

MOMENTA PHARMACEUTICALS INC
 Form 424B5
 May 20, 2015

Use these links to rapidly review the document

[TABLE OF CONTENTS](#)

[TABLE OF CONTENTS](#)

[Table of Contents](#)

Filed Pursuant to Rule 424(b)(5)
 Registration No. 333-188227

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Maximum Offering Price Per Share	Maximum Aggregate Offering Price	Amount of Registration Fee(2)(3)
Common Stock, \$0.0001 par value	8,337,500	\$19.00	\$158,412,500	\$18,408

(1) Assumes exercise in full of the underwriters' option to purchase up to 1,087,500 additional shares of Common Stock.

(2) Calculated in accordance with Rule 457(r) under the Securities Act of 1933, as amended (the "Securities Act"). In accordance with Rules 456(b) and 457(r) under the Securities Act, this "Calculation of Registration Fee" table shall be deemed to update the "Calculation of Registration Fee" table in the Post-Effective Amendment No. 2 to Form S-3 (Reg. No. 333-188227).

(3) Momenta Pharmaceuticals, Inc. paid a registration fee of \$23,240 in connection with the filing of the Post-Effective Amendment No. 1 to Form S-3 (Reg. No. 333-188227) on February 13, 2015. Of the previously paid registration fee, \$14,525 has not been used and is being applied toward the registration fee due herewith.

Table of Contents

PROSPECTUS SUPPLEMENT

(To the Prospectus dated February 27, 2015)

7,250,000 Shares

Momenta Pharmaceuticals, Inc.

Common Stock

We are offering 7,250,000 shares of our common stock. Our common stock is listed on The NASDAQ Global Select Market under the symbol "MNTA." On May 19, 2015, the last reported sale price of our common stock was \$19.31 per share.

See "Risk Factors" beginning on page S-5 to read about factors you should consider before buying shares of our common stock.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement or accompanying prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public offering price	\$19.00	\$137,750,000
Underwriting discount(1)	\$ 1.14	\$ 8,265,000
Proceeds, before expenses, to Momenta Pharmaceuticals, Inc.	\$17.86	\$129,485,000

(1) See "Underwriting" beginning on page S-11 for additional information regarding underwriting compensation.

We have granted the underwriters a 30-day option to purchase up to an additional 1,087,500 shares from us at the public offering price less the underwriting discount.

The underwriters expect to deliver the shares against payment on May 26, 2015.

Goldman, Sachs & Co.

Stifel

J.P. Morgan

Prospectus Supplement dated May 19, 2015.

Table of Contents

TABLE OF CONTENTS

Prospectus Supplement

	Page
<u>About this Prospectus Supplement</u>	<u>S-ii</u>
<u>Prospectus Supplement Summary</u>	<u>S-1</u>
<u>Risk Factors</u>	<u>S-5</u>
<u>Special Note Regarding Forward-Looking Statements</u>	<u>S-7</u>
<u>Use of Proceeds</u>	<u>S-9</u>
<u>Price Range of Common Stock</u>	<u>S-9</u>
<u>Dividend Policy</u>	<u>S-9</u>
<u>Dilution</u>	<u>S-10</u>
<u>Underwriting</u>	<u>S-11</u>
<u>Legal Matters</u>	<u>S-19</u>
<u>Experts</u>	<u>S-19</u>
<u>Where You Can Find More Information; Incorporation by Reference</u>	<u>S-20</u>

Accompanying Prospectus

	Page
<u>About this Prospectus</u>	<u>1</u>
<u>Where You Can Find More Information; Incorporation by Reference</u>	<u>2</u>
<u>The Company</u>	<u>4</u>
<u>Risk Factors</u>	<u>5</u>
<u>Use of Proceeds</u>	<u>6</u>
<u>Ratio of Earnings to Fixed Charges</u>	<u>7</u>
<u>Description of Capital Stock</u>	<u>8</u>
<u>Description of Debt Securities</u>	<u>10</u>
<u>Description of Warrants</u>	<u>18</u>
<u>Global Securities</u>	<u>20</u>
<u>Selling Securityholders</u>	<u>23</u>
<u>Plan of Distribution</u>	<u>24</u>
<u>Legal Matters</u>	<u>25</u>
<u>Experts</u>	<u>25</u>

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus relate to the offering of our common stock. Before buying any of the common stock that we are offering, we urge you to carefully read this prospectus supplement and the accompanying prospectus, together with the information incorporated by reference as described under the heading "Where You Can Find More Information; Incorporation by Reference" in this prospectus supplement. These documents contain important information that you should consider when making your investment decision.

