
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

**FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

ALLENA PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

45-2729920
(I.R.S. Employer
Identification No.)

One Newton Executive Park, Suite 202
Newton, Massachusetts 02462
(617) 467-4577

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

Louis Brenner
Chief Executive Officer
Allena Pharmaceuticals, Inc.
One Newton Executive Park, Suite 202
Newton, Massachusetts 02462
(617) 467-4577

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

Copy to:

Michael H. Bison, Esq.
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100 Northern Avenue
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Approximate date of commencement of proposed sale to the public: From time to time or at one time after the effective date of this Registration Statement.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this form are being offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

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

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

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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

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

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

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered (1)(2)	Proposed maximum offering price per share (3)	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock, par value \$0.001 per share	6,097,560	\$4.10	\$24,999,996	\$2,728

- (1) This Registration Statement also relates to an indeterminate number of shares of common stock, par value \$0.001 per share ("Common Stock"), of Allena Pharmaceuticals, Inc. (the "Registrant") that may be offered or issued to prevent dilution resulting from stock splits, stock dividends or similar transactions in accordance with Rule 416 under the Securities Act of 1933, as amended (the "Securities Act").
- (2) Represents shares of Common Stock shares issuable upon conversion of certain of the Registrant's convertible notes due September 28, 2024 (inclusive of principal and/or interest thereon the "Convertible Notes"), which were acquired by the selling stockholders in a private placement. The number of shares of Common Stock registered by the Registrant represents a good faith estimate of the number of shares of Common Stock which will be issued upon conversion of the Convertible Notes, assuming for purposes hereof, that the Convertible Notes will accrue interest through September 28, 2024 at a rate of 9.0% per annum and that the Registrant will pay interest amounts in cash quarterly through the maturity of the Convertible Notes. If the Convertible Notes convert after the Registrant has paid some of the principal balance or accrued interest on the Convertible Notes, the actual number of shares of Common Stock issuable to the selling stockholders upon conversion of the Convertible Notes, if any, could be materially less than 6,097,560 shares depending on the amount of principal and accrued but unpaid interest that is converted into shares of Common Stock at the time. This presentation is not intended to constitute an indication or prediction of the date on which the selling stockholders will convert the Convertible Notes into shares of common stock, if at all.
- (3) Represents the lowest possible conversion price of the Convertible Notes, which were issued to the selling stockholders in a private placement.

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

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The information in this prospectus is not complete and may be changed without notice. The selling stockholders may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and the selling stockholders named in this prospectus are not soliciting offers to buy these securities in any state where the offer or sale of these securities is not permitted.

Subject to completion, dated November 27, 2020

PRELIMINARY PROSPECTUS



Up to 6,097,560 Shares of Common Stock

This prospectus relates to the offer and sale by the selling stockholders identified in this prospectus, and any of their respective pledgees, donees, transferees, or other successors in interest, of up to 6,097,560 shares of common stock of Allena Pharmaceuticals, Inc. (the "Common Stock") that are issuable pursuant to the terms of certain convertible notes due September 28, 2024 (the "Convertible Notes"), as further described in this prospectus.

The number of shares of Common Stock being registered hereunder is comprised of 6,097,560 shares of Common Stock issuable upon conversion of the Convertible Notes, which Convertible Notes are convertible into shares of our Common Stock at the lowest possible conversion price of \$4.10 per share (the "Conversion Shares"). The number of shares of Common Stock registered by the Registrant represents a good faith estimate of the number of shares of Common Stock which will be issued upon conversion of the Convertible Notes, assuming for purposes hereof, that the Convertible Notes will accrue interest through September 28, 2024 at a rate of 9% per annum and that the Registrant will pay interest amounts in cash quarterly through the maturity of the Convertible Notes. If the Convertible Notes convert after the Registrant has paid some of the principal balance on the Convertible Notes, the actual number of shares issuable to the selling stockholders upon conversion of the Convertible Notes, if any, could be materially less than 6,067,560 shares of common stock depending on the amount of principal and accrued but unpaid interest that is converted into shares of Common Stock at the time. This presentation is not intended to constitute an indication or prediction of the date on which the selling stockholders will convert the Convertible Notes into Common Stock, if at all.

We are filing the registration statement of which this prospectus is a part at this time to fulfill contractual obligations to do so pursuant to a registration rights agreement, as further described in this prospectus. We will not receive any of the proceeds from the sale of the Common Stock by the selling stockholders.

The selling stockholders and their respective pledgees, donees, transferees, or other successors in interest may offer the shares of Common Stock in one or more transactions at fixed prices, at prevailing market prices at the time of sale, at varying prices determined at the time of sale, at negotiated prices, or in trading markets for our Common Stock. Additional information on the selling stockholders, and the times and manner in which they may offer and sell shares of our Common Stock under this prospectus, is provided under "Selling stockholders" and "Plan of Distribution" in this prospectus.

Our Common Stock is quoted on The Nasdaq Global Select Market under the symbol "ALNA." On November 25, 2020, the last reported sale price of our Common Stock was \$1.38 per share.

Investing in our Common Stock involves certain risks. See "[Risk Factors](#)" beginning on page 7 of this prospectus for the risks that you should consider. You should read this entire prospectus carefully before you make your investment decision.

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

The date of this prospectus is _____, 2020

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ABOUT THIS PROSPECTUS

Except where the context requires otherwise, in this prospectus the terms “Company,” “our company,” “Allena,” “we,” “us,” and “our” refer to Allena Pharmaceuticals, Inc., a Delaware corporation, and, where appropriate, its direct and indirect subsidiaries.

You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. For further information, please see the section of this prospectus entitled “Where You Can Find More Information.” The selling stockholders are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted.

You should not assume that the information appearing in this prospectus is accurate as of any date other than the date on the front cover of this prospectus, regardless of the time of delivery of this prospectus or any sale of a security. Our business, financial condition, results of operations, and prospects may have changed since those dates.

