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

FORM S-3
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)

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

2450 Holcombe Blvd., Suite X
Houston, TX 77021
(832) 834-6992

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

Mark J. Rosenblum
Chief Financial Officer
Salaris Pharmaceuticals, Inc.
2450 Holcombe Blvd., Suite X
Houston, TX 77021
(832) 834-6992

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Andrew L. Strong
Nicholas P. Griffin
Hogan Lovells US LLP
609 Main Street, Suite 4200
Houston, TX 77002
Tel: (713) 899-3930

Approximate date of commencement of proposed sale to public: From time to time after this registration statement is declared effective.

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, 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 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

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

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 or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

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

SUBJECT TO COMPLETION, DATED JUNE 10, 2022

PROSPECTUS



7,004,578 Shares of Common Stock

This prospectus relates to the resale from time to time, by the selling stockholders (the "Selling Stockholders") identified in this prospectus under the caption "Selling Stockholders," of up to 7,004,578 shares of our common stock, par value \$0.0001, issuable upon exercise of certain outstanding warrants (the "Warrants"). We issued the Warrants to the Selling Stockholders in a private placement concurrent with a registered direct offering of 9,339,436 shares of our common stock. The registered direct offering and the concurrent private placement of the Warrants was completed on April 26, 2022.

The Selling Stockholders may sell the shares of common stock described in this prospectus in a number of different ways and at varying prices. We provide more information about how the Selling Stockholders may sell its shares of common stock in the section titled "Plan of Distribution" on page 22 of this prospectus. We will pay the expenses incurred in registering the securities covered by this prospectus, including legal and accounting fees. To the extent the Selling Stockholders decide to sell their respective shares of common stock underlying the Warrants, we will not control or determine the price at which the shares are sold.

We are not selling any shares of common stock and will not receive any proceeds from the sale of the common stock issuable upon exercise of the Warrants by the Selling Stockholders under this prospectus. Upon the exercise of the Warrants for all 7,004,578 shares of our common stock by payment of cash, however, we will receive aggregate gross proceeds of approximately \$2.3 million.

Our common stock is listed on the Nasdaq Capital Market under the symbol "SLRX." On June 9, 2022, the last reported sale price of our common stock on the Nasdaq Capital Market was \$0.22 per share.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 6 of this prospectus and under similar headings in the documents incorporated by reference into this prospectus.

See "Plan of Distribution" beginning on page 11 of this prospectus for more information on this offering.

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

The date of this prospectus is , 2022

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC. It omits some of the information contained in the registration statement and reference is made to the registration statement for further information with regard to us and the shares of our common stock being offered by the Selling Stockholders. You should review the information and exhibits in the registration statement for further information about us and the shares of our common stock being offered hereby. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to the filings. You should review the complete document to evaluate these statements. You should read this prospectus, any documents that we incorporate by reference in this prospectus and the additional information described under the headings “Where You Can Find More Information,” and “Incorporation by Reference,” before making your investment decision. You should not assume that the information in this prospectus or any documents we incorporate by reference herein is accurate as of any date other than the date on the front of such document. Our business, financial condition, results of operations and prospects may have changed since those dates. You should rely only on the information contained or incorporated by reference in this prospectus filed with the SEC. We have not authorized anyone to provide you with different information and, if you are given any information or representation about these matters that is not contained or incorporated by reference in this prospectus, you must not rely on that information.

All references in this prospectus to “Salarius,” the “Company,” “we,” “us” and “our” refer Salarius Pharmaceuticals, Inc. and its consolidated subsidiaries, except where the context otherwise requires or as otherwise indicated.

Smaller Reporting Company – Scaled Disclosure

Pursuant to Item 10(f) of Regulation S-K promulgated under the Securities Act of 1933, as amended (the “Securities Act”), as indicated herein, we have elected to comply with the scaled disclosure requirements applicable to “smaller reporting companies,” including providing two years of audited financial statements.

PROSPECTUS SUMMARY

This summary highlights information contained in other parts of this prospectus and in the documents we incorporate by reference. Because it is only a summary, it does not contain all of the information that you should consider before investing in our securities and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere in this prospectus, any applicable free writing prospectus and the documents incorporated by reference herein and therein. You should read all such documents carefully, especially the risk factors and our consolidated financial statements and the related notes included or incorporated by reference herein or therein, before deciding to buy shares of our common stock.