This document is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, as a "well-known seasoned issuer" as defined in Rule 405 under the Securities Act of 1933, as amended (the "Securities Act"), using a "shelf" registration process and consists of two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus dated February 27, 2015, including the documents incorporated by reference therein, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission, or SEC, before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. We have not, and the underwriters have not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. The distribution of this prospectus supplement and the offering of shares of our common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement must inform themselves about, and observe any restrictions relating to, the offering of shares of our common stock and the distribution of this prospectus supplement outside the United States. This prospectus supplement does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision.

Unless otherwise indicated, information contained in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference, concerning our industry

Table of Contents

and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from our own management estimates and research, as well as from industry and general publications, and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. In addition, assumptions and estimates of our and our industry's future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of important factors, including those described in "Risk Factors" in this prospectus supplement, the accompanying prospectus and in our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2015, which are incorporated by reference into this prospectus supplement. These and other important factors could cause our future performance to differ materially from our assumptions and estimates. See "Special Note Regarding Forward-Looking Statements."

MOMENTA and our logo are two of our trademarks that are used in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference. This prospectus supplement, the accompanying prospectus and the documents incorporated by reference also include trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or that the applicable owner will not assert its rights, to these trademarks and tradenames.

When we refer to "Momenta," "we," "our," "us" and the "Company" in this prospectus supplement and the accompanying prospectus, we mean Momenta Pharmaceuticals, Inc. and its subsidiary, unless otherwise specified.

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement or the accompanying prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock. For a more complete understanding of our company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference in this prospectus supplement and the accompanying prospectus, and the information included in any free writing prospectus that we have authorized for use in connection with this offering, including the information under the heading "Risk Factors" in this prospectus supplement on page S-5, the financial statements and related notes, and the other information that we incorporate by reference into this prospectus supplement, including the section "Risk Factors" in our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2015.

The Company

We are a biotechnology company focused on developing generic versions of complex drugs, biosimilars and novel therapeutics for oncology and autoimmune disease.

Recent Developments

Complex Generics:

Glatopa™, generic version of daily COPAXONE® 20 mg (glatiramer acetate injection)

On April 16, 2015, Glatopa was approved by the U.S. Food and Drug Administration, or the FDA, as the first and only "AP-rated," substitutable generic version of daily COPAXONE 20 mg. The Company earned a \$10.0 million milestone for the sole approval under its collaboration agreement with Sandoz AG and Sandoz Inc., or collectively, Sandoz.

On January 20, 2015, the United States Supreme Court vacated the 2013 decision of the Court of Appeals for the Federal Circuit, or the CAFC, which found several of the daily COPAXONE (20 mg/mL injection) patents held by Teva Pharmaceuticals Industries Ltd. and related entities, or collectively, Teva, invalid for being indefinite, including the one remaining patent which expires on September 1, 2015. At the request of the appeals court, all parties submitted abbreviated briefs on March 2, 2015. On April 16, 2015, upon FDA approval of Glatopa, Sandoz and Momenta sent the appeals court a request for an expedited decision with a full opinion to follow later. We expect the appeals court to issue a decision at any time. Prior to the earlier of the final resolution of the lawsuit (including all potential appeals) or September 2015, a launch of Glatopa would be at risk of the court finding that Glatopa infringes Teva's patent and, if Teva is ultimately successful, we and Sandoz could be liable for significant damages. In addition to the current lawsuit, Teva may seek to take additional legal actions to challenge FDA approval of Glatopa and prevent or delay the launch of Glatopa. Such actions may include appealing FDA denials of its prior Citizen Petitions in U.S. federal district court and seeking injunctive relief to reverse FDA approval of Glatopa. Such actions may also include seeking injunctive relief preventing launch in the existing patent litigation or the filing of additional patent infringement suits, which could delay the launch of Glatopa potentially for a significant period beyond September 2015.

