

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM S-3
REGISTRATION STATEMENT**

**UNDER
THE SECURITIES ACT OF 1933**

ATHENEX, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

43-1985966
(I.R.S. Employer
Identification No.)

1001 Main Street, Suite 600
Buffalo, NY 14203
(716) 427-2950

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

Johnson Y.N. Lau
Chief Executive Officer
Athenex, Inc.
1001 Main Street, Suite 600
Buffalo, NY 14203
(716) 427-2950

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

Copies to:

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Simpson Thacher & Bartlett LLP
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3 Garden Road
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Approximate date of commencement of proposed sale to the public:

From time to time after this registration statement becomes effective.

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 to be 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. (Check one):

Large accelerated filer ☐

Accelerated filer ☒

Non-accelerated filer ☐ (Do not check if a smaller reporting company)

Smaller reporting company ☐

Emerging growth company ☒

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

CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED ⁽¹⁾	AMOUNT TO BE REGISTERED ⁽²⁾	PROPOSED MAXIMUM OFFERING PRICE PER SHARE ⁽²⁾	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE ⁽²⁾	AMOUNT OF REGISTRATION FEE ⁽³⁾
Common Stock, \$0.001 par value per share				—
Preferred Stock, \$0.001 par value per share				—
Debt securities				—
Warrants				—
Units				—

(1) Any securities registered hereunder may be sold separately, together or as units with other securities registered hereunder.

(2) Omitted pursuant to General Instructions II.E of Form S-3. An indeterminate number or amount, as the case may be, of common stock, preferred stock, debt securities, and warrants are being registered hereunder as may from time to time be issued at indeterminate prices. The securities being registered hereunder may be convertible into or exchangeable or exercisable for other securities of any identified class, and may be sold separately or in combination. In addition to the securities that may be issued directly under this registration statement, there is being registered hereunder such indeterminate aggregate number or amount, as the case may be, of the securities of each identified class as may from time to time be issued on the conversion, exchange, settlement, or exercise of other securities offered hereby. Separate consideration may or may not be received for securities that are issuable on the conversion or exercise of, or in exchange for, other securities offered hereby or that are offered in combination. Securities registered hereby may be offered for U.S. dollars or the equivalent thereof in foreign currencies.

(3) In accordance with Rule 456(b) and Rule 457(r) under the Securities Act of 1933, as amended, the registrant is deferring payment of all of the registration fee, except for \$5,578.59, which amount was previously paid by the registrant with respect to the unsold portion of the securities that were previously registered pursuant to Registration Statement No. 333-222640 (filed by the registrant on January 22, 2018, amended on January 22, 2018 and declared effective on January 25, 2018). In accordance with Rule 457(p) under the Securities Act of 1933, as amended, because this registration statement is being filed within five years of Registration Statement No. 333-222640, the unused amount of the registration fee paid with respect to Registration Statement No. 333-222640 is carried over to this registration statement and will be used by the registrant to offset registration fees that become due in connection with the issuance of securities registered hereunder.”

PROSPECTUS



COMMON STOCK
PREFERRED STOCK
DEBT SECURITIES
WARRANTS
UNITS

We may, from time to time, offer and sell any combination of the securities described in this prospectus, either individually or in combination, at prices and on terms described in one or more supplements to this prospectus. We may also offer common stock or preferred stock on conversion of debt securities, common stock on conversion of preferred stock, or common stock, preferred stock, or debt securities on exercise of warrants. Additionally, in certain circumstances, selling security holders identified in any accompanying prospectus supplement who acquire or have acquired securities from us may offer the securities for resale, separately, together or in units, under this prospectus.

This prospectus describes some of the general terms that may apply to an offering of our securities by us or any selling security holders. When we or any selling security holders decide to sell securities under this prospectus, we will provide the specific terms of these offerings and securities in one or more supplements 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 the documents incorporated by reference, before buying any of the securities being offered.

Securities may be offered and sold by us or any selling securityholders to or through underwriters or dealers, directly to purchasers or through agents designated from time to time. For additional information on the methods of sale, you should refer to the section entitled “Plan of Distribution” in this prospectus and in the applicable prospectus supplement. If any underwriters are involved in the sale of any securities by us or any selling securityholders with respect to which this prospectus is being delivered, the names of such underwriters and any applicable discounts or commissions and 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 proceeds that we receive from any sales by us of the securities offered under this prospectus and any accompanying prospectus supplement will be reduced by any registration and offering fees and expenses. We will receive no proceeds from any sale by selling security holders of the securities covered by this prospectus and any accompanying prospectus supplement, but we may, in some cases, pay certain registration and offering fees and expenses on their behalf.

Our common stock is traded on The Nasdaq Global Select Market under the symbol “ATNX.” On September 21, 2018, the last reported sale price of our common stock on The Nasdaq Global Select Market was \$16.92 per share. We will indicate in any prospectus supplement if the securities offered thereby will be listed on any securities exchange.

Investing in our common stock involves a high degree of risk. Please read “[Risk Factors](#)” beginning on page 5 of this prospectus before making a decision to invest in our common stock.

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 September 24, 2018

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You should rely only on the information contained in, or incorporated by reference into, this prospectus and the applicable prospectus supplement, along with the information contained in any free writing prospectuses we have authorized for use in connection with a specific offering. We have not authorized anyone to provide you with different information. We are not making an offer to sell or seeking an offer to buy securities under this prospectus or the applicable prospectus supplement and any related free writing prospectus in any jurisdiction where the offer or sale is not permitted. The information contained in this prospectus, the applicable prospectus supplement or any related free writing prospectus, and the documents incorporated by reference herein and therein, are accurate only as of their respective dates, regardless of the time of delivery of this prospectus, the applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

ABOUT THIS PROSPECTUS

This prospectus is part of an automatic registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, using a “shelf” registration process as a “well-known seasoned issuer” as defined in Rule 405 under the Securities Act of 1933, as amended, or the Securities Act. Under this shelf registration statement, from time to time, we may sell, in one or more offerings, common stock, preferred stock, various series of debt securities, or warrants to purchase any of such securities, either individually or in combination with other securities described in this prospectus. Each time we sell any type or series of securities under this prospectus, we will provide a prospectus supplement that will include more 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. In a prospectus supplement or free writing prospectus, we may also add, update, or change any of the information contained in this prospectus or in the documents we have incorporated by reference into this prospectus. This prospectus, together with the applicable prospectus supplement, any related free writing prospectus, and the documents incorporated by reference into this prospectus and the applicable prospectus supplement, will include all material information relating to the applicable offering. Before buying any of the securities being offered, you should carefully read both this prospectus and the applicable prospectus supplement and any related free writing prospectus, together with the additional information described in the section entitled “Where You Can Find Additional Information.”

This prospectus 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 section entitled “Where You Can Find More Information.”

Unless otherwise mentioned or unless the context requires otherwise, when used in this prospectus, the terms “Athenex”, “Company”, “we”, “us”, and “our” refer to Athenex, Inc. and its subsidiaries.

PROSPECTUS SUMMARY

The following summary, because it is a summary, may not contain all the information that may be important to you. This prospectus incorporates important business and financial information about the Company that is not included in, or delivered with, this prospectus. Before making an investment, you should read the entire prospectus and any amendment carefully. You should also carefully read the risks of investing discussed under “Risk Factors” and the financial statements included in our other filings with the SEC, including in our most recent Quarterly Report on Form 10-Q for the quarter and three months ended June 30, 2018, which we filed with the SEC on August 14, 2018 and our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, which we filed with the SEC on March 26, 2018. This information is incorporated by reference into this prospectus, and you can obtain it from the SEC as described below under the headings “Where You Can Find Additional Information About Us” and “Incorporation of Certain Documents by Reference.”