This prospectus contains trademarks, tradenames, service marks, and service names of the Company.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. These statements include all matters that are not related to present facts or current conditions or that are not historical facts, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth. The words “anticipate,” “believe,” “could,” “continue,” “should,” “predict,” “estimate,” “expect,” “intend,” “may,” “plan,” “potentially,” “will,” “may,” “would,” or the negative of these terms or other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements.

We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions described in the section titled “Risk Factors” and elsewhere in this prospectus and the documents incorporated by reference herein, regarding, among other things:

- our estimates and expectations regarding our capital requirements, cash and expense levels, liquidity sources and our need for additional financing;
- the design and conduct of our planned Phase 3 clinical program of reloxaliase (formerly ALLN-177) in enteric hyperoxaluria;
- our ability to utilize the accelerated approval regulatory pathway for reloxaliase, including the timing of any Biologic License Application, or BLA, submission utilizing the accelerated approval regulatory pathway;
- the number, designs, results and timing of our clinical trials, including our pivotal Phase 3 program or reloxaliase, and preclinical studies and the timing of the availability of data from these trials and studies;
- our ability to enroll a sufficient number of patients (including as a result of any delays arising from the recent global outbreak of the COVID-19 coronavirus) and the ability of subjects in our clinical trials to adhere to the protocol, including capsule and dietary regimen and urinary collection requirements;
- the therapeutic benefits, effectiveness and safety of reloxaliase, ALLN-346 and our future product candidates;
- our ability to receive regulatory approval for our product candidates in the United States, Europe and other geographies;
- our expected regulatory approval pathway, and our ability to obtain, on satisfactory terms or at all, the financing required to support operations, development, clinical trials, and commercialization of products;
- our reliance on third parties for the planning, conduct and monitoring of clinical trials and for the manufacture of clinical drug supplies and drug product;
- potential changes in regulatory requirements, and delays or negative outcomes from the regulatory approval process;
- our estimates of the size and characteristics of the markets that may be addressed by reloxaliase and ALLN-346;
- the market acceptance of reloxaliase, ALLN-346 or any future product candidates that are approved for marketing in the United States or other countries;
- our ability to successfully commercialize reloxaliase with a targeted sales force;

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- the safety and efficacy of therapeutics marketed by our competitors that are targeted to indications which our product candidates have been developed to treat;
- the impact of natural disasters, global pandemics (including the recent outbreak of the COVID-19 coronavirus), labor disputes, lack of raw material supply, issues with facilities and equipment or other forms of disruption to business operations at our manufacturing facilities;
- our ability to utilize our proprietary technological approach to develop and commercialize ALLN-346 and future product candidates;
- potential collaborators to license and commercialize reloxaliase, if approved, or any products for which we receive regulatory approval in the future outside of the United States;
- our heavy dependence on licensed intellectual property, including our ability to source and maintain licenses from third-party owners;
- our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others;
- our ability to attract, retain and motivate key personnel; and
- our ability to generate revenue and become profitable;

These risks are not exhaustive. Other sections of this prospectus and the documents incorporated by reference herein may include additional factors that could adversely impact our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward-looking statements.

We have included important factors in the cautionary statements included in this prospectus and the documents incorporated by reference herein, particularly in the “Risk Factors” sections thereof, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make. No forward-looking statement is a guarantee of future performance.

You should read this this prospectus and the documents incorporated by reference herein and have filed as exhibits to the registration statement of which this prospectus is a part completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements in this prospectus represent our views as of the date of this prospectus. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

PROSPECTUS SUMMARY

This prospectus summary highlights important features of this offering and the information included or incorporated by reference in this prospectus. Because it is a summary, it may not contain all of the information that may be important to you. You should carefully read this entire prospectus, including the section entitled “Risk Factors.”

Overview

We are a late-stage, clinical biopharmaceutical company dedicated to developing and commercializing first-in-class, oral enzyme therapeutics to treat patients with rare and severe metabolic and kidney disorders. We are focused on metabolic disorders that result in excess accumulation of certain metabolites that can cause kidney stones, damage the kidney, and potentially lead to chronic kidney disease, or CKD, and end-stage renal disease, or ESRD. Our lead product candidate, reloxaliase (formerly known as ALLN-177), is a first-in-class, oral enzyme therapeutic that we are developing for the treatment of hyperoxaluria, a metabolic disorder characterized by markedly elevated urinary oxalate, or UOx, levels and commonly associated with kidney stones, CKD and ESRD. There are currently no approved therapies for the treatment of hyperoxaluria.

We have conducted a robust clinical development program of reloxaliase, including three Phase 2 clinical trials and the first of two planned Phase 3 clinical trials, which demonstrated significant reductions of UOx excretion in patients with enteric hyperoxaluria. Reloxaliase has also been well tolerated in clinical trials to date. Based on these data, the high unmet medical need, reloxaliase’s specific mechanism of action, and the significant market opportunity, we are initially developing reloxaliase for adult patients with enteric hyperoxaluria.