For additional information about these and other possible actions, see the following important risks and uncertainties set forth under Part II, Item 1A. "Risk Factors" in our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2015: " *If Teva is*

Table of Contents

successful in the ongoing Copaxone patent litigation by enjoining the manufacture or sale of Glatopa by Sandoz or in otherwise asserting its alleged patent rights relating to the manufacturing and sale of Copaxone, Sandoz may not be able to launch Glatopa until September 2015, or we and Sandoz may have to pay significant damages if Sandoz launches before September 2015 and Glatopa is found to infringe Teva's patents;" " If Teva sues the FDA seeking to reverse the FDA's denial of its citizen petitions seeking to prevent the marketing approval of Glatopa, and is successful, Sandoz could be prohibited from launching or continuing to sell Glatopa and our business would be materially adversely affected;" " Teva may allege that we are infringing existing, additional issued or pending patents it holds. If this occurs we may expend substantial resources in resulting litigation, the outcome of which would be uncertain. Any unfavorable outcome in such litigation could delay the launch of Glatopa beyond September 2015, cause damages that reduce our contract profits or interrupt future sales of Glatopa and may have a material adverse effect on our business;" and " If efforts by manufacturers of branded products to delay or limit the use of generics or biosimilars are successful, our sales of generic and biosimilar products may suffer."

The ANDA for a three-times-a-week generic COPAXONE 40 mg (glatiramer acetate injection), submitted by Sandoz, is under FDA review.

Enoxaparin Sodium Injection

In the first quarter of 2015, Momenta earned \$2.7 million in product revenues from enoxaparin sodium injection based on Sandoz reported net sales of \$25.9 million.

The Company continues to pursue the patent infringement case related to Momenta's U.S. Pat. 7,575,886 against Amphastar Pharmaceuticals, Inc., or Amphastar, and Teva. In a 2012 decision, the CAFC vacated a preliminary injunction based on the Hatch Waxman "safe harbor" (Momenta Pharmaceuticals, Inc. vs. Amphastar Pharmaceuticals, Inc. Fed. Cir. Aug. 3, 2012). The safe harbor issue is on appeal. A CAFC hearing was held on May 4, 2015 and a decision is expected in 2015.

Biosimilars:

In February 2015, Momenta and Baxter International Inc. and certain of its related affiliates, or collectively, Baxter, initiated a randomized, double-blind, single-dose study in healthy volunteers to compare the pharmacokinetics, safety, tolerability and immunogenicity of M923, a biosimilar version of HUMIRA® (adalimumab), versus HUMIRA. The companies expect to have data from this study in the fourth quarter of 2015. The target date for the first regulatory submission for approval is 2017.

On February 16, 2015, Baxter terminated its license to M834, a biosimilar version of ORENCIA® (abatacept). Baxter also let expire its right to select additional targets for biosimilar development under the collaboration.

Momenta continues to develop M834 and its portfolio of early stage biosimilar candidates and is in active discussions with potential collaboration partners to assist in their development and commercialization.

Novel Drugs:

Necuparanib (novel oncology candidate)

Momenta's Phase 2 trial to evaluate the antitumor activity of necuparanib in combination with Abraxane® (nab-paclitaxel) plus gemcitabine, versus Abraxane plus gemcitabine alone,

Table of Contents

is currently enrolling patients. The Company expects to have clinical data available as early as the end of 2016 or in the first half of 2017.

Mature data from Momenta's Phase 1 study evaluating necuparanib in combination with Abraxane and gemcitabine in patients with metastatic pancreatic cancer will be presented at the upcoming ASCO meeting on June 1, 2015 in Chicago, IL.

Autoimmune Drugs:

Momenta's three novel autoimmune candidates are in preclinical development. These candidates include a hyper-sialylated IVIg (hsIVIg), a high potency alternative to IVIg, and two recombinant molecules: a Selective Immunomodulator of Fc receptors (SIF3) and an anti-FcRn monoclonal antibody. The recombinant molecules have been designed by leveraging the Company's knowledge of the anti-inflammatory effects of IVIg to maximize therapeutic benefit and patient convenience. Momenta believes these programs could have potential in a range of diseases that currently have few treatment options such as autoimmune neuropathies, autoimmune blood disorders and blistering skin diseases. The Company expects to advance the recombinant candidates with a goal of entering the clinic in late 2016, and is pursuing potential partnering opportunities for the further development and commercialization of its hsIVIg program.

Corporate Information

We filed our certificate of incorporation with the Secretary of State of Delaware on May 17, 2001.

Our principal executive offices are located at 675 West Kendall Street, Cambridge, Massachusetts 02142, and our telephone number is (617) 491-9700. Our website address is www.momentapharma.com. The information contained in, or accessible through, our website should not be considered a part of this prospectus supplement.

