

The information contained in this preliminary prospectus supplement and the accompanying prospectus is not complete and may be changed. A registration statement relating to these securities has been declared effective by the Securities and Exchange Commission. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, Dated July 29, 2020

PRELIMINARY PROSPECTUS SUPPLEMENT  
(To Prospectus dated May 17, 2019)

\$



## Common Stock

We are offering \$ \_\_\_\_\_ of shares of our common stock. Our common stock is listed on the Nasdaq Capital Market under the symbol "SLRX." Based on a public offering price of \$ \_\_\_\_\_ per share, we would expect to offer approximately \_\_\_\_\_ shares hereby. The recent market price used throughout this prospectus may not be indicative of the final public offering price. The final public offering price will be determined through negotiation between us and the underwriter based upon a number of factors, including our history and our prospects, the industry in which we operate, our past and a present operating results, and the general condition of the securities markets at the time of this offering.

As of July 29, 2020, the aggregate market value of our outstanding common stock held by non-affiliates was \$26,417,939, based on 14,639,971 shares of common stock outstanding as of July 28, 2020, of which 124,620 shares are held by affiliates, and a per share price of \$1.82, which represents the closing sale price of our common stock on June 16, 2020. As of the date of this prospectus, we have offered and sold \$2,649,510 of shares of our common stock pursuant to General Instruction I.B.6 to Form S-3 during the 12 calendar month period that ends on and includes the date hereof. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities in a public primary offering with a value exceeding more than one-third of our "public float" (the market value of our common stock held by our non-affiliates) in any 12-month period so long as our public float remains below \$75,000,000.

We are an “emerging growth company” as defined by the Jumpstart Our Business Startups Act of 2012 and, as such, we are eligible for reduced public company reporting requirements. Please see “Prospectus Supplement Summary – Implications of Being an Emerging Growth Company and a Smaller Reporting Company.”

	<u>Per Share</u>	<u>Total</u>
Public offering price	\$	\$
Underwriting discounts(1)	\$	\$
Proceeds to us, before expenses	\$	\$

(1) In addition, we have agreed to reimburse the underwriter for certain expenses. See “Underwriting” on page S-29 of this prospectus supplement for additional information.

We have granted the underwriter an option to purchase, within 45 days from the date of this prospectus supplement, up to an additional \$ of shares of our common stock at the public offering price less the underwriting discounts and commissions.

**Investing in our common stock involves a high degree of risk. You should carefully review the risks and uncertainties referenced under the heading “[Risk Factors](#)” beginning on page S-13 of this prospectus supplement and in the accompanying prospectus and the documents that are incorporated by reference herein and therein.**

**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 supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.**

The underwriter expects to deliver the shares offered hereby on or about August , 2020, subject to the satisfaction of customary closing conditions.

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*Sole Book-Running Manager*

**Ladenburg Thalmann**

The date of this prospectus supplement is , 2020.

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## ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of a registration statement that was filed with the Securities and Exchange Commission, or the SEC, using a “shelf” registration process and consists of two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and also supplements and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part is the accompanying prospectus, which provides more general information, some of which may not apply to this offering. This prospectus supplement may add, update, or change information contained in the accompanying prospectus. If the information contained in this prospectus supplement differs or varies from, or is inconsistent with, the information contained in the accompanying prospectus or the information contained in any document incorporated by reference that was filed with the SEC before the date of this prospectus supplement, you should rely on the information set forth in this prospectus supplement.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not, and the underwriters have not, authorized anyone else to provide you with information that is in addition to or different from that contained or incorporated by reference in this prospectus supplement and the accompanying prospectus, along with the information contained in any permitted free writing prospectuses we have authorized for use in connection with this offering. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may provide.

The information contained in this prospectus supplement and the accompanying prospectus is accurate only as of the date of this prospectus supplement or the date of the accompanying prospectus, and the information in the documents incorporated by reference in this prospectus supplement and the accompanying prospectus is accurate only as of the date of those respective documents, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock. Our business, financial condition, results of operations, and prospects may have changed since those dates. It is important for you to read and consider all information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus in making your investment decision. You should read both this prospectus supplement and the accompanying prospectus, as well as the documents incorporated by reference into this prospectus supplement and the accompanying prospectus, and the additional information described under “Where You Can Find More Information and Incorporation of Certain Information By Reference” in this prospectus supplement and under “Incorporation of Certain Information By Reference” in the accompanying prospectus before investing in our common stock.

We further note that the representations, warranties, and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in this prospectus supplement and the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties, and covenants should not be relied on as accurately representing the current state of our affairs.

We use various trademarks and trade names in our business, including without limitation our corporate name and logo. All other trademarks or trade names referred to in this prospectus supplement and the accompanying prospectus and the documents incorporated by reference herein or therein are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus supplement and the accompanying prospectus and the documents incorporated by reference herein or therein may be referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

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You should not consider this prospectus supplement or the accompanying prospectus to be an offer or solicitation relating to the securities in any jurisdiction in which such an offer or solicitation relating to the securities is not authorized. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement or the accompanying prospectus supplement by any person in any jurisdiction if the person making the offer or solicitation is not qualified to do so, or if it is unlawful for you to receive such an offer or solicitation.

Unless otherwise indicated, information contained in or incorporated by reference into this prospectus supplement and the accompanying 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. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market, and other data from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical, and general publications, government data and similar sources.

Unless otherwise indicated or the context otherwise requires, references in this prospectus supplement and the accompanying prospectus to "Salarius," "company," "we," "us" and "our" refer to Salarius Pharmaceuticals, Inc., and its subsidiaries.

## PROSPECTUS SUPPLEMENT SUMMARY

*This summary highlights selected information about us, this offering, and information appearing elsewhere in this prospectus supplement and the accompanying 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. Before investing in our common stock, you should read this entire prospectus supplement and the accompanying prospectus carefully, including under the caption “Risk Factors” and the financial statements and accompanying notes and other information incorporated by reference in this prospectus supplement and the accompanying prospectus, together with any free writing prospectus we have authorized for use in connection with this. When used in this prospectus supplement and the accompanying prospectus, except where the context otherwise requires, the terms the “Company,” “we,” “us,” “our,” “Salaris,” or similar terms refer to Salaris Pharmaceuticals, Inc.*

### Overview

We are a clinical-stage biotechnology company focused on developing effective treatments for cancer with high, unmet medical need caused by dysregulated gene expression. Epigenetics refers to the regulatory system that affects gene expression and our lead epigenetic enzyme technology was licensed from the University of Utah Research Foundation in 2011.

We are focused on strategies addressing dysregulated gene expression, epigenetic strategies for cancer treatment. Epigenetics refers to the system that regulates gene expression through conformational changes to the chromatin rather than changes to the DNA sequence itself. Our compound, Seclidemstat (“SP-2577”), is a small molecule that inhibits the epigenetic enzyme lysine specific demethylase 1 (“LSD1”). LSD1 is an enzyme that removes mono- and di-methyl marks on histones (core protein of chromatin) to alter gene expression. LSD1’s enzymatic activity can cause genes to turn on or off and thereby affect the cell’s gene expression and overall activity. In addition, LSD1 can act via its scaffolding properties, independently of its enzymatic function, to alter gene expression and modulate cell fate. In healthy cells, LSD1 is necessary for stem cell maintenance and cell development processes. However, in several cancers LSD1 is highly expressed and acts aberrantly to incorrectly silence or activate genes leading to disease progression. High levels of LSD1 expression are often associated with aggressive cancer phenotypes and poor patient prognosis. In addition, recent data from “LSD1 Ablation Stimulates Anti-tumor Immunity and Enables Checkpoint Blockade” by W. Sheng, et al. and “Inhibition of Histone Lysine-specific Demethylase 1 Elicits Breast Tumor Immunity and Enhances Antitumor Efficacy of Immune Checkpoint Blockade” by Y. Qin, et al. suggests that LSD1 plays a role in tumor immune activity. Hence, there has been interest in developing targeted LSD1 inhibitors for treatment of various cancers alone and/or in combination with other approved agents, such as checkpoint inhibitors.

In December 2019, we announced that our lead investigational drug candidate, Seclidemstat, has been granted Fast Track Designation by the U.S. Food and Drug Administration (“FDA”) for the treatment of relapsed/refractory Ewing sarcoma patients. Fast Track is a process designed by the FDA to expedite the development and review of new drugs with the potential to treat serious or life-threatening conditions and fill unmet medical needs. The aim is to streamline the drug development and review process by allowing for more frequent communications with the agency to assure that questions and issues are resolved quickly, which often leads to earlier drug approval and access by patients. Coupled with Seclidemstat’s previously granted Orphan Drug Designation and Rare Pediatric Disease Designation by the FDA, we believe we are well positioned to take advantage of the FDA’s expedited programs for drug development and review.

On October 24, 2019, we entered into a common stock purchase agreement with Aspire Capital Fund, LLC (“Aspire Capital”), which provides that, upon the terms and subject to the conditions and limitations set forth therein, we may offer to Aspire Capital up to an aggregate of \$10.9 million of shares of our common stock over a

30-month period (the “ATM Agreement”). As of March 31, 2020, we had sold approximately \$2.6 million of shares of our common stock under the ATM Agreement.

On February 11, 2020, we completed a public offering (the “February Offering”) with net proceeds of approximately \$9.9 million. In the first quarter of 2020, on a U.S. generally accepted accounting principles (“GAAP”) basis, net cash used in operating activities was approximately \$3.7 million, primarily due to increased clinical trial and related research costs, as well as costs incurred in connection with the February Offering and our continued transition into a public company. As of March 31, 2020, we had cash, cash equivalents and restricted cash of approximately \$9.6 million. We did not receive any funding from the Cancer Prevention and Research Institution of Texas (“CPRIT”) grant in the first quarter of 2020. As of March 31, 2020, we had received an aggregate of \$9.6 million from the CPRIT grant. A portion of the remaining \$9.1 million CPRIT grant was for a castration-resistant prostate study (approximately \$2.6 million). As we have elected not to pursue this study, we will be requesting from CPRIT approval to redeploy the allocated prostate study funds to our expanded Ewing sarcoma trial. We have applied for an extension of the CPRIT agreement with a proposed contract end date of November 30, 2020. The timing and amounts of our expenditures may vary from period to period, including from our current expectations, due to a variety of factors such as the timing and amount of our CPRIT grant and potential transaction-related costs.

### **Salarius’ Strategy and Ongoing Programs**

Our goal is to develop cancer treatments with SP-2577. To achieve this goal, we are pursuing the following key strategies:

#### *Development of SP-2577 in Ewing Sarcoma Patients*

Ewing sarcoma is a rare pediatric bone cancer and the FDA has put in place several different types of incentives for companies pursuing therapeutic opportunities for this type of cancer. We have benefited from several of these incentives, including SP-2577’s orphan drug status designation and designation as a potential treatment for a “rare pediatric disease.” This means that if proven efficacious with a benefit-risk profile that the FDA judges to be positive and supportive of approval, SP-2577 could qualify for priority review and to receive a priority review voucher (“PRV”). If received, we would have the ability to sell the PRV to other qualifying pharmaceutical companies. Based on PRV selling prices between 2017 and 2018, a PRV has a value ranging between \$80 million and \$150 million. We initiated a Phase 1/2 clinical trial in the third quarter of 2018 and are currently in the initial dose escalation phase. Additional clinical trials will be necessary to receive FDA approval.

#### *Expand SP-2577 Market by Pursuing Large Market Indications*

In parallel to our development of SP-2577 in Ewing sarcoma patients, we are conducting a Phase 1/2 clinical trial in solid tumor types, including patients with breast, ovarian and prostate cancers, as well as patients with sarcomas, but excluding Ewing sarcomas and central nervous system tumors. The possible markets for successful therapies in these indications could be large and thus greatly expand the potential opportunities for SP-2577 outside of Ewing sarcoma. The trial opened in the second quarter of 2019 and is currently also in the initial dose escalation phase.

The following table lists our ongoing clinical programs and their respective stages of development:

<u>Product Candidate</u>	<u>Target</u>	<u>Disease Area</u>	<u>Development Stage</u>	<u>Sponsor</u>
SP-2577	LSD1	Ewing sarcoma	Phase 1/2, active recruitment	Salarius
SP-2577	LSD1	Advanced Solid Tumors	Phase 1/2, active recruitment	Salarius

## **LSD1 Overview**

### ***LSD1 Inhibitor: SP-2577***

#### *Background*

LSD1 is an enzyme that is, in part, responsible for epigenetic regulation of genes that support cancer growth. According to B. Majello, et al. in “Expanding the Role of the Histone Lysine-Specific Demethylase LSD1 in Cancer”, LSD1 dysregulation is a key driver in multiple malignancies. LSD1 induces a cancer phenotype through its enzymatic activity and through its role as a scaffolding protein in epigenetic complexes.

LSD1’s main demethylation target is the histone 3 tail, specifically methyl marks on lysine 4 and lysine 9, or H3K4 and H3K9. Demethylation at H3K4 leads to gene repression, while demethylation at H3K9 leads to gene activation. LSD1 will be directed to either the H3K4 or H3K9 site depending on co-regulators it associates with across the various indications. For example, in prostate cancer, LSD1 associates with the androgen receptor and targets H3K9. In addition to its demethylation activity, LSD1 acts as a scaffolding protein in epigenetic complexes, further regulating gene expression.

LSD1 is over-expressed in various cancers, and higher levels of LSD1 are associated with poor patient prognosis in several types of cancers, making LSD1 inhibition an area of interest in cancer research. Most first-generation LSD1 inhibitors were based off a common tranylcypromine scaffold and thus share the same mechanism of forming a covalent adduct and irreversibly binding to LSD1’s cofactor, FAD, to inhibit its enzymatic activity. However, these types of inhibitors do not robustly impact LSD1’s scaffolding properties, which also aberrantly affect gene expression. As a result, the first-generation irreversible inhibitors have not been able to demonstrate comprehensive inhibition of LSD1 function and are mostly limited to a subset of indications.

#### *SP-2577: A Reversible LSD1 Inhibitor*

SP-2577 is a small-molecule LSD1 inhibitor, orally administered, with a novel scaffold. The molecule was discovered using structure-based computational screening coupled with chemical screening and further optimization with structure-activity relationship studies.