In March 2018, we initiated URIROX-1™ (URIROX-1) (formerly Study 301), the first of our two anticipated Phase 3 clinical trials in support of our planned Biologic License Application, or BLA, for reloxaliase in patients with enteric hyperoxaluria. In November 2019, we announced topline data from the URIROX-1 trial. URIROX-1 met its primary endpoint, with a mean reduction of 22.6% in average 24-hour UOx excretion measured during Weeks 1-4 among patients treated with reloxaliase, compared to 9.7% in the placebo group (least square, or LS, mean treatment difference of -14.3%, p=0.004). In the fourth quarter of 2018, we initiated URIROX-2 (formerly Study 302), our second pivotal Phase 3 trial of reloxaliase in patients with enteric hyperoxaluria. In February 2020, following engagement with the U.S. Food and Drug Administration, or FDA, the Company announced a streamlined design for URIROX-2, based on the higher-than-projected kidney stone event rate and the UOx results observed in the completed URIROX-1 trial. In March 2020, the Company submitted a protocol amendment and associated study documents for the revised trial design to the FDA. The revised trial design is now effective following the 30-day review period and has been implemented in URIROX-2. Despite COVID-19, URIROX-2 is ongoing, study sites remain open for enrollment, and we are expanding URIROX-2 to additional geographies and clinical trial sites. As a result of the COVID-19 pandemic, and subject to the Company’s ability to secure additional financial resources, the Company expects the interim analysis at the first sample size reassessment in the first quarter of 2022, with topline data for potential BLA submission in the third quarter of 2022. The FDA has advised us that it agrees that, if positive, biomarker data on 24-hour UOx excretion in URIROX-1 and URIROX-2 would be used for a BLA submission for reloxaliase using the accelerated approval regulatory pathway. For the long-term follow-up phase of the trial, subjects would continue in URIROX-2 for a minimum treatment period of two years to confirm clinical benefit post-approval.

In addition to our Phase 3 program of reloxaliase for enteric hyperoxaluria, we also evaluated reloxaliase in Study 206, a Phase 2 basket trial in adults and adolescents with primary hyperoxaluria or enteric hyperoxaluria with advanced CKD and hyperoxalemia, which we initiated in March 2018. We announced interim data from Study 206 in June 2019 and topline data in November 2019. Based on the substantial reductions from baseline to Weeks 4 to 12 in both UOx and plasma oxalate, or POx, observed in subjects with enteric hyperoxaluria and

advanced CKD, we obtained feedback from the FDA on potential expedited approval pathways for reloxaliase in this patient population. The FDA recognized that the high oxalate burden in these patients represents a serious, life-threatening condition, which is a requirement for considering an expedited approval pathway. However, they advised us that reloxaliase would not currently qualify for breakthrough designation in this patient population because POx has never been used as an endpoint for regulatory approval and because of the uncontrolled data from open-label Study 206. In this setting, and given our current financial resources, we remain focused on executing URIROX-2 and will evaluate potential clinical development of reloxaliase in patients with enteric hyperoxaluria and advanced CKD in the future.

In addition, we have designed our second product candidate, ALLN-346, an orally administered, novel, urate degrading enzyme, for patients with hyperuricemia and gout in the setting of advanced CKD. Hyperuricemia, or elevated levels of uric acid in the blood, results from overproduction or insufficient excretion of urate, or often a combination of the two. ALLN-346 has demonstrated a robust reduction in both plasma and urine uric acid levels in an established urate oxidase knock-out mouse model, a severe animal model of hyperuricemia with advanced CKD and kidney damage due to urate crystal deposition. We filed an IND for ALLN-346 with the FDA in December 2019. In the first quarter of 2020, we received clearance from the FDA to proceed with first-in-human clinical trials. In July 2020, we initiated a Phase 1 clinical trial of ALLN-346. We have completed enrollment and dosing in this trial and expect initial data in December 2020.

Our principal executive offices are located at One Newton Executive Park, Suite 202, Newton, MA 02462 and our telephone number is (617) 467-4577. Our website address is www.allenapharma.com. The information on our website is not intended to be a part of this prospectus, and you should not rely on any of the information provided there in making your decision to invest in our securities. Our website address referenced above is intended to be an inactive textual reference only and not an active hyperlink to our website.

THE OFFERING

Common Stock offered	Up to 6,097,560 shares (representing the maximum shares issuable pursuant to the terms of the Convertible Notes)
Common Stock outstanding before this offering	38,118,925 shares as of September 30, 2020
Common Stock outstanding after this offering	44,216,485 shares (assuming that the full amount of the registered securities are issued pursuant to the terms of the Convertible Notes)
Use of proceeds	We will not receive any proceeds from the sale of shares of Common Stock in this offering. See the section entitled "Use of Proceeds."
Risk factors	You should consider carefully the information set forth in the section entitled "Risk Factors," beginning on page 3 of this prospectus, in deciding whether or not to invest in our Common Stock.
Plan of distribution	The selling stockholders and their pledgees, donees, transferees, or other successors in interest may offer the shares of Common Stock in one or more transactions at fixed prices, at prevailing market prices at the time of sale, at varying prices determined at the time of sale, at negotiated prices, or in trading markets for our Common Stock. See the section entitled "Plan of Distribution" beginning on page 8 of this prospectus for a complete description of the manner in which the shares registered hereby may be distributed.
Nasdaq Global Select Market symbol	ALNA

The number of shares of our common stock that will be outstanding immediately after this offering as shown above is based on 38,118,925 shares outstanding as of September 30, 2020, and, unless otherwise indicated, excludes:

- 3,678,241 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2020 at a weighted-average exercise price of \$4.21 per share;
- 547,319 shares of common stock issuable upon the vesting of restricted stock units outstanding as of September 30, 2020;
- 9,040 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2020 at an exercise price of 11.06 per share;
- 1,681,495 shares of common stock reserved for future issuance under our 2017 Stock Option and Incentive Plan; and
- 360,002 shares of common stock reserved for the future issuance under our 2017 Employee Stock Purchase Plan.

Except as otherwise indicated, the information in this prospectus supplement is as of September 30, 2020, and assumes no exercise of options, vesting of restricted stock units or exercise of warrants described above.

RISK FACTORS

An investment in our securities involves a high degree of risk. Before making an investment decision you should carefully read and consider the risks described below, together with all of the other information included or incorporated by reference in this prospectus, including, without limitation, the risk factors in the section entitled “Risk Factors” in our most recent Annual Report on Form 10-K for the year ended December 31, 2019 and Quarterly Report on Form 10-Q for the nine months ended September 30, 2020, each of which is on file with the Securities and Exchange Commission or the SEC. If any of the risks listed in our most recent Annual Report on Form 10-K or Quarterly Report on Form 10-Q any of the following risks actually occur, our business, financial condition, and/or results of operations could suffer. In that case, the market price of our Common Stock offered by this prospectus could decline, and you may lose all or part of your investment. You should read the section entitled “Special Note Regarding Forward-Looking Statements” above for a discussion of what types of statements are forward-looking statements, as well as the significance of such statements in the context of this prospectus. Additional risks and uncertainties that we do not presently know or that we currently deem immaterial may also have a material adverse effect on our business.