Table of Contents

THE OFFERING

Common stock offered by us	7,250,000 shares.
Common stock to be outstanding immediately after this offering	64,709,462 shares (or 65,796,962 shares if the underwriters exercise their option to purchase additional shares in full).
Underwriters' option	The underwriters have a 30-day option to purchase up to 1,087,500 additional shares of our common stock.
Use of proceeds	We intend to use the net proceeds of this offering primarily for general corporate purposes, including working capital. Please see "Use of Proceeds" on page S-9 of this prospectus supplement.
Risk factors	See "Risk Factors" beginning on page S-5 of this prospectus supplement, in the accompanying prospectus and in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus, for a discussion of factors that you should read and consider before investing in our common stock.
NASDAQ Global Select Market symbol	"MNTA"

The number of shares of our common stock to be outstanding after this offering is based on 57,459,462 shares of our common stock outstanding as of March 31, 2015 and excludes as of March 31, 2015:

7,879,303 shares of common stock issuable upon the exercise of outstanding options, having a weighted average exercise price of \$14.25 per share;

an aggregate of 2,223,381 additional shares of our common stock reserved for future issuance under our stock incentive plans; and

1,727,550 shares of common stock issued and sold at an average price per share of \$17.17 after March 31, 2015 and through the date of this prospectus supplement pursuant to our "at-the-market" equity offering programs.

Unless otherwise indicated, this prospectus supplement reflects and assumes the following:

no exercise of the outstanding options described above; and

no exercise by the underwriters of their option to purchase additional shares of our common stock.

Table of Contents

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before investing in our common stock, you should consider carefully the risks described below, together with the other information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein or therein, including the risks and uncertainties discussed under "Risk Factors" in our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2015, which are incorporated by reference into this prospectus supplement. If any of the risks incorporated by reference or set forth below occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected. In these circumstances, the market price of our common stock could decline, and you may lose all or part of your investment. Please also read carefully the section below titled "Special Note Regarding Forward-Looking Statements."

Risks Related to this Offering

We have broad discretion in the use of the net proceeds from this offering.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways with which you may not agree. Accordingly, you will be relying on the judgment of our management with regard to the use of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the net proceeds will be invested or otherwise used in a way that does not yield a favorable, or any, return for the Company.

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The public offering price of our common stock is substantially higher than the net tangible book value per share of our common stock before giving effect to this offering. Accordingly, based upon the public offering price of \$19.00 per share, if you purchase our common stock in this offering, you will incur immediate substantial dilution of approximately \$13.72 per share, representing the difference between the public offering price and our as adjusted net tangible book value as of March 31, 2015, after giving effect to this offering. Furthermore, if outstanding options are exercised, you could experience further dilution. For a further description of the dilution that you will experience immediately after this offering, see the section in this prospectus supplement entitled "Dilution."

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share in this offering, including through our "at-the-market" equity offering programs. As of the date of this prospectus supplement, shares of our common stock having an aggregate value of approximately \$65.5 million remained available for sale under these programs. We may sell shares or other securities in any other offering at a price per share that is less than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering. As of March 31, 2015, 2,223,381 shares of common stock were reserved for future issuance under our stock incentive plans. As of that date, there were also options outstanding to purchase 7,879,303 shares of our common stock. You will incur additional dilution

Table of Contents

upon the grant of any shares under our stock incentive plans or upon exercise of any outstanding or subsequently issued stock options.

Future sales of our common stock in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. As of March 31, 2015, we had 57,459,462 shares of common stock outstanding, all of which shares, other than shares held by our directors and certain officers, were eligible for sale in the public market, subject in some cases to compliance with the requirements of Rule 144, including the volume limitations and manner of sale requirements. In addition, shares of common stock issuable upon exercise of outstanding options and shares reserved for future issuance under our stock incentive plans will become eligible for sale in the public market to the extent permitted by applicable vesting requirements and subject in some cases to compliance with the requirements of Rule 144.