Company Overview

We are a clinical-stage biopharmaceutical company focused on developing effective treatments for cancers with high, unmet medical need. Specifically, the Company is developing treatments for cancers caused by dysregulated gene expression, i.e., genes that are incorrectly turned on or off. We are developing two classes of drugs that address gene dysregulation: epigenetic 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: (i) seclidemstat (SP-2577), a targeted protein inhibitor, and (ii) SP-3164, a targeted protein degrader. The Company is located in Houston, Texas.

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 by Reference.”

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 Salarius Pharmaceuticals, LLC (“Private Salarius”), with Private Salarius becoming our wholly owned subsidiary (the “Merger”), and we changed our name to Salarius Pharmaceuticals, Inc. Our principal executive offices are located at 2450 Holcombe Blvd., Suite X, Houston, Texas 77021, and our telephone number is (832) 834-6992. 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.

COVID-19 Impact

The ongoing COVID-19 coronavirus pandemic (the “Pandemic”) has had a significant effect on the United States, global economies, and business worldwide. While we have thus far experienced minimal disruptions from the Pandemic, the duration and full extent to which the Pandemic impacts our business and financial condition depends on future developments that are highly uncertain, subject to change and are difficult to predict, including new information that may emerge concerning the Pandemic, and may cause intermittent or prolonged periods of interruptions to our clinical operations. We are continuously monitoring the Pandemic and its potential effect on our financial position, results of operations and cash flows. This uncertainty could have an impact in future periods on certain estimates used in the preparation of our periodic financial results. Uncertainty around the extent and length of time of the Pandemic, and any future related financial impact cannot be reasonably estimated at this time.

Registered Direct Offering and Concurrent Private Placement of Warrants

On April 22, 2022, we entered into a Securities Purchase Agreement (the “Purchase Agreement”) with the Selling Stockholders, pursuant to which we agreed to issue and sell: (i) in a registered direct offering directly to the Selling Stockholders (the “Registered Offering”), an aggregate of 9,339,436 shares (the “Shares”) of our common stock, and (ii) in a concurrent private placement (the “Private Placement”), the Warrants to purchase an aggregate of 7,004,578 shares of common stock, representing 75% of the Shares sold in the Registered Offering issuable upon exercise of the Warrants. The Warrants are exercisable for a period of five years commencing on October 26, 2022, and expiring October 27, 2027, and have an initial exercise price of \$0.3399 per share, subject to adjustment. The gross proceeds from the foregoing transactions are (in the aggregate) approximately \$2.3 million, before deducting the placement agent fee and related offering expenses.

The Shares were offered and sold by us pursuant to a prospectus supplement, which was filed with the Securities and Exchange Commission (the “SEC”) on April 26, 2022 pursuant to Rule 424(b)(5) of the Securities Act in connection with a takedown from our effective shelf registration statement on Form S-3 (File No. 333-231010), which registration statement was initially filed with the SEC on April 24, 2019, and subsequently declared effective on May 17, 2019.

The Warrants and the shares of our common stock issuable upon the exercise of the Warrants were offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder. We closed the Registered Offering and concurrent private placement on April 26, 2022.

The foregoing summaries of the Purchase Agreement and the Warrants do not purport to be complete and are qualified in their entirety by such documents attached as [Exhibits 10.1](#) and [4.1](#), respectively, to the Company’s Current Report on Form 8-K filed with the SEC on April 22, 2022, each of which is incorporated herein by reference.

THE OFFERING

Shares of common stock offered by the Selling Stockholders:	7,004,578 shares of common stock
Shares outstanding prior to this offering	56,116,243
Terms of this offering:	The Selling Stockholders, including their transferees, donees, pledges, assignees and successors-in-interest, may sell, transfer or otherwise dispose of any or all of the shares of common stock offered by this prospectus from time to time on the Nasdaq Capital Market or any other stock exchange, market or trading facility on which the shares are traded or in private transactions. The shares of common stock may be sold at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market price or at negotiated prices.
Use of proceeds:	All proceeds from the sale of shares of common stock offered hereby will be for the account of the Selling Stockholders. We will not receive any proceeds from the sale of common stock offered pursuant to this prospectus. See the caption "Use of Proceeds" in this prospectus.
Nasdaq Capital Market symbol:	SLRX
Trading:	Our shares of common stock currently trade on the Nasdaq Capital Market.
Risk factors:	See "Risk Factors" beginning on page 4, for a discussion of factors you should carefully consider before deciding to invest in our common stock.