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the information that has been incorporated by reference in the prospectus but not delivered with the prospectus. You may request a copy of these filings, excluding the exhibits to such filings which we have not specifically incorporated by reference in such filings, at no cost, by writing us at the following address: 1001 Main Street, Suite 600, Buffalo, NY, United States.

OUR COMPANY

Overview

We are a global biopharmaceutical company dedicated to the discovery, development and commercialization of novel therapies for the treatment of cancer. Our mission is to improve the lives of cancer patients by creating more effective, safer and tolerable treatments. Our current clinical pipeline is derived from primarily four platform technologies: (1) Orascovery, (2) Src Kinase Inhibition, (3) T-cell Receptor-engineered T-cells, or TCR-T, and (4) Arginine Deprivation Therapy. We have assembled a leadership team and have established operations in the U.S. and China across the pharmaceutical value chain to execute our mission to become a global leader in bringing innovative cancer treatments to the market and improve health outcomes.

Orascovery platform

Our Orascovery platform is based on the novel oral P-glycoprotein, or P-gp, pump inhibitor molecule HM30181A. The P-gp pump is a plasma membrane protein on the cells of the gut which forms a localized drug transport system and limits effective oral absorption of known and widely used P-gp substrate cancer chemotherapeutic drugs such as paclitaxel, irinotecan and docetaxel, thus restricting current usage to intravenous, or IV, administration. IV chemotherapies’ adverse events are due in part to sharp increases in the blood concentration levels of the chemotherapeutic drugs, and infusion-related reactions caused in part by dilution agents used to facilitate IV administration. Although clinical trial results with IV chemotherapy have shown that the dose-limiting side effects are associated with treatment efficacy, these adverse events have limited the duration of treatment with this route of administration. Through sequential co-administration of HM30181A and oral paclitaxel (together, Oraxol), we are able to facilitate oral absorption of paclitaxel at therapeutic blood levels by blocking the P-gp pump. We believe oral administration of paclitaxel reduces blood concentration level fluctuations and eliminates infusion-related reactions related to IV administration improving patient tolerability and allowing for longer dosing durations to improve efficacy. In addition to Oraxol, we are advancing three other clinical candidates in this platform, Oratecan (HM30181A and oral irinotecan), Oradoxel (HM30181A and oral docetaxel) and Oratopo (HM30181A and oral topotecan) to target solid tumors.

Src Kinase Inhibition platform

Src Kinase, a tyrosine kinase protein involved in regulating cell growth, is strongly implicated with blocking metastasis. Defects in Src Kinase are implicated in a number of cancers, and inhibiting this protein may limit the growth or proliferation of cancerous cell types. The Src Kinase Inhibition platform refers to novel small molecule compounds that have multiple mechanisms of action, including the inhibition of the activity of Src Kinase and the inhibition of tubulin polymerization during cell division. We believe the combination of these mechanisms of action provide a broader range of anti-cancer activity as compared to either mechanism of action alone. Our key clinical product candidates in this platform are KX-01 ointment for pre-cancerous lesions and KX-02 for glioblastoma multiforme, or GBM.

TCR-T platform

Axis Therapeutics Limited, or Axis Therapeutics, a newly formed entity, has in-licensed the worldwide (excluding mainland China) rights of all the intellectual properties and know-how of a TCR-T immunotherapy technology. The TCR-T immunotherapy technology was originally developed by Xiangxue Life Sciences. Axis Therapeutics has been established as joint venture, owned 55% by us and 45% by Xiangxue Life Sciences. The TCR-T immunotherapy technology harnesses and enhances the patient's own immune cells to target and eliminate cancer. It is a cell-based therapy that takes advantage of unique attributes of TCR mediated target recognition, and engineers potent and selective TCR-T directed response against cancer cells.

Arginine Deprivation Therapy platform

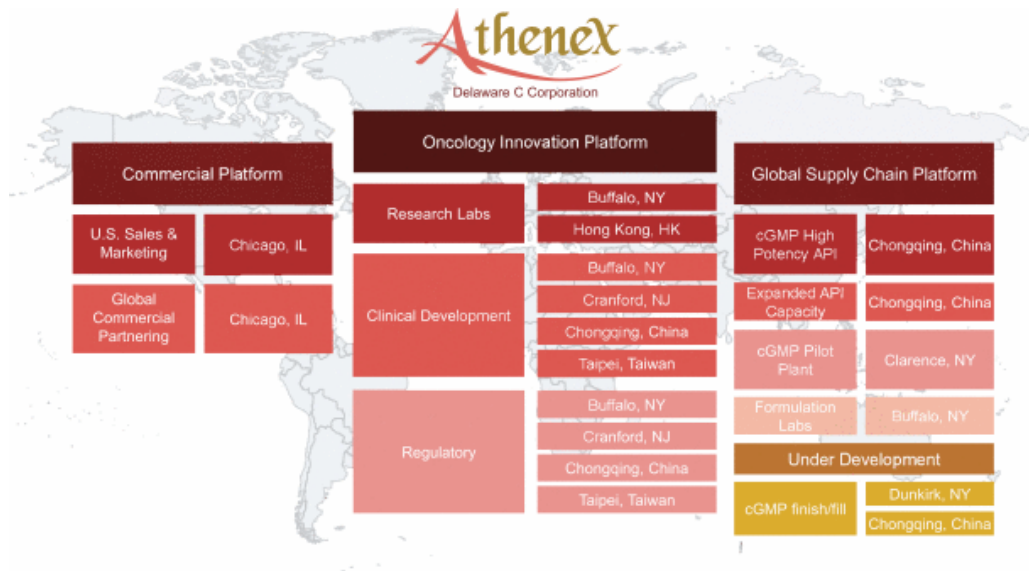
The Arginine Deprivation Therapy platform based on our pegylated genetic engineered human arginase platform technology targets cancer growth and survival by interrupting the supply of an amino acid, arginine, to a proportion of cancers with disrupted urea cycle. Our proprietary arginase biologic product is well suited to deplete arginine from the tumors with disrupted urea cycle that are dependent upon it, while healthy cells, capable of producing their own arginine, are largely unaffected.

In addition to our existing portfolio of clinical candidates, our research and development teams are evaluating additional applications of our novel technology platforms. For example, our novel Cytochrome P450, or CYP, and P-gp dual inhibitor technology could lead to the discovery of new drug candidates.

In advance of the launch of our proprietary product candidates in the U.S., our commercial team has begun to market oncology and oncology symptom-related products. We believe it is important to minimize supply chain disruptions for high potency oncology active pharmaceutical ingredients. We have thus internalized key components of the supply chain that we believe are integral to minimizing the associated risks.

Our Global Supply Chain platform manufactures active pharmaceutical ingredients, or API, for use internally in our research and development, clinical studies, and for sale to pharmaceutical customers globally. Our Global Supply Chain Platform includes Polymed Therapeutics, Inc. and Chongqing Taihao Pharmaceutical Co Ltd, collectively Polymed, and Athenex Pharma Solutions, or APS. Our Commercial Platform includes Athenex Pharmaceutical Division, or APD.