We believe that SP-2577 is different from the majority of LSD1 inhibitors currently in clinical development because in addition to inhibiting LSD1’s enzymatic activity, it also more comprehensively inhibits LSD1’s scaffolding properties. We also believe that SP-2577 is one of two reversible LSD1 inhibitors in clinical development, and three other LSD1 inhibitors in clinical development are all irreversible. Some irreversible inhibitors have struggled in clinic because, in addition to playing a role in carcinogenesis, LSD1 is involved in regulating genes in normal, healthy cells. Hence, irreversible inhibition of LSD1 may result in unwanted, on-target toxicities, limiting dosing for irreversible LSD1 inhibitors. Based on internal and published data, SP-2577 and its analog (SP-2509) have been observed to reversibly bind to LSD1, which we hypothesize may avoid these unwanted toxicities and allow more flexible dosing strategies by potentially having a wider therapeutic window. This potential is being studied and developed in our ongoing clinical programs.

#### *Ewing Sarcoma*

Ewing sarcoma is a devastating pediatric and young adult cancer that suffers from a lack of approved targeted therapies. Salarius initiated a Phase 1/2 clinical trial in Ewing sarcoma with SP-2577 in the third quarter of 2018. The cause of Ewing sarcoma is a chromosomal translocation involving the Ewing sarcoma breakpoint region 1 gene and ETS family genes, resulting in expression of a fusion oncoprotein. Ewing sarcoma cells exhibit high LSD1 protein expression. LSD1 associates with the fusion oncoprotein to drive disease progression, signifying LSD1 inhibition could be a viable therapeutic strategy.



Based on data from the National Institute of Health and physician collaborators, we believe there are approximately 500 Ewing sarcoma patients diagnosed annually in the United States. The median age of diagnosis is 15 years, and 5-year overall survival for patients with metastatic disease is between 15% and 30%. Current treatment for Ewing sarcoma consists of an intensive chemotherapy regime, radiation, and often disfiguring surgeries. Due to the harshness of current treatment options, children and adolescents often experience long-term side effects such as slowed growth and development, learning problems and an increased risk of developing second cancers.

*Advanced Solid Tumors*

In addition to Ewing sarcoma, LSD1 has been implicated in several other cancers, with high levels of LSD1 expression often associated with more aggressive cancers. These cancers include advanced castration resistant prostate, breast, and various sarcomas. We are studying SP-2577's potential in these types of cancers through a company-sponsored single agent Advanced Solid Tumor study.

**SP-2577 Clinical Trials**

*Ewing Sarcoma: Trial Design*

We are conducting a multi-site, open-label, dose-ranging Phase 1/2 trial of SP-2577 for treatment of relapsed/refractory Ewing sarcoma patients. The clinical trial consists of an initial dose escalation phase to determine the maximum tolerated dose, followed by a dose expansion phase, and can enroll up to 50 patients in total. Patients must have histologic confirmation of Ewing sarcoma that is refractory or recurrent and must have received one prior course of therapy for the disease. Among other inclusion criteria, patients must be 12 years or older and have a life expectancy of greater than 4 months.

The primary objectives of this clinical trial are to study the safety and tolerability of SP-2577. Secondary objectives include pharmacokinetic assessment, food effects on drug pharmacokinetics, determination of the maximum tolerated dose ("MTD") and assessment of preliminary signs of anti-tumor activity. Additionally, the trial will explore the use of circulating tumor cells, cell-free DNA, Hemoglobin F, and changes in molecular signatures of the tumor as pharmacodynamic markers of disease burden, drug effect, and tumor response.

We initiated this trial in the third quarter of 2018. As of May 2020, patients have been treated at various dose levels, the highest level being dose 6. Dose escalation levels are shown in the table below.

<u>Dose Level</u>	<u>Twice Daily Dose (mgs)</u>	<u>Percent increase from preceding dose level</u>	<u>Total Daily Dose (mgs)</u>
1	75	0	150
2	150	100%	300
3	300	100%	600
4	600	100%	1200
5	900	50%	1800
6	1200	33%	2400
7	1500	25%	3000

We have eight active study sites: Children's Hospital Los Angeles, Moffit Cancer Center, Dana-Farber Cancer Institute, MD Anderson Cancer Center, Johns Hopkins All Children's Hospital, Nationwide Children's Hospital, Memorial Sloan Kettering, and the Sarcoma Oncology Center.

### *Advanced Solid Tumors: Trial Design*

Our second company-sponsored trial is in Advanced Solid Tumors. It is an open-label, dose ranging Phase 1/2 trial of SP-2577 in patients with advanced cancers, excluding Ewing sarcoma. The clinical trial follows a similar format to the Ewing sarcoma trial and has the same dose cohorts. It will consist of a dose escalation and dose expansion phase and can enroll up to 50 patients in total. Patients must be diagnosed with an advanced or recurrent, histologically or cytologically confirmed, solid malignancy that is either metastatic or unresectable.

The primary objectives of this clinical trial are to study the safety and tolerability of SP-2577. Secondary objectives include pharmacokinetic assessment, food effects on drug pharmacokinetics, determination of the MTD and assessment of preliminary signs of anti-tumor activity. Additionally, the trial will look at exploratory markers including Hemoglobin F to assess disease burden, drug effect, and tumor response.

### **SP-2577 Ongoing Development Programs**

In addition to the aforementioned clinical trials, we are exploring other opportunities with SP-2577 which include, in combination with immunotherapy agents (checkpoint inhibitors), patients with select tumor mutations, and in hematological malignancies.

Recent preclinical studies demonstrated that LSD1 inhibition has the potential to sensitize refractory patients to checkpoint inhibitors. While checkpoint inhibitors have been successful in a subset of patients, they remain ineffective in a large portion of cancer patients. Considering that the checkpoint inhibitor market is already a multibillion-dollar market, drugs that can be used to increase the clinical benefit of checkpoint inhibitors are attractive. Importantly, recent data shows that certain mutations in chromatin modifying complexes (e.g. mutations in the SWI/SNF complex) could increase tumor sensitivity to LSD1's immunomodulatory effects. We are currently assessing the potential of Seclidemstat to be combined with checkpoint inhibitors through preclinical studies.

Cancer patients who harbor select tumor mutations (e.g., UTX, TET2) may be more susceptible to LSD1 inhibition. As such, identifying patients with these types of mutations could allow us to enrich for patients that have an increased chance of benefitting from SP-2577 treatment. We are currently conducting preclinical work to identify mutations that may increase patient response to SP-2577's therapeutic effects.

### **Recent Developments**

#### ***Phase 1/2 Clinical Trial***

We recently announced the expansion of our ongoing clinical trial of seclidemstat in patients with relapsed or refractory Ewing sarcoma to include additional select sarcomas. The current Phase 1/2 clinical trial of seclidemstat in patients with relapsed or refractory Ewing sarcoma is an open-label dose-finding trial intended to characterize the pharmacokinetics ("PK") and initial safety profile of seclidemstat, and also determine the maximum tolerated dose ("MTD"). Once MTD is established, the trial is expected to enter a dose expansion phase that will enroll up to 20 Ewing sarcoma patients to expand the safety and PK profile of seclidemstat and assess preliminary efficacy data. Under the planned amendment to the trial protocol, a second cohort of the expansion phase will enroll up to 50 additional patients with either myxoid liposarcoma, desmoplastic small round cell tumors or other Ewing-related sarcomas.

Seclidemstat's potential as a treatment for Ewing-related sarcomas is supported by pre-clinical data and early clinical data observations from the ongoing Phase 1/2 clinical trial of seclidemstat in patients with relapsed or refractory Ewing sarcoma. A refractory Ewing sarcoma patient treated with seclidemstat for six months

demonstrated a reduction of over 80% in prospectively defined target lesions. Target lesions generally represent a patient's largest measurable tumors. However, at eight weeks, an increase in non-target lesions resulted in an overall patient classification of progressive disease as defined by Response Evaluation Criteria in Solid Tumors (RECIST).

#### ***COVID-19 Impact***

The COVID-19 pandemic is significantly affecting the United States, global economies, and businesses worldwide. While the potential magnitude and duration of the economic and social impact of the COVID-19 pandemic is difficult to assess or predict, the impact on the global financial markets may, in the future, reduce our ability to access capital, which in turn could negatively impact our short-term and long-term liquidity. In addition to potentially having a material and negative impact on our liquidity and capital resources (including our ability to secure additional financing if and when needed), the COVID-19 pandemic could materially and adversely impact our business, operations, and workforce, and has impacted, and could continue to impact, the business, operations, and workforce of the third parties with which we do business or upon which we rely. While the situation is fluid and we do not yet know the full extent of potential delays or impacts on us, the third parties with which we work or upon which we rely, or on healthcare systems or the global economy in general, we have worked to adapt to the unexpected and challenging circumstances resulting from the COVID-19 pandemic. At this time we are experiencing minimal COVID-19 disruptions to our clinical programs, our manufacturing capabilities, or our financing capabilities. However, we may experience disruptions in the future that could further adversely impact our business operations as well as our preclinical studies and clinical trials.

Although at this time we are experiencing minimal disruption to our clinical trials, our ongoing Phase 1/2 clinical trial can enroll up to 50 relapsed or refractory Ewing sarcoma patients and in the future we may encounter delays in enrolling new patients due to concerns or healthcare resource constraints as a result of the COVID-19 pandemic. In addition, although at this time we have experienced no disruptions to manufacturing capabilities, certain aspects of our supply chain may be disrupted as certain of our third party suppliers and manufacturers have paused their operations in response to the COVID-19 pandemic or have otherwise encountered delays in providing supplies and services. We continue to evaluate the extent to which these delays will impact our ability to manufacture our product candidates for our clinical trials, conduct other research and development operations, and maintain applicable timelines. The ultimate impact of the COVID-19 pandemic on our business operations and on our preclinical studies and clinical trials remains uncertain and subject to change and will depend on future developments which cannot be accurately predicted. We will continue to monitor the situation closely.

On April 13, 2020, we were granted a loan of approximately \$180,000 from Paycheck Protection Program established under the CARES Act. The loan matures on April 13, 2022 and bears interest at a rate of 0.5% per annum. The loan will be forgiven if we use it to pay payroll costs including benefit, mortgage interest, rent, and utilities payment over the eight weeks after obtaining the loan, by submitting a request to the lender that is servicing the loan.

#### ***Preliminary Results***

Our estimated unaudited financial results as of and for the three and six months ended June 30, 2020 presented below are preliminary, estimated, and unaudited, and are subject to completion by management of our financial statements as of and for the quarter ended June 30, 2020, including the completion of our quarter-end closing procedures and further financial review. We have provided ranges for the estimated preliminary financial results described below primarily because the financial closing procedures for the quarter ended June 30, 2020 are not yet complete as of the date of this prospectus supplement. The preliminary financial and business information presented below has been prepared by and is the responsibility of our management and is based upon information

available to us as of the date hereof. Our independent registered public accounting firm has not audited, reviewed, compiled, or performed any procedures with respect to this preliminary financial information. Accordingly, our independent registered public accounting firm does not express an opinion or any other form of assurance with respect thereto. These preliminary estimates are not a comprehensive statement of our financial results for this period and should not be viewed as a substitute for interim financial statements prepared in accordance with generally accepted accounting principles.

Our actual results may vary materially from these preliminary estimates due to, among other factors, the completion of our quarter-end closing procedures, review adjustments, and other developments that may arise between now and the time our financial results for the period are finalized. Factors that could cause actual results to differ from those described below are set forth herein and under “Risk Factors” in this prospectus supplement and the accompanying prospectus, and in the documents incorporated herein and therein by reference. Accordingly, you should not place undue reliance upon these preliminary estimates. Furthermore, the preliminary estimates should not be viewed as a substitute for quarterly financial statements prepared in accordance with GAAP. In addition, these preliminary results for the three and six months ended June 30, 2020 are not necessarily indicative of the results to be achieved for the remainder of the fiscal year ending December 31, 2020 or in any future period, due to various factors, including the impact of the ongoing COVID-19 pandemic. There can be no assurance that these estimates will be realized, and estimates are subject to risks and uncertainties, many of which are not within our control. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our Annual Report on Form 10-K for the year ended December 31, 2019. Complete quarterly results will be included in our Quarterly Report on Form 10-Q for the six months ended June 30, 2020.

Preliminary estimated second quarter 2020 results are summarized below:

- Revenue of approximately \$1.1 million to \$1.3 million and approximately \$2.3 million to \$2.5 million for the three and six months ended June 30, 2020, respectively;
- Total operating expenses of approximately \$3.0 million to \$3.2 million and approximately \$6.5 million to \$6.7 million for the three and six months ended June 30, 2020, respectively;
- Net loss of approximately \$1.7 million to \$1.9 million and approximately \$3.7 million to \$3.9 million for the three and six months ended June 30, 2020, respectively;
- Cash, cash equivalents and restricted cash of approximately \$7.1 million to \$7.3 million as of June 30, 2020; and
- Cash used in operating activities of approximately \$6.1 million to \$6.3 million for the six months ended June 30, 2020, primarily related to general and administrative and research and development costs.

### **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, TX 77021, and our telephone number is (832) 834-6992. Our website address is [www.saliariuspharma.com](http://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.

The Merger is deemed to be a reverse acquisition under the guidance of ASC 805 and, as such, Private Salarius has been determined to be the accounting acquirer in the Merger, but not the legal acquirer. As a result, upon

consummation of the Merger, the historical financial statements of Private Salarius became the historical financial statements of Salarius, the combined company.

### **Implications of Being an Emerging Growth Company and a Smaller Reporting Company**

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012 (the “JOBS Act”). For so long as we remain an emerging growth company (“EGC”), we are permitted and intend to take advantage of specified reduced reporting requirements that are applicable to public companies, including:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor’s report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- not being required to hold a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We currently take advantage of some or all of these reporting exemptions and we may continue to do so until we are no longer an EGC. Accordingly, the information that we provide stockholders may be different than the information you receive from other public companies in which you hold stock. We will remain an EGC until the earlier of (1) December 31, 2020, (2) the last day of the fiscal year in which we have total annual gross revenue of at least \$1.07 billion, (3) the last day of the fiscal year in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds \$700 million as of June 30 of such fiscal year, and (4) the date on which we have issued more than \$1.0 billion in non-convertible debt during the prior three-year period.

Under Section 107(b) of the JOBS Act, an EGC can delay adopting new or revised accounting standards until those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we are subject to the same new or revised accounting standards as other public companies that are not EGCs.