The terms of our loan and security agreement with Pontifax Medison Finance require us to meet certain operating covenants and place restrictions on our operating and financial flexibility. If we raise additional capital through debt financing, the terms of any new debt could further restrict our ability to operate our business.

In September 2020, we entered into a loan and security agreement with certain of the selling stockholders (the “Loan and Security Agreement”), that is secured by a lien covering all of our assets, other than our intellectual property. The Loan and Security Agreement contains customary affirmative and negative covenants and events of default. Affirmative covenants include, among others, covenants requiring us to protect and maintain our intellectual property and comply with all applicable laws, deliver certain financial reports, maintain a minimum cash balance and maintain insurance coverage. Negative covenants include, among others, covenants restricting us from transferring any part of our business or intellectual property, incurring additional indebtedness, engaging in mergers or acquisitions, changing foreign subsidiary voting rights, repurchasing shares, paying dividends or making other distributions, making investments, and creating other liens on our assets, including our intellectual property, in each case subject to customary exceptions. If we raise any additional debt financing, the terms of such additional debt could further restrict our operating and financial flexibility. These restrictions may include, among other things, limitations on borrowing and specific restrictions on the use of our assets, as well as prohibitions on our ability to create liens, pay dividends, redeem capital stock or make investments. If we default under the terms of the Loan and Security Agreement or any future debt facility, the lender may accelerate all of our repayment obligations and take control of our pledged assets, potentially requiring us to renegotiate our agreement on terms less favorable to us or to immediately cease operations. Further, if we are liquidated, the lender’s right to repayment would be senior to the rights of the holders of our common stock. The lender could declare a default upon the occurrence of any event that it interprets as a material adverse effect as defined under the Loan and Security Agreement. Any declaration by the lender of an event of default could significantly harm our business and prospects and could cause the price of our common stock to decline.

Repayment of the Convertible Notes, if they are not otherwise converted, will require a significant amount of cash, and we may not have sufficient cash flow from our business to make payments on our indebtedness.

Our ability to pay the principal of and/or interest on the Convertible Notes depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not generate cash flow from operations in the future sufficient to service the Convertible Notes or other future indebtedness and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt and implement one or more alternatives, such as selling assets, restructuring indebtedness or obtaining additional debt financing or equity financing on terms that may be onerous or highly dilutive. Our ability to refinance the Convertible Notes or other future indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations, including the Convertible Notes.

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The issuance of shares of Common Stock upon conversion of the Convertible Notes could substantially dilute your investment and could impede our ability to obtain additional financing.

The Convertible Notes are convertible into shares of our Common Stock and give the holders an opportunity to profit from a rise in the market price of our Common Stock such that conversion or exercise thereof could result in dilution of the equity interests of our shareholders. We have no control over whether the holders will exercise their right to convert their Convertible Notes. While the Convertible Notes are convertible at a minimum price of \$4.10 per share which is higher than our current market price, we cannot predict the market price of our Common Stock at any future date, and therefore, cannot predict whether the Convertible Notes will be converted. The existence and potentially dilutive impact of the Convertible Notes may prevent us from obtaining additional financing in the future on acceptable terms, or at all.

DESCRIPTION OF THE TRANSACTION

Private Placement of Convertible Notes

Loan and Security Agreement and Convertible Notes

On September 29, 2020 (the “Closing Date”) we entered into the Loan and Security Agreement with Pontifax Medison Finance (Israel) L.P. and Pontifax Medison Finance (Cayman) L.P., as lenders (collectively, referred to as “Lender”), and Pontifax Medison Finance GP, L.P., in its capacity as administrative agent and collateral agent for itself and Lender (the “Agent”). The lenders under the Loan and Security Agreement are referred to herein as the “selling stockholders.”

Amount. The Loan and Security Agreement provides for a term loan or loans in an aggregate principal amount of up to \$25.0 million (the “Term Loan”) subject to funding in three tranches as follows: (a) on the Closing Date, a loan in the aggregate principal amount of \$10.0 million (the “Initial Loan”), (b) on and after the Closing Date until September 29, 2021, a loan in the aggregate principal amount of \$5.0 million (the “Credit Line”), and (c) a loan in the aggregate principal amount of \$10.0 million (the “Third Installment Loan”), subject to our achievement of one of the following milestones by no later than December 29, 2021: (i) we receive non-contingent non-refundable gross proceeds from one or more equity financings and/or strategic partnerships, in each case, consummated following the Closing Date, in the aggregate amount of at least \$15,000,000 for all such equity financings and strategic partnerships or (ii) the 65th patient has been enrolled in our URIROX-2 clinical trial.

Interest Rate, Fees. The outstanding principal of the Term Loan bears an interest rate of 9.0% per annum based on a year consisting of 365 days. Interest is payable on a quarterly basis based on the principal amount outstanding during the preceding quarter. In addition, we are required to pay to the selling stockholders an unused line fee of 1.0% per annum payable quarterly on the amount not withdrawn under the Credit Line and, upon withdrawal of the Third Installment Loan, we are required to pay a fee of 1.0% of the Third Installment Loan to the selling stockholders.

Maturity, Amortization. The maturity date of the Term Loan is 48 months after the Closing Date. We will repay the Term Loan in eight equal quarterly installments commencing on the first business day of the calendar quarter after the amortization date, which is September 28, 2022, and continuing on the first business day of each quarter thereafter until the maturity date of Term Loan.

Prepayment. We may, at our option, prepay amounts withdrawn in whole or in part, at any time, from time to time, without premium or penalty, upon five (5) Business Days’ written notice to the Agent. In the event that we have entered into substantive negotiations, signed a letter of intent or received a bona fide offer to consummate a Change of Control (as such term is defined in the Loan and Security Agreement), then we may not prepay the Term Loan until the earlier of the termination of such negotiations or the public announcement of the entry into a definitive agreement to consummate such Change in Control; provided that we may give the selling stockholders notice of our intent to prepay the Term Loan concurrent with the closing of the Change of Control transaction at any time.

Conversion by the selling stockholders. The selling stockholders may, at their option, elect to convert the then outstanding Term Loan amount and all accrued and unpaid interest thereon into shares of Common Stock. The “Conversion Price” for the Initial Loan and Credit Line shall be \$4.10 subject to certain customary adjustments as specified in the Loan and Security Agreement. The Conversion Price for the Third Installment Loan will equal the higher of: (i) \$4.10 and (ii) a price equal to 2 times the average closing price of the Common Stock during the 30 trading days prior to the date on which the Third Installment Loan becomes available for withdrawal.

Conversion by the Company. We have the right to convert at any time all or any portion of the then outstanding Term Loan and all accrued and unpaid interest thereon into shares of Common Stock at the

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applicable Conversion Price, subject to fulfilment of all of the following conditions: (i) the shares of Common Stock issuable upon conversion are unrestricted and freely tradable securities if held by a person that is not an affiliate (and has not been affiliate at any time during the three months preceding any such sale) of ours pursuant to Rule 144 under the Securities Act of or under an effective registration statement under the Securities Act, (ii) during a period of 30 consecutive trading days prior to the date on which we give notice of the exercise of our conversion right, the closing price of the Common Stock was greater than 1.4 times the Conversion Price applicable to the Term Loan converted on at least 20 trading days, including on the trading day preceding the date on which we give notice of the exercise of its conversion right, and (iii) the number of shares of Common Stock issuable upon conversion by us shall not exceed the average weekly number of traded shares of Common Stock on the Nasdaq stock market during the four weeks immediately preceding the date on which we give notice of the exercise of our conversion right. We may only affect a conversion once every four weeks.

Security. Our obligations under the Term Loan are secured by a security interest, senior to any current and future debts and to any security interest, in all of our right, title, and interest in, to and under all of our property and other assets, other than its intellectual property and other limited exceptions specified in the Loan and Security Agreement.

Covenants; Representations and Warranties; Other Provisions. The Loan and Security Agreement contains customary representations, warranties and covenants, including covenants by us limiting additional indebtedness, liens, including on intellectual property, guaranties, mergers and consolidations, substantial asset sales, investments and loans, certain corporate changes, transactions with affiliates and fundamental changes.

Default Provisions. The Loan and Security Agreement provides for events of default customary for term loans of this type, including but not limited to non-payment, breaches or defaults in the performance of covenants, insolvency, bankruptcy and the occurrence of a material adverse effect on us. After the occurrence and continuance of an event of default the Agent has the option to (i) accelerate payment of all obligations and terminate the selling stockholders' commitments under the Loan and Security Agreement, (ii) sign and file in our name any notices, assignment or agreements necessary to perfect or protect repayment, or (iii) notify any of our account debtors to make payment directly to Agent.

Registration Rights Agreement

In connection with the Loan and Security Agreement, we entered into a Registration Rights Agreement (the "Registration Rights Agreement") with the selling stockholders, pursuant to which we agreed to (i) file within 60 days of the Closing Date one or more registration statements with the SEC for the purpose of registering for resale the Common Stock issuable upon conversion of the Term Loan (the "Conversion Shares") and any other securities issued or issuable with respect to or in exchange for such Conversion Shares, whether by merger, charter amendment or otherwise (ii) make the registration statement declared effective as soon as practicable after filing, and in any event no later than 120 days after the closing of the Loan and Security Agreement, and (iii) maintain the registration until all registrable securities may be sold by the selling stockholders pursuant to Rule 144 under the Securities Act, without restriction as to volume. The Registration Rights Agreement contains customary terms and conditions for a transaction of this type.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares of Common Stock by the selling stockholders.

The selling stockholders will pay all underwriting discounts, selling commissions and expenses incurred by them for brokerage, accounting, tax or legal services or any other expenses incurred by the selling stockholders in connection with the sale of the shares, if any. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration and filing fees, Nasdaq listing fees and fees and expenses of our counsel and our accountants.

SELLING STOCKHOLDERS

The shares of Common Stock being offered for resale by the selling stockholders pursuant to the Form S-3 of which this prospectus forms a part are the shares of Common Stock issuable to the selling stockholders pursuant to the terms of the Convertible Notes. For additional information regarding the issuance of those Convertible Notes, see “*Description of the Transaction.*” We are registering the shares of Common Stock in order to permit the selling stockholders to offer the shares for resale from time to time. Except for the ownership of the Convertible Notes issued pursuant to the Loan and Security Agreement and as described below, the selling stockholders have not had any material relationship with us within the past three years.

The table below lists the selling stockholders and other information regarding the beneficial ownership of shares of Common Stock by each of the selling stockholders. The second column lists the number of shares of Common Stock beneficially owned by each selling stockholder, based on its ownership of the Convertible Notes, as of November 15, 2020, assuming conversion of all Convertible Notes at the conversion price in effect as of the trading day immediately preceding the date the registration statement is initially filed with the SEC. The third column lists the shares of Common Stock being offered by this prospectus by the selling stockholders. The fourth column lists the shares of Common Stock held by each selling stockholder after completion of this offering, and assumes that each selling stockholder subsequently sells all of the shares covered by this prospectus and assumes full conversion of the Convertible Notes. The fifth column lists the percentage ownership held by each selling stockholder after completion of this offering to the extent such percentage exceed 1% of the total number of shares of Common Stock outstanding at that time. The information presented regarding the selling stockholders is based, in part, on information the selling stockholders provided to us in writing specifically for use in this prospectus. The selling stockholders may sell all, some or none of their shares in this offering. See “Plan of Distribution.”

In addition to the assumptions described above, beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power over securities. To our knowledge, unless otherwise indicated, all persons named in the table below have sole voting and investment power with respect to their shares of Common Stock. Percentage of beneficial ownership is based on 38,290,950 shares of our Common Stock outstanding as of November 15, 2020.

Name of Selling stockholder	Number of Shares of Common Stock Owned Prior to Offering	Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus	Number of Shares of Common Stock Owned After Offering	Percentage of Shares of Common Stock Owned After Offering (to the extent greater than 1%)
Pontifax Medison Finance (Israel) L.P.(1)	4,264,227(2)	4,264,227	—	—
Pontifax Medison Finance (Cayman) L.P.(3)	1,833,333(4)	1,833,333	—	—

* Denotes less than 1%.

- (1) Pontifax Medison Finance (Israel), Limited Partnership (“Pontifax Israel”), is a limited partnership registered under the laws of the State of Israel. Decisions with respect the disposition of securities are taken by the fund’s investment committee. The members of the investment committee are Mr. Tomer Kariv, Mr. Ran Nussbaum, Mr. Shlomo Karako and Mr. Gil Gurfinkel. In addition, Pontifax Medison Finance GP Limited Partnership (“Pontifax Management”) is the general partner of Pontifax Israel. Pontifax Management 4 G.P. (2015) Ltd. is the general partner of Pontifax Management. Mr. Tomer Kariv and Mr. Ran Nussbaum are directors of Pontifax Management 4 G.P. (2015) Ltd., and as such, hold voting and/or dispositive power over the shares held by Pontifax Israel. The address of the entities affiliated with Pontifax Medison Finance (Israel) L.P. is 14 Shenkar St., Herzeliya, Israel.
- (2) Consists of 4,264,227 shares of our Common Stock issuable under the Convertible Notes.
- (3) Pontifax Medison Finance (Cayman), L.P. (“Pontifax Cayman”), is a limited partnership registered under the laws of the Cayman Islands. Decisions with respect the disposition of securities are taken by the fund’s investment committee. The members of the investment committee are Mr. Tomer Kariv, Mr. Ran

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Nussbaum, Mr. Shlomo Karako and Mr. Gil Gurfinkel. In addition, Pontifax Medison Finance GP Limited Partnership (“Pontifax Management”) is the general partner of Pontifax Cayman. Pontifax Management 4 G.P. (2015) Ltd. is the general partner of Pontifax Management. Mr. Tomer Kariv and Mr. Ran Nussbaum are directors of Pontifax Management 4 G.P. (2015) Ltd., and as such, hold voting and/or dispositive power over the shares held by Pontifax Cayman. The address of the entities affiliated with Pontifax Medison Finance (Cayman) L.P. is 14 Shenkar St., Herzeliya, Israel.

- (4) Consists of 1,833,333 shares of our Common Stock issuable under the Convertible Notes.

PLAN OF DISTRIBUTION

We are registering the shares of Common Stock issuable pursuant to the terms of the Convertible Notes to permit the resale of these shares of Common Stock by the holders of the Convertible Notes from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of Common Stock.

The selling stockholders, which, as used herein, includes donees, pledgees, transferees or other successors in interest selling shares of Common Stock or interests in shares of Common Stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of Common Stock or interests in shares of Common Stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this prospectus is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- one or more underwritten offerings on a firm commitment or best effort basis;
- a combination of any such methods of sale; and
- any other method permitted by applicable law.

Pursuant to the Registration Rights Agreement, the selling stockholders are generally entitled to be paid all registration expenses in connection with their registration obligations, regardless of whether a registration statement is filed or becomes effective.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of the Common Stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of Common Stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act, amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of Common Stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

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

The aggregate proceeds to the selling stockholders from the sale of the Common Stock offered by them will be the purchase price of the Common Stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of Common Stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, if available, or pursuant to other available exemptions from the registration requirements under the Securities Act, rather than this prospectus, provided that they meet the criteria and conform to the requirements of that rule. Registration of the shares of Common Stock covered by this prospectus does not mean that any shares of the Common Stock will be offered or sold.

The selling stockholders may engage in at-the-market offerings and offer the Common Stock into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act on the terms described in the prospectus supplement relating thereto. Underwriters, dealers and agents who participate in any at-the-market-offerings will be described in the prospectus supplement relating thereto.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the Common Stock or interests therein may be “underwriters” within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are “underwriters” within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our Common Stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the Common Stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the Common Stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

If at the time of any offering made under this prospectus, a member of FINRA participating in the offering has a “conflict of interest” as defined in FINRA Rule 5121 (“Rule 5121”), that offering will be conducted in accordance with the relevant provisions of Rule 5121.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M promulgated under the Securities Exchange Act of 1934, as amended, may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, to the extent applicable we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for

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the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus and actually issued or issuable upon conversion of the Term Loans have been sold and (2) the date on which all of the shares may be sold without restriction pursuant to Rule 144 of the Securities Act.

We will pay all expenses of the registration of the shares of Common Stock pursuant to the Registration Rights Agreement, including, without limitation, Securities and Exchange Commission filing fees and expenses of compliance with state securities or “blue sky” laws; provided, however, that a selling stockholder will pay all underwriting discounts and selling commissions, if any.

LEGAL MATTERS

The validity of the Common Stock issued and issuable upon conversion of the Convertible Notes will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts.