We have organized our business model into three segments: Oncology Innovation Platform, Commercial Platform and Global Supply Chain Platform—with operations in both the U.S. and China. Our global operations across the three segments are shown below:



We were originally formed under the laws of the state of Delaware in November 2003 under the name Kinex Pharmaceuticals, LLC. In December 2012, we converted from a limited liability company to a Delaware corporation, Kinex Pharmaceuticals, Inc. In August 2015, we amended and restated our certificate of incorporation to change our name to Athenex, Inc. Our principal executive offices are located at 1001 Main Street, Suite 600, Buffalo, NY 14203, and our telephone number is (716) 427-2950. Our website address is www.athenex.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

RATIO OF EARNINGS TO FIXED CHARGES

If we offer debt securities and/or preferred equity securities under this prospectus, then we will, if required at that time, provide a ratio of earnings to fixed charges and/or ratio of combined fixed charges and preference dividends to earnings, respectively, in the applicable prospectus supplement for such offering.

RISK FACTORS

Investing in our securities involves risk. The prospectus supplement applicable to a particular offering of securities will contain a discussion of the risks applicable to an investment in Athenex, Inc. and to the particular types of securities that we are offering under that prospectus supplement. Before making an investment decision, you should carefully consider the risks described under “Risk Factors” in the applicable prospectus supplement and the risks described in our most recent Annual Report on Form 10-K, or any updates in our Quarterly Reports on Form 10-Q, together with all of the other information appearing in or incorporated by reference into this prospectus and any applicable prospectus supplement, in light of your particular investment objectives and financial circumstances. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment.

FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference herein, contains, and any applicable prospectus supplement or free writing prospectus including the documents we incorporate by reference therein may contain, forward-looking statements, including statements regarding our future financial condition, business strategy and plans and objectives of management for future operations. Forward-looking statements include all statements that are not historical facts. In some cases, you can identify forward-looking statements by terminology such as “believe,” “will,” “may,” “estimate,” “continue,” “anticipate,” “intend,” “should,” “plan,” “might,” “approximately,” “expect,” “predict,” “could,” “potentially” or the negative of these terms or other similar expressions. Forward-looking statements appear in a number of places throughout this prospectus and the documents that we incorporate by reference herein, and include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our ongoing and planned preclinical development and clinical trials, the timing of and our ability to make regulatory filings and obtain and maintain regulatory approvals and our future product candidates, our intellectual property position, the degree of clinical utility of our future product candidates, particularly in specific patient populations, our ability to develop commercial functions, expectations regarding clinical trial data, our results of operations, cash needs, spending of the proceeds from offerings of securities under this prospectus, financial condition, liquidity, prospects, growth and strategies, the industry in which we operate and the trends that may affect our industry or us.

Discussions containing these forward-looking statements may be found, among other places, in the sections entitled “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. These statements relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. We discuss in greater detail, and incorporate by reference into this prospectus in their entirety, many of these risks and uncertainties under the heading “Risk Factors” contained in the applicable prospectus supplement, in any free writing prospectus we may authorize for use in connection with a specific offering, and in our most recent Annual Report on Form 10-K, as well as any amendments thereto reflected in subsequent filings with the SEC. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement and, except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

USE OF PROCEEDS

Except as otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities covered by this prospectus for general corporate purposes. Additional information on the use of net proceeds from an offering of securities covered by this prospectus may be set forth in the prospectus supplement relating to the specific offering.

We will not receive any proceeds from securities offered for resale by selling security holders.

DESCRIPTIONS OF THE SECURITIES WE MAY OFFER

The descriptions of the securities contained in this prospectus, together with any applicable prospectus supplement, summarize all the material terms and provisions of the various types of securities that we may offer and any selling security holders may offer for resale,. We will describe in the applicable prospectus supplement relating to a particular offering the specific terms of the securities offered by that prospectus supplement. We will indicate in the applicable prospectus supplement if the terms of the securities differ from the terms we have summarized below. We will also include in the prospectus supplement information, where applicable, material United States federal income tax considerations relating to the securities.

We may offer and sell, and any selling securityholders may offer for resale, from time to time, in one or more offerings:

- shares of our common stock;
- shares of preferred stock;
- debt securities, in one or more series; and/or
- warrants to purchase any of the securities listed above.

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

DESCRIPTION OF CAPITAL STOCK

The following is a description of certain provisions of our amended and restated certificate of incorporation and bylaws, both of which were adopted in connection with our initial public offering in June 2017, and certain provisions of our outstanding options and the Delaware General Corporation Law, or DGCL. The following description does not purport to be complete and is subject to, and qualified in its entirety by reference to, the forms of our amended and restated certificate of incorporation and amended and restated bylaws, the forms of stock option agreements filed as exhibits to the registration statement, of which this prospectus forms a part, and the terms and provisions of the DGCL. For more complete information, you should carefully review the forms of our amended and restated certificate of incorporation and amended and restated bylaws and stock option agreements, which have been filed with the SEC as exhibits to our registration statement of which this prospectus forms a part and which may be obtained as described below under “Where You Can Find More Information.”

Our authorized capital stock consists of 250,000,000 shares of common stock, par value \$0.001 per share, our “common stock,” and 25,000,000 shares of preferred stock, par value \$0.001 per share, our “preferred stock”.

As of September 14, 2018, there were 66,804,758 shares of our common stock outstanding, held of record by 165 stockholders, which included no issued but unvested restricted shares, and no shares of our preferred stock outstanding.

Common Stock

Under our amended and restated certificate of incorporation and amended and restated bylaws, holders of our common stock are entitled to one vote per share on all matters submitted to a vote of our common stockholders and do not have cumulative voting rights in the election of directors. This means that, subject to any rights of holders of outstanding shares of our preferred stock, if any, to elect or vote in the election of directors, the holders of a majority of the outstanding shares of our common stock can elect all of the directors standing for election by holders of our common stock and the holders of the remaining outstanding shares of our common stock are not able to elect any such directors. Under the terms of our amended and restated certificate of incorporation and our amended and restated bylaws, holders of our common stock do not have any conversion rights with respect to our common stock, nor is our common stock subject to any redemption or sinking provisions.

Holders of common stock are entitled to share ratably in any common stock dividends that may be declared by the board of directors out of legally available funds, subject to any preferential rights of our preferred stockholders, if any, to receive dividends and the terms of any existing or future agreements between us and our lenders. We presently intend to retain all available cash, if any, for use in the operation and expansion of our business and we therefore do not anticipate paying cash dividends on our common stock in the foreseeable future. In the event of our liquidation, dissolution or winding up, common stockholders are entitled to share ratably in all assets legally available for distribution to our common stockholder after payment of or provision for all of our debts and other liabilities, and subject to any preferential rights of our preferred stock to receive distributions in the event of our liquidation, distribution or winding up.

Preferred Stock

Our board of directors is authorized, without vote or action by the stockholders, to issue from time to time up to an aggregate of 25,000,000 shares of preferred stock in one or more series and to fix or alter the designations, preferences, rights and any qualifications, limitations or restrictions of the shares of each of these series, including, if applicable, the dividend rights and preferences, conversion rights, voting rights, terms and rights of redemption, including without limitation sinking fund provisions, redemption price or prices, liquidation rights and preferences, and the number of shares constituting any series. The issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control of us without further action by our

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stockholders and may adversely affect the dividend, liquidation and voting and other rights of the holders of common stock. The issuance of preferred stock with voting and conversion rights may adversely affect the voting power of the holders of common stock, including the loss of voting control to others. We currently have no plans to issue any shares of preferred stock.

We believe that the ability to issue preferred stock without the expense and delay of a special stockholders' meeting provides us with increased flexibility in structuring possible future financings and acquisitions, and in meeting other corporate needs that might arise. This also permits the board of directors to issue preferred stock containing terms which could impede the completion of a takeover attempt. This could discourage an acquisition attempt or other transaction which stockholders might believe to be in their best interests or in which they might receive a premium for their stock over the then market price of the stock.