We are also a smaller reporting company as defined in the Securities Exchange Act of 1934, as amended (the “Exchange Act”). We may continue to be a smaller reporting company even after we are no longer an EGC. 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) 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 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.

**THE OFFERING**

Common stock offered by us	shares
Common stock to be outstanding immediately after this offering	shares
Option to purchase additional shares	We have granted the underwriter an option exercisable for 45 days from the date of this prospectus supplement to purchase up to an additional _____ shares of common stock from us.
Use of proceeds	<p>We estimate that the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$ _____ million (or approximately \$ _____ million if the underwriter exercises its option to purchase additional shares in full).</p> <p>We currently intend to use the net proceeds from this offering for working capital and other general corporate purposes. See “Use of Proceeds.”</p>
Risk factors	Investing in our common stock involves significant risks. See “Risk Factors” on page S-13 of this prospectus supplement and under similar headings in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus for a discussion of the factors you should carefully consider before deciding to invest in our common stock.
Nasdaq Capital Market symbol	“SLRX”

The number of shares of common stock to be outstanding immediately after this offering is based on 13,645,677 shares outstanding as of March 31, 2020, and excludes as of such date:

- 5,164 shares of unvested restricted common stock subject to repurchase by us;
- 338,233 shares of common stock issuable upon the exercise of outstanding stock options, with a weighted average exercise price of \$17.01 per share;
- 33,592 shares of common stock reserved for future issuance under our 2015 Equity Incentive Plan (the “2015 Plan”);
- 81,022 shares of common stock reserved for future issuance under our 2015 Employee Stock Purchase Plan (the “ESPP”) (as well as any future increases in the number of shares of common stock reserved for future issuance pursuant to the evergreen provision of the ESPP);
- 42,928 shares of common stock issuable upon exercise of a warrant issued to Wedbush Securities Inc. (“Wedbush”), with an exercise price of \$18.90 per share;
- rights distributed to holders of record of Flex Pharma’s common stock as of the close of business on July 18, 2019, which will entitle such stockholders to receive warrants to purchase an aggregate of approximately 142,711 shares of our common stock on January 20, 2020, with an exercise price of \$15.17 per share;
- 12,376 shares of common stock to be issued pursuant to a professional relations and consulting agreement dated December 9, 2019;

- 468,694 shares common stock issuable upon the conversion of Series A convertible preferred stock issued in connection with the February Offering;
- 9,599,999 shares of common stock issuable upon the exercise of warrants issued in connection with the February Offering, with an exercise price of \$1.15 per share; and
- 1,300,000 additional shares of common stock reserved for future issuance under the 2015 Plan, which increase was approved by our stockholders at our 2020 annual meeting of stockholders.

Unless otherwise indicated, all information contained in this prospectus assumes:

- no exercise of the outstanding options described above;
- no exercise by the underwriter of its option to purchase additional shares of common stock to cover over-allotments, if any;
- a one-for-25 reverse stock split of our common stock, which became effective on July 19, 2019; and
- the filing of our amended and restated certificate of incorporation, which became effective on July 19, 2019, and the adoption of our amended and restated bylaws by our board of directors on July 19, 2019.

## RISK FACTORS

*Investing in our common stock involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described below and in our most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, as well as any amendments thereto reflected in subsequent filings, each of which are incorporated by reference in this prospectus supplement and the accompanying prospectus, and all of the other information in this prospectus supplement and the accompanying prospectus, including our financial statements and related notes incorporated by reference in this prospectus supplement and the accompanying prospectus. If any of these risks is realized, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the trading price of our common stock could decline and you could lose part or all of your investment. Additional risks and uncertainties that are not yet identified or that we think are immaterial may also materially harm our business, operating results, and financial condition and could result in a complete loss of your investment.*

### **Risks Related to This Offering, Our Securities, and our Preliminary Estimated Financial Results**

***You will experience immediate and substantial dilution as a result of this offering and may experience additional dilution in the future.***

Purchasers of our common stock in this offering will experience immediate dilution in the net tangible book value of the common stock purchased in this offering because the price per share of common stock in this offering is substantially higher than the net tangible book value per share of our common stock outstanding immediately after this offering. Our net tangible book value as of March 31, 2020 was approximately \$9.1 million, or \$0.67 per share of our common stock. Based on a public offering price of \$ \_\_\_\_\_ per share, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our adjusted net tangible book value as of March 31, 2020, would have been approximately \$ \_\_\_\_\_ million, or approximately \$ \_\_\_\_\_ per share of our common stock. As a result, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of \$ \_\_\_\_\_ per share with respect to the net tangible book value of the common stock. See “Dilution” in this prospectus supplement for a detailed discussion of the dilution you will incur if you purchase shares in this offering. In addition, the conversion of shares of Series A convertible preferred stock and the exercise of the warrants issued in connection with the February Offering will result in the issuance of additional shares of common stock that will result in significant dilution to holders of our common stock.

***Management will have broad discretion as to the use of the proceeds from this offering and may not use the proceeds effectively.***

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that may not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business and cause the price of our common stock to decline.

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

Our board of directors (or a committee thereof) will approve the public offering price and other terms of this offering after considering, among other things: the number of shares authorized in our certificate of incorporation; the current market price of our common stock; trading prices of our common stock over time; the volatility of our common stock; our current financial condition and the prospects for our future cash flows; the availability of and likely cost of capital of other potential sources of capital; and market and economic conditions at the time of the offering. The public offering price is not intended to bear any relationship to the book value of our assets or our past operations, cash flows, losses, financial condition, net worth, or any other established criteria used to value securities. The public offering price may not be indicative of the fair value of the common stock.



***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 (including sales of common stock issuable pursuant to the exercise of warrants or stock options or the conversion of our Series A convertible preferred stock), or the perception that such sales could occur, 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. A substantial number of shares of common stock are being offered by this prospectus. We cannot predict the number of these shares that might be sold or resold, nor the effect that future sales of our shares of common stock, including the resale of shares issued in this offering, would have on the market price of our shares of common stock.

As of March 31, 2020, we had outstanding: (a) 13,645,677 shares of common stock; (b) 338,233 shares of common stock issuable upon the exercise of outstanding stock options; (c) 33,592 shares of common stock reserved for future issuance under the 2015 Plan; (d) 81,022 shares of common stock reserved for future issuance under the ESPP; (e) 42,928 shares of common stock issuable upon exercise of a warrant issued to Wedbush; (f) 12,376 shares of common stock issuable pursuant to a professional relations and consulting agreement; (g) 468,694 shares of Series A convertible preferred stock; (h) 9,599,999 shares of common stock issuable upon the exercise of warrants issued in connection with the February Offering; (i) up to \$8.2 million of shares of our common stock available for sale pursuant to the ATM Agreement (subject to limitations under applicable SEC and Nasdaq rules); and (j) 5,164 shares of unvested restricted common stock subject to repurchase by us. In addition, as of January 20, 2020, holders of record of Flex Pharma's common stock as of the close of business on July 18, 2019 had rights to receive warrants exercisable for an aggregate of 142,711 shares of our common stock at an exercise price of \$15.17 per share, which warrants expire on January 20, 2025 (the "Flex Warrants"). We may register the warrants and the underlying shares under the Securities Act of 1933 (the "Securities Act"). In addition, we may, in our sole discretion, elect to deem such warrants exercised on a cashless basis at the closing of an issuance and sale of our common stock in an equity financing with gross proceeds of at least \$10.0 million. We do not currently intend to elect to deem such warrants exercised on a cashless basis in connection with this offering even if the gross proceeds of this offering exceed \$10.0 million. However, if we were to deem such warrants exercised on a cashless basis, the number of common stock to be issued in connection with such deemed cashless exercise will depend on the volume weighted average price of our common stock at the time of closing, and is approximately 1,127,008 shares based on an assumed closing date of July 22, 2020.

Further, at our 2020 annual meeting of stockholders, our stockholders approved an increase of 1,300,000 shares of common stock reserved for future issuance under our 2015 Plan and an increase in the evergreen provision under our ESPP. The evergreen provision provides for an annual increase in the number of shares authorized for issuance under the ESPP on January 1 of each year in an amount equal to the lesser of (i) 1% of the outstanding shares on December 31st of the preceding calendar year, (ii) 40,000, or (iii) any lesser number approved by our Board of Directors. The fixed number of shares in item (ii) of the evergreen provision was increased from 40,000 shares to 100,000 shares for each annual increase occurring after the date of the stockholder approval. Shares issuable under our 2015 Plan and the ESPP will be registered on a Form S-8 registration statement and will therefore be eligible for sale in the public markets by non-affiliates, as well as by affiliates pursuant to Rule 144 of the Securities Act.

We, along with our directors and executive officers, have agreed that for a period of 90 days after the date of this prospectus supplement, subject to specified exceptions, including sales under 10b5-1 plans, we or they will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock. Ladenburg, Thalmann & Co. Inc. may, without notice, waive the terms of any of these lock-up agreements. Sales of stock by any of our directors and executive officers, or the perception such sales may occur, could have a material adverse effect on the trading price of our common stock.

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### ***The terms of the Series A convertible preferred stock and the warrants issued in the February Offering could impede our ability to enter into certain transactions or obtain additional financing.***

The terms of the Series A convertible preferred stock and the warrants issued in the February Offering 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 Series A convertible preferred stock and such warrants and the associated transaction documents. In addition, holders of Series A convertible preferred stock and such 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 Series A convertible preferred stock and such warrants could also impede our ability to enter into certain transactions or obtain additional financing in the future.

### ***Terms of subsequent financings may adversely impact our stockholders.***

To finance our future business plans and working capital needs, we will need to raise funds through the issuance of equity or debt securities in addition to this offering. Depending on the type and the terms of any financing we pursue, stockholders’ rights and the value of their investment in our common stock and warrants could be reduced. A financing could involve one or more types of securities including common stock, convertible debt, or warrants to acquire common stock. These securities could be issued at or below the then prevailing market price for our common stock. In addition, if we issue secured debt securities, the holders of the debt would have a claim to our assets that would be senior to the rights of stockholders until the debt is paid. Interest on these debt securities would increase costs and negatively impact operating results. If the issuance of new securities results in diminished rights to holders of our common stock, the market price of our common stock and the value of any outstanding warrants could be negatively impacted.

### ***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.

### ***If we fail to comply with the continued listing standards of Nasdaq, our common stock may be delisted from Nasdaq. This in turn could result in significantly reduced trading liquidity, reduced trading volumes, and loss of research analyst coverage, among other consequences. These in turn could result in a further decline in the market price of common stock and would have a material adverse effect on our company.***

On April 9, 2020, we were notified (the “Notice”) by Nasdaq Stock Market, LLC (“Nasdaq”) that on April 8, 2020 the average closing price of our common stock over the prior 30 consecutive trading days had fallen below \$1.00 per share, which is the minimum average closing price required to maintain listing on Nasdaq under Nasdaq Listing Rule 5450(a)(1) (the “Minimum Bid Requirement”). We were subsequently notified by Nasdaq on June 15, 2020 that we have regained compliance with the Minimum Bid Requirement. However, we cannot assure you that we will continue to comply with the continued listing standards of Nasdaq. To the extent that we are unable to maintain listing compliance or are unable to resolve any listing deficiency in the future, there is a risk that our common stock may be delisted from Nasdaq, which would adversely impact liquidity of our common stock and potentially result in even lower bid prices for our common stock. If for any reasons, Nasdaq should delist our common stock, and if our common stock is not then eligible for quotation on another market or exchange, trading of shares of our common stock could be conducted in the over-the-counter markets. In such event, a reduction in some or all of the following may occur, each of which could materially and adversely affect our stockholders:

- the liquidity of our common stock;

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- the market price of our common stock;
- our ability to obtain financing for the continuation of our operations;
- the number of institutional and general investors 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 shares of our common stock.

The occurrence of any of these events could result in a further decline in the market price of common stock and could have a material adverse effect on us.

### ***Our actual results for the second quarter of 2020 may be different than the preliminary estimated results included elsewhere herein.***

Our preliminary estimated results for the second quarter of 2020 are unaudited and subject to change as we close our books and complete the quarter end closing process, and prepare financial statements for the quarter. Preliminary estimated financial results are inherently subject to business, economic, regulatory, market, financial and competitive uncertainties and contingencies and other future events, as well as matters specific to our business, all of which are difficult to predict and many of which are beyond our control. The inclusion of preliminary estimated financial information herein should not be regarded as an indication that we consider such preliminary estimated financial information to be predictive of actual or future results, in particular in light of the COVID-19 pandemic. Actual results for the quarter may be materially different than the preliminary estimated results presented and our estimated preliminary results should not be relied upon as being necessarily indicative of actual results, and you are cautioned not to place undue reliance on this preliminary financial information. Furthermore, the preliminary financial results do not take into account any circumstances or events occurring after the date they were prepared.

### **Risks Related to the Impact of the COVID-19 Pandemic on our Company**

#### ***The COVID-19 pandemic could adversely affect our business, results of operations, and financial condition.***

To date, the COVID-19 pandemic has negatively impacted the global economy and the magnitude, severity, and duration of this impact is unclear and difficult to assess. In addition, certain areas, including Texas where we are headquartered, have recently experienced a resurgence of COVID-19 cases. We have worked to adapt to the unexpected and challenging circumstances resulting from the COVID-19 pandemic and we have experienced minimal COVID-19 disruptions to our clinical programs, our manufacturing capabilities and our financing capabilities during the six months ended June 30, 2020. Both our Ewing sarcoma clinical study and our Advanced Solid Tumor clinical study are active and continue to enroll patients. We plan to release clinical data from both studies, as previously disclosed, during 2020 and 2021. However, the situation with respect to the COVID-19 pandemic and its impact changes daily and is difficult to predict.

To combat the spread of COVID-19, the United States and other locations in which we operate have imposed measures such as quarantines and “shelter-in-place” orders that are restricting business operations and travel and requiring individuals to work from home (“WFH”), which has impacted all aspects of our business as well as those of the third-parties we rely upon for certain supplies and services. The continuation of WFH and other restrictions for an extended period of time may negatively impact our productivity, research and development, operations, preclinical studies and clinical trials, business, and financial results. Among other things, the COVID-19 pandemic may result in:

- a global economic recession or depression that could significantly and negatively impact our business or those of third parties upon which we rely for services and supplies;

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- constraints on our ability to conduct our operations and our preclinical studies and clinical trials;
- delays in our ability to extend the term of the CPRIT grant;
- reduced productivity in our business operations, research and development, marketing, and other activities;
- disruptions to our third-party manufacturers and suppliers;
- increased costs resulting from WFH or from our efforts to mitigate the impact of COVID-19; and
- reduced access to financing to fund our operations due to a deterioration of credit and financial markets.