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 contains an explanatory paragraph relating to the Company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements), which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

As permitted by SEC rules, this prospectus, which constitutes a part of a registration statement on Form S-3 that we have filed with the SEC, omits certain of the information set forth in the registration statement. Accordingly, you should refer to the registration statement and its exhibits for further information with respect to us and our Common Stock. Copies of the registration statement and its exhibits are on file at the offices of the SEC. This prospectus contains statements concerning documents filed as exhibits. For the complete text of any of these documents, we refer you to the copy of the document filed as an exhibit to the registration statement.

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

We also maintain a website at <http://www.allenapharma.com> with information about our company and through which you may access these materials and other filings with the SEC free of charge as soon as reasonably practicable after they are filed electronically with, or furnished to, the SEC. Except for the documents incorporated by reference as described below under "Incorporation of Certain Documents by Reference", information contained on our website or any other website is not incorporated into this prospectus and does not constitute a part of this prospectus. Our website address referenced above is intended to be an inactive textual reference only and not an active hyperlink to our website.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus the information we file with the SEC, which means that we can disclose important information to you by referring you to other documents filed separately with the SEC. The information incorporated by reference is considered part of this prospectus, and any information that we file with the SEC subsequent to this prospectus and prior to the termination of the offering referred to in this prospectus will automatically be deemed to update and supersede this information. We incorporate by reference into this prospectus the documents listed below (excluding any portions of such documents that have been "furnished" but not "filed" for purposes of the Exchange Act unless specifically incorporated by reference herein or therein):

- Our Annual Report on [Form 10-K](#) for the year ended December 31, 2019, filed with the SEC on March 16, 2020, as amended by [Form 10-K/A](#) filed with the SEC on April 29, 2020;
- Our Quarterly Reports on Form 10-Q for the quarter ended March 31, 2020, filed with the SEC on [May 13, 2020](#); for the quarter ended June 30, 2020, filed with the SEC on [August 13, 2020](#) and for the quarter ended September 30, 2020, filed with the SEC on [November 9, 2020](#);

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- The portions of our Definitive Proxy Statement on Schedule 14A filed with the SEC on [October 5, 2020](#) that are deemed “filed” with the SEC under the Exchange Act;
- Our Current Reports on Form 8-K (including amendments thereto) filed [February 12, 2020](#), [June 5, 2020](#), [July 29, 2020](#), [August 28, 2020](#), [October 1, 2020](#), [October 5, 2020](#), [November 12, 2020](#) and [November 18, 2020](#); and
- the description of our common stock contained in our registration statement on [Form 8-A](#) filed with the SEC on October 30, 2017, including any amendments or reports filed for the purposes of updating this description.

We also incorporate by reference all documents we subsequently file with the SEC (other than information furnished pursuant to Item 2.02 or Item 7.01 of Form 8-K or as otherwise permitted by SEC rules) pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the initial filing of the registration statement of which this prospectus is a part (including prior to the effectiveness of the registration statement) and prior to the termination of the offering.

This prospectus is part of a registration statement on Form S-3 that we have filed with the SEC relating to the securities. As permitted by SEC rules, this prospectus does not contain all of the information included in the registration statement and the accompanying exhibits and schedules we file with the SEC. We have filed certain legal documents that control the terms of the Common Stock offered by this prospectus as exhibits to the registration statement. We may file certain other legal documents that control the terms of the Common Stock offered by this prospectus as exhibits to reports we file with the SEC. You may refer to the registration statement and the exhibits and schedules for more information about us and our securities. The registration statement and exhibits and schedules are also available at the SEC’s website.

Upon written or oral request, we will provide you without charge, a copy of any or all of the documents incorporated by reference, other than exhibits to those documents unless the exhibits are specifically incorporated by reference in the documents. Please send requests to Investor Relations Department, Allena Pharmaceuticals, Inc., One Newton Executive Park, Suite 202, Newton, MA 02462. You should rely only on information contained in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus or any free writing prospectus provided in connection with this offering. We have not authorized anyone to provide you with information different from that contained in this prospectus supplement and the accompanying prospectus or any free writing prospectus provided in connection with this offering or incorporated by reference in this prospectus supplement and the accompanying prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or to anyone to whom it is unlawful to make such offer or solicitation.



Up to 6,097,560 shares of Common Stock

PROSPECTUS

, 2020

PART II. INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following expenses incurred in connection with the sale of the securities being registered will be borne by the registrant. Other than the SEC registration fee, the amounts stated are estimates.

SEC Registration Fee	\$2,728
Legal Fees and Expenses	\$ *
Accounting Fees and Expenses	\$ *
Miscellaneous	\$ *
Total	\$ *

* To be provided by a prospectus supplement or as an exhibit to a Report on Form 8-K that is incorporated by reference into this prospectus.

Item 15. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law, or the DGCL, authorizes a corporation to indemnify its directors and officers against liabilities arising out of actions, suits and proceedings to which they are made or threatened to be made a party by reason of the fact that they have served or are currently serving as a director or officer to a corporation. The indemnity may cover expenses (including attorneys' fees) judgments, fines and amounts paid in settlement actually and reasonably incurred by the director or officer in connection with any such action, suit or proceeding. Section 145 permits corporations to pay expenses (including attorneys' fees) incurred by directors and officers in advance of the final disposition of such action, suit or proceeding. In addition, Section 145 provides that a corporation has the power to purchase and maintain insurance on behalf of its directors and officers against any liability asserted against them and incurred by them in their capacity as a director or officer, or arising out of their status as such, whether or not the corporation would have the power to indemnify the director or officer against such liability under Section 145.

We have adopted provisions in our certificate of incorporation and bylaws that limit or eliminate the personal liability of our directors to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, a director will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payments related to dividends or unlawful stock purchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not alter director liability under the federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission.

In addition, our bylaws provide that:

- we will indemnify our directors, officers and, in the discretion of our board of directors, certain employees to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended; and
- we will advance reasonable expenses, including attorneys' fees, to our directors and, in the discretion of our board of directors, to our officers and certain employees, in connection with legal proceedings relating to their service for or on behalf of us, subject to limited exceptions.

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We have entered into indemnification agreements with each of our directors and with certain of our executive officers. These agreements provide that we will indemnify each of our directors, certain of our executive officers and, at times, their affiliates to the fullest extent permitted by Delaware law. We will advance expenses, including attorneys' fees (but excluding judgments, fines and settlement amounts), to each indemnified director, executive officer or affiliate in connection with any proceeding in which indemnification is available and we will indemnify our directors and officers for any action or proceeding arising out of that person's services as a director or officer brought on behalf of the Company and/or in furtherance of our rights. Additionally, each of our directors may have certain rights to indemnification, advancement of expenses and/or insurance provided by their affiliates, which indemnification relates to and might apply to the same proceedings arising out of such director's services as a director referenced herein. Nonetheless, we have agreed in the indemnification agreements that the Company's obligations to those same directors are primary and any obligation of the affiliates of those directors to advance expenses or to provide indemnification for the expenses or liabilities incurred by those directors are secondary.

We also maintain general liability insurance which covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act.

Item 16. Exhibits

The exhibit index set forth immediately prior to the signature page is incorporated herein by reference.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

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

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

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

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

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

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

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

(4) That, for the purpose of determining liability under the Securities Act to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Exchange Act that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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

EXHIBITS INDEX

<u>Exhibit No.</u>	<u>Description</u>
4.1	Form of Common Stock Certificate (Incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-1 filed October 23, 2017 (Commission File No. 333-220857)).
4.2	Registration Rights Agreement, dated September 29, 2020 by and among Allena Pharmaceuticals, Inc. and the parties named therein (Incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed October 1, 2020 (Commission File No. 001-38268)).
5.1*	Opinion of Goodwin Procter LLP.
10.1	Loan and Security Agreement, dated September 29, 2020, among Allena Pharmaceuticals, Inc. and the Lender parties thereto (Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed October 1, 2020 (Commission File No. 001-38268)).
23.1*	Consent of Ernst & Young LLP
23.2*	Consent of Goodwin Procter LLP. (included in Exhibit 5.1 hereto).
24.1*	Power of Attorney (included on the signature page to this Registration Statement).

* Filed herewith

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Newton, Commonwealth of Massachusetts, on November 27, 2020.

ALLENA PHARMACEUTICALS, INC.

By: /s/ Louis Brenner

Louis Brenner, M.D.

President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PEOPLE BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Louis Brenner, M.D. and Edward Wholihan, and each of them severally, as his or her true and lawful attorneys-in-fact and agents, each acting alone with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any or all amendments (including pre-effective and post-effective amendments) and exhibits to this Registration Statement on Form S-3, and to any registration statement relating to the same offering of securities that are filed pursuant to Rule 462 of the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the SEC, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or theirs or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Louis Brenner</u> Louis Brenner, M.D.	Chief Executive Officer and Director (Principal Executive Officer)	November 27, 2020
<u>/s/ Edward Wholihan</u> Edward Wholihan	Chief Financial Officer (Principal Financial and Accounting Officer)	November 27, 2020
<u>/s/ Alexey Margolin</u> Alexey Margolin, Ph.D.	Chairman	November 27, 2020
<u>/s/ Robert Alexander</u> Robert Alexander, Ph.D.	Director	November 27, 2020
<u>/s/ Allene Diaz</u> Allene Diaz	Director	November 27, 2020
<u>/s/ Andrew A. F. Hack</u> Andrew A. F. Hack, M.D., Ph.D.	Director	November 27, 2020
<u>/s/ Ann C. Miller</u> Ann C. Miller, M.D.	Director	November 27, 2020
<u>/s/ Gino Santini</u> Gino Santini	Director	November 27, 2020
<u>/s/ James N. Topper</u> James N. Topper, M.D., Ph.D.	Director	November 27, 2020



Goodwin Procter LLP
100 Northern Avenue
Boston, MA 02210

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+1 617-570-1000

November 27, 2020

Allena Pharmaceuticals, Inc.
One Newton Executive Park, Suite 202
Newton, Massachusetts 02462

Re: Securities Registered under Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to you in connection with your filing of a Registration Statement on Form S-3 (as amended or supplemented, the "Registration Statement") filed on November 27, 2020 with the Securities and Exchange Commission pursuant to the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration of up to 6,097,560 shares (the "Shares") of common stock, par value \$0.001 per share (the "Common Stock"), of Allena Pharmaceuticals, Inc., a Delaware corporation (the "Company") to be sold by the selling stockholders listed in the Registration Statement under "Selling Stockholders" (the "Selling Stockholders"). The Shares consist of up to 6,097,560 shares of Common Stock issuable pursuant to the terms of certain convertible notes due September 28, 2024 (the "Convertible Notes").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinions set forth below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinions set forth below, on certificates of officers of the Company. For purposes of the opinion set forth below, we have assumed that before the Shares are issued the Company does not issue shares of Common Stock or reduce the total number of shares of Common Stock that the Company is authorized to issue under its certificate of incorporation such that the number of unissued shares of Common Stock authorized under the Company's certificate of incorporation is less than the number of Shares.

The opinion set forth below is limited to the Delaware General Corporation Law.

Based on the foregoing, we are of the opinion that the Shares, when issued and delivered upon the conversion of the Convertible Notes in accordance with the terms of the Convertible Notes, will be validly issued, fully-paid and non-assessable.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement and to the references to our firm under the caption “Legal Matters” in the Registration Statement. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/s/ Goodwin Procter LLP

GOODWIN PROCTER LLP

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” in this Registration Statement (Form S-3) and related Prospectus of Allena Pharmaceuticals, Inc. for the registration of shares of its common stock and to the incorporation by reference therein of our report dated March 16, 2020, with respect to the consolidated financial statements of Allena Pharmaceuticals, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2019, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts
November 27, 2020