Anti-takeover Provisions of Delaware Law, Our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

The provisions of the DGCL, our amended and restated certificate of incorporation and our amended and restated bylaws may have the effect of delaying, deferring or discouraging another person from acquiring control of us by means of a tender offer, a proxy contest or otherwise, or removing incumbent officers and directors. These provisions, some of which are described below, may discourage certain types of coercive takeover practices and takeover bids that our board of directors may consider inadequate and to encourage any person seeking to acquire control of us to first negotiate with our board of directors. We believe the benefits of increased protection of our ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweighs the disadvantages of discouraging takeover or acquisition proposals because, among other things, negotiation of these proposals could result in an improvement of their terms.

Classified Board

Our amended and restated certificate of incorporation provides that subject to the rights of holders of any one or more series of preferred stock to elect one or more directors, the board shall be divided into three (3) classes, with the intention that each class consist of approximately one-third of the total number of our directors. The initial term of the directors who are members of Class I will expire at the first annual meeting of stockholders following the closing of our initial public offering in June 2017, the initial term of the directors who are members of Class II will expire at the second annual meeting of stockholders following the closing of our initial public offering in June 2017, and the initial term of the directors who are members of Class III will expire at the third annual meeting of stockholders following the closing of our initial public offering in June 2017. At each annual meeting of stockholders, commencing with the first annual meeting of stockholders following the closing of our initial public offering in June 2017, each of the successors elected to replace the directors of a class whose term expires at such annual meeting shall be elected to hold office until the third annual meeting next succeeding his or her election and until his or her respective successor shall have been duly elected and qualified. Our stockholders elect only one class of directors each year. We believe that classification of our board of directors helps to assure the continuity of our business strategies and policies. The classified board provision could have the effect of making the replacement of incumbent directors more time consuming and difficult. At least two annual meetings of our stockholders generally are required to effect a change in a majority of our board of directors.

Removal of Directors; Filling Vacancies and Newly Created Directorships

Our amended and restated certificate of incorporation and amended and restated bylaws provide that subject to any limitations imposed by law and the rights of the holders of any series of our preferred stock, the board of directors or any individual director may be removed from office by our stockholders only for cause. Subject to the rights of holders of any series of outstanding preferred stock, vacancies in the board and newly created directorships shall, unless otherwise provided by law, be filled solely by the affirmative vote of a majority of

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directors then in office, or by a sole remaining director, and shall not be filled by stockholders. Our board of directors currently includes a total of seven directors. Our board of directors has the power to fix the number of directors within a range specified in our amended and restated bylaws.

No Written Consent of Stockholders

Our amended and restated certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting.

Special Meetings of Stockholders

Our amended and restated certificate of incorporation provides that special meetings of stockholders may only be called by the chairman of our board of directors, our chief executive officer, or our board of directors. In addition, our amended and restated bylaws prohibit the conduct of any business at a special meeting other than as specified in the notice of such meeting.

Advance Notice Requirements and Procedures

Our amended and restated bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder nominations and proposals must be timely given in writing to our secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not later than the ninetieth (90th) day nor earlier than the one hundred twentieth (120th) day prior to the first anniversary of the annual meeting for the preceding year. The notice must contain certain information specified in the bylaws. These provisions may have the effect of precluding the nomination of candidates for election as directors and the conduct of certain business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company.

Amendment to Certificate of Incorporation and Bylaws

Our amended and restated certificate of incorporation provides that the affirmative votes of the holders of at least seventy-five percent (75%) of the voting power of all of the then outstanding shares of our capital stock entitled to vote generally in the election of directors, voting together as a single class, are required to amend certain provisions of our certificate of incorporation, including provisions relating to the size of our board of directors, term and classification of directors, removal of directors, filling board vacancies and newly-created directorships, special meetings of stockholders, shareholder action by written consent, limitation of liability and indemnification, and amendment of the certificate of incorporation and bylaws.

The affirmative votes of the holders of at least seventy-five percent (75%) of the voting power of all of the then-outstanding shares of our voting stock are required to amend or repeal our bylaws. In addition, our amended and restated bylaws may be amended by our board of directors.

Blank Check Preferred Stock

Our amended and restated certificate of incorporation permits our board of directors, without vote or action by the stockholders, to issue from time to time up to an aggregate of 25,000,000 shares of preferred stock in one or more series and to fix or alter the number of shares and other terms and provisions of each such series, which may include voting rights, dividend rights and preferences, rights to convert to common stock or other securities, and liquidation rights and preferences. The existence of authorized but unissued shares of preferred stock may

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enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of us or our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting, economic or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amounts and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Section 203 of the DGCL

We are subject to the provisions of Section 203 of the DGCL, as amended. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. A “business combination” includes, among other things, a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. An “interested stockholder” is, in general, a person who, together with affiliates and associates, owns, or did own within three years prior to the determination of interested stockholder status, 15 percent or more of the corporation’s voting stock.

Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85 percent of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder), shares owned by persons who are directors and also officers, and employee stock plans, in some instances; or
- at or after the time the stockholder became interested, the business combination was approved by the board of directors of the corporation and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least 66 2/3 percent of the outstanding voting stock which is not owned by the interested stockholder.

A Delaware corporation may “opt out” of these provisions with an express provision in its original certificate of incorporation or an express provision in its certificate of incorporation or bylaws resulting from a stockholders’ amendment approved by at least a majority of the outstanding voting shares. We have not opted out of these provisions. As a result, mergers or other takeover or change in control attempts of us may be discouraged or prevented.

Delaware as Sole and Exclusive Forum

Our amended and restated certificate of incorporation provides that, unless a majority of our board of directors consents in writing to an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another state court located within the State of Delaware, or, if no court located within the State of Delaware has jurisdiction, the federal district court for the District of Delaware)

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shall, to the fullest extent permitted by law, be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of us, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (iii) any action asserting a claim against us arising pursuant to any provision of the DGCL, as amended, or our certificate of incorporation or bylaws, or (iv) any action asserting a claim against us or any of our directors, officers or employees governed by the internal affairs doctrine of the State of Delaware.

NASDAQ Global Select Market Listing

Our common stock is listed on The NASDAQ Global Select Market under the symbol “ATNX”.

Registration Rights

An entity affiliated with Perceptive Advisors LLC, or Perceptive, purchased an aggregate of 2,679,528 of shares of our common stock at a price of \$18.66 per share, and a warrant to purchase up to an additional 425,000 shares of our common stock at a price of \$18.66 per share of common stock. In addition, in connection with such offering, we entered into a registration rights agreement with Perceptive. Under the registration rights agreement, we agreed that, Perceptive may demand that we register their shares of our common stock for resale under the Securities Act, and we would be obligated to effect such registration no later than 90 days after September 14, 2018. Our registration obligations under this registration rights agreement cover all shares now held or acquired by exercise of the warrant, will continue in effect for up to five years.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, Inc.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplements, summarizes the material terms and provisions of the debt securities that we or any selling securityholders may offer under this prospectus. While the terms we have summarized below will generally apply to any future debt securities 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 we offer under a prospectus supplement may differ from the terms we describe below. As of the date of this prospectus, we have no outstanding registered debt securities.

As used in this prospectus, debt securities means the debentures, notes, bonds, and other evidences of indebtedness that we may issue from time to time as either senior or subordinated debt securities, which may be convertible into, or exchangeable for, shares of our common stock or other securities of the company on the terms applicable to such securities. If issued, our debt securities would be issued under an indenture between us and a trustee to be identified prior to the issuance of such debt securities. A form of such indenture is filed as an exhibit to this prospectus. However, the indenture applicable to any issuance of our debt securities may differ from such form. Consequently, any indenture applicable to the issuance of our debt securities will be filed as an exhibit to the prospectus supplement relating to such issuance and any differences between the form of indenture filed with this prospectus and the indenture filed with a prospectus supplement will be disclosed in such prospectus supplement. Any indenture we issue will be subject to, and governed by, the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act.