We cannot predict the effect that future sales of our common stock would have on the market price of our common stock.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, the documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering may contain "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These statements relate to future events or to our future operating or financial performance and involve known and unknown risks, uncertainties and other important factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements may include, but are not limited to, statements about:

our expectations with respect to ongoing litigation with Teva related to Copaxone;

the market for our products and product candidates, such as Glatopa and our three-times-weekly 40 mg/mL M356;

our ability to generate significant revenue and achieve long-term profitability;

the ability of our collaborative partner, Sandoz, to manufacture and commercialize products under collaboration, including Enoxaparin Sodium Injection and Glatopa ;

our and our collaborators' ability to establish and maintain key customer distribution arrangements;

our continued ability to obtain the raw materials for our products and product candidates, including unfractionated heparin;

our expectations with respect to ongoing litigation against Amphastar and Teva related to Enoxaparin Sodium Injection;

our expectations with respect to efforts by manufacturers of branded products to limit the use of generics or biosimilars, such as Glatopa and our biosimilar candidates for HUMIRA® and ORENCIA®;

the development of our product candidates;

our ability to obtain and maintain regulatory approval for our biosimilar product candidates, including biosimilar versions of HUMIRA® and ORENCIA®;

the success and timing of our nonclinical studies and clinical trials for our development candidates, including Necuparanib;

our and our collaborators' ability to obtain adequate coverage and reimbursement approval from governmental and third-party payors;

our ability to establish adequate sales and marketing capabilities or enter into agreements with third parties to market and sell our product candidates;

Edgar Filing: MOMENTA PHARMACEUTICALS INC - Form 424B5

the establishment, maintenance and development of collaborative, licensing and other similar arrangements;

the terms and timing of any collaborative, licensing and other similar arrangements, including the timing of potential milestone payments;

our expectations with respect to our intellectual property position;

our ability to comply with our obligations under the agreements for our in-licensed technologies;

S-7

Table of Contents

our ability to obtain and enforce patent protection for our discoveries;

our ability to retain, or attract and retain key personnel;

competitive risks in our industry;

our estimates regarding our capital requirements and our need for additional funding; and

the use of proceeds from this offering.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "could," "would," "expects," "plans," "anticipates," "believes," "estimates," "projects," "predicts," "potential" and similar expressions intended to identify forward-looking statements. 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. We discuss many of these risks in greater detail under the heading "Risk Factors" on page S-5 of this prospectus supplement and in our SEC filings. Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement.

You should read this prospectus supplement, the accompanying prospectus, the documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

You should rely only on the information contained, or incorporated by reference, in this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering. Neither we nor the underwriters have authorized anyone to provide you with different information. The common stock offered under this prospectus supplement and the accompanying prospectus is not being offered in any state where the offer is not permitted. You should not assume that the information contained in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the date on the front of this prospectus supplement or the accompanying prospectus, as applicable, or that any information incorporated by reference into this prospectus supplement or the accompanying prospectus is accurate as of any date other than the date of the document so incorporated by reference. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements.

Table of Contents**USE OF PROCEEDS**

We estimate that the net proceeds from this offering will be approximately \$129.2 million (or approximately \$148.6 million if the underwriters exercise their option to purchase additional shares in full), based on the public offering price of \$19.00 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering for general corporate purposes, including working capital. Pending application of the net proceeds as described above, we intend to temporarily invest the proceeds in short term, interest-bearing instruments.

PRICE RANGE OF COMMON STOCK

Our common stock is publicly traded on The NASDAQ Global Select Market under the symbol "MNTA." The following table sets forth, for the periods indicated, the high and low intraday sale prices of our common stock as reported by The NASDAQ Global Select Market.

	HIGH	LOW
2015		
Second Quarter (through May 19, 2015)	\$ 20.75	\$ 14.58
First Quarter	\$ 15.98	\$ 10.22
2014		
Fourth Quarter	\$ 13.10	\$ 9.38
Third Quarter	\$ 12.55	\$ 10.40
Second Quarter	\$ 13.91	\$ 9.85
First Quarter	\$ 19.90	\$ 11.26
2013		
Fourth Quarter	\$ 18.22	\$ 14.26
Third Quarter	\$ 18.08	\$ 13.76
Second Quarter	\$ 15.25	\$ 11.22
First Quarter	\$ 14.34	\$ 11.86

On May 19, 2015, the last reported sale price of our common stock on The NASDAQ Global Select Market was \$19.31. As of May 13, 2015, there were 59,674,931 shares of our common stock outstanding held by approximately 38 holders of record. The actual number of stockholders is greater than this number of record holders, and includes stockholders who are beneficial owners, but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock. We anticipate that, in the foreseeable future, we will continue to retain any earnings for use in the operation of our business and will not pay any cash dividends.