We continue to monitor the situation and the continued disruption of the COVID-19 pandemic and its effects on the worldwide economy could negatively and materially impact our operating and financial operating results. The resumption of normal business operations may be delayed and a resurgence of COVID-19 could occur, resulting in continued disruption to us or to the third parties with which we do business. As a result, the effects of the COVID-19 pandemic could have a material adverse impact on our business, results of operations, and financial condition for the remainder of 2020 and beyond.

***We will continue to require substantial additional capital to fund our clinical activities and operations and the impact of the COVID-19 pandemic on the financial markets will likely negatively impact our ability to raise additional financing.***

We are a clinical development-stage biopharmaceutical company with a limited operating history. We have no products approved for commercial sale and have not generated any revenue from product sales. We have never been profitable and have incurred operating losses in each year since inception. Our net losses were \$6.9 million and \$2.1 million for the year ended December 31, 2019 and the three months ended March 31, 2020, respectively. We have prepared our financial statements on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities and commitments in the normal course of business. The financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or amounts of liabilities that might be necessary should we be unable to continue in existence.

We will continue to require substantial additional capital to continue our clinical development and potential commercialization activities. Accordingly, we will need to raise substantial additional capital to continue to fund our operations. The development of our product candidates have been funded in part through federal and state grants, including, but not limited to, the funding received from CPRIT. The amount and timing of our future funding requirements will depend on many factors, including, but not limited to, the pace and results of our clinical development efforts, as well as our ability to access the funding remaining available under the CPRIT grant. To date, we have also financed our operations through the sale of equity securities. Our stock price has been negatively impacted in part by the downturn in the financial markets due to the COVID-19 pandemic. This in turn will likely negatively impact our ability to raise funds through equity-related financings. Further, the global economic downturn may impair our ability to obtain additional financing through other means, such as debt financing. There can be no assurance we will be able to secure additional financing on favorable terms to us, or at all. Further any debt financing may contain restrictive covenants which limit our operating flexibility and any equity financing will likely result in additional and possibly significant dilution to existing stockholders. Failure to raise sufficient capital, as and when needed or on commercially reasonable terms, would have a significant and negative impact on our financial condition and our ability to develop our product candidates.

***Raising additional capital may cause dilution to our stockholders, restrict our operations, or require us to relinquish rights.***

The February Offering caused significant dilution to stockholders who owned shares of our common stock prior to this offering. To the extent that we raise additional capital through the sale of equity, convertible debt, or other

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securities convertible into equity, the ownership interest of our existing stockholders will be diluted, and the terms of these new securities may include liquidation or other preferences that adversely affect rights of our equity holders. Debt financing, if available at all, would likely involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, making additional product acquisitions, or declaring dividends. If we raise additional funds through strategic collaborations or licensing arrangements with third parties, we may have to relinquish valuable rights to its product candidates or future revenue streams or grant licenses on terms that are not favorable to us. We may not be able to obtain additional funding when necessary to fund our entire portfolio of product candidates to meet its projected plans. If we are unable to obtain funding on a timely basis, we may be required to delay or discontinue one or more of our development programs or the commercialization of any product candidates or be unable to expand our operations or otherwise capitalize on potential business opportunities. The occurrence of any of these events could materially harm our business, financial condition, and results of operations.

### ***We rely on federal and state grants, including funding from CPRIT and failure to receive additional grants may substantially harm our business.***

During the course of the development of our product candidates, we have been funded in part through federal and state grants, including but not limited to the funding we received from CPRIT. The grants have been, and any future government grants and contracts we may receive may be, subject to the risks and contingencies set forth in our Annual Report on Form 10-K for the year ended December 31, 2019, including under the risk factor entitled “Reliance on government funding for our programs may add uncertainty to its research and commercialization efforts with respect to those programs that are tied to such funding and may impose requirements that limit its ability to take specified actions, increase the costs of commercialization and production of product candidates developed under those programs and subject it to potential financial penalties, which could materially and adversely affect our business, financial condition and results of operations.” The CPRIT agreement was awarded in June 2016 and originally provided for a three-year grant award of up to \$18.7 million to fund the development of the LSD-1 inhibitor. As of March 31, 2020, we had received an aggregate of \$9.6 million from the CPRIT grant. A portion of the remaining \$9.1 million CPRIT grant was for a castration-resistant prostate study (approximately \$2.6 million). As we have elected not to pursue this study, we will be requesting from CPRIT approval to redeploy the allocated prostate study funds to our expanded Ewing sarcoma trial. If CPRIT terminates our agreement prior to the expiration due to an event of default or if we terminate the agreement, CPRIT may require us to repay some or all of the disbursed grant. The term of the CPRIT agreement was extended through May 2020 and we have applied for an extension with a proposed contract end date of November 30, 2020. Although we may apply for government contracts and grants in the future, we may not be successful in obtaining additional grants for any product candidates or programs. Failure to receive additional government grants in the future may substantially harm our business.

### ***We rely on third parties to conduct our clinical trials, manufacture our product candidates, and perform other services. If these parties are not able to successfully perform due to the impact of the COVID-19 pandemic or otherwise, there may be delays in our ability to successfully complete clinical development, obtain regulatory approval, or commercialize our product candidates, any of which in turn could substantially harm our business.***

We have relied, and plan to continue to rely, upon third parties such as contract research organizations (“CROs”) and hospitals to conduct, monitor, and manage our ongoing clinical programs. We rely on these parties for execution of clinical trials and manage and control only some aspects of their activities. In addition, third parties may not prioritize our clinical trials relative to those of other customers due to resource or other constraints as a result of the COVID-19 pandemic. Due to the continued impact of the COVID-19 pandemic or otherwise, we may experience enrollment at a slower pace at certain of our clinical trial sites than initially anticipated. Further, our clinical trial sites may be required to suspend enrollment due to travel restrictions, workplace safety concerns, quarantine, facility closures, and other governmental restrictions. As a result, results from our clinical trials may be delayed, which in turn would have a material adverse impact on our clinical trial plans and

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timelines and impair our ability to successfully complete clinical development, obtain regulatory approval, or commercialize our product candidates. This in turn would substantially harm our business and operations.

***We expect to rely on third parties to manufacture our clinical product supplies and to produce and process our product candidates, if approved. The commercialization of any of our product candidates could be stopped, delayed, or made less profitable if those third parties are unable to provide us with sufficient quantities of drug product, or to do so at acceptable quality levels or prices due to the COVID-19 pandemic or otherwise.***

We currently rely on outside vendors to manufacture our clinical supplies of our product candidates and plans to continue relying on third parties to manufacture our product candidates on a commercial scale, if approved. The COVID-19 pandemic has placed a significant strain on the pharmaceutical industry, manufacturers of clinical supplies, healthcare-related supplies and resources, and the healthcare-related manufacturing sector in general. The impact of the COVID-19 pandemic has exacerbated the risks to which we are subject due to our reliance on third-party manufacturers. For example, we may be unable to identify manufacturers on acceptable terms or at all or third-party manufacturers may not be able to execute our manufacturing procedures appropriately or may not perform as agreed or may not remain in the contract manufacturing business for the time required to supply our clinical trials or to successfully produce, store and distribute our products.

Additionally, our manufacturers may experience manufacturing difficulties due to resource constraints, the impact of the COVID-19 pandemic, or as a result of labor disputes or unstable political environments. If our manufacturers were to encounter any of these difficulties or otherwise fail to comply with their contractual obligations, our ability to provide our product candidates to patients in clinical trials would be jeopardized. Any delay or interruption in the supply of clinical trial supplies could delay the completion of clinical trials, increase the costs associated with maintaining clinical trial programs and, depending upon the period of delay, require us to commence new clinical trials at additional expense or terminate clinical trials completely.

***Due to our limited number of employees, our operations could be significantly and disproportionately impacted if any of our personnel were to test positive for COVID-19.***

We are a small company with a limited number of employees performing multiple tasks each. We are also highly dependent on David J. Arthur, our president and chief executive officer, the loss of whose services may adversely impact the achievement of our objectives. There is currently a shortage of highly qualified personnel in our industry, which is likely to continue. Additionally, this shortage of highly qualified personnel is particularly acute in the area where our headquarters are located. If any of our personnel were to test positive for COVID-19, it would likely significantly impair our operations. The loss of services of any of our personnel, including Mr. Arthur, particularly for an extended period due to COVID-19 or otherwise, would likely impede the progress of our research, development, and commercialization objectives and would negatively impact our ability to succeed in our product development strategy.

***We may face business disruption and related risks resulting from President Trump's recent invocation of the Defense Production Act, either of which could have a material adverse effect on our business.***

In response to the COVID-19 pandemic, President Trump invoked the Defense Production Act, codified at 50 U.S.C. §§ 4501 et seq. (the "Defense Production Act"). Pursuant to the, Defense Production Act the federal government may, among other things, require domestic industries to provide essential goods and services needed for the national defense. While we have not experienced any significant impact on our business as a result of such actions, we continue to assess the potential impact COVID-19 and the invocation of the Defense Production Act may have on our ability to effectively conduct our commercialization efforts and development programs and otherwise conduct our business operations as planned. There can be no assurance that we will not be further impacted by the COVID-19 pandemic or by any action taken by the federal government under the Defense Production Act, including downturns in business sentiment generally or in our industry and business in particular.

## FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, and the documents we have filed with the SEC that are incorporated by reference in this prospectus supplement and the accompanying prospectus contain forward-looking statements that involve risks and uncertainties. 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,” “will,” “estimate,” “continue,” “anticipate,” “plan,” “intend,” “expect,” and similar expressions are forward-looking statements, and include, but are not limited to, statements regarding the following:

- our ability to successfully initiate and complete clinical trials and regulatory submissions;
- expected dose escalation and dose expansion;
- expected number of additional clinical sites;
- expected cohort readouts;
- expected therapeutic options for SP-2577 and related effects;
- timing of development and future milestones;
- the development, expected timeline, and commercial potential of any product candidates;
- the effect of changes in macroeconomic factors beyond our control;
- competition in the markets in which we do business and our competitive advantages;
- 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;
- our expectations as to funds remaining available under the CPRIT grant;
- our preliminary estimated financial results;
- our ability to compete;
- our beliefs regarding the attributes and anticipated customer benefits of our products;
- our ability to hire additional personnel and retain key personnel;
- our ability to expand and improve our sales performance and marketing activities;
- our ability to manage our expenditures and estimate future expenses, revenue, and operational requirements;
- our use of proceeds;
- the effect of changes to management judgments and estimates;
- the impact of any modification to our pricing practices in the future;
- our beliefs regarding our international operations;
- our ability to take adequate precautions against claims or lawsuits made by third parties, including alleged infringement of proprietary rights;
- the impact of the COVID-19 pandemic on our business, operations, and workforce and those of the third parties with whom we work;
- the potential impact of foreign currency exchange rate fluctuations;
- our expected cash expenditures and timing thereof;

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- the impact of accounting pronouncements and our critical accounting policies, judgments, estimates, models, and assumptions on our financial results; and
- our expectations with respect to revenue, cost of revenue, expenses, and other financial metrics.

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. These risks and uncertainties include, but are not limited to: the effect of the COVID-19 pandemic on our business and the success of any measures we have taken or may take in the future in response thereto; our ability to manage and achieve our business plans, strategies, and any business or financial forecasts or projections; the availability of sufficient resources to meet our business objectives and operational requirements; our ability to project future cash utilization and reserves needed for contingent future liabilities and business operations; the risk that we may not obtain or maintain sufficient levels of reimbursement for our clinical trials and product development, including from CPRIT; our history of losses; the fact that the results of earlier studies and trials may not be predictive of future clinical trial results; our quarter-end closing procedures and finalization of our quarterly financial results; the ability to protect our intellectual property rights; risks related to the drug development and the regulatory approval process; the impact of competitive products and technological changes; the impact of new legislation, regulations, or judicial decisions on our business; other legal and regulatory uncertainties; our ability to compete against third parties; our ability to manage future growth; the market price of our common stock and our ability to maintain the listing of our common stock on Nasdaq; foreign currency exchange rate fluctuations; the impact of economic conditions, unemployment levels, and loss of health insurance benefits on our business; our ability to compete; and other risks set forth in our filings with the SEC, including those set forth in this prospectus supplement and the accompanying prospectus and the documents incorporated by reference herein and therein, including our Annual Report on Form 10-K for the year ended December 31, 2019, and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020.

We discuss in greater detail, and incorporate by reference into this prospectus supplement 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 supplement and the accompanying prospectus. Any forward-looking statement made by us in this prospectus supplement, the accompanying prospectus, or any of the documents incorporated by reference herein and therein 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 in the prospectus supplement, the accompanying prospectus, or any of the documents incorporated by reference herein or therein 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 supplement, the accompanying prospectus, and the documents that we incorporated by reference herein and therein 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

Based on a public offering price of \$ \_\_\_\_\_ per share, we would expect to offer approximately \_\_\_\_\_ shares hereby. Based on the foregoing, we estimate that the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$ \_\_\_\_\_ million (or approximately \$ \_\_\_\_\_ million if the underwriter exercises its option to purchase additional shares in full).

Our expected use of the net proceeds from this offering represents our current intentions based upon our present plans and business condition. 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 completion of this offering, or the amounts that we will actually spend on the uses set forth above. However, we currently intend to use the net proceeds to us from this offering primarily for general corporate purposes, including working capital, research and development, and capital expenditures, although we do not currently have any specific or preliminary plans with respect to the use of proceeds for such purposes. Pending the uses described above, we intend to invest the net proceeds from this offering in short term, interest-bearing securities such as money market accounts, certificates of deposit, commercial paper, or direct or guaranteed obligations of the U.S. government. The amounts and timing of our actual use of the net proceeds will vary depending on numerous factors, including our ability to gain access to additional financing and the relative success and cost of our research and development programs. As a result, our management will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the net proceeds of this offering. In addition, we might decide to postpone or not pursue certain development activities if the net proceeds from this offering and any other sources of cash are less than expected.

## DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain any future earnings and do not expect to pay any dividends in the foreseeable future. Any determination to pay dividends in the future will be at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements and general business conditions and other factors that our board of directors may deem relevant.

## DILUTION

If you purchase shares of our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the public offering price per share and the net tangible book value per share of our common stock immediately after this offering. Net tangible book value per share is determined by dividing the number of shares of common stock outstanding as of March 31, 2020, into our total tangible assets less total liabilities.

Our historical net tangible book value as of March 31, 2020, was approximately \$9.1 million, or \$0.67 per share, based on 13,645,677 shares of our common stock outstanding as of that date.

After giving effect to the sale of \_\_\_\_\_ shares of common stock by us at a public offering price per share of \$ \_\_\_\_\_, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2020, would have been \$ \_\_\_\_\_ million, or \$ \_\_\_\_\_ per share. This represents an immediate increase in net tangible book value of \$ \_\_\_\_\_ per share to existing stockholders and immediate dilution of \$ \_\_\_\_\_ per share to investors in this offering, as illustrated by the following table:

Public offering price per share	\$
Net tangible book value per share as of March 31, 2020	\$0.67
Increase in net tangible book value per share attributable to investors participating in this offering	\$
As adjusted net tangible book value per share after giving effect to this offering	\$
Dilution per share to investors in this offering	\$

If the underwriter exercises in full its option to purchase \$ \_\_\_\_\_ of additional shares from us at a public offering price of \$ \_\_\_\_\_ per share, the as adjusted net tangible book value per share after this offering would be \$ \_\_\_\_\_ per share, the increase in net tangible book value per share to existing stockholders would be \$ \_\_\_\_\_ per share and the dilution to new investors purchasing shares in this offering would be \$ \_\_\_\_\_ per share.

The number of shares of common stock to be outstanding immediately after this offering is based on 13,645,677 shares outstanding as of March 31, 2020, and excludes as of such date:

- 5,164 shares of unvested restricted common stock subject to repurchase by us;
- 338,233 shares of common stock issuable upon the exercise of outstanding stock options, with a weighted average exercise price of \$17.01 per share;
- 33,592 shares of common stock reserved for future issuance under the 2015 Plan;
- 81,022 shares of common stock reserved for future issuance under the ESPP (as well as any future increases in the number of shares of common stock reserved for future issuance pursuant to the evergreen provision of the ESPP);
- 42,928 shares of common stock issuable upon exercise of a warrant issued to Wedbush, with an exercise price of \$18.90 per share;
- rights distributed to holders of record of Flex Pharma's common stock as of the close of business on July 18, 2019, which will entitle such stockholders to receive warrants to purchase an aggregate of approximately 142,711 shares of our common stock on January 20, 2020, with an exercise price of \$15.17 per share;
- 12,376 shares of common stock to be issued pursuant to a professional relations and consulting agreement dated December 9, 2019;
- 468,694 shares of common stock issuable upon the conversion of Series A convertible preferred stock issued in connection with the February Offering;

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- 9,599,999 shares of common stock issuable upon the exercise of warrants issued in connection with the February Offering, with an exercise price of \$1.15 per share; and
- 1,300,000 additional shares of common stock reserved for future issuance under the 2015 Plan, which increase was approved by our stockholders at our 2020 annual meeting of stockholders.

To the extent any options or warrants are exercised or restricted stock units vest, new options, restricted stock awards, or restricted stock units are issued under the 2015 Plan, shares are purchased pursuant to our ESPP, or we otherwise issue additional shares of common stock or securities exercisable for, or convertible into, common stock in the future, there will be further dilution to new investors.

In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or debt securities, the issuance of these securities could result in further dilution to our stockholders.

## MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following is a general discussion of the material U.S. federal income tax considerations applicable to non-U.S. holders (as defined herein) with respect to their ownership and disposition of shares of our common stock issued pursuant to this offering. This discussion does not address all aspects of U.S. federal income tax considerations relating thereto. This discussion also does not address the tax considerations arising under the laws of any non-U.S., state, or local jurisdiction, nor under U.S. federal gift and estate tax laws. In general, a non-U.S. holder means a beneficial owner of our common stock (other than a partnership or an entity or arrangement treated as a partnership for U.S. federal income tax purposes) that is not, for U.S. federal income tax purposes:

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

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), existing U.S. Treasury Regulations promulgated thereunder, published administrative pronouncements and rulings of the U.S. Internal Revenue Service ("IRS"), and judicial decisions, all as in effect as of the date of this prospectus supplement. These authorities are subject to change and to differing interpretation, possibly with retroactive effect. Any change or differing interpretation could alter the tax consequences to non-U.S. holders described in this prospectus supplement and the accompanying prospectus.

We assume in this discussion that a non-U.S. holder holds shares of our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, for investment). This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances, nor does it address any estate or gift tax consequences or any aspects of U.S. state, local or non-U.S. taxes. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as holders that own, or are deemed to own, more than 5% of our capital stock (except to the extent specifically set forth below), corporations that accumulate earnings to avoid U.S. federal income tax, tax-exempt organizations, banks, financial institutions, insurance companies, brokers, dealers or traders in securities, commodities or currencies, tax-qualified retirement plans, accrual method taxpayers subject to special tax accounting rules under Section 451(b) of the Code, holders subject to the alternative minimum tax or the Medicare contribution tax, holders who hold or receive our common stock pursuant to the exercise of employee stock options or otherwise as compensation, holders holding our common stock as part of a hedge, straddle or other risk reduction strategy, conversion transaction or other integrated investment, holders deemed to sell our common stock under the constructive sale provisions of the Code, controlled foreign corporations, passive foreign investment companies and certain former U.S. citizens or long-term residents.

In addition, this discussion does not address the tax treatment of partnerships (or entities or arrangements that are treated as partnerships for U.S. federal income tax purposes) or persons that hold their common stock through such partnerships. If a partnership, including any entity or arrangement treated as a partnership for U.S. federal income tax purposes, holds shares of our common stock, the U.S. federal income tax treatment of a partner in such partnership will generally depend upon the status of the partner and the activities of the partnership. Such partners and partnerships should consult their own tax advisors regarding the tax consequences of the purchase, ownership, and disposition of our common stock.

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There can be no assurance that a court or the IRS will not challenge one or more of the tax consequences described herein, and we have not obtained, nor do we intend to obtain, an IRS ruling with respect to the U.S. federal income tax consequences to a non-U.S. holder of the purchase, ownership or disposition of our common stock.

### **Distributions on Our Common Stock**

Distributions, if any, on our common stock generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such holder's adjusted tax basis in the common stock. Any remaining excess will be treated as capital gain from the sale or exchange of such common stock, subject to the tax treatment described below in "Gain on Sale, Exchange, or Other Disposition of Our Common Stock." Any such distribution will also be subject to the discussion below under the heading "FATCA Withholding."

Dividends paid to a non-U.S. holder will generally be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements. However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same graduated U.S. federal income tax rates applicable to U.S. persons (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence.

To claim a reduction or exemption from withholding, a non-U.S. holder of our common stock generally will be required to provide (a) a properly executed IRS Form W-8BEN or W-8BEN-E (or successor form) and satisfy applicable certification and other requirements to claim the benefit of an applicable income tax treaty between the United States and such holder's country of residence or (b) a properly executed IRS Form W-8ECI stating that dividends are not subject to withholding because they are effectively connected with such non-U.S. holder's conduct of a trade or business within the United States. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

### **Gain on Sale, Exchange, or Other Disposition of Our Common Stock**

Subject to the discussion below regarding backup withholding, in general, a non-U.S. holder will not be subject to any U.S. federal income tax on any gain realized upon such holder's sale, exchange or other disposition of shares of our common stock unless:

- the gain is effectively connected with a U.S. trade or business of the non-U.S. holder and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed base maintained in the United States by such non-U.S. holder, in which case the non-U.S. holder generally will be taxed at the graduated U.S. federal income tax rates applicable to U.S. persons (as defined in

the Code) (or such lower rate as may be specified by an applicable income tax treaty) and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above in “Distributions on Our Common Stock” also may apply;

- the non-U.S. holder is a nonresident alien individual who is present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty) on the net gain derived from the disposition, which may be offset by U.S. source capital losses of the non-U.S. holder, if any (even though the individual is not considered a resident of the United States), provided the non U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses; or
- our common stock constitutes a U.S. real property interest because we are, or have been, at any time during the five-year period preceding such disposition (or the non-U.S. holder’s holding period, if shorter) a “United States real property holding corporation.” Generally, a corporation is a United States real property holding corporation only if the fair market value of its U.S. real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a United States real property holding corporation, or that we are likely to become one in the future. Even if we are or become a United States real property holding corporation, provided that our common stock is regularly traded on an established securities market, within the meaning of applicable Treasury Regulations, our common stock will be treated as a U.S. real property interest only with respect to a non-U.S. holder that holds more than 5% of our outstanding common stock, directly or indirectly, actually or constructively, during the shorter of the 5-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. In such case, such non-U.S. holder generally will be taxed on its net gain derived from the disposition at the graduated U.S. federal income tax rates applicable to U.S. persons (as defined in the Code). No assurance can be provided that our common stock will continue to be regularly traded on an established securities market for purposes of the rules described above.

### **Information Reporting and Backup Withholding**

We must report annually to the IRS and to each non-U.S. holder the gross amount of distributions on our common stock paid to such holder, whether or not such distribution is a dividend for U.S. federal income tax purposes, and the tax withheld, if any, with respect to such distributions. Non-U.S. holders will have to comply with specific certification procedures to establish that the holder is not a U.S. person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock. A non-U.S. holder generally will not be subject to U.S. backup withholding with respect to payments of dividends on our common stock if it certifies its non-U.S. status by providing a valid IRS Form W-8BEN or W-8BEN-E (or successor form) or W-8ECI, or otherwise establishes an exemption; provided we do not have actual knowledge or reason to know such non-U.S. holder is a U.S. person, as defined in the Code. Dividends paid to non-U.S. holders subject to the U.S. withholding tax, as described above in “Distributions on Our Common Stock,” generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding will generally apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, information reporting but not backup withholding will apply in a manner similar to dispositions effected through a U.S. office of a broker, if a non-U.S. holder sells our common stock through a non-U.S. office of a broker that has certain specified connections to the United States.

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Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder may be allowed as a credit against the non-U.S. holder's U.S. federal income tax liability, if any, and may entitle such holder to a refund, provided that the required information is timely furnished to the IRS.

### **FATCA Withholding**

The Code, U.S. Treasury Regulations and other applicable guidance, commonly referred to as "FATCA," generally impose a U.S. federal withholding tax of 30% on dividends on stock in a U.S. corporation paid to (i) a "foreign financial institution" (as specifically defined for this purpose), unless such institution enters into an agreement with the U.S. government to, among other things, withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or otherwise qualifies for an exemption from these rules; or (ii) a non-financial foreign entity (as defined in the Code), unless such entity provides the withholding agent with either a certification that it does not have any substantial direct or indirect U.S. owners or provides information regarding substantial direct and indirect U.S. owners of the entity, or otherwise qualifies for an exemption from these rules. Treasury regulations proposed in December 2018 (and upon which taxpayers and withholding agents are entitled to rely) eliminate possible FATCA withholding on the gross proceeds from any sale or other disposition of shares of stock of a U.S. corporation, previously scheduled to apply beginning January 1, 2019. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph.

Investors are encouraged to consult with their tax advisors regarding the implications of FATCA to their particular circumstances.

**EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE PARTICULAR U.S. FEDERAL, STATE AND LOCAL AND NON-U.S. TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAWS.**

## UNDERWRITING

We have entered into an underwriting agreement dated \_\_\_\_\_, 2020 with Ladenburg Thalmann & Co. Inc. (“Ladenburg,” “underwriter,” or “representative”), as the representative of the underwriters (the “representative”) named below and the sole book-running manager of this offering. Subject to the terms and conditions of the underwriting agreement, Ladenburg has agreed to purchase the number of our securities set forth opposite its name below.

<u>Underwriter</u>	<u>Number of Shares</u>
Ladenburg Thalmann & Co. Inc.	
Total	

We have been advised by the underwriter that it proposes to offer the common stock directly to the public at the public offering price set forth on the cover page of this prospectus. Any shares of common stock sold by the underwriter to securities dealers will be sold at the public offering price less a selling concession not in excess of \$ \_\_\_\_\_ per share.

The underwriting agreement provides that subject to the satisfaction or waiver by the representative of the conditions contained in the underwriting agreement, Ladenburg is obligated to purchase and pay for all of the shares of common stock offered by this prospectus.

No action has been taken by us or the underwriter that would permit a public offering of the common stock in any jurisdiction outside the United States where action for that purpose is required. The common stock included in this offering may be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sales of any of the common stock offered hereby be distributed or published in any jurisdiction except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons who receive this prospectus are advised to inform themselves about and to observe any restrictions relating to this offering of common stock and the distribution of this prospectus. This prospectus is neither an offer to sell nor a solicitation of any offer to buy the common stock in any jurisdiction where that would not be permitted or legal. The underwriter has advised us that it does not intend to confirm sales to any account over which it exercises discretionary authority.

### Underwriting Discount and Expenses

The following table summarizes the underwriting discount and commission to be paid to the underwriter assuming no exercise of the over-allotment option and assuming the full exercise of the over-allotment option.

	<u>Per Share</u>	<u>Total With No Exercise of the Over- Allotment Option</u>	<u>Total With Full Exercise of the Over- Allotment Option(1)</u>
Public offering price			
Underwriting discount to be paid to the underwriter by us(2)			
Proceeds to us (before expenses)			

- (1) We have granted a 45-day option to the underwriter to purchase additional shares of common stock (up to 15% of the number of shares of common stock) at the public offering price per share of common stock set forth above less the underwriting discounts and commissions, solely to cover over-allotments, if any.
- (2) We have agreed to pay an underwriter discount equal to 8.0% of the aggregate gross proceeds raised in this offering.



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We estimate the total expenses payable by us for this offering to be approximately \$ \_\_\_\_\_, which amount includes (i) the underwriting discount of \$ \_\_\_\_\_ (\$ \_\_\_\_\_ if the over-allotment option is exercised in full) and (ii) reimbursement of the accountable expenses of the representative equal to \$115,000 including the legal fees of the representative being paid by us and (iii) other estimated company expenses of approximately \$ \_\_\_\_\_, which includes legal, accounting, printing costs, and various fees associated with the registration and listing of our shares.

The common stock we are offering are being offered by the underwriter subject to certain conditions specified in the underwriting agreement.

### **Over-allotment Option**

We have granted the underwriter an option exercisable not later than 45 days after the date of this prospectus to purchase up to a number of additional shares of common stock not to exceed 15% of the number of shares of common stock sold in the offering at the public offering price per share set forth on the cover page hereto less the underwriting discounts and commissions. The underwriter may exercise the option solely to cover over-allotments, if any, made in connection with this offering. If any additional shares of common stock are purchased pursuant to the over-allotment option, the underwriter will offer these shares of common stock on the same terms as those on which the other shares of common stock are being offered.

### **Determination of Offering Price**

Our common stock is currently traded on The Nasdaq Capital Market under the ticker symbol "SLRX." On July 28, 2020, the closing price of our common stock was \$1.31 per share.

The public offering price of the common stock offered by this prospectus supplement and the accompanying prospectus will be determined by negotiation between us and the underwriter. Among the factors that will be considered in determining the public offering price of the common stock:

- our history and our prospects;
- the industry in which we operate;
- our past and present operating results;
- the previous experience of our executive officers; and
- the general condition of the securities markets at the time of this offering.

The public offering price stated on the cover page of this prospectus supplement should not be considered an indication of the actual value of the shares of common stock sold in this offering. That price is subject to change as a result of market conditions and other factors, and we cannot assure you that the shares of common stock sold in this offering can be resold at or above the public offering price.

### **Lock-up Agreements**

Our executive officers and directors have agreed with the representative to be subject to a lock-up period of 90 days following the date of this prospectus supplement. This means that, during the applicable lock-up period, such persons may not offer for sale, contract to sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate, or otherwise dispose of, directly or indirectly, any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock. Certain limited transfers are permitted during the lock-up period if the transferee agrees to these lock-up restrictions. We have also agreed, in the underwriting agreement, to similar lock-up restrictions on the issuance and sale of our securities for 90 days following the effectiveness of the underwriting agreement, although we will be permitted

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to issue stock options or stock awards to directors, officers and employees under our existing plans and, no sooner than 45 days following the effectiveness of the underwriting agreement, to register the Flex Warrants and the shares underlying such warrants. The representative may, without notice, waive the terms of any of these lock-up agreements.

### **Other Relationships**

Subject to the satisfaction of certain conditions, we have granted the representative a right of first refusal to act as sole bookrunner or exclusive placement agent in connection with any subsequent public or private offering of equity securities or other capital markets financing by us. This right of first refusal extends through December 31, 2020. The terms of any such engagement of the representative will be determined by separate agreement.

### **Transfer Agent and Registrar**

The transfer agent of our common stock is American Stock Transfer & Trust Company, LLC. The transfer agent and registrar's address is 6201 15th Avenue, Brooklyn, NY 11219, and the telephone number is (800) 937-5449.

### **Stabilization, Short Positions and Penalty Bids**

The underwriter may engage in syndicate covering transactions, stabilizing transactions, and penalty bids or purchases for the purpose of pegging, fixing, or maintaining the price of our common stock:

- Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. Such a naked short position would be closed out by buying securities in the open market. A naked short position is more likely to be created if the underwriter is concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.
- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specific maximum and are engaged in for the purpose of preventing or retarding a decline in the market price of the shares of common stock while this offering is in progress.
- Penalty bids permit the underwriter to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These syndicate covering transactions, stabilizing transactions, and penalty bids may have the effect of raising or maintaining the market prices of our securities or preventing or retarding a decline in the market prices of our securities. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. Neither we nor the underwriter make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on The Nasdaq Capital Market, in the over-the-counter market or on any other trading market and, if commenced, may be discontinued at any time.

In connection with this offering, the underwriter also may engage in passive market making transactions in our common stock in accordance with Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of the distribution. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specific purchase limits are exceeded. Passive market making may stabilize the market price of the common stock at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

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Neither we, nor the underwriter make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor the underwriter make any representation that the underwriter will engage in these transactions or that any transactions, once commenced will not be discontinued without notice.

**Indemnification**

We have agreed to indemnify the underwriter against certain liabilities, including certain liabilities arising under the Securities Act, or to contribute to payments that the underwriter may be required to make for these liabilities.

## LEGAL MATTERS

The validity of the shares of common stock being offered hereby will be passed upon for us by Pillsbury Winthrop Shaw Pittman LLP, Palo Alto, California. Certain legal matters in connection with this offering will be passed upon for the underwriter by Ellenoff Grossman & Schole LLP, New York, New York.

## 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, 2019, as set forth in their report, which is incorporated by reference in this prospectus supplement and elsewhere in the registration statement. Our consolidated financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

The financial statements of Salarius Pharmaceuticals, LLC, a Delaware limited liability company and a wholly owned subsidiary of Salarius Pharmaceuticals, Inc. as of and for the year December 31, 2018 have been audited by Weaver and Tidwell, L.L.P., independent registered public accounting firm, as stated in their report dated March 25, 2019, except for the effects of the recast of equity to which the date is January 10, 2020 with respect to the audit of the balance sheet of Salarius Pharmaceuticals, LLC as of December 31, 2018 and the related statements of operations, changes in stockholders' deficit and cash flows for the year ended December 31, 2018, which report appears in the December 31, 2019 annual report on Form 10-K of Salarius Pharmaceuticals, Inc. and is incorporated by reference in this prospectus supplement and elsewhere in the registration statement. Such financial statements are incorporated by reference in reliance upon the reports of Weaver and Tidwell, L.L.P., and upon the authority of such firm as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION AND INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We have filed a registration statement on Form S-3 with the SEC under the Securities Act. This prospectus is a part of the registration statement, but the registration statement also includes and incorporates by reference additional information and exhibits. We file annual, quarterly, and current reports, proxy statements, and other information with the SEC. The SEC maintains a web site that contains reports, proxy, and information statements and other information regarding companies, such as ours, that file documents electronically with the SEC. The address of that site on the world wide web is <http://www.sec.gov>. The information on the SEC's web site is not part of this prospectus, and any references to this web site or any other web site are inactive textual references only.

The SEC permits us to "incorporate by reference" the information contained in documents we file 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. Later information that we file with the SEC will automatically update and supersede the information that is either contained, or incorporated by reference, in this prospectus, and will be considered to be a part of this prospectus from the date those documents are filed. 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, 2019, filed on March 23, 2020;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, filed on [May 14, 2020](#), as amended on [May 15, 2020](#);
- our Current Reports on Form 8-K filed on [February 12, 2020](#), [March 11, 2020](#), [April 10, 2020](#), [April 29, 2020](#), [June 18, 2020](#), [June 19, 2020](#), and [July 29, 2020](#);
- the information contained in our definitive proxy statement on [Schedule 14A](#) filed on April 29, 2019 and incorporated by reference into Part III of our Annual Report on Form 10-K for the year ended December 31, 2019; 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.

In addition, we incorporate by reference all additional documents that we subsequently file with the SEC pursuant to Section 13(a), 13(c), 14, or 15(d) of the Exchange Act, as amended, that are made after the 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 supplement and the termination of any offering of securities offered by this prospectus supplement and the accompanying prospectus. We are not, however, incorporating, in each case, any documents or information that we are deemed to furnish and not file in accordance with SEC rules.

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 on the Investor Relations section of our website, [www.salariuspharma.com](http://www.salariuspharma.com).

PROSPECTUS

# FLEXPharma

**\$100,000,000**

**Common Stock  
Preferred Stock  
Debt Securities  
Warrants**

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From time to time, we may offer up to \$100,000,000 of any combination of the securities described in this prospectus in one or more offerings. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable antidilution provisions.

This prospectus provides a general description of the securities we may offer. Each time we offer securities, we will provide specific terms of the securities offered in a supplement to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

**This prospectus may not be used to consummate a sale of any securities unless accompanied by a prospectus supplement.**

Our common stock is listed on The Nasdaq Capital Market, or Nasdaq, under the symbol "FLKS." On April 22, 2019, the last reported sale price of our common stock was \$0.55 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on Nasdaq or any securities market or other exchange of the securities, if any, covered by the prospectus supplement.

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

The aggregate market value of our outstanding common stock held by non-affiliates was approximately \$11.3 million which was calculated based on 18,043,229 shares of outstanding common stock held by non-affiliates as of April 1, 2019, and a price per share of \$0.624, the closing price of our common stock on April 15, 2019. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities pursuant to this registration statement with a value more than one-third of the aggregate market value of our common stock held by non-affiliates in any 12-month period, so long as the aggregate market value of our common stock held by non-affiliates is less than \$75.0 million. In the event that subsequent to the effective date of this registration statement, the aggregate market value of our outstanding common stock held by non-affiliates equals or exceeds \$75.0 million, then the one-third limitation on sales shall not apply to additional sales made pursuant to this registration statement. We have not sold any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to, and including, the date of this registration statement.

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**Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading “[Risk Factors](#)” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus as described on page 6 of this prospectus.**

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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.

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**The date of this prospectus is May 17, 2019.**

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## ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a “shelf” registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total aggregate offering price of \$100,000,000. This prospectus provides you with a general description of the securities we may offer.

Each time we sell securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading “Incorporation of Certain Information by Reference,” before investing in any of the securities offered.

### **THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.**

Neither we, nor any agent, underwriter or dealer has authorized any person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any related free writing prospectus prepared by or on behalf of us or to which we have referred you. This prospectus, any applicable supplement to this prospectus or any related free writing prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus, any applicable supplement to this prospectus or any related free writing prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should not assume that the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any applicable prospectus supplement or any related free writing prospectus is delivered, or securities are sold, on a later date.

This prospectus and the information incorporated herein by reference contains 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 filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading “Where You Can Find More Information.”

## PROSPECTUS SUMMARY

The following summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our consolidated financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Unless the context indicates otherwise, references in this prospectus to “Flex,” “Flex Pharma”, “the Company,” “we,” “us,” “our” and similar references refer to Flex Pharma, Inc. and its wholly owned subsidiaries.

### Company Overview

We are a biotechnology company that was previously focused on developing innovative and proprietary treatments for muscle cramps, spasms and spasticity associated with severe neurological conditions. In June 2018, we announced that we were ending our ongoing Phase 2 clinical trials of our lead drug product candidate, FLX-787, in patients with motor neuron disease, or MND, primarily with amyotrophic lateral sclerosis, or ALS, and in patients with Charcot-Marie-Tooth disease, or CMT, due to oral tolerability concerns observed in both studies. The wind-down of the activities associated with these studies was completed in the third quarter of 2018.

In 2016, we launched our consumer product, HOTSHOT<sup>®</sup>, to prevent and treat exercise-associated muscle cramps, or EAMCs. We continue to market and sell HOTSHOT to endurance athletes who drink it before, during and after exercise to prevent and treat exercise associated muscle cramps, or EAMCs.

In June 2018, we initiated a process to explore a range of strategic alternatives for enhancing stockholder value, including the potential sale or merger of the Company. Wedbush PacGrow was engaged to act as our strategic financial advisor at that time. We also announced the restructuring of the organization to reduce our cost structure. In connection with the restructuring plan, we reduced our workforce by approximately 60%, with the reduction completed as of September 30, 2018.

Following an extensive process of evaluating strategic alternatives and identifying and reviewing potential candidates for a strategic acquisition or other transaction, on January 3, 2019, we entered into a merger agreement with Salarius Pharmaceuticals, LLC, or Salarius, under which the privately held Salarius will merge with a wholly owned subsidiary of Flex Pharma. If the merger is completed, the business of Salarius will continue as the business of the combined organization.

We expect to devote significant time and resources to completion of this merger. However, there can be no assurance that such activities will result in the completion of the merger. Further, the completion of the merger may ultimately not deliver the anticipated benefits or enhance shareholder value.

If the merger is not completed, we will reconsider our strategic alternatives. In this case, we consider one of the following courses of action to be the most likely alternatives:

- *Dissolve and liquidate our assets.* If, for any reason, the merger does not close, our Board of Directors will most likely conclude that it is in the best interest of stockholders to dissolve the Company and liquidate its assets. In that event, we would be required to pay all of our debts and contractual obligations, and to set aside certain reserves for potential future claims. There would be no assurances as to the amount or timing of available cash remaining to distribute to stockholders after paying our obligations and setting aside funds for reserves.

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- *Pursue another strategic transaction.* We may resume the process of evaluating a potential strategic transaction in order to attempt another strategic transaction like the merger.
- *Operate the consumer business.* Although less likely than the alternatives above, our Board of Directors may elect to continue to market and sell HOTSHOT and continue to operate our consumer business.

We cannot predict whether or to what extent we might resume previous level of research and development activities, including clinical trials, or what the related future cash needs would be for any such activities.

### **Historical Business and Programs**

We focused our historical efforts on developing innovative and proprietary treatments for muscle cramps, spasms and spasticity associated with severe neurological conditions and exercise-associated muscle cramps.

Muscle cramps and spasms are involuntary, often painful, contractions that can last several minutes and, in many instances, result in prolonged soreness. Muscle cramps and spasms are thought to result from hyperexcitable alpha-motor neurons. Spasticity is characterized by the combination of weakness and velocity-dependent resistance to stretch, in the same muscle. This reflex hyperexcitability may be due to lost inhibition in spinal cord circuits. FLX-787, HOTSHOT and our other drug product candidates are based on a mechanism of action we describe as chemical neurostimulation. We believe chemical neurostimulation to be a process in which a molecule, such as FLX-787, acts topically on the surfaces of the mouth, throat, esophagus and stomach to produce a sensory signal by activating nerves in those tissues. That signal is thought to ultimately result in a beneficial effect. Specifically, our product candidates activate certain receptors known as transient receptor potential, or TRP, ion channels in primary sensory neurons producing a signal believed to inhibit neuronal circuits and thereby reduce hyperexcitability in the neurons that fire muscles. Reduced alpha-motor neuron hyperexcitability in spinal cord circuits is thought to suppress repetitive firing of alpha-motor neurons, thereby preventing or reducing muscle cramps and spasms, and potentially reducing reflex hyperexcitability and therefore spasticity.

At the time we decided to stop our two Phase 2 clinical trials in June 2018, we were developing FLX-787 for severe neurological conditions. We had recently completed a Phase 2 exploratory clinical trial in patients with Multiple Sclerosis, or MS, and were executing two Phase 2 clinical trials, one in MND and one in CMT.

One Phase 2 clinical trial in the United States, referred to as the COMMEND trial, was in patients with MND, primarily with ALS, who suffered from muscle cramps. FLX-787 was being developed for ALS under fast track designation which was granted by the Food and Drug Administration, or FDA, in July 2017. The other Phase 2 clinical trial in the United States, referred to as the COMMIT trial, was in patients with CMT who suffered from muscle cramps. We stopped these studies due to oral tolerability concerns observed in both studies. In the COMMEND study, 31% of patients randomized to receive the oral disintegrating tablet formulation at 30 mg, taken three times a day, discontinued before the end of the 4-week treatment period due to oral adverse events. A similar proportion of subjects in the COMMIT study discontinued due to oral adverse events, after being randomized to the 30 mg dose. No patients randomized to the 0.5 mg low-dose control discontinued due to oral adverse events in either study. The wind-down of the activities associated with these studies was completed in the third quarter of 2018.

In addition to developing FLX-787, we also developed and launched our HOTSHOT consumer beverage in 2016. HOTSHOT is our consumer beverage containing a proprietary formulation of TRP activators. The majority of HOTSHOT sales are generated through our branded website and third-party websites. We also sell HOTSHOT to select specialty retailers in geographic areas with strong endurance sports markets and directly to athletic teams at the amateur and professional levels.

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In January 22, 2018, we disclosed that we engaged an investment banking firm to assist with the consideration of strategic alternatives for our consumer business segment. In connection with the restructuring plan announced in June 2018, we elected to reduce the expenses associated with our consumer business segment while we assessed strategic alternatives for the Company and this segment.

### **Company Information**

We were incorporated in Delaware on February 26, 2014. Our principal executive offices are located at 31 St. James Avenue, 6th Floor, Boston, Massachusetts 02116 and our telephone number is (617) 874-1821. Our corporate website address is [www.flex-pharma.com](http://www.flex-pharma.com). The information contained on our website is not a part of this prospectus, and the inclusion of our website address in the prospectus is an inactive textual reference only.

We are an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012, or JOBS Act. We will cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of \$1.0 billion or more; (ii) December 31, 2020; (iii) the date on which we have issued more than \$1.0 billion in non-convertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

### **The Securities We May Offer**

We may offer shares of our common stock and preferred stock, various series of debt securities and warrants to purchase any of such securities, up to a total aggregate offering price of \$100,000,000 from time to time in one or more offerings under this prospectus, together with any applicable prospectus supplement and any related free writing prospectus, at prices and on terms to be determined by market conditions at the time of the relevant offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity;
- original issue discount;
- rates and times of payment of interest or dividends;
- redemption, conversion, exchange or sinking fund terms;
- ranking;
- restrictive covenants;
- voting or other rights;
- conversion or exchange prices or rates and any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange; and
- important U.S. federal income tax considerations.

The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

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We may sell the securities directly to investors or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities through underwriters or agents, we will include in the applicable prospectus supplement:

- the names of those underwriters or agents;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the estimated net proceeds to us.

**This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.**

**Common Stock.** We may issue shares of our common stock from time to time. Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders and does not have cumulative voting rights. Subject to preferences that may apply to any outstanding preferred stock, holders of our common stock are entitled to receive ratably any dividends that our board of directors may declare out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any outstanding preferred stock. Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future. In this prospectus, we have summarized certain general features of our common stock under the heading “Description of Capital Stock-Common Stock.” We urge you, however, to read the applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) related to any common stock being offered.

**Preferred Stock.** We may issue shares of our preferred stock from time to time, in one or more series. Under our certificate of incorporation, our board of directors has the authority, without further action by our stockholders (unless such stockholder action is required by applicable law or the rules of any stock exchange or market on which our securities are then traded), to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the number, rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences and sinking fund terms, and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. Any convertible preferred stock we may issue will be convertible into our common stock or exchangeable for our other securities. Conversion may be mandatory or at the holder’s option and would be at prescribed conversion rates.

If we sell any series of preferred stock under this prospectus, we will fix the designations, voting powers, preferences and rights of such series of preferred stock, as well as the qualifications, limitations or restrictions thereof, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock that we are offering before the issuance of the related series of preferred stock. In this prospectus, we have summarized certain general features of the preferred stock under the heading “Description of Capital Stock-Preferred Stock.” We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

**Debt Securities.** From time to time, we may issue debt securities in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with

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any other unsecured and unsubordinated debt. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all of our senior indebtedness. Convertible debt securities will be convertible into or exchangeable for our common stock or other securities. Conversion may be mandatory or at the holder's option and would be at prescribed conversion rates.

Any debt securities issued under this prospectus will be issued under one or more documents called indentures, which are contracts between us and a national banking association or other eligible party, as trustee. In this prospectus, we have summarized certain general features of the debt securities under the heading "Description of Debt Securities." We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of debt securities being offered, as well as the complete indenture(s) and any supplemental indentures that contain the terms of the debt securities. We have filed a form of indenture as an exhibit to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will be incorporated by reference from reports that we file with the SEC, supplemental indentures and forms of debt securities containing the terms of the debt securities being offered.

**Warrants.** We may issue warrants for the purchase of common stock, preferred stock or debt securities, in one or more series, from time to time. We may issue warrants independently or in combination with common stock, preferred stock or debt securities. In this prospectus, we have summarized certain general features of the warrants under the heading "Description of Warrants." We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the particular series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants. We have filed forms of the warrant agreements and forms of warrant certificates containing the terms of the warrants that we may offer as exhibits to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will be incorporated by reference from reports that we file with the SEC, the form of warrant or the warrant agreement and warrant certificate, as applicable, that contain the terms of the particular series of warrants we are offering, and any supplemental agreements, before the issuance of such warrants.

Any warrants issued under this prospectus may be evidenced by warrant certificates. Warrants may be issued under a warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if applicable, in the prospectus supplement relating to the particular series of warrants being offered.

## **RISK FACTORS**

Investing in our securities involves a high degree of risk. You should carefully review the risks and uncertainties described under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in our Annual Report on Form 10-K for the year ended December 31, 2018, as updated by our subsequent filings, which are incorporated by reference into this prospectus, before deciding whether to purchase any of the securities being registered pursuant to the registration statement of which this prospectus is a part. Each of the risk factors could adversely affect our business, results of operations, financial condition and cash flows, as well as adversely affect the value of an investment in our securities, and the occurrence of any of these risks might cause you to lose all or part of your investment. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference contain forward-looking statements. These are based on our management's current beliefs, expectations and assumptions about future events, conditions and results and on information currently available to us. Discussions containing these forward-looking statements may be found, among other places, in the sections titled "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference from our most recent Annual Report on Form 10-K, as well as any amendments thereto, filed with the SEC.

Any statements in this prospectus, or incorporated herein, about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and are forward-looking statements. Within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, these forward-looking statements include statements regarding:

- the timing and anticipated completion of the merger with Salarius Pharmaceuticals, LLC;
- the expected benefits and growth potential of HOTSHOT;
- our ability to obtain funding for our operations if the merger is not completed;
- our ability to expand the sales of our consumer product;
- the size and growth potential of the markets for our consumer product and our drug product candidates, and our ability to serve those markets;
- the rate and degree of market acceptance of our consumer product;
- the performance of our third-party suppliers and manufacturers;
- the success of competing therapies that are, or become, available;
- our plans to resume development of our drug product candidates;
- the loss of key scientific or management personnel;
- our expectations regarding the period during which we qualify as an emerging growth company under the Jumpstart Our Business Startups Act;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements and needs for additional financing; and
- our expectations regarding our ability to obtain and adequately maintain sufficient intellectual property protection for our consumer product and drug product candidates.

In some cases, you can identify forward-looking statements by terminology such as "anticipate," "believe," "could," "estimate," "expects," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "would" or the negative or plural of those terms, and similar expressions intended to identify statements about the future, although not all forward-looking statements contain these words. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements.

You should refer to the "Risk Factors" section contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus, for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. Given these risks, uncertainties and other factors, many of which are beyond our control, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate, and you should not place undue reliance on these forward-



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looking statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

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

## **USE OF PROCEEDS**

We will retain broad discretion over the use of the net proceeds from the sale of the securities offered hereby. Except as described in any applicable prospectus supplement or in any free writing prospectuses that we may authorize to be provided to you in connection with a specific offering, we currently intend to use the net proceeds from the sale of the securities offered hereby, if any, for working capital and general corporate purposes. We will set forth in the applicable prospectus supplement or free writing prospectus our intended use for the net proceeds received from the sale of any securities sold pursuant to the prospectus supplement or free writing prospectus. Pending the use of net proceeds, we intend to invest the net proceeds in short-term, investment-grade, interest-bearing obligations, certificates of deposit or direct or guaranteed obligations of the United States.

## DESCRIPTION OF CAPITAL STOCK

*The following description of our capital stock and provisions of our amended and restated certificate of incorporation and amended and restated bylaws are summaries. You should also refer to the amended and restated certificate of incorporation and the amended and restated bylaws, which are filed as exhibits to the registration statement of which this prospectus is part.*

### General

Under our amended and restated certificate of incorporation we are authorized to issue up to 100,000,000 shares of common stock, par value \$0.0001 per share, and 10,000,000 shares of preferred stock, par value \$0.0001 per share, all of which shares of preferred stock are undesignated. Our board of directors may establish the rights and preferences of the preferred stock from time to time. As of April 15, 2019, we had outstanding 18,069,476 shares of common stock.

### Common Stock

#### *Voting Rights*

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders. The affirmative vote of holders of at least 66 2/3% of the voting power of all of the then-outstanding shares of capital stock, voting as a single class, will be required to amend certain provisions of our amended and restated certificate of incorporation, including provisions relating to amending our amended and restated bylaws, the classified board, the size of our board, removal of directors, director liability, vacancies on our board, special meetings, stockholder notices, actions by written consent and exclusive jurisdiction.

#### *Dividends*

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

#### *Liquidation*

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

#### *Rights and Preferences*

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future.

### Preferred Stock

Pursuant to our amended and restated certificate of incorporation, our board of directors has the authority, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the number, rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation

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preferences and sinking fund terms, and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control or other corporate action, or make the removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of the common stock.

Our board of directors will fix the designations, voting powers, preferences and rights of each series, as well as the qualifications, limitations or restrictions thereof, of the preferred stock of each series that we offer under this prospectus and applicable prospectus supplements in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. This description will include:

- the title and stated value;
- the number of shares we are offering;
- the liquidation preference per share;
- the purchase price per share;
- the dividend rate per share, dividend period and payment dates and method of calculation for dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- our right, if any, to defer payment of dividends and the maximum length of any such deferral period;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock or other securities of ours, including depositary shares and warrants, and, if applicable, the conversion period, the conversion price, or how it will be calculated, and under what circumstances it may be adjusted;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange period, the exchange price, or how it will be calculated, and under what circumstances it may be adjusted;
- voting rights, if any, of the preferred stock;
- preemption rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- whether interests in the preferred stock will be represented by depositary shares;
- a discussion of any material or special U.S. federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;

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- any limitations on issuances of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock being issued as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and
- any other specific terms, rights, preferences, privileges, qualifications or restrictions of the preferred stock.

The Delaware General Corporation Law, or DGCL, which is the law of the state of our incorporation, provides that the holders of preferred stock will have the right to vote separately as a class (or, in some cases, as a series) on an amendment to our certificate of incorporation if the amendment would change the par value, the powers, preferences or special rights of the class or series so as to adversely affect the class or series, as the case may be, or, unless the certificate of incorporation provided otherwise, the number of authorized shares of the class. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

### **Anti-Takeover Provisions**

#### ***Section 203 of the Delaware General Corporation Law***

We are subject to Section 203 of the DGCL, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a “business combination” to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the entity or person’s affiliates and associates, beneficially owns, or is an affiliate or associate of the corporation and within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

***Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws***

Among other things, our amended and restated certificate of incorporation and amended and restated bylaws will:

- permit our board of directors to issue up to 10,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change in control;
- provide that the authorized number of directors may be changed only by resolution of our board of directors;
- provide that our board of directors will be classified into three classes of directors;
- provide that, subject to the rights of any series of preferred stock to elect directors, directors may only be removed for cause, which removal may be effected, subject to any limitation imposed by law, by the holders of at least a majority of the voting power of all of our then-outstanding shares of the capital stock entitled to vote generally at an election of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent or electronic transmission;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder's notice;
- provide that special meetings of our stockholders may be called only by the chairman of our board of directors, our chief executive officer or president or by our board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors; and
- not provide for cumulative voting rights, therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose.
- The amendment of any of these provisions would require approval by the holders of at least 66 2 / 3 % of the voting power of all of our then-outstanding common stock entitled to vote generally in the election of directors, voting together as a single class.

The combination of these provisions will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Because our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our company, outweigh the disadvantages of discouraging takeover proposals, because negotiation of takeover proposals could result in an improvement of their terms.

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### ***Choice of Forum***

Our amended and restated certificate of incorporation will provide that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall (or, if and only if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if and only if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware), the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employee of the Company to us or our stockholders; (3) any action asserting a claim against us arising pursuant to any provision of the DGCL, the Amended and Restated Certificate of Incorporation or the Bylaws of the Company; or (4) any action asserting a claim against us governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the Company shall be deemed to have notice of and to have consented to these provisions.

### **Transfer Agent and Registrar**

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent's address is P.O. Box 43078, Providence, Rhode Island 02940. The transfer agent for any series of preferred stock that we may offer under this prospectus will be named and described in the prospectus supplement for that series.

### **Listing on The Nasdaq Capital Market**

Our common stock is listed on Nasdaq under the symbol "FLKS."

## DESCRIPTION OF DEBT SECURITIES

We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any debt securities that we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities offered under a prospectus supplement may differ from the terms described below. Unless the context requires otherwise, whenever we refer to the indenture, we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue the debt securities under the indenture that we will enter into with the trustee named in the indenture. The indenture will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We have filed the form of indenture as an exhibit to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will be incorporated by reference from reports that we file with the SEC, supplemental indentures and forms of debt securities containing the terms of the debt securities being offered.

The following summary of material provisions of the debt securities and the indenture is subject to, and qualified in its entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

### General

The indenture does not limit the amount of debt securities that we may issue. It provides that we may issue debt securities up to the principal amount that we may authorize and may be in any currency or currency unit that we may designate. Except for the limitations on consolidation, merger and sale of all or substantially all of our assets contained in the indenture, the terms of the indenture do not contain any covenants or other provisions designed to give holders of any debt securities protection against changes in our operations, financial condition or transactions involving us.

We may issue the debt securities issued under the indenture as “discount securities,” which means they may be sold at a discount below their stated principal amount. These debt securities, as well as other debt securities that are not issued at a discount, may be issued with “original issue discount,” or OID, for U.S. federal income tax purposes because of interest payment and other characteristics or terms of the debt securities. Material U.S. federal income tax considerations applicable to debt securities issued with OID will be described in more detail in any applicable prospectus supplement.

We will describe in the applicable prospectus supplement the terms of the series of debt securities being offered, including:

- the title of the series of debt securities;
- any limit upon the aggregate principal amount that may be issued;
- the maturity date or dates;
- the form of the debt securities of the series;
- the applicability of any guarantees;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- whether the debt securities rank as senior debt, senior subordinated debt, subordinated debt or any combination thereof, and the terms of any subordination;



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- if the price (expressed as a percentage of the aggregate principal amount thereof) at which such debt securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or if applicable, the portion of the principal amount of such debt securities that is convertible into another security or the method by which any such portion shall be determined;
- the interest rate or rates, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- if applicable, the date or dates after which, or the period or periods during which, and the price or prices at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date or dates, if any, on which, and the price or prices at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- any and all terms, if applicable, relating to any auction or remarketing of the debt securities of that series and any security for our obligations with respect to such debt securities and any other terms which may be advisable in connection with the marketing of debt securities of that series;
- whether the debt securities of the series shall be issued in whole or in part in the form of a global security or securities; the terms and conditions, if any, upon which such global security or securities may be exchanged in whole or in part for other individual securities; and the depositary for such global security or securities;
- if applicable, the provisions relating to conversion or exchange of any debt securities of the series and the terms and conditions upon which such debt securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at our option or the holders' option) conversion or exchange features, the applicable conversion or exchange period and the manner of settlement for any conversion or exchange;
- if other than the full principal amount thereof, the portion of the principal amount of debt securities of the series which shall be payable upon declaration of acceleration of the maturity thereof;
- additions to or changes in the covenants applicable to the particular debt securities being issued, including, among others, the consolidation, merger or sale covenant;
- additions to or changes in the events of default with respect to the securities and any change in the right of the trustee or the holders to declare the principal, premium, if any, and interest, if any, with respect to such securities to be due and payable;
- additions to or changes in or deletions of the provisions relating to covenant defeasance and legal defeasance;
- additions to or changes in the provisions relating to satisfaction and discharge of the indenture;
- additions to or changes in the provisions relating to the modification of the indenture both with and without the consent of holders of debt securities issued under the indenture;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars;

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- whether interest will be payable in cash or additional debt securities at our or the holders' option and the terms and conditions upon which the election may be made;
- the terms and conditions, if any, upon which we will pay amounts in addition to the stated interest, premium, if any and principal amounts of the debt securities of the series to any holder that is not a "United States person" for federal tax purposes;
- any restrictions on transfer, sale or assignment of the debt securities of the series; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, any other additions or changes in the provisions of the indenture, and any terms that may be required by us or advisable under applicable laws or regulations.

### **Conversion or Exchange Rights**

We will set forth in the applicable prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for our common stock or our other securities. We will include provisions as to settlement upon conversion or exchange and whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock or our other securities that the holders of the series of debt securities receive would be subject to adjustment.

### **Consolidation, Merger or Sale**

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the indenture will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of our assets as an entirety or substantially as an entirety. However, any successor to or acquirer of such assets (other than a subsidiary of ours) must assume all of our obligations under the indenture or the debt securities, as appropriate.

### **Events of Default under the Indenture**

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indenture with respect to any series of debt securities that we may issue:

- if we fail to pay any installment of interest on any series of debt securities, as and when the same shall become due and payable, and such default continues for a period of 90 days; provided, however, that a valid extension of an interest payment period by us in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of interest for this purpose;
- if we fail to pay the principal of, or premium, if any, on any series of debt securities as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to such series; provided, however, that a valid extension of the maturity of such debt securities in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of principal or premium, if any;
- if we fail to observe or perform any other covenant or agreement contained in the debt securities or the indenture, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive written notice of such failure, requiring the same to be remedied and stating that such is a notice of default thereunder, from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

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If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal of, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indenture, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will have the right to institute a proceeding under the indenture or to appoint a receiver or trustee, or to seek other remedies only if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request,
- such holders have offered to the trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred by the trustee in compliance with the request; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indenture.

### **Modification of Indenture; Waiver**

We and the trustee may change an indenture without the consent of any holders with respect to specific matters:

- to cure any ambiguity, defect or inconsistency in the indenture or in the debt securities of any series;

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- to comply with the provisions described above under “Description of Debt Securities-Consolidation, Merger or Sale;”
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to add to our covenants, restrictions, conditions or provisions such new covenants, restrictions, conditions or provisions for the benefit of the holders of all or any series of debt securities, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred upon us in the indenture;
- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;
- to make any change that does not adversely affect the interests of any holder of debt securities of any series in any material respect;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided above under “Description of Debt Securities-General” to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment under any indenture by a successor trustee; or
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act.

In addition, under the indenture, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- extending the fixed maturity of any debt securities of any series;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any series of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

## **Discharge**

Each indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- provide for payment;
- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- pay principal of and premium and interest on any debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;

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- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series on the dates payments are due.

### **Form, Exchange and Transfer**

We will issue the debt securities of each series only in fully registered form without coupons and, unless we provide otherwise in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indenture provides that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company, or DTC, or another depository named by us and identified in the applicable prospectus supplement with respect to that series. To the extent the debt securities of a series are issued in global form and as book-entry, a description of terms relating to any book-entry securities will be set forth in the applicable prospectus supplement.

At the option of the holder, subject to the terms of the indenture and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indenture and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will impose no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

### **Information Concerning the Trustee**

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indenture at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

### **Payment and Paying Agents**

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

### **Governing Law**

The indenture and the debt securities will be governed by and construed in accordance with the internal laws of the State of New York, except to the extent that the Trust Indenture Act of 1939 is applicable.

## DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplement and in any related free writing prospectus that we may authorize to be distributed to you, summarizes the material terms and provisions of the warrants that we may offer under this prospectus, which may consist of warrants to purchase common stock, preferred stock or debt securities and may be issued in one or more series. Warrants may be offered independently or in combination with common stock, preferred stock or debt securities offered by any prospectus supplement. While the terms we have summarized below will apply generally to any warrants that we may offer under this prospectus, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The following description of warrants will apply to the warrants offered by this prospectus unless we provide otherwise in the applicable prospectus supplement. The applicable prospectus supplement for a particular series of warrants may specify different or additional terms.

We have filed forms of the warrant agreements and forms of warrant certificates listing the terms of the warrants that may be offered as exhibits to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant or the warrant agreement and warrant certificate, as applicable, that contain the terms of the particular series of warrants we are offering, as well as any supplemental agreements, before the issuance of such warrants. The following summaries of material terms and provisions of the warrants are subject to, and qualified in their entirety by reference to, all the provisions of the form of warrant or the warrant agreement and warrant certificate, as applicable, and any supplemental agreements applicable to a particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplement related to the particular series of warrants that we may offer under this prospectus, as well as any related free writing prospectus, and the complete form of warrant or the warrant agreement and warrant certificate, as applicable, and any supplemental agreements, that list the terms of the warrants.

### General

In the applicable prospectus supplement, we will describe the terms of the series of warrants being offered, including, to the extent applicable:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable on exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased on such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable on the exercise of one warrant and the price at which these shares may be purchased on such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable on exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;

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- the manner in which the warrant agreements and warrants may be modified;
- a discussion of material or special U.S. federal income tax considerations of holding or exercising the warrants;
- the terms of the securities issuable on exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable on such exercise, including:

- in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or payments on our liquidation, dissolution or winding up or to exercise voting rights, if any; or
- in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities purchasable on exercise or to enforce covenants in the applicable indenture.

### **Exercise of Warrants**

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. The warrants may be exercised as listed in the prospectus supplement relating to the warrants offered. Unless we otherwise specify in the applicable prospectus supplement, warrants may be exercised at any time up to the specified time on the expiration date that we list in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

On receipt of payment and the warrant or warrant certificate, as applicable, properly completed and duly executed at the corporate trust office of the warrant agent, if any, or any other office, including ours, indicated in the prospectus supplement, we will, as soon as practicable, issue and deliver the securities purchasable on such exercise. If less than all of the warrants (or the warrants represented by such warrant certificate) are exercised, a new warrant or a new warrant certificate, as applicable, will be issued for the remaining warrants.

### **Governing Law**

Unless we provide otherwise in the applicable prospectus supplement, the warrants and warrant agreements will be governed by and construed in accordance with the laws of the State of New York.

### **Enforceability of Rights by Holders of Warrants**

Each warrant agent, if any, will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand on us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable on exercise of, its warrants.



## LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee or depository maintain for this purpose as the “holders” of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as “indirect holders” of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

### Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depository on behalf of other financial institutions that participate in the depository’s book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Global securities will be registered in the name of the depository or its participants. Consequently, for global securities, we will recognize only the depository as the holder of the securities, and we will make all payments on the securities to the depository. The depository passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depository and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a global security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depository’s book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not legal holders, of the securities.

### Street Name Holders

We may terminate a global security or issue securities that are not issued in global form. In these cases, investors may choose to hold their securities in their own names or in “street name.” Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we or any applicable trustee or depository will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we or any such trustee or depository will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

### Legal Holders

Our obligations, as well as the obligations of any applicable trustee or third party employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

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For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with its participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences of a default or of our obligation to comply with a particular provision of an indenture, or for other purposes. In such an event, we would seek approval only from the holders, and not the indirect holders, of the securities. Whether and how the legal holders contact the indirect holders is up to the legal holders.

### **Special Considerations for Indirect Holders**

If you hold securities through a bank, broker or other financial institution, either in book-entry form because the securities are represented by one or more global securities or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- how it would handle a request for the holders' consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depository's rules and procedures will affect these matters.

### **Global Securities**

A global security is a security that represents one or any other number of individual securities held by a depository. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we issue to, deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depository. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depository for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depository, its nominee or a successor depository, unless special termination situations arise. We describe those situations below under “-Special Situations When a Global Security Will Be Terminated.” As a result of these arrangements, the depository, or its nominee, will be the sole registered owner and legal holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depository or with another institution that does. Thus, an investor whose security is represented by a global security will not be a legal holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued as a global security, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

### **Special Considerations for Global Securities**

As an indirect holder, an investor's rights relating to a global security will be governed by the account rules of the investor's financial institution and of the depository, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depository that holds the global security.

If securities are issued only as global securities, an investor should be aware of the following:

- an investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;
- an investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;
- an investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;
- an investor may not be able to pledge his or her interest in the global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- the depository's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in the global security;
- we and any applicable trustee have no responsibility for any aspect of the depository's actions or for its records of ownership interests in the global security, nor will we or any applicable trustee supervise the depository in any way;
- the depository may, and we understand that DTC will, require that those who purchase and sell interests in the global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and
- financial institutions that participate in the depository's book-entry system, and through which an investor holds its interest in the global security, may also have their own policies affecting payments, notices and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

### **Special Situations When a Global Security Will Be Terminated**

In a few special situations described below, a global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own names, so that they will be direct holders. We have described the rights of holders and street name investors above.

Unless we provide otherwise in the applicable prospectus supplement, the global security will terminate when the following special situations occur:

- if the depository notifies us that it is unwilling, unable or no longer qualified to continue as depository for that global security and we do not appoint another institution to act as depository within 90 days;
- if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

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The applicable prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the prospectus supplement. When a global security terminates, the depositary, and neither we nor any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

## PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

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

We may also sell equity securities covered by this registration statement in an “at the market offering” as defined in Rule 415 under the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price, either:

- on or through the facilities of Nasdaq or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- other than on Nasdaq or such other securities exchanges or quotation or trading services.

Such at the market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents’ or underwriters’ compensation;
- any public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

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We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to this offering, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in overallocation, stabilizing transactions, short covering transactions and penalty bids. Overallocation involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on any exchange or over-the-counter market or otherwise.

Any underwriters who are qualified market makers on Nasdaq may engage in passive market making transactions in the securities on Nasdaq in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

## **LEGAL MATTERS**

Unless otherwise indicated in the applicable prospectus supplement, certain legal matters in connection with the offering and the validity of the securities offered by this prospectus, and any supplement thereto, will be passed upon by Cooley LLP. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

## **EXPERTS**

The consolidated financial statements of Flex Pharma, Inc. appearing in Flex Pharma, Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2018, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities 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. You should rely only on the information contained in this prospectus or incorporated by reference. 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 by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy the registration statement, as well as any other document filed by us with the SEC, at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC, including Flex. The address of the SEC website is [www.sec.gov](http://www.sec.gov).

We maintain a website at [www.flex-pharma.com](http://www.flex-pharma.com). Information contained in or accessible through our website does not constitute a part of this prospectus.



## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-36812. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2018, filed with the SEC on March 6, 2019;
- our Annual Report on [Form 10-K/A](#) for the year ended December 31, 2018, filed with the SEC on April 16, 2019;
- our Current Reports on Form 8-K filed with the SEC on [January 4, 2019](#) and [February 15, 2019](#), to the extent the information in such reports is filed and not furnished; and
- the description of our common stock contained in our Registration Statement on [Form 8-A](#), filed with the SEC on January 23, 2015, including any amendments or reports filed for the purposes of updating this description.

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 (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, or (ii) 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.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You may request a copy of these filings by writing us at 31 St. James Avenue, 6th Floor, Boston, MA 02116 or telephoning us at (617) 874-1821.

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**Common Stock**

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**PROSPECTUS SUPPLEMENT**

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*Sole Book-Running Manager*

**Ladenburg Thalmann**

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