The following summaries of material provisions of the debt securities and indentures are subject to, and qualified in their entirety by reference to, all the provisions of the indenture applicable to a particular series of debt securities, and all supplements thereto. We urge you to read the applicable prospectus supplements related to the debt securities that we sell under this prospectus, as well as the complete indentures that contain the terms of the debt securities. Except as we may otherwise indicate, the terms of the senior and the subordinated indentures are identical.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and set forth or determined in the manner provided in an officers' certificate or by a supplemental indenture. Debt securities may be issued in separate series without limitation as to aggregate principal amount. We may specify a maximum aggregate principal amount for the debt securities of any series. In addition, the particular terms of each series of debt securities will be described in a prospectus supplement relating to such series, including any pricing supplement. The prospectus supplement will set forth, among other things:

- the title;
- the principal amount being offered, and, if a series, the total amount authorized and the total amount outstanding;
- any limit on the amount that may be issued;
- whether or not we will issue the series of debt securities in global form and, if so, the terms and who the depository will be;
- the maturity date;
- whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a U.S. person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;
- the annual interest rate, which may be fixed or variable, or the method for determining the rate, 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;

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- the terms of the subordination of any series of subordinated debt, if applicable;
- the place where payments will be payable;
- restrictions on transfer, sale or other assignment, if any;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- the date, if any, after which, the conditions upon which, and the price at which we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions, and any other applicable terms of those redemption provisions;
- the date, if any, on which, and the price 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;
- whether the indenture will restrict our ability and/or the ability of our subsidiaries to, among other things:
 - incur additional indebtedness;
 - issue additional securities;
 - create liens;
 - pay dividends and make distributions in respect of our capital stock and the capital stock of our subsidiaries;
 - redeem capital stock;
 - place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;
 - make investments or other restricted payments;
 - sell or otherwise dispose of assets;
 - enter into sale-leaseback transactions;
 - engage in transactions with stockholders and affiliates;
 - issue or sell stock of our subsidiaries; or
 - effect a consolidation or merger;
- whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;
- information describing any book-entry features;
- provisions for a sinking fund purchase or other analogous fund, if any;
- whether the debt securities are to be offered at a price such that they will be deemed to be offered at an "original issue discount" as defined in paragraph (a) of Section 1273 of the Internal Revenue Code;
- the procedures for any auction and remarketing, if any;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- if other than dollars, the currency in which the series of debt securities will be denominated; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any events of default that are in addition to those described in this prospectus or any covenants provided with respect to the debt securities that are in addition to those described above, and any terms that may be required by us or advisable under applicable laws or regulations or advisable in connection with the marketing of the debt securities.

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, our preferred stock or other securities (including securities of a third-party). We will include provisions as to 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, our preferred stock or other securities (including securities of a third-party) 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 indentures will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the indentures or the debt securities, as appropriate. If the debt securities are convertible into or exchangeable for our other securities or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities that the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.

Events of Default under the Indenture

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

- if we fail to pay interest when due and payable and our failure continues for 90 days and the time for payment has not been extended;
- if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable at maturity, upon redemption or repurchase or otherwise, and the time for payment has not been extended;
- if we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive notice from the trustee or we and the trustee receive notice from the 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.

We will describe in each applicable prospectus supplement any additional events of default relating to the relevant series of debt securities.

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, 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 unpaid principal, premium, if any, 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.

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Subject to the terms of the indentures, 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 or security satisfactory to it against any loss, liability or expense. 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.

The indentures provide that if an event of default has occurred and is continuing, the trustee will be required in the exercise of its powers to use the degree of care that a prudent person would use in the conduct of its own affairs. The trustee, however, may refuse to follow any direction that conflicts with law or the indenture, or that the trustee determines is unduly prejudicial to the rights of any other holder of the relevant series of debt securities, or that would involve the trustee in personal liability. Prior to taking any action under the indentures, the trustee will be entitled to indemnification against all costs, expenses and liabilities that would be incurred by taking or not taking such action.

A holder of the debt securities of any series will have the right to institute a proceeding under the indentures 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, and such holders have offered reasonable indemnity to the trustee or security satisfactory to it against any loss, liability or expense or to be incurred in compliance with instituting the proceeding as trustee; 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, or other defaults that may be specified in the applicable prospectus supplement.

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

The indentures provide that if a default occurs and is continuing and is actually known to a responsible officer of the trustee, the trustee must mail to each holder notice of the default within the earlier of 90 days after it occurs and 30 days after it is known by a responsible officer of the trustee or written notice of it is received by the trustee, unless such default has been cured or waived. Except in the case of a default in the payment of principal or premium of or interest on any debt security or certain other defaults specified in an indenture, the trustee shall be protected in withholding such notice if and so long as the board of directors, the executive committee or a trust committee of directors, or responsible officers of the trustee, in good faith determine that withholding notice is in the best interests of holders of the relevant series of debt securities.

Modification of Indenture; Waiver

Subject to the terms of the indenture for any series of debt securities that we may issue, we and the trustee may change an indenture without the consent of any holders with respect to the following specific matters:

- to fix any ambiguity, defect or inconsistency in the indenture;
- to comply with the provisions described above under “Description of Debt Securities—Consolidation, Merger or Sale”;
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act;
- 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 provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided under “Description of Debt Securities,” 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 hereunder by a successor trustee;
- to provide for uncertificated debt securities and to make all appropriate changes for such purpose;
- to add to our covenants such new covenants, restrictions, conditions or provisions for the benefit of the holders, 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 to us in the indenture; or
- to change anything that does not adversely affect the interests of any holder of debt securities of any series in any material respect.

In addition, under the indentures, 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, subject to the terms of the indenture for any series of debt securities that we may issue or otherwise provided in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may only make the following changes with the consent of each holder of any outstanding debt securities affected:

- extending the stated maturity of the series of debt securities;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption or repurchase 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, subject to the terms of the indenture and any limitation otherwise provided in the prospectus supplement applicable to a particular series of debt securities, 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:

- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- maintain paying agencies;

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- hold monies for payment in trust;
- recover excess money held by the trustee;
- 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 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 otherwise specify in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indentures provide 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 another depository named by us and identified in a prospectus supplement with respect to that series. See “Legal Ownership of Securities” below for a further description of the terms relating to any book-entry securities.

At the option of the holder, subject to the terms of the indentures 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 indentures 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 make 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 and is under no

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obligation to exercise any of the powers given it by the indentures 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. However, 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.

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

Ranking Debt Securities

The subordinated debt securities will be unsecured and will be subordinate and junior in priority of payment to certain other indebtedness to the extent described in a prospectus supplement. The subordinated indenture does not limit the amount of subordinated debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

The senior debt securities will be unsecured and will rank equally in right of payment to all our other senior unsecured debt. The senior indenture does not limit the amount of senior debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

DESCRIPTION OF WARRANTS

We may issue, and any selling security holders may offer for resale, warrants for the purchase of common stock, preferred stock or debt securities. We may issue warrants independently or together with any offered securities. The warrants may be attached to or separate from those offered securities. We will issue the warrants under one or more warrant agreements to be entered into between us and a warrant agent to be named in the applicable prospectus supplement. The warrant agent will act solely as our agent in connection with the warrants and will not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants.