Table of Contents**DILUTION**

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the public offering price per share and the as adjusted net tangible book value per share of our common stock after this offering.

As of March 31, 2015, we had a net tangible book value of \$212.4 million, or \$3.70 per share of common stock. Our net tangible book value per share represents total tangible assets less total liabilities, divided by the number of shares of common stock outstanding at March 31, 2015.

After giving effect to the issuance and sale by us of 7,250,000 shares of common stock in this offering at the public offering price of \$19.00 per share, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2015 would have been approximately \$341.5 million, or approximately \$5.28 per share. This amount represents an immediate increase in as adjusted net tangible book value of \$1.58 per share to our existing stockholders and an immediate dilution in as adjusted net tangible book value of approximately \$13.72 per share to new investors purchasing shares of common stock in this offering.

Dilution per share to new investors is determined by subtracting as adjusted net tangible book value per share after this offering from the public offering price per share paid by new investors. The following table illustrates this dilution on a per share basis:

Public offering price per share	\$	19.00
Net tangible book value per share as of March 31, 2015	\$	3.70
Increase in net tangible book value per share attributable to this offering		1.58
As adjusted net tangible book value per share after this offering		5.28
Dilution per share to new investors participating in this offering	\$	13.72

The information above assumes that the underwriters do not exercise their option to purchase additional shares. If the underwriters exercise their option in full, our as adjusted net tangible book value per share at March 31, 2015, after giving effect to this offering, would have been approximately \$5.49 per share, and the dilution in as adjusted net tangible book value per share to investors in this offering would have been approximately \$13.51 per share.

The above discussion and table are based on 57,459,462 shares of our common stock outstanding as of March 31, 2015, which does not include the following:

7,879,303 shares of common stock issuable upon the exercise of outstanding options, having a weighted average exercise price of \$14.25 per share;

an aggregate of 2,223,381 additional shares of our common stock reserved for future issuance under our stock incentive plans; and

1,727,550 shares of common stock issued and sold at an average price per share of \$17.17 after March 31, 2015 and through the date of this prospectus supplement pursuant to our "at-the-market" equity offering programs.

To the extent any of these outstanding options is exercised or additional shares are issued and sold pursuant to our "at-the-market" equity offering programs, there may be further dilution to new investors.

Table of Contents**UNDERWRITING**

We and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman, Sachs & Co. and J.P. Morgan Securities LLC are the representatives of the underwriters.

Underwriters	Number of Shares
Goldman, Sachs & Co	3,262,500
J.P. Morgan Securities LLC	2,718,750
Stifel, Nicolaus & Company, Incorporated	1,268,750
Total	7,250,000

The underwriters are committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters have an option to buy up to an additional 1,087,500 shares from us. They may exercise this option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by us. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase 1,087,500 additional shares.

	No Exercise	Full Exercise
Per Share	\$ 1.14	\$ 1.14
Total	\$ 8,265,000	\$ 9,504,750

Shares sold by the underwriters to the public will initially be offered at the public offering price set forth on the cover of this prospectus supplement. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$0.684 per share from the public offering price. After the initial offering of the shares, the representatives may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part. Sales of shares made outside of the United States may be made by affiliates of the underwriters.

We have agreed that we will not, for a period of 90 days after the date of this prospectus supplement, or such later period as may be established pursuant to the provision in the lock-up agreement described below (such period, the "Lock-up Period"), (i) offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise transfer or dispose of, directly or indirectly, or file with the SEC a registration statement under the Securities Act relating to, any shares of our common stock or any securities substantially similar to our common stock, including any options or warrants to purchase shares of our common stock, or any securities that are convertible into or exchangeable for our common stock or any such substantially similar security (other than registration statements on Form S-8 relating to securities granted or to be granted pursuant to the terms of the our equity incentive plans or employee stock purchase plans disclosed in the registration statement to which this prospectus supplement relates), or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, or (ii) enter into any swap or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of any shares of our common stock (regardless of whether any of the transactions