RISK FACTORS

Investing in our securities involves risk. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the heading “Risk Factors” included in or incorporated by reference into the applicable prospectus supplement together with all of the other information contained in the prospectus supplement or appearing in or incorporated by reference into this prospectus, including the risk factors incorporated by reference to our most recent Annual Report on Form 10-K, any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, and any amendments made thereto. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

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 include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These statements relate to future periods, future events, and our future operating or financial plans or performance. All statements other than statements of fact, including statements identified by words such as "believe," "may," "could," "will," "estimate," "continue," "anticipate," "intend," "expect," "indicate," "seek," "should," "would," "target", "potential," "evaluate," "proceeding" and similar expressions are forward-looking statements, and include, but are not limited to, statements regarding the following:

- future periods;
- the Company's strategy and ongoing development programs;
- the Company's clinical trials, including status, costs, goals, timing and other expectations related thereto;
- the Company's belief as to the potential of its lead compound, SP-2577;
- the Company's strategic collaborations and license agreements, and intellectual property;
- the potential for seclidemstat to target the epigenetic dysregulation underlying Ewing sarcoma and advanced solid tumors;
- expected timing and results of clinical studies;
- the ability of the Company's product candidates to demonstrate drug activity;
- the nature, strategy and focus of the Company;
- the development and commercial potential of any product candidates;
- the Company's ability and plan to regain and maintain compliance with Nasdaq's continued listing standards; the Company's expectations as to revenue, cash flow, and expenses;
- the potential impact of the COVID-19 pandemic on the Company's business, operations, cash flow and ability to obtain additional financing;
- the Company's liquidity position, the expected sufficiency of such position for anticipated operating and capital requirements; future capital requirements, and need for, and ability to secure, additional financing;
- the ability of the Company to access additional financing under the Grant Contract with Cancer Prevention and Research Institute of Texas; the Company's operating losses and ability to continue as a going concern;
- the Company's decision to engage in any new collaborations or selectively partnering its technology to improve the Company's ability to continue as a going concern;
- our beliefs regarding our prospects for our business;
- the adequacy of our capital resources, our ability to raise additional financing, and the consequences if we fail to obtain adequate funding; and
- our use of proceeds.

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. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss in greater detail, and incorporate by reference into this 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.

USE OF PROCEEDS

All shares of our common stock offered by this prospectus are being registered for the account of the Selling Stockholders. We will not receive any of the proceeds from the sale of these shares. We have agreed to pay all costs, expenses and fees relating to the registration of the shares of our common stock covered by this prospectus.

SELLING STOCKHOLDERS

The shares of common stock being offered by the Selling Stockholders are those issuable upon the exercise of the Warrants. For additional information regarding the issuance of these securities, see “Prospectus Summary—Registered Direct Offering of Common Stock and Concurrent Private Placement of Warrants” on page 3 of this prospectus. We are registering the shares of common stock issuable upon exercise of the Warrants in order to permit the Selling Stockholders to offer the shares for resale from time to time. Except for the ownership of the Warrants and the transactions contemplated pursuant to the Purchase Agreement, the Selling Stockholders have not had any material relationship with us within the past three years.

The following table sets forth certain information with respect to the Selling Stockholders, including (i) the number of shares of our common stock beneficially owned by the Selling Stockholders prior to this offering based on their respective ownership of shares our common stock and warrants, assuming exercise of all warrants held by the selling stockholders and without regard to any beneficial ownership limitations contained in the Warrants, (ii) the number of shares that may be offered by each of the Selling Stockholders pursuant to this prospectus and (iii) each Selling Stockholder’s beneficial ownership after completion of this offering assuming the sale of all of the shares of common stock covered by this prospectus.

The table is based on information supplied to us by the Selling Stockholders. In computing the number of shares beneficially owned by each Selling Stockholders and the percentage ownership of each Selling Stockholder, (i) shares of common stock subject to warrants held by the Selling Stockholders that are exercisable within 60 days after June 1, 2022, and (ii) shares of common stock issuable upon exercise of the Warrants, are deemed outstanding. The percentage of beneficial ownership after this offering is based on 56,116,243 shares of common stock outstanding on June 1, 2022. The information provided below does not necessarily indicate beneficial ownership for any other purpose.

This prospectus covers the resale of 7,004,578 shares of our common stock that may be sold or otherwise disposed of by the Selling Stockholder. Such shares are issuable to the Selling Stockholders upon the exercise of the Warrants. The Warrants are exercisable for a period of five years commencing on October 26, 2022 and expiring October 27, 2027. All of the Warrants have an exercise price of \$0.3399 per share. See “Prospectus Summary—Registered Direct Offering of Common Stock and Concurrent Private Placement of Warrants” for a complete description of the Warrants. The Selling Stockholders may sell all, some or none of their shares in this offering, but the number of shares and percentages set forth in the final two columns below assume that all shares of common stock being offered by the Selling Stockholders are sold. See “Plan of Distribution.”

Selling Stockholder(1)	Beneficial Ownership Before This Offering		Beneficial Ownership After This Offering	
	Number of Shares Owned	Shares of Common Stock to be sold in the Offering(2)	Number of Shares Owned	Percentage of Outstanding Shares(3)
Lind Global Fund II LP(4)	5,197,007(8)	2,227,289(12)	2,969,718	5.29%
Lincoln Park Capital Fund, LLC(5)	4,076,354(9)	2,227,289(13)	1,849,065	3.25%
Intracoastal Capital LLC(6)	1,050,000(10)	1,050,000	0	0.00%
Hudson Bay Master Fund Ltd.(7)	2,284,347(11)	1,500,000(14)	784,347	1.38%

- (1) This table and the information in the notes below are based upon information supplied by the Selling Stockholders, including reports and amendments thereto filed with the SEC on Schedule 13G.
- (2) The actual number of shares of common stock offered hereby and included in the registration statement, of which this prospectus forms a part, includes, in accordance with Rule 416 under the Securities Act, such indeterminate number of additional shares of our common stock as may become issuable in connection with any proportionate adjustment for any stock splits, stock combinations, stock dividends, recapitalizations or similar events with respect to common stock.
- (3) Percentages are based on 56,116,243 shares of common stock outstanding on June 1, 2022, assuming the resale of all common stock covered by this prospectus.
- (4) These securities are directly held by Lind Global Fund II LP (“Lind Global LP”), and may be deemed to be indirectly beneficially owned by Lind Global Partners II LLC, the general partner of Lind Global LP (“Lind Global LLC”), and Jeff Easton, the managing member of Lind Global LLC (collectively, with Lind Global LP, the “Lind Global Owners”). The address of Lind Global LP is 444 Madison Ave, Floor 41, New York, NY 10022.
- (5) These securities are directly held by Lincoln Park Capital Fund, LLC (“LPC Fund”), and may be deemed to be indirectly beneficially owned by Lincoln Park Capital, LLC, the managing member of LPC Fund (“LPC”), Rockledge Capital Corporation, a managing member of LPC (“RCC”), Joshua B. Scheinfeld, the sole shareholder of RCC, Alex Noah Investors, Inc., a managing member of LPC (“ANI”), and Jonathan I Cope, the sole shareholder of ANI. The address of LPC Fund is 440 North Wells, Suite 410, Chicago, Illinois 60654.
- (6) These securities are directly held by Intracoastal Capital LLC (“Intracoastal”), and may be deemed to be indirectly beneficially owned by Mitchell P. Kopin, a manager of Intracoastal, and Daniel B. Asher, a manager of Intracoastal (collectively, with Intracoastal, the “Intracoastal Owners”). Each of the Intracoastal Owners disclaims beneficial ownership of the securities except to the extent of their respective pecuniary interests therein. The address of Intracoastal is 245 Palm Trail, Delray Beach, Florida 33483.
- (7) These securities are directly held by Hudson Bay Master Fund Ltd. (“Hudson Bay Fund”), and may be deemed to be indirectly beneficially owned by Hudson Bay Capital Management LP, the investment manager of Hudson Bay Fund (“Hudson Bay LP”), Hudson Bay Capital GP LLC, the general partner of Hudson Bay LP (“Hudson Bay GP”), and Sander Gerber, the managing member of Hudson Bay GP (collectively with Hudson Bay Fund, the “Hudson Bay Owners”). Each of the Hudson Bay Owners disclaims beneficial ownership of the securities except to the extent of their respective pecuniary interests

therein. The address of Hudson Bay Fund is 28 Havemeyer Place, Second Floor, Greenwich, Connecticut 06830.

- (8) Consists of (i) 2,969,718 shares of common stock, and (ii) warrants to purchase up to 2,227,289 shares of common stock.
- (9) Consists of (i) 1,044,718 shares of common stock, and (ii) warrants to purchase up to 3,031,636 shares of common stock.
- (10) Consists of warrants to purchase up to 1,050,000 shares of common stock.
- (11) Consists of warrants to purchase up to 2,284,347 shares of common stock.
- (12) Consists of warrants to purchase up to 2,227,289 shares of common stock.
- (13) Consists of Warrants to purchase up to 2,227,289 shares of common stock.
- (14) Consists of Warrants to purchase up to 1,500,000 shares of common stock.

PLAN OF DISTRIBUTION

The Selling Stockholders and any of their respective pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the Nasdaq Capital Market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. The Selling Stockholders may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction, a markup or markdown in compliance with FINRA IM-2440.

In connection with the sale of the securities or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The Selling Stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each of the Selling Stockholders has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

We are required to pay certain fees and expenses incurred by us incident to the registration of the securities. We have agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep this prospectus effective until none of the Selling Stockholders owns any Warrants or any shares of our common stock issuable upon exercise of the Warrants. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Pursuant to applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

Listing

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

LEGAL MATTERS

The validity of the shares of common stock offered hereby is being passed upon for us by Hogan Lovells US LLP, Houston TX.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2021, 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 supplement 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.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with it which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below (other than any portions of any such documents that are not deemed "filed" under the Exchange Act in accordance with the Exchange Act and applicable SEC rules):

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2021 (filed on March 25, 2022);
- our Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2022 (filed on May 12, 2022);
- our Current Reports on Form 8-K filed with the SEC on [January 13, 2022](#), [April 1, 2022](#), [April 22, 2022](#), and [April 26, 2022](#); and
- the description of our common stock contained in our Registration Statement on [Form 8-A](#) filed on January 23, 2015, including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference all additional documents that we file with the SEC under the terms of Section 13(a), 13(c), 14 or 15(d) of the Exchange Act that are made after the initial filing date of the registration statement of which this prospectus is a part and the effectiveness of the registration statement, as well as between the date of this prospectus and the termination of any offering of securities offered by this prospectus (excluding any portions thereof furnished by the Registrant, including but not limited to information furnished under Item 2.02 and Item 7.01 and any exhibits relating to Item 2.02 or Item 7.01 furnished under Item 9.01 of Form 8-K and any certification required by 18 U.S.C. § 1350).

Any statement contained in this Registration Statement or in a document incorporated by reference in this Registration Statement shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in this Registration Statement or in any subsequently filed document that is deemed to be incorporated by reference in this Registration Statement modifies or supersedes such statement.

You may request a copy of any or all of the documents incorporated by reference but not delivered with this prospectus, at no cost, by writing or telephoning us at the following address and number: 2450 Holcombe Blvd., Suite X, Houston, TX 77021, and our telephone number is (832) 834-6992. We will not, however, send exhibits to those documents, unless the exhibits are specifically incorporated by reference in those documents.

We make available free of charge on our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports, as soon as reasonably practicable after we electronically file or furnish

such materials to the SEC. You may obtain a free copy of these reports in the “Investors” section of our website, www.salariuspharma.com.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the shares of our common stock. This prospectus, which constitutes part of the registration statement, does not include all of the information contained in the registration statement and the exhibits, schedules and amendments to the registration statement. For further information with respect to us and our common stock, we refer you to the registration statement and to the exhibits and schedules to the registration statement. Statements contained in this prospectus about the contents of any contract, agreement or other document are not necessarily complete, and, in each instance, we refer you to the copy of the contract, agreement or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference. You should rely only on information contained in, or incorporated by reference into, this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference in this prospectus.

The SEC maintains an Internet website, which is located at <http://www.sec.gov>, that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. You may access the registration statement, of which this prospectus forms a part, at the SEC’s Internet website. Our reports on Forms 10-K, 10-Q and 8-K, and amendments to those reports, are also available for download, free of charge, as soon as reasonably practicable after these reports are filed with the SEC, at our website at www.salariuspharma.com. The content contained in, or that can be accessed through, our website is not a part of this prospectus.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the expenses to be incurred in connection with the offering described in this registration statement, all of which will be paid by the Registrant. All amounts are estimates except the Securities and Exchange Commission, or SEC, registration fee.

	<u>Amount</u>
SEC registration fee	\$ 221
Accounting fees and expenses	10,000
Legal fees and expenses	25,000
Printing and engraving expenses	5,000
Miscellaneous	4,779
Total	<u>\$ 45,000</u>

Item 15. Indemnification of Directors and Officers.

Section 102 of the Delaware General Corporation Law, or 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 forgoing provisions permit indemnification of directors, executive officers, or persons controlling us for liability arising under the Securities Act of 1933, as amended, or 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 16. Exhibits and Financial Statement Schedules.

The exhibits to the registration statement are listed in the Exhibit Index attached hereto and incorporated by reference herein.

Item 17. Undertakings.

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:
 - (a) to include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (b) 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 volume of securities offered 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 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (c) 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)(a), (1)(b) and (1)(c) 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 purpose 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 that 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 under the Securities Act to any purchaser:
 - (a) Each prospectus filed by a Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (b) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.
 - (c) That, for purposes of determining any liability under the Securities Act, each filing of 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.
 - (d) 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 foregoing provisions, 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 a Registrant of expenses incurred or paid by a director, officer or controlling person of a 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, that 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.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the registrant undertakes that in a primary offering of securities of the 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 registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - (a) Any preliminary prospectus or prospectus of the registrant relating to the offering required to be filed pursuant to Rule 424;
 - (b) Any free writing prospectus relating to the offering prepared by or on behalf of the registrant or used or referred to by the registrant;
 - (c) The portion of any other free writing prospectus relating to the offering containing material information about registrant or its securities provided by or on behalf of the registrant; and
 - (d) Any other communication that is an offer in the offering made by a registrant to the purchaser.

EXHIBIT INDEX

EXHIBIT NO.

IDENTIFICATION OF EXHIBIT

- 4.1 [Amended and Restated Certificate of Incorporation of the Registrant \(incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on February 9, 2015\).](#)
- 4.2 [Amended and Restated Bylaws of the Registrant, effective July 19, 2019 \(incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed with the SEC on July 22, 2019\).](#)
- 4.3 [Amendment to Amended and Restated Bylaws of the Registrant, effective April 1, 2022 \(incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on April 1, 2022\).](#)
- 4.4 [Form of Common Stock Certificate of the Registrant \(incorporated by reference to Exhibit 4.1 to the Registrant's registration statement on Form S-1/A \(File No. 33-201276\), as amended, filed on January 13, 2015](#)
- 4.5 [Form of Warrant \(incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on April 22, 2022\).](#)
- 5.1 [Opinion of Hogan Lovells US LLP](#)
- 10.1 [Securities Purchase Agreement, dated as of April 22, 2022 \(incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on April 22, 2022\)](#)
- 23.1 [Consent of Hogan Lovells US LLP \(included in Exhibit 5.1\)](#)
- 23.2 [Consent of Ernst & Young LLP](#)
- 24.1 [Power of attorney \(included on the signature page of this registration statement\)](#)
- 107 [Filing Fee Table](#)

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on form S-3 and 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 June 10, 2022.

SALARIUS PHARMACEUTICALS, INC.

By: /s/ Mark J. Rosenblum
Name: Mark J. Rosenblum
Title: Chief Financial Officer

POWER OF ATTORNEY

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

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

Signature	Title	Date
<u>/s/ William K. McVicar</u> William K. McVicar	Chairman of the Board	<u>June 10, 2022</u>
<u>/s/ David J. Arthur</u> David J. Arthur	Director, President & Chief Executive Officer (Principal Executive Officer)	<u>June 10, 2022</u>
<u>/s/ Mark J. Rosenblum</u> Mark J. Rosenblum	Chief Financial Officer (Principal Financial and Accounting Officer)	<u>June 10, 2022</u>
<u>/s/ Tess Burleson</u> Tess Burleson	Director	<u>June 10, 2022</u>
<u>/s/ Arnold Hanish</u> Arnold Hanish	Director	<u>June 10, 2022</u>
<u>/s/ Paul Lammers</u> Paul Lammers	Director	<u>June 10, 2022</u>
<u>/s/ Jon Lieber</u> Jon Lieber	Director	<u>June 10, 2022</u>
<u>/s/ Bruce McCreedy</u> Bruce McCreedy	Director	<u>June 10, 2022</u>

Calculation of Filing Fee Tables

S-3
(Form Type)Salaris Pharmaceuticals, Inc.
(Exact Name of Registrant as Specified in its Charter)

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit (1)	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Fees to Be Paid	Equity	Common Stock, \$0.0001 par value per share (2)(3)	457(c) 457(g)	7,004,578	\$0.3399	\$2,380,856.06	0.0000927	\$220.71
	Total Offering Amounts							\$0.00
	Total Fees Previously Paid							\$0.00
	Total Fee Offsets							\$0.00
	Net Fee Due							\$220.71

(1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(c) and Rule 457(g) under the Securities Act of 1933, as amended, based upon the higher of: (i) the price at which the warrants may be exercised (\$0.3399), and (ii) the average of the high and low closing prices for a share of the Registrant's common stock as reported on the Nasdaq Capital Market on June 9, 2022, which date is a date within five business days of the filing of this registration statement.

(2) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended, the securities being registered hereunder include such indeterminate number of additional securities as may be issued after the date hereof as a result of stock splits, stock dividends or similar transactions.

(3) Represents 7,004,578 shares of the Registrant's common stock issuable upon the exercise of warrants that were issued to the Selling Stockholders named herein.



Hogan Lovells US LLP
 609 Main Street, Suite 4200
 Houston, TX 77002
 T +1 713 632 1400
 F +1 713 632 1401
 www.hoganlovells.com

June 10, 2022

Board of Directors
 Salaris Pharmaceuticals, Inc.
 2450 Holcombe Blvd., Suite X
 Houston, Texas 77021

To the addressee referred to above:

We are acting as counsel to Salaris Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), in connection with its registration statement on Form S-3 (the "**Registration Statement**"), filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "**Act**"), relating to the resale or other disposition, from time to time, by the selling stockholders listed in the Registration Statement (the "**Selling Stockholders**"), including their transferees, pledgees, donees or successors, of up to 7,004,578 shares of the common stock, par value \$0.0001 per share of the Company (the "**Shares**"), issuable upon exercise of warrants (the "**Warrants**") issued by the Company to the Selling Stockholders on April 26, 2022, which Shares may be sold from time to time, as set forth in the prospectus that forms a part of the Registration Statement (the "**Prospectus**"), and as to be set forth in one or more supplements to 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. 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.

Hogan Lovells US LLP is a limited liability partnership registered in the District of Columbia. "Hogan Lovells" is an international legal practice that includes Hogan Lovells US LLP and Hogan Lovells International LLP, with offices in: Alicante Amsterdam Baltimore Beijing Birmingham Boston Brussels Colorado Springs Denver Dubai Dusseldorf Frankfurt Hamburg Hanoi Ho Chi Minh City Hong Kong Houston Johannesburg London Los Angeles Luxembourg Madrid Mexico City Miami Milan Minneapolis Monterrey Munich New York Northern Virginia Paris Perth Philadelphia Rome San Francisco São Paulo Shanghai Silicon Valley Singapore Sydney Tokyo Warsaw Washington, D.C. Associated Offices: Budapest Jakarta Riyadh Shanghai FTZ Ulaanbaatar. Business Service Centers: Johannesburg Louisville. Legal Services Center: Berlin. For more information see www.hoganlovells.com

Based upon, subject to and limited by the foregoing, we are of the opinion that, as of the date hereof, the Shares have been duly authorized by all necessary corporate action on the part of the Company and, following (i) the exercise of the Warrants in accordance with their terms and (ii) receipt by the Company of the consideration for the Warrant Shares specified in the Warrants, 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 5.01 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

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-3) and related Prospectus of Salius Pharmaceuticals, Inc. for the registration of 7,004,578 shares of its common stock and to the incorporation by reference therein of our report dated March 25, 2022, 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, 2021, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Houston, Texas
June 8, 2022