The prospectus supplement relating to any warrants that we may offer, or which are offered for resale by selling security holders, will contain the specific terms of the warrants. These terms may include the following:

- the title of the warrants;
- the price or prices at which the warrants will be issued;
- the designation, amount and terms of the securities for which the warrants are exercisable;
- the designation and terms of the other securities, if any, with which the warrants are to be issued and the number of warrants issued with each other security;
- the aggregate number of warrants;
- any provisions for adjustment of the number or amount of securities receivable upon exercise of the warrants or the exercise price of the warrants;
- the price or prices at which the securities purchasable upon exercise of the warrants may be purchased;
- if applicable, the date on and after which the warrants and the securities purchasable upon exercise of the warrants will be separately transferable;
- a discussion of any material U.S. federal income tax considerations applicable to the exercise of the warrants;
- the date on which the right to exercise the warrants will commence, and the date on which the right will expire;
- the maximum or minimum number of warrants that may be exercised at any time;
- information with respect to book-entry procedures, if any; and
- any other terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Exercise of Warrants

Each warrant will entitle the holder of the warrant to purchase for cash the amount of common stock, preferred stock or debt securities at the exercise price stated or determinable in the applicable prospectus supplement for the warrants. Warrants may be exercised at any time up to the close of business on the expiration date shown in the applicable prospectus supplement, unless otherwise specified in such prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void. Warrants may be exercised as described in the applicable prospectus supplement. When the warrant holder makes the payment and properly completes and signs the warrant certificate at the corporate trust office of the warrant agent or any other office indicated in the prospectus supplement, we will, as soon as possible, forward the common stock, preferred stock or debt securities that the warrant holder has purchased. If the warrant holder exercises the warrant for less than all of the warrants represented by the warrant certificate, we will issue a new warrant certificate for the remaining warrants.

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The description in the applicable prospectus supplement of any warrants we offer will not necessarily be complete and will be qualified in its entirety by reference to the applicable warrant agreement and warrant certificate, which will be filed with the SEC if we offer warrants. For more information on how you can obtain copies of any warrant certificate or warrant agreement if we offer warrants, see “Where You Can Find More Information” beginning on page 30 of this prospectus. We urge you to read the applicable warrant certificate, the applicable warrant agreement and any applicable prospectus supplement in their entirety.

DESCRIPTION OF UNITS

The following description, together with the additional information we may include in any applicable prospectus supplement, summarizes the material terms and provisions of the units that we may offer, or that any selling security holders may offer for resale, under this prospectus. While the terms we have summarized below will apply generally to any units offered under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a Current Report on Form 8-K that we file with the SEC, the form of unit agreement that describes the terms of the series of units being offered, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we sell, or which are offered for resale by selling security holders, under this prospectus, as well as the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

We may issue, and any selling security holders may offer for resale, units comprised of one or more shares of common stock and warrants in any combination. Each unit would be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit would have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock,” “Description of Debt Securities,” and “Description of Warrants” will apply to each unit and to any common shares, debt securities or warrants included in each unit, respectively.

Unit Agent

The name and address of the unit agent for any units we offer will be set forth in the applicable prospectus supplement.

Issuance in Series

We may issue units in such amounts and in such numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act

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as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

Title

We, the unit agents and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purpose and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary.

SELLING SECURITYHOLDERS

Information about selling securityholders, if any, will be set forth in a prospectus supplement.

PLAN OF DISTRIBUTION

We may sell the securities being offered hereby in one or more of the following ways from time to time:

- through underwriters for resale to purchasers;
- through dealers to purchasers;
- through agents to purchasers;
- directly to one or more purchasers; or
- through a combination of any of these methods of sale.

We may also sell the 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 the NASDAQ Global Select Market 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
- to or through a market maker other than on the NASDAQ Global Select Market or such other securities exchanges or quotation or trading services.

We may directly solicit offers to purchase securities, or agents may be designated to solicit such offers. We will, in the prospectus supplement relating to such offering, name any agent that could be viewed as an underwriter under the Securities Act, and describe any commissions that we must pay. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis.

The distribution of the securities may be effected from time to time in one or more transactions:

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

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

- the name of the agent or any underwriters;
- the public offering or purchase price and the proceeds we will receive from the sale of the securities;
- any discounts and commissions to be allowed or re-allowed or paid to the agent or underwriters;
- all other items constituting underwriting compensation;
- any discounts and commissions to be allowed or re-allowed or paid to dealers; and
- any exchanges on which the securities will be listed.

If any underwriters or agents are utilized in the sale of the securities in respect of which this prospectus is delivered, we will enter into an underwriting agreement or other agreement with them at the time of sale to them, and we will set forth in the prospectus supplement relating to such offering the names of the underwriters or agents and the terms of the related agreement with them.

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If a dealer is utilized in the sale of the securities in respect of which this prospectus is delivered, we will sell such securities to the dealer, as principal. The dealer may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale.

Remarketing firms, agents, underwriters, dealers and other persons may be entitled under agreements which they may enter into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

If so indicated in the applicable prospectus supplement, we will authorize underwriters or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in the prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in the prospectus supplement. Institutions with whom the contracts, when authorized, may be made, include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except that:

- the purchase by an institution of the securities covered under that contract shall not, at the time of delivery, be prohibited under the laws of the jurisdiction to which that institution is subject; and
- if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

Certain agents, underwriters and dealers, and their associates and affiliates may be customers of, have borrowing relationships with, engage in other transactions with, or perform services (including investment banking services) for us or one or more of our respective affiliates in the ordinary course of business.

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may over-allot in connection with the offering, creating a short position for their own accounts. In addition, to cover overallocments or to stabilize the price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in three business days, unless the parties to any such trade expressly agree otherwise. The applicable prospectus supplement may provide that the original issue date for your securities may be more than three scheduled business days after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the third business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle more than three scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

In compliance with the guidelines of the Financial Industry Regulatory Authority, or FINRA, the aggregate maximum discount, commission or agency fees or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer will not exceed 8% of the proceeds from any offering pursuant to this prospectus and any applicable prospectus supplement.

LEGAL MATTERS

Simpson Thacher & Bartlett LLP will be passing upon matters of United States law for us with respect to securities offered by this prospectus and any accompanying prospectus supplement.

EXPERTS

The consolidated financial statements incorporated in this Prospectus by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2017, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report (which report expresses an unqualified opinion on the consolidated financial statements and includes an explanatory paragraph regarding a going concern uncertainty), which is incorporated herein by reference. Such consolidated financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference information into this prospectus and any accompanying prospectus supplement from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC, except for information “furnished” under Items 2.02 or 7.01 and any related Items 9.01 on Form 8-K or other information “furnished” to the SEC which is not deemed filed and not incorporated in this prospectus, until the termination of the offering of securities described in this prospectus:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed with the SEC on March 26, 2018;
- Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 30, 2018, to the extent incorporated into our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed with the SEC on March 26, 2018;
- Quarterly Reports on Form 10-Q for the quarterly periods ended June 30, 2018, March 31, 2018, September 30, 2017 and June 30, 2017;
- Current reports on Form 8-K filed with the SEC on various dates; and
- The description of our common stock contained in our registration statement on Form 8-A, filed with the SEC on June 12, 2017, and any amendment or report filed for the purpose of updating such description.

We also incorporate by reference any future filings (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 unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of such registration statement, until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus, which will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later-filed document modify or replace such earlier statements. Foamix will furnish without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request, a copy of any or all of the documents incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to:

Athenex, Inc.
1001 Main Street, Suite 600
Buffalo, NY 14203
(716) 427-2950

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>. Copies of certain information filed by us with the SEC are also available on our website at www.athenex.com. Our website is not a part of this prospectus and is not incorporated by reference in this prospectus. You may also read and copy any document we file at the SEC's Public Reference Room, 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room.

This prospectus is part of a registration statement we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and our consolidated subsidiary and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

ATHENEX, INC.

Common Stock

Preferred Stock

Debt Securities

Warrants

Units

PROSPECTUS

September 24, 2018

We have not authorized any dealer, salesperson or other person to give any information or represent anything not contained in or incorporated by reference into this prospectus. You must not rely on any unauthorized information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus does not offer to sell any shares in any jurisdiction where it is unlawful. Neither the delivery of this prospectus, nor any sale made hereunder, shall create any implication that the information in this prospectus is correct after the date hereof.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The expenses relating to the registration of the securities will be borne by the registrant. Such expenses are estimated to be as follows:

Item		
SEC Registration fee	\$	*
FINRA filing fee		**
Exchange listing fees		**
Printing and mailing expenses		**
Legal fees and expenses		**
Accounting fees and expenses		**
Miscellaneous		**
Total	\$	**

* Deferred in accordance with Rule 456(b) and Rule 457(r) under the Securities Act of 1933, as amended (the “Securities Act”).

** The amount of securities and number of offerings are indeterminable, and the expenses cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers

Under Section 145 of the Delaware General Corporation Law, we can indemnify our directors and officers against liabilities they may incur in such capacities, including liabilities under the Securities Act of 1933, as amended, or the Securities Act. Our amended and restated certificate of incorporation (Exhibit 3.1 to this registration statement) provides that we must indemnify our directors and officers to the fullest extent permitted by law and requires us to pay expenses incurred in defending or other participating in any proceeding in advance of its final disposition upon our receipt of an undertaking by the director or officer to repay such advances if it is ultimately determined that the director or officer is not entitled to indemnification. Our certificate of incorporation further provides that rights conferred under such certificate of incorporation do not exclude any other right such persons may have or acquire under the certificate of incorporation, the bylaws, any statute, agreement, vote of stockholders or disinterested directors or otherwise.

The amended and restated certificate of incorporation also provides that, pursuant to Delaware law, our directors shall not be liable for monetary damages for breach of the directors’ fiduciary duty of care to us and our stockholders. This provision in the amended and restated certificate of incorporation does not eliminate the duty of care, and in appropriate circumstances equitable remedies such as injunctive or other forms of non-monetary relief will remain available under Delaware law. In addition, each director will continue to be subject to liability for breach of the director’s duty of loyalty to us for acts or omissions not in good faith or involving intentional misconduct, or knowing violations of law, for actions leading to improper personal benefit to the director, and for payment of dividends or approval of stock repurchases or redemptions that are unlawful under Delaware law. The provision also does not affect a director’s responsibilities under any other law, such as the federal securities laws or state or federal environmental laws. We also maintain directors’ and officers’ liability insurance.

In addition, we have agreements to indemnify our directors and certain of our officers in addition to the indemnification provided for in the amended and restated certificate of incorporation. These agreements, among other things, indemnify our directors and some of our officers for certain expenses (including attorney’s fees), judgments, fines and settlement amounts incurred by such person in any action or proceeding, including any

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action by or in our right, on account of services by that person as a director or officer of our company or as a director or officer of our subsidiary, or as a director or officer of any other company or enterprise that the person provides services to at our request.

The underwriting agreement(s) that the Registrant may enter into may provide for indemnification by any underwriters of the Registrant, its directors, its officers who sign the registration statement and the Registrant's controlling persons for some liabilities, including liabilities arising under the Securities Act.

Item 16. Exhibits

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

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

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

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(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 Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(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 the undertakings set forth in paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) above do not apply if the registration statement is on Form S-3 or Form F-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act that are incorporated by reference in the registration statements or is contained in a form of prospectus filed pursuant to Rule 424(b) that is a part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, as amended, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act that is incorporated by reference in this 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.

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(c) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(1) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(2) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(d) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser: (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424; (ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant; (iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and (iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(e) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by a registrant for expenses incurred or paid by a director, officer, or controlling person 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.

(f) The undersigned registrant hereby undertakes that: (i) for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of the registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall of 1933 be deemed to be part of the registration statement as of the time it was declared effective; and (ii) for the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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(g) If and when applicable, the undersigned registrant, hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Act.

EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description</u>
1.1*	Form of Underwriting Agreement for common stock, preferred stock, debt securities or warrants
3.1†	Amended and Restated Certificate of Incorporation of the Company
3.1.1†	Certificate of Amendment of Amended and Restated Certificate of the Company
3.1.2†	Certificate of Amendment of Amended and Restated Certificate of the Company
3.2†	Amended and Restated Bylaws of the Company
4.1*	Form of Specimen Common Stock Certificate, if any
4.2*	Form of Specimen Preferred Stock Certificate, if any
4.3*	Form of Debt Securities, if any
4.4*	Form of Warrant Agreement and Warrant Certificate, if any
4.5*	Form of Units, if any
5.1	Opinion of Simpson Thacher & Bartlett LLP
23.1	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm
23.2	Consent of Simpson Thacher & Bartlett LLP (included in Exhibit 5.1)
24.1	Power of Attorney (included on signature pages hereto)
25.1**	Form T-1 Statement of Eligibility of Trustee under Debt Indenture.
<hr/>	
*	To be filed by amendment.
**	To be filed in accordance with the requirements of Section 305(b)(2) of the Trust Indenture Act of 1939, as amended, and the applicable rules thereunder.
†	Incorporated by reference to our Registration Statement on Form S-1 (File No. 333-217928), initially filed with the Securities and Exchange Commission on May 12, 2017.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Buffalo, State of New York, on September 24, 2018.

ATHENEX, INC.

By: /s/ Johnson Y.N. Lau

Johnson Y.N. Lau

Chief Executive Officer and Board Chairman

KNOW ALL PERSONS BY THESE PRESENTS, the undersigned hereby constitute and appoint Johnson Y.N. Lau and Teresa Bair and each of them, his true and lawful attorney-in-fact and agent, each with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, or any related registration statement filed pursuant to Rule 462(b) under the Securities Act, and to file the same, with exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has executed this power of attorney as of the date indicated.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement on Form S-3 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/ Johnson Y.N. Lau</u> Johnson Y.N. Lau	Chief Executive Officer and Board Chairman (Principal Executive Officer)	September 24, 2018
<u>/s/ Randoll Sze</u> Randoll Sze	Chief Financial Officer	September 24, 2018
<u>/s/ Kim Campbell</u> Kim Campbell	Director	September 24, 2018
<u>/s/ Manson Fok</u> Manson Fok	Director	September 24, 2018
<u>/s/ Benson Tsang</u> Benson Tsang	Director	September 24, 2018
<u>/s/ Jinn Wu</u> Jinn Wu	Director	September 24, 2018
<u>/s/ Song-Yi Zhang</u> Song-Yi Zhang	Director	September 24, 2018
<u>/s/ Sheldon Trainor-Degirolo</u> Sheldon Trainor-Degirolo	Director	September 24, 2018

Simpson Thacher & Bartlett

盛信律师事务所

ICBC TOWER, 35TH FLOOR
3 GARDEN ROAD, CENTRAL
HONG KONG

 TELEPHONE: +852-2514-7600

FACSIMILE: +852-2869-7694

September 24, 2018

Athenex, Inc.
1001 Main Street, Suite 600
Buffalo, NY 14203

Ladies and Gentlemen:

We have acted as counsel to Athenex, Inc., a Delaware corporation (“the Company”), in connection with the Registration Statement on Form S-3 (the “Registration Statement”), filed by the Company with the Securities and Exchange Commission (the “Commission”) under the Securities Act of 1933, as amended (the “Act”), relating to (i) shares of common stock of the Company, \$0.001 par value per share (the “Common Stock”); (ii) shares of preferred stock of the Company, \$0.001 par value per share (the “Preferred Stock”); (iii) debt securities, which may be either senior (“Senior Debt Securities”) or subordinated (the “Subordinated Debt Securities”) (collectively, the “Debt Securities”); (iv) warrants to purchase Common Stock, Preferred Stock or Debt Securities (the “Warrants”); (v) units comprised of one or more Debt Securities, shares of Common Stock, shares of Preferred Stock, and Warrants, in any combination (the “Units”), and (vi) Common Stock, Preferred Stock and Debt Securities that may be issued upon exercise of Warrants. The Common Stock, the Preferred Stock, the Debt Securities, the Warrant and the Units are hereinafter referred to collectively as the “Securities.” The Securities may be issued and sold or delivered from time to time as set forth in the Registration Statement, any amendment thereto, the prospectus contained therein (the “Prospectus”) and the supplements to the Prospectus and pursuant to Rule 415 under the Securities Act.

The Debt Securities will be issued under an Indenture (the “Indenture”) to be entered into between the Company and a financial institution identified therein as trustee (the “Trustee”). The Warrants will be issued pursuant to one or more warrant agreements to be entered into between the Company and either a financial institution identified therein as warrant agent (the “Warrant Agent”) or the purchasers of such Warrants (in each case, a “Warrant Agreement”). Each party to a Warrant Agreement other than the Company is referred to hereinafter as a “Counterparty.” The Units will be issued pursuant to one or more unit agreements to be entered into between the Company and either a financial institution identified therein as unit agent (the “Unit Agent”) or the purchasers of such Units (in each case, a “Unit Agreement”).

DANIEL FERTIG ADAM C. FURBER IAN C. HO ANTHONY D. KING CELIA C.L. LAM CHRIS K.H. LIN JIN HYUK PARK
KATHRYN KING SUDOL CHRISTOPHER K.S. WONG
RESIDENT PARTNERS

SIMPSON THACHER & BARTLETT, HONG KONG IS AN AFFILIATE OF SIMPSON THACHER & BARTLETT LLP WITH OFFICES IN:
NEW YORK BEIJING HOUSTON LONDON LOS ANGELES PALO ALTO SÃO PAULO SEOUL TOKYO WASHINGTON, D.C.

We have examined the Registration Statement and the exhibits filed therewith. We also have examined the originals, or duplicates or certified or conformed copies, of such corporate and other records, agreements, documents and other instruments and have made such other investigations as we have deemed relevant and necessary in connection with the opinions hereinafter set forth. As to questions of fact material to this opinion, we have relied upon certificates or comparable documents of public officials and of officers and representatives of the Company.

In rendering the opinions set forth below, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as duplicates or certified or conformed copies, and the authenticity of the originals of such latter documents. We also have assumed that (1) at the time of execution, authentication, issuance and delivery of the Debt Securities, the Indenture will be the valid and legally binding obligation of the Trustee; (2) at the time of execution, countersignature, issuance and delivery of any Warrants, the related Warrant Agreement will be validly and legally binding obligation of each Counterparty thereto; and (3) at the time of execution, issuance and delivery of the Units, the Unit Agreement will be the valid and legally binding obligation of the Unit Agent.

We have assumed further that at the time of execution, authentication, issuance and delivery of the Debt Securities, the indenture will have been duly authorized, executed and delivered by the Company. We have assumed further that at the time of execution, countersignature, issuance and delivery of any Warrants, the related Warrant Agreement will have been duly authorized, executed and delivered by the Company. We have assumed further that at the time of execution, issuance and delivery of the Units, the Unit Agreements will have been duly authorized, executed and delivered by the Company.

Based upon the foregoing, and subject to the qualifications, assumptions and limitations stated herein, we are of the opinion that:

1. With respect to the Common Stock, assuming (a) the taking by the Board of Directors of all necessary corporate action to authorize and approve the issuance of the Common Stock and (b) due issuance and delivery of the Common Stock, upon payment therefor in accordance with the applicable definitive underwriting agreement approved by the Board of the Directors of the Company, the Common Stock will be validly issued, fully paid and nonassessable.
2. With respect to the Preferred Stock, assuming (a) the taking by the Board of Directors of all necessary corporate action to authorize and approve the issuance of the Preferred Stock and (b) due filing of the Certificate of Designations and (c) due issuance and delivery of the Preferred Stock, upon payment therefor in accordance with the applicable definitive underwriting agreement approved by the Board of the Directors of the Company, the Preferred Stock will be validly issued, fully paid and nonassessable.

3. With respect to the Debt Securities, assuming (a) the taking of all necessary corporate action to approve the issuance and terms of any Debt Securities, the terms of the offering thereof and related matters by the Board of Directors of the Company, a duly constituted and acting committee of such Board or duly authorized officers of the Company (such Board of Directors, committee or authorized officers being referred to herein as the “Board”) and (b) the due execution, authentication, issuance and delivery of such Debt Securities, upon payment of the consideration therefor provided for in the applicable definitive purchase, underwriting or similar agreement approved by the Board and otherwise in accordance with the provisions of the Indenture and such agreement, such Debt Securities will constitute valid and legally binding obligations of the Company enforceable against the Company in accordance with their terms.
4. With respect to the Warrants, assuming (a) the taking by the Board of Directors of all necessary corporate action by the Board to approve the execution and delivery of a related Warrant Agreement and (b) the due execution, countersignature, issuance and delivery of such Warrants, upon payment of the consideration for such Warrants provided for in the applicable definitive purchase, underwriting or similar agreement approved by the Board and otherwise in accordance with the provisions of the applicable Warrant Agreement and such agreement, such Warrants will constitute valid and legally binding obligations of the Company enforceable against the Company in accordance with their terms.
5. With respect to the Units, assuming (a) the taking of all necessary corporate action by the Board to authorize and approve (1) the issuance and terms of the Units, (2) the execution and delivery of the Unit Agreement with respect to the Units and (3) the issuance and terms of the underlying Securities that are a component of the Units, the terms of the offering thereof and related matters and (b) the due execution, issuance and delivery of the Units and underlying Securities upon the payment of the consideration therefor provided for in the applicable definitive purchase, underwriting or similar agreement approved by the Board and in accordance with the provisions of the applicable Unit Agreement, such Units will constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms.

Our opinions set forth in paragraphs 3 through 5 above are subject to the effects of (i) bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar laws relating to or affecting creditors’ rights generally, (ii) general equitable principles (whether considered in a proceeding in equity or at law) and (iii) an implied covenant of good faith and fair dealing.

We do not express any opinion herein concerning any law other than the law of the State of New York, the federal law of the United States and the Delaware General Corporation Law (including the statutory provisions, all applicable provisions of the Delaware Constitution and reported judicial decisions interpreting the foregoing).

Athenex, Inc.

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September 24, 2018

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement and to the use of our name under the caption “Legal Matters” in the Prospectus included in the Registration Statement.

Very truly yours,

/s/ SIMPSON THACHER & BARTLETT
SIMPSON THACHER & BARTLETT

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated March 26, 2018 relating to the consolidated financial statements and financial statement schedule of Athenex, Inc. and subsidiaries (the “Company”) (which report expresses an unqualified opinion and includes an explanatory paragraph regarding a going concern uncertainty) appearing in the Annual Report on Form 10-K of Athenex, Inc. for the year ended December 31, 2017, and to the reference to us under the heading “Experts” in the Prospectus, which is part of this Registration Statement.

/s/ Deloitte & Touche LLP

Williamsville, New York
September 24, 2018