Table of Contents

described above are to be settled by delivery of shares of our common stock, or such other securities, in cash or otherwise) other than (a) the shares to be sold in this offering, (b) the grant of stock options or other equity-based awards not exercisable during the Lock-up Period under our equity incentive plans, (c) the issuance of any shares of our common stock upon the exercise of options or equity-based awards granted under our equity incentive plans, (d) the issuance of securities pursuant to employee stock purchase plans, (e) the issuance of securities upon the conversion or exchange of convertible or exchangeable securities or the vesting of restricted stock outstanding as of the date of this offering, or (f) the issuance of stock or securities convertible into or exercisable for shares of common stock in connection with any acquisition, collaboration, licensing, partnership or other joint venture or strategic transaction involving the Company; provided that in the case of this clause (f), that such issuances shall not be greater than 5% of our total outstanding shares of common stock immediately following the completion of this offering and the Company shall cause recipients of such securities to execute and deliver a lock-up agreement with respect to the shares transferred. Notwithstanding the foregoing restrictions, after the date that is 60 days after the date of this prospectus supplement we are permitted to issue shares of our common stock or securities exercisable for, convertible into or exchangeable for our common stock in connection with any acquisition, collaboration, licensing, partnership, or other joint venture or strategic transaction involving the Company.

Our directors and executive officers, have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each of these persons during the Lock-up Period, may not, without the prior written consent of the representatives, on behalf of the underwriters (1) offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of any shares of our common stock, or any options or warrants to purchase any shares of our common stock, or any securities convertible into, exchangeable for or that represent the right to receive shares of our common stock, whether now owned or hereinafter acquired, owned directly by the director or officer or with respect to which the director or officer has beneficial ownership within the rules and regulations of the SEC or publicly announce the intention to do any of the foregoing, (2) hedge or engage in any other transaction which is designed to or which reasonably could be expected to lead to or result in a sale or disposition of our common stock, including any short sale or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to any shares of our common stock or with respect to any security that includes, relates to, or derives any significant part of its value from such shares, or (3) make any demand for or exercise any right with respect to the registration of any shares of our common stock or any security convertible into or exchangeable or exercisable for our common stock. These agreements are subject to certain exceptions, including (a) direct or indirect sales, transfers, tenders or other dispositions (each a "transfer") of shares of our common stock or other securities as a bona fide gift or gifts or by testate succession or intestate distribution, (b) transfers of shares of our common stock or other securities to any trust for the direct or indirect benefit of the director or officer or the immediate family of the director or officer, provided that any such transfer shall not involve a disposition for value, (c) transfers of shares of our common stock or other securities through sales or transfers of securities acquired in open market transactions after the date of this offering, (d) transfers of shares of our common stock or other securities pursuant to any contractual arrangement described in the registration statement to which this prospectus supplement relates (or in any documents incorporated by reference to this prospectus supplement) existing on the date hereof that provides for the repurchase of the shares by us in connection with the termination of the director or executive's employment or other service relationship with us or failure to meet certain conditions set out upon receipt of such shares.

In the case of any transfer, disposition or distribution pursuant to clause (a) or (b), each transferee, recipient or distributee must execute and deliver to the representatives a lock-up agreement. In addition, in the case of any transfer pursuant to clause (a), (b), (c), or (d), no filing by

Table of Contents

any party under the Exchange Act, or other public announcement may be required or voluntarily made in connection with such transfer, disposition or distribution, other than a filing on a Form 5 made after the expiration of the Lock-up Period.

Notwithstanding the foregoing restrictions, the director or officer may (x) transfer shares of common stock under a contract, instruction or plan that satisfies the requirements of Rule 10b5-1 under the Exchange Act for the transfer of common stock or other securities (a "Plan"), provided that such plan shall have been in effect prior to the date of the lock-up agreement (an "Existing Plan"), and provided further that no amendments or other modifications are made to such plans (except amendments or modifications which would reduce the number of shares transferred under such plans, provided that no public announcement or filing under Section 16(a) of the Exchange Act regarding any such amendment or modification shall be required of or voluntarily made by or on behalf of the undersigned or the Company during the Lock-Up Period), and that, to the extent a public announcement or filing under the Exchange Act, if any, is required by or on behalf of the director or officer or the Company regarding any such transfers, such announcement or filing shall include a statement to the effect that the transfer was made pursuant to a Plan, (y) establish a Plan, provided that such plan does not provide for any transfers of common stock, and no filing with the SEC or other public announcement shall be required or voluntarily made by the director or officer or any other person in connection therewith, in each case during the Lock-up Period, except that the director or officer may also during the Lock-Up Period (1) establish a Plan during the Lock-up Period if such Plan is entered into as a replacement of an Existing Plan in order to reduce the number of shares transferred under such Existing Plan (any such plan, a "New Plan"), and provided further that such New Plan is in substantially similar form as such Existing Plan other than with respect to the reduction of the number shares transferred, and such New Plan does not reduce the price at which such shares are to be transferred, increase the number of shares to be transferred, or modify the dates or triggering events for such transfers such that such dates or triggering events would occur earlier than they otherwise would have under the Existing Plan, and no public announcement or filing under the Exchange Act regarding the establishment of such plan shall be required of or voluntarily made by or on behalf of the director or officer or the Company during the Lock-Up Period and (2) transfer Common Stock pursuant to a New Plan, provided that no amendments or other modifications are made to such plans (except amendments or modifications, which would reduce the number of shares transferred under such plans, provided that no public announcement or filing under the Exchange Act regarding any such amendment or modification shall be required of or voluntarily made by or on behalf of the director or officer or the Company during the Lock-Up Period) and that, to the extent a public announcement or filing under the Exchange Act, if any, is required by or on behalf of the director or officer or Company regarding any such transfers, such announcement or filing shall include a statement to the effect that the transfer was made pursuant to a Plan and (z) transfer shares of our common stock or securities convertible into or exercisable or exchangeable for our common stock in connection with a bona fide third party tender offer, merger, consolidation or other similar transaction made to all holders of our common stock involving a change of control of the Company to a person or group of affiliated persons (other than an underwriter pursuant to this offering) if, after such transfer, such person or group of affiliated persons would hold more than 50% of our outstanding voting securities (or the voting securities of the surviving entity).

Notwithstanding the foregoing, if (1) during the last 17 days of the 90-day restricted period described above, we issue an earnings release or announce material news or a material event relating to our company occurs; or (2) prior to the expiration of each 90-day restricted period, we announce that we will release earnings results during the 15-day period following the last day of the 90-day period, the restrictions described above shall continue to apply until the expiration of the 18-day period beginning on the date of release of the earnings results or the announcement of the material news or material event, unless the representatives waive such extension; provided that if

Table of Contents

(i) the safe harbor provided by Rule 139 under the Securities Act is available in the manner contemplated by Rule 2711(f)(4) of the Financial Industry Regulatory Authority, Inc.; and (ii) our common stock is actively traded as defined in Rule 101(c)(1) of Regulation M under the Exchange Act, the 90-day restricted period shall not be extended upon the occurrence of (1) or (2) above.

Our common stock is publicly traded on The NASDAQ Global Select Market under the symbol "MNTA".

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. A "covered short position" is a short position that is not greater than the amount of additional shares for which the underwriters' option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to cover the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option described above. "Naked" short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of our common stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of our common stock. As a result, the price of our common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on The NASDAQ Global Select Market, in the over-the-counter market or otherwise.

A prospectus in electronic format may be made available on the web sites maintained by one or more underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any

Table of Contents

jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

We estimate that our share of the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately \$325,000.

We have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to us, and to persons and entities with relationships with us, for which they received or will receive customary fees and expenses. Stifel, Nicolaus & Company, Incorporated acts as the sales agent under our At-the-Market Equity Offering Sales Agreement.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the Company (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the Company. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) it has not made and will not make an offer of shares to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of shares to the public in that Relevant Member State at any time:

- (a) to legal entities which are authorised or regulated to operate in the financial markets or, if not so authorised or regulated, whose corporate purpose is solely to invest in securities;
- (b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000;

Table of Contents

and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;

(c) to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the representatives for any such offer; or

(d) in any other circumstances that do not require the publication by the Company of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of shares to the public" in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

United Kingdom

Each underwriter has represented and agreed that:

- (a) it has only communicated or caused to be communicated, and will only communicate or cause to be communicated, an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000, or the FSMA) received by it in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA does not apply to the Company; and
- (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

Hong Kong

The shares may not be offered or sold by means of any document other than (a) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), or (b) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder, or (c) in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares which are, or are intended to be, disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Singapore

This prospectus supplement and the accompanying prospectus have not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement, the accompanying prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or

Table of Contents

purchase, whether directly or indirectly, to persons in Singapore other than (a) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (b) to a relevant person, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (c) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is: (i) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (ii) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for six months after that corporation or that trust has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA, or to a relevant person, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Law of Japan, or the Financial Instruments and Exchange Law, and each underwriter has agreed that it will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

Switzerland

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange ