under our 2015 Equity Incentive Plan as of November 30, 2024; and
- 25,501 shares of our common stock reserved for future issuance under our 2015 Employee Stock Purchase Plan, or the ESPP, as of November 30, 2024.

SELLING STOCKHOLDER

This prospectus relates to the possible resale from time to time by the Selling Stockholder of any or all of the common stock that may be issued by us to the Selling Stockholder under the Purchase Agreement. Such shares of our common stock include (i) up to 6,666,667 Purchase Shares that we may elect, in our sole discretion, to issue and sell to the Selling Stockholder, from time to time from and after the Commencement Date under the Purchase Agreement; and (ii) up to 66,667 Commitment Shares that may be issued to the Selling Stockholder in connection with related issuances and sales of Purchase Shares as consideration for the Selling Stockholder's execution and delivery of the Purchase Agreement.

As used in this prospectus, the term "*Selling Stockholder*" includes the Selling Stockholder listed in the table below, and its permitted pledgees, donees, transferees, assignees, successors, designees, successors-in-interest and others who later come to hold any of the Selling Stockholder's interest in the shares of common stock in accordance with the terms of the applicable agreements governing their respective registration rights, other than through a public sale. This prospectus also covers any additional securities that may become issuable by reason of stock splits, stock dividends or other similar transactions.

For additional information regarding the issuance of common stock covered by this prospectus, see the section entitled "*Committed Equity Financing*" above. We are registering the shares of common stock pursuant to the provisions of the Purchase Agreement and the Registration Rights Agreement in order to permit the Selling Stockholder to offer the shares for resale from time to time. Except for the transactions contemplated by the Purchase Agreement and the Registration Rights Agreement, the Selling Stockholder has not had any material relationship with us within the past three years.

The table below presents information regarding the selling stockholder and the shares of common stock that it may offer from time to time under this prospectus. This table is prepared based on information supplied to us by the selling stockholder, and reflects holdings as of December 11, 2024. The number of shares in the column "Maximum Number of Shares of Common Stock to be Offered Pursuant to this Prospectus" represents all of the shares of common stock that the Selling Stockholder may offer under this prospectus. The Selling Stockholder may sell some, all or none of its shares in this offering. We do not know how long the Selling Stockholder will hold the shares before selling them, and we currently have no agreements, arrangements or understandings with the Selling Stockholder regarding the sale of any of the shares.

Beneficial ownership is determined in accordance with Rule 13d-3(d) promulgated by the SEC under the Exchange Act, and includes shares of common stock with respect to which the Selling Stockholder have voting and investment power. The percentage of common stock beneficially owned by the Selling Stockholder prior to the offering shown in the table below is based on an aggregate of 1,441,157 shares of our common stock outstanding on December 12, 2024. Because the purchase price of the common stock issuable under the Purchase Agreement is determined on each Fixed Purchase Date, with respect to a Fixed Purchase, on the applicable VWAP Purchase Date, with respect to a VWAP Purchase, and on the applicable Additional VWAP Purchase Date, with respect to an Additional VWAP Purchase, the number of shares that may actually be sold by us to the Selling Stockholder under the Purchase Agreement may be fewer than the number of shares being offered by this prospectus. The fourth column assumes the sale of all of the shares offered by the Selling Stockholder pursuant to this prospectus.

We may amend or supplement this prospectus from time to time in the future to update or change the Selling Stockholder list and the securities that may be resold.

Please see the section titled "*Plan of Distribution*" for further information regarding the Selling Stockholder's method of distributing these securities.

Name of Selling Stockholder	Number of Shares of Common Stock Owned Prior to Offering		Maximum Number of Shares of Common Stock to be Offered Pursuant to this Prospectus	Number of Shares of Common Stock Owned After Offering	
	Number ⁽¹⁾	Percent ⁽²⁾		Number ⁽³⁾	Percent ⁽⁴⁾
C/M Capital Master Fund, LP ⁽⁴⁾	0		6,733,334	6,733,334	82.4%

- (1) In accordance with Rule 13d-3(d) under the Exchange Act, we have excluded from the number of shares beneficially owned prior to the offering all of the shares that the Selling Stockholder may be required to purchase under the Purchase Agreement, because the issuance of such shares is solely at our discretion and is subject to conditions contained in the Purchase Agreement, the satisfaction of which are entirely outside of the Selling Stockholder's control, including the registration statement that includes this prospectus becoming and remaining effective. Furthermore, the Fixed Purchases, VWAP Purchase, or Additional VWAP Purchase, as applicable, of common stock is subject to certain agreed upon maximum amount limitations set forth in the Purchase Agreement. Also, the Purchase Agreement prohibits us from issuing and selling any of our common stock to the Selling Stockholder to the extent such shares, when aggregated with all other common stock then beneficially owned by the Selling Stockholder, would cause the Selling Stockholder beneficial ownership of our common stock to exceed the Beneficial Ownership Limitation.
- (2) Applicable percentage ownership is based on 1,441,157 shares of our common stock outstanding as of December 11, 2024.
- (3) Assumes the sale of all shares being offered pursuant to this prospectus.
- (4) The business address of C/M Capital Master Fund, LP is 1111 Brickell Avenue, Suite 2920, Miami, Florida 33131. As of the date of the Purchase Agreement, C/M Capital Master Fund, LP did not beneficially own any shares of our common stock. Thomas Walsh and Jonathan Juchno, the Managing Partners of C/M Capital Master Fund, LP, are deemed to be beneficial owners of all of the shares of common stock owned by C/M Capital Master Fund, LP. Messrs. Walsh and Juchno have shared voting and investment power over the shares being offered hereunder in connection with the transactions contemplated under the Purchase Agreement. C/M Capital Master Fund, LP is not a registered broker-dealer or an affiliate of a registered broker-dealer.

DESCRIPTION OF CAPITAL STOCK

The summary of general terms and provisions of our capital stock set forth below does not purport to be complete and is subject to and qualified by reference to our Certificate of Incorporation and Bylaws, and together with the Certificate of Incorporation, the Charter Documents, each of which is included as an exhibit our most recent Annual Report on Form 10-K filed with the SEC and incorporated by reference herein. For additional information, please read the Charter Documents and the applicable provisions of the Delaware General Corporation Law (the "DGCL").

Authorized Capital Stock

We are authorized to issue up to 110,000,000 shares, of which (i) 100,000,000 have been designated common stock, par value \$0.0001 per share, and (ii) 10,000,000 have been designated preferred stock, par value \$0.0001 per share. As of December 12, 2024, there were 1,441,157 shares of our common stock outstanding, held by 139 stockholders of record. This figure does not reflect the number of beneficial owners of shares of our common stock as a single stockholder of record often holds shares in nominee name (also referred to as, in "street name") on behalf of multiple beneficial owners.

Voting Rights

The holders of shares of our common stock have the exclusive power to vote on all matters presented to our stockholders unless Delaware law or the certificate of designation for an outstanding series of our preferred stock gives the holders of that series of our preferred stock the right to vote on certain matters. Each holder of shares of our common stock is entitled to one vote per share.

When a quorum is present at any meeting, the vote of the holders of a majority of the voting power of our common stock entitled to vote and present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which by express provision of the Charter Documents or by law, a different vote is required in which case such express provision shall govern and control the decision of such question. Directors are elected by a plurality of the voting power of the shares present in person or represented by proxy and entitled to vote on the election of directors at a meeting at which a quorum is present, and stockholders are not entitled to cumulate their votes for the election of directors.

Dividend Rights

Subject to any prior rights of any preferred stock then outstanding, the holders of shares of our common stock are entitled to receive dividends ratably out of funds legally available, when and if declared by our Board of Directors.

No Preemptive or Similar Rights

Our common stock is not entitled to preemptive rights and is not subject to conversion, redemption or sinking fund provisions.

Rights to Receive Liquidation Distributions

If we become subject to a 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 and payment of liquidation preferences, if any, on any outstanding shares of our preferred stock.

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

Certain provisions of the Charter Documents, which are summarized below, may have the effect of delaying, deferring or preventing another person from acquiring control of our company. These provisions may discourage

takeovers, coercive or otherwise, and are also designed, in part, to encourage persons seeking to acquire control of our company to negotiate first with our board of directors (the “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. These provisions include the following:

Board of Directors Vacancies. Pursuant to the Charter Documents, our Board of Directors may fill vacant directorships. In addition, directors may only be removed for cause and only upon the affirmative vote of at least sixty-six and two-thirds percent of the voting power of outstanding voting stock. In addition, the number of directors constituting our Board of Directors may be set only by a resolution adopted by a majority vote of our Board of Directors. These provisions may have the effect of deferring, delaying or discouraging hostile takeovers, or changes in control or management of our company and will make it more difficult to change the composition of our Board of Directors, which will promote continuity of management.

Classified Board. The Charter Documents provide that our Board of Directors is classified into three classes of directors, with each class serving three-year staggered terms. A third-party may be discouraged from making a tender offer or otherwise attempting to obtain control of our company 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 Meeting of Stockholders. Pursuant to Section 228 of the DGCL, any action required to be taken at any annual or special meeting of the stockholders may be taken without a meeting, without prior notice and without a vote if a consent or consents in writing, setting forth the action so taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares of stock entitled to vote thereon were present and voted, unless the Certificate of Incorporation provides otherwise. The Certificate of Incorporation provides that stockholders may not take action by written consent but may only take action at annual or special meetings of stockholders. As a result, a holder controlling a majority of our capital stock would not be able to amend the Bylaws or remove directors without holding a meeting of stockholders called in accordance with the Charter Documents. The Bylaws provides that special meetings of the stockholders may be called only upon a resolution approved by a majority of the total number of directors that we would have if there were no vacancies. 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. The 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. The Bylaws specify certain requirements regarding the form and content of a stockholder’s notice and prohibit the conduct of any business at a special meeting other than as specified in the notice for such meeting. These provisions might preclude 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. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer’s own slate of directors or otherwise attempting to obtain control of our company.

No Cumulative Voting. The DGCL provides that stockholders are not entitled to cumulate votes in the election of directors unless a corporation’s certificate of incorporation provides otherwise. The Certificate of Incorporation does not provide for cumulative voting.

Amendment of Charter Provisions and Bylaws. The Charter Documents provides that the Bylaws may be adopted, amended, altered or repealed by either (i) a vote of a majority of the total number of directors of our Board of Directors or (ii) in addition to any other vote otherwise required by law, the affirmative vote of the holders of at least sixty-six and two-thirds percent of the voting power of all of the then outstanding shares of capital stock entitled to vote generally in the election of directors.

Our Charter Documents also provide that the provisions of the Certificate of Incorporation relating to provisions relating to the management of the business, Board of Directors, director liability, indemnification and forum selection, may only be amended, altered, changed or repealed by the affirmative vote of the holders of at least sixty-

six and two-thirds percent of the voting power of all of our outstanding shares of capital stock entitled to vote generally in the election of directors, voting together as a single class.

Issuance of Undesignated Preferred Stock. Our Board of Directors has the authority, without further action by our stockholders, to designate and issue shares of preferred stock with rights and preferences, including super voting, special approval, dividend or other rights or preferences on a discriminatory basis. The existence of authorized but unissued shares of undesignated preferred stock would enable our Board of Directors to render more difficult or to discourage an attempt to obtain control of our company by means of a merger, tender offer, proxy contest or other means.

Business Combinations with Interested Stockholders. We are subject to the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination, such as a merger, with an interested stockholder (i.e., subject to certain exceptions, a person or group owning 15% or more of the corporation's voting stock) for a period of three years following the date the person became an interested stockholder, unless (with certain exceptions) the business combination or the transaction in which the person became an interested stockholder is approved in a prescribed manner.

Forum Selection. The Charter Documents provide that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will, to the fullest extent permitted by applicable law, be the sole and exclusive forum for:

- any derivative action or proceeding brought on behalf of our company;
- any action asserting a claim of breach of a fiduciary duty owed by any director, officer, or other employee of our company to us or our stockholders;
- any action asserting a claim of breach of a fiduciary duty owed by any director, officer, or other employee of our company to us or our stockholders; and
- any action asserting a claim against us governed by the internal affairs doctrine,

in each such case, subject to such Court of Chancery of the State of Delaware having personal jurisdiction over the indispensable parties named as defendants therein. The Charter Documents also provides that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of, and to have consented to, this forum selection provision.

Although these provisions benefit us by providing increased consistency in the application of Delaware law for the specified types of actions and proceedings, the provisions may have the effect of increasing the costs of and discouraging lawsuits against our directors, officers, employees and agents. The enforceability of similar exclusive forum provisions in other companies' charters has been challenged in legal proceedings, and it is possible that, in connection with one or more actions or proceedings described above, a court could rule that this provision in the Certificate of Incorporation is inapplicable or unenforceable. For example, the choice of forum provisions summarized above are not intended to, and would not, apply to suits brought to enforce any liability or duty created by the Exchange Act, or other claim for which the federal courts have exclusive jurisdiction. Additionally, there is uncertainty as to whether our choice of forum provisions would be enforceable with respect to suits brought to enforce any liability or duty created by the Securities Act, or other claims for which the federal courts have concurrent jurisdiction, and in any event stockholders will not be deemed to have waived our compliance with federal securities laws and rules and regulations thereunder.

Listing

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

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Equiniti Trust Company, LLC.

PLAN OF DISTRIBUTION

The common stock offered by this prospectus are being offered by the Selling Stockholder. The shares may be sold or distributed from time to time by the Selling Stockholder directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The sale of our common stock offered by this prospectus could be effected in one or more of the following methods:

- ordinary brokers' transactions;
- transactions involving cross or block trades;
- through brokers, dealers, or underwriters who may act solely as agents;
- "at the market" into an existing market for our common stock;
- in other ways not involving market makers or established business markets, including direct sales to purchasers or sales effected through agents;
- in privately negotiated transactions; or
- any combination of the foregoing.

In order to comply with the securities laws of certain states, if applicable, the shares may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the shares may not be sold unless they have been registered or qualified for sale in the state or an exemption from the state's registration or qualification requirement is available and complied with.

The Selling Stockholder is an "underwriter" within the meaning of Section 2(a)(11) of the Securities Act.

The Selling Stockholder has informed us that it intends to use one or more registered broker-dealers to effectuate all sales, if any, of our common stock that it has acquired and may in the future acquire from us pursuant to the Purchase Agreement. Such sales will be made at prices and at terms then prevailing or at prices related to the then current market price. Each such registered broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. The Selling Stockholder has informed us that each such broker-dealer will receive commissions from the Selling Stockholder that will not exceed customary brokerage commissions.

Brokers, dealers, underwriters or agents participating in the distribution of our common stock offered by this prospectus may receive compensation in the form of commissions, discounts, or concessions from the purchasers, for whom the broker-dealers may act as agent, of the shares sold by the Selling Stockholder through this prospectus. The compensation paid to any such particular broker-dealer by any such purchasers of our common stock sold by the selling stockholder may be less than or in excess of customary commissions. Neither we nor the Selling Stockholder can presently estimate the amount of compensation that any agent will receive from any purchasers of our common stock sold by the Selling Stockholder.

We know of no existing arrangements between the Selling Stockholder or any other stockholder, broker, dealer, underwriter or agent relating to the sale or distribution of our common stock offered by this prospectus.

We may from time to time file with the SEC one or more supplements to this prospectus or amendments to the registration statement of which this prospectus forms a part to amend, supplement or update information contained in this prospectus, including, if and when required under the Securities Act, to disclose certain information relating to a particular sale of shares offered by this prospectus by the Selling Stockholder, including the names of any brokers, dealers, underwriters or agents participating in the distribution of such shares by the Selling Stockholder, any compensation paid by the Selling Stockholder to any such brokers, dealers, underwriters or agents, and any other required information.

We will pay the expenses incident to the registration under the Securities Act of the offer and sale of our common stock covered by this prospectus by the Selling Stockholder. As consideration for its irrevocable commitment to purchase our common stock under the Purchase Agreement, we have agreed to issue to the Selling Stockholder 1.0% of the shares of common stock issued in each Fixed Purchase, VWAP Purchase or Additional VWAP Purchase, as the case may be. We have also agreed to pay to the Selling Stockholder \$25,000 in cash as reimbursement for the reasonable, out-of-pocket expenses incurred by the Selling Stockholder, including the legal fees and disbursements of the Selling Stockholder's legal counsel, in connection with its due diligence investigation of the Company and in connection with the preparation, negotiation and execution of the Purchase Agreement. See "*The Committed Equity Financing*" for more information.

We also have agreed to indemnify the Selling Stockholder and certain other persons against certain liabilities in connection with the offering of our common stock offered hereby, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. The Selling Stockholder has agreed to indemnify us against liabilities under the Securities Act that may arise from certain written information furnished to us by the Selling Stockholder specifically for use in this prospectus or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and controlling persons, we have been advised that in the opinion of the SEC this indemnification is against public policy as expressed in the Securities Act and is therefore, unenforceable.

We estimate that the total expenses for the offering will be approximately \$700,000.

The Selling Stockholder has represented to us that at no time prior to the date of the Purchase Agreement has the Selling Stockholder or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our common stock or any hedging transaction, which establishes a net short position with respect to our common stock. The Selling Stockholder has agreed that during the term of the Purchase Agreement, neither the Selling Stockholder, nor any of its agents, representatives or affiliates will enter into or effect, directly or indirectly, any of the foregoing transactions.

We have advised the Selling Stockholder that it is required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes the Selling Stockholder, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the securities offered by this prospectus.

This offering will terminate on the date that all of our common stock offered by this prospectus have been sold by the Selling Stockholder.

Our common stock is currently listed on The Nasdaq Capital Market under the symbol "SLRX."

LEGAL MATTERS

The validity of the issuance of our common stock offered in this prospectus will be passed upon for us by Hogan Lovells US LLP.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited the consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2023, as set forth in their report (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements),

which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

This prospectus forms part of a registration statement on Form S-1 that we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement or the documents incorporated by reference herein and therein. For further information with respect to us and the securities that we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement and the documents incorporated by reference herein and therein. You should rely only on the information contained in this prospectus or incorporated by reference herein or therein. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered hereby.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC. The address of the SEC website is www.sec.gov.

We also maintain a website at <https://investors.salariuspharma.com/sec-filings>, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC permits us to “incorporate by reference” the information contained in documents we have filed with the SEC, which means that we can disclose important information to you by referring you to those documents rather than by including them in this prospectus. Information that is incorporated by reference is considered to be part of this prospectus and you should read it with the same care that you read this prospectus. All documents incorporated by reference into this prospectus that were filed prior to June 14, 2024 do not give effect to the reverse split.

We have filed with the SEC, and incorporate by reference in this prospectus:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on March 22, 2024, as amended by our Annual Report on Form 10-K/A filed with the SEC on April 22, 2024;
- our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2024, June 30, 2024 and September 30, 2024 filed with the SEC on May 13, 2024, on August 9, 2024 and on November 14, 2024, respectively;
- our Current Reports on Form 8-K, filed with the SEC on February 23, 2024, March 6, 2024, June 14, 2024, June 17, 2024, July 11, 2024, July 19, 2024, July 23, 2024, July 25, 2024, August 14, 2024, August 15, 2024, September 27, 2024 and December 13, 2024; and
- the description of our common stock contained in our Registration Statement on Form 8-A filed on January 23, 2015, as updated by Exhibit 4.10 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, including any amendments or reports filed for the purpose of updating such description.

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

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial registration statement of which this prospectus is a part and prior to the effectiveness of such registration statement and all documents that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this prospectus or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, a copy of any or all documents that are incorporated by reference into this prospectus, but not delivered with the prospectus, other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the documents that this prospectus incorporates. You should direct oral or written requests by one of the following methods. Attention: Salarius Pharmaceuticals, Inc., Chief Financial Officer, at 2450 Holcombe Blvd., Suite X, Houston, TX 77021. You may also access these documents, free of charge on the SEC’s website at www.sec.gov or on the “Investors” page of our website at www.saliariuspharma.com. The information found on our website, or that may be accessed by links on our website, is not part of this prospectus. We have included our website address solely as an inactive textual reference. Investors should not rely on any such information in deciding whether to purchase our common stock.



Up to 6,733,334 Shares of Common Stock

Preliminary Prospectus

, 2024

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the fees and expenses in connection with the issuance and distribution of the securities being registered (excluding the underwriting discount and management fee). Except for the SEC registration fee, all amounts are estimates.

	Amount
SEC registration fee	\$ 1,515.38
Legal fees and expenses	50,000
Accounting fees and expenses	25,000
Miscellaneous expenses	25,000
Total	\$ 101,515.38

Item 14. Indemnification of Directors and Officers.

Section 102 of the Delaware General Corporation Law (the "DGCL") permits a corporation to eliminate the personal liability of its directors or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our Certificate of Incorporation provides that no director shall be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the DGCL prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnification for such expenses which the Court of Chancery or such other court shall deem proper.

Our Certificate of Incorporation provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of us), by reason of the fact that he or she is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an Indemnitee), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.

Our Certificate of Incorporation also provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee or, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred by him or her or on his or her behalf in connection therewith. If we do not assume the defense, expenses must be advanced to an Indemnitee under certain circumstances.

We maintain a general liability insurance policy that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

Insofar as the foregoing provisions permit indemnification of directors, executive officers, or persons controlling us for liability arising under the Securities Act, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 15. Recent Sales of Unregistered Securities.

The following list sets forth information regarding all securities sold or granted by us within the last three years that were not registered under the Securities Act and the consideration, if any, received by us for such securities.

On April 22, 2022, we issued and sold to certain institutional and accredited investors 46,697 shares of common stock, par value \$0.0001 per share (the "April 2022 Shares"), at a purchase price of \$50.00 per April 2022 Share (the "April 2022 Registered Direct Offering"). Concurrently with the April 2022 Registered Direct Offering, we also sold warrants exercisable for an aggregate of 35,023 shares of common stock, with an exercise price of \$67.98 per share. The warrants were exercisable six months following the issuance date and will expire five and one-half years from the issuance date. The gross proceeds from the April 2022 Registered Direct Offering was approximately \$2.3 million. The warrants were sold and issued without registration under the Securities Act, in reliance on the exemptions provided by Section 4(a)(2) of the Securities Act as transactions not involving a public offering and Rule 506 promulgated under the Securities Act as sales to accredited investors, and in reliance on similar exemptions under applicable state laws.

On May 11, 2023, we issued and sold to an accredited investor (i) 41,250 shares of common stock, par value \$0.0001 per share (the "May 2023 Shares"), (ii) pre-funded warrants (the "Pre-Funded Warrants") to purchase up to 413,296 shares of common stock, (iii) Series A-1 warrants (the "Series A-1 Warrants") to purchase up to 454,546 shares of common stock and (iv) Series A-2 warrants (the "Series A-2 Warrants" and together with the Series A-1 Warrants, the "Common Stock Warrants," and together with the Pre-Funded Warrants, the "Warrants") to purchase up to 454,546 shares of common stock, at a purchase price of (a) \$13.20 per May 2023 Share and accompanying Common Stock Warrants and (b) \$13.1992 per Pre-Funded Warrant and accompanying Common Stock Warrants. The aggregate gross proceeds from the transaction were approximately \$6.0 million, exclusive of placement agent fees and expenses and other offering expenses.

Each Series A-1 Warrant is exercisable for a period of five and one-half (5.5) years from the issuance date at an exercise price of \$11.20 per share. Each Series A-2 Warrant was exercisable for a period of eighteen (18) months from the issuance date at an exercise price of \$11.20 per share and expired as of November 11, 2024. Each Pre-Funded Warrant was sold in lieu of shares of common stock, was exercisable immediately upon issuance, had an exercise price of \$0.0008 per share and have been exercised in full as of the date of this prospectus.

H.C. Wainwright & Co., LLC (“Wainwright”) acted as the exclusive placement agent for the issuance and sale of the Shares and Warrants. Among other consideration, we issued to Wainwright unregistered warrants to purchase up to 31,818 shares of common stock at an exercise price per share of \$16.50 and a term of five and one-half (5.5) years (the “Placement Agent Warrant”).

The Shares, the Warrants, the Placement Agent Warrant and the shares of common stock underlying the Warrants and the Placement Agent Warrants have not been registered under the Securities Act or the securities laws of any state, and are being offered and sold in reliance on the exemption from registration under the Securities Act, afforded by Section 4(a)(2) and/or Rule 506 promulgated thereunder.

From December 12, 2021 through the filing date of this prospectus, we granted to our directors and officers options to purchase an aggregate of 25,154 shares of our common stock under our equity compensation plans at exercise prices ranging from \$4.80 to \$96.00 per share.

On January 3, 2023, we issued 4,580 restricted shares of our common stock to our directors and officers.

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits.

The exhibits listed below are filed as part of this registration statement.

Exhibit No.	Description
3.1	<u>Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant’s Current Report on Form 8-K filed with the SEC on February 9, 2015).</u>
3.2	<u>Certificate of Amendment to Amended and Restated Certificate of Incorporation of the Registrant filed with the Secretary of State of the State of Delaware on July 18, 2019 (incorporated by reference to Exhibit 3.1 to the Registrant’s Current Report on Form 8-K filed with the SEC on July 22, 2019).</u>
3.3	<u>Certificate of Amendment to Restated Certificate of Incorporation of the Registrant filed with the Secretary of State of the State of Delaware on October 14, 2022 (incorporated by reference to Exhibit 3.1 to the Registrant’s Current Report on Form 8-K filed with the SEC on October 14, 2022).</u>
3.4	<u>Certificate of Amendment to Amended and Restated Certificate of Incorporation of the Registrant filed with the Secretary of State of the State of Delaware on June 14, 2024 (incorporated by reference to Exhibit 3.1 to the Registrant’s Current Report on Form 8-K filed with the SEC on June 14, 2024).</u>
3.5	<u>Amended and Restated Bylaws of the Registrant, effective July 19, 2019 (incorporated by reference to Exhibit 3.2 to the Registrant’s Current Report on Form 8-K filed with the SEC on July 22, 2019).</u>
3.6	<u>Amendment to the Amended and Restated Bylaws of the Registrant, effective April 1, 2022 (incorporated by reference to Exhibit 3.1 to the Registrant’s Current Report on Form 8-K filed with the SEC on April 1, 2022).</u>
4.1	<u>Form of Common Stock Certificate of Registrant (incorporated by reference to Exhibit 4.1 to the Registrant’s Registration statement on Form S-1 (File No. 333-201276), as amended, filed December 29, 2014 (the “S-1”).</u>

- 4.2 Form of Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.8 to the Registrant's S-1 (File No. 333-201276), as amended, filed February 6, 2020).
- 4.3 Common Stock Purchase Warrant dated February 11, 2020 (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on February 12, 2020).
- 4.4 Form of Inducement Warrant dated December 11, 2020 (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on December 11, 2020).
- 4.5 Form of 2021 Flex Warrants (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on July 1, 2021).
- 4.6 Form of Common Stock Purchase Warrant dated April 26, 2022 (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on April 22, 2022).
- 4.7 Form of Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on May 16, 2023).
- 4.8 Form of Placement Agent Warrants (incorporated by reference to Exhibit 4.3 to the Registrant's Current Report on Form 8-K filed with the SEC on May 16, 2023).
- 5.1* Opinion of Hogan Lovells US LLP.
- 10.1 Securities Purchase Agreement dated December 12, 2024, by and between C/M Capital Master Fund, LP and Saliarius Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on December 13, 2024).
- 10.2 Registration Rights Agreement dated December 12, 2024, by and between C/M Capital Master Fund, LP and Saliarius Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the SEC on December 13, 2024).
- 10.3+ Form of Indemnification Agreement between the Registrant and its directors and officers (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on July 22, 2019).
- 10.4+ Indemnification Agreement, dated February 20, 2024, between Saliarius Pharmaceuticals, Inc. and David J. Arthur (Incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed with the SEC on February 23, 2024).
- 10.5^ Exclusive License Agreement, dated August 3, 2011, between the University of Utah Research Foundation and Saliarius Pharmaceuticals, LLC (incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form S-4 filed with the SEC on February 14, 2019 (the "S-4")).
- 10.6^ Cancer Research Grant Contract, dated June 1, 2016, between the Cancer Prevention and Research Institute of Texas and Saliarius Pharmaceuticals, LLC (incorporated by reference to Exhibit 10.3 to the S-4).
- 10.7+ Amended and Restated Executive Employment Agreement, dated February 5, 2019, between David J. Arthur and Saliarius Pharmaceuticals, LLC (incorporated by reference to Exhibit 10.5 to the S-4).
- 10.8+ Amendment to Amended and Restated Executive Employment Agreement dated September 10, 2019, among David J. Arthur, the Registrant and Saliarius Pharmaceuticals, LLC (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K filed with the SEC on September 16, 2019).

10.9+	<u>Separation and Release Agreement, dated February 20, 2024, between David J. Arthur and Salarius Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on February 23, 2024).</u>
10.10+	<u>Consulting Agreement, dated February 20, 2024, between Salarius Pharmaceuticals, Inc. and David J. Arthur (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the SEC on February 23, 2023).</u>
10.11+	<u>Executive Employment Agreement, dated April 24, 2020, between Mark J. Rosenblum and Salarius Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on April 29, 2020).</u>
10.12+	<u>Amendment to Executive Employment Agreement, dated February 20, 2024, between Mark J. Rosenblum and Salarius Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K filed with the SEC on February 23, 2024).</u>
10.13+	<u>Forms of Stock Option Agreement, Notice of Exercise and Stock Option Grant Notice under the Flex Pharma, Inc. 2015 Equity Incentive Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Annual Report on Form 10-K filed with the SEC on March 24, 2015).</u>
10.14+	<u>Notice of Stock Option Amendment, dated February 20, 2024, between David J. Arthur and Salarius Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed with the SEC on February 23, 2024).</u>
10.15+	<u>Amended and Restated Salarius Pharmaceuticals, Inc. 2015 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on June 15, 2023).</u>
10.16	<u>At the Market Offering Agreement, dated February 5, 2021, between Salarius Pharmaceuticals, Inc. and Ladenburg Thalmann & Co. Inc. (incorporated by reference to Exhibit 1.1 to the Registrant's Current Report on Form 8-K filed with the SEC on February 5, 2021).</u>
10.17	<u>Securities Purchase Agreement, dated April 22, 2022 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on April 22, 2022).</u>
10.18	<u>Form of Securities Purchase Agreement (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on May 16, 2023).</u>
10.19	<u>Form of Registration Rights Agreement (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the SEC on May 16, 2023).</u>
21.1	<u>Subsidiaries of the Registrant (incorporated by reference to Exhibit 21.1 to the Registrant's Registration Statement on Form S-1 filed with the SEC on January 10, 2020).</u>
23.1*	<u>Consent of Ernst & Young LLP.</u>
23.2*	<u>Consent of Hogan Lovells US LLP (included in Exhibit 5.1).</u>
24.1	Power of Attorney (see signature page).
107*	<u>Filing Fee Table</u>

^ Portions of this exhibit have been omitted and provided separately to the SEC pursuant to a request for confidential treatment.

- + Management contract or compensatory plans or arrangements.
- * Filed herewith.

(b)

Financial Statement Schedules.

Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in the volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act, that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purposes of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at the time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(5) That, for purposes of determining any liability under the Securities Act:

(i) the information omitted from the form of prospectus filed as part of the registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of the registration statement as of the time it was declared effective; and

(ii) each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(a) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the indemnification provisions described herein, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas on December 13, 2024.

SALARIUS PHARMACEUTICALS, INC.

By: /s/ David J. Arthur

Name: David J. Arthur

Title: President and Chief Executive Officer (Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints David J. Arthur and Mark J. Rosenblum, and each of them, his or her true and lawful attorneys-in-fact and agents, with full power of substitution and re-substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this registration statement, and any registration statement relating to the offering covered by this registration statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys in fact and agents or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ David J. Arthur</u> David J. Arthur	President, Chief Executive Officer, and Director <i>(Principal Executive Officer)</i>	December 13, 2024
<u>/s/ Mark J. Rosenblum</u> Mark J. Rosenblum	Executive Vice President and Chief Financial Officer <i>(Principal Financial and Accounting Officer)</i>	December 13, 2024
<u>/s/ William K. McVicar</u> William K. McVicar	Chairman	December 13, 2024
<u>/s/ Tess Burleson</u> Tess Burleson	Director	December 13, 2024
<u>/s/ Arnold Hanish</u> Arnold Hanish	Director	December 13, 2024
<u>/s/ Paul Lammers</u> Paul Lammers	Director	December 13, 2024
<u>/s/ Jonathan Lieber</u> Jonathan Lieber	Director	December 13, 2024
<u>/s/ Bruce J. McCreedy</u> Bruce J. McCreedy	Director	December 13, 2024

Calculation of Filing Fee Tables

Form S-1
(Form Type)**Salaris Pharmaceuticals, Inc.**
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered (1)(2)	Proposed Maximum Offering Price Per Unit (3)	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Fees to Be Paid	Equity	Common Stock, \$0.0001 par value per share	Other	6,733,334	\$1.4700	\$9,898,000.98	0.00015310	\$1,515.38
		Total Offering Amounts				\$9,898,000.98	0.00015310	\$1,515.38
		Total Fees Previously Paid						—
		Total Fee Offsets						—
		Net Fee Due						\$1,515.38

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover an indeterminate number of shares of common stock, par value \$0.0001 per share ("Common Stock"), of Salaris Pharmaceuticals, Inc. (the "Registrant") as may be issued or issuable resulting from stock splits, stock dividends or similar transactions.
- (2) Includes (i) 6,666,667 shares of Common Stock that are issuable pursuant to a securities purchase agreement, dated December 11, 2024 (the "Purchase Agreement"), by and between the Registrant and C/M Capital Master Fund, LP ("Capital Master"), as Purchase Shares, and (ii) 66,667 shares of Common Stock that are issuable pursuant to Capital Master as consideration for Capital Master's execution and delivery of the Purchase Agreement, as Commitment Shares.
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) of the Securities Act, based on the average of the high and low prices for a share of the Registrant's Common Stock as reported on the Nasdaq Stock Market, LLC on December 12, 2024, which is a date within five business days of the filing of the Registration Statement.



Hogan Lovells US LLP
609 Main Street
Suite 420
Houston, TX 77002
T +1 713 632 1400
F +1 713 632 1401
www.hoganlovells.com

December 13, 2024

Board of Directors
Salarius Pharmaceuticals, Inc.
2450 Holcombe Blvd., Suite X
Houston, TX 77021

To the addressee referred to above:

We are acting as counsel to Salarius Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), in connection with its registration statement on Form S-1 (as amended or supplemented, the "**Registration Statement**"), filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "**Act**"), relating to the resale, from time to time, by C/M Capital Master Fund, LP ("**C/M Capital**"), as a selling stockholder listed in the Registration Statement under "Selling Stockholder", of up to 6,733,334 shares of common stock, par value \$0.0001 per share (the "**Common Stock**"), of the Company (the "**Shares**"), consisting of up to (i) 6,666,667 shares of Common Stock (the "**Purchase Shares**") that the Company may elect, in its sole discretion, to issue and sell to C/M Capital pursuant to a Securities Purchase Agreement, dated as of December 12, 2024, by and between the Company and C/M Capital (the "**Agreement**"), and (ii) 66,667 shares of Common Stock issuable to C/M Capital in connection with the issuance of Purchase Shares as consideration for it entering into the Agreement, in each case as described in the prospectus which forms a part of the Registration Statement (the "**Prospectus**"). This opinion letter is furnished to you at your request to enable you to fulfill the requirements of Item 601(b)(5) of Regulation S-K, 17 C.F.R. § 229.601(b)(5), in connection with the Registration Statement.

For purposes of this opinion letter, we have examined copies of such agreements, instruments and documents as we have deemed an appropriate basis on which to render the opinions hereinafter expressed, including the Agreement. In our examination of the aforesaid documents, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the accuracy and completeness of all documents submitted to us, the authenticity of all original documents, and the conformity to authentic original documents of all documents submitted to us as copies (including pdfs). As to all matters of fact, we have relied on the representations and statements of fact made in the documents so reviewed, and we have not independently established the facts so relied on. This opinion letter is given, and all statements herein are made, in the context of the foregoing.

This opinion letter is based as to matters of law solely on the Delaware General Corporation Law, as amended. We express no opinion herein as to any other statutes, rules or regulations.

Based upon, subject to and limited by the foregoing, we are of the opinion that following (i) effectiveness of the Registration Statement, (ii) issuance of the Shares pursuant to the terms of the Agreement, and (iii) receipt by the Company of the consideration for the Shares specified in the resolutions of the Board of Directors, the Shares will be validly issued, fully paid, and nonassessable.

This opinion letter has been prepared for use in connection with the Registration Statement. We assume no obligation to advise of any changes in the foregoing subsequent to the effective date of the Registration Statement.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement and to the reference to this firm under the caption "Legal Matters" in the Prospectus. In giving this consent, we do not thereby admit that we are an "expert" within the meaning of the Act.

Very truly yours,

/s/ Hogan Lovells US LLP

HOGAN LOVELLS US LLP

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Form S-1) and related Prospectus of Salius Pharmaceuticals, Inc. for the registration of 6,733,334 shares of its common stock and to the incorporation by reference therein of our report dated March 22, 2024, with respect to the consolidated financial statements of Salius Pharmaceuticals, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2023, filed with the Securities and Exchange Commission.



Houston, Texas
December 13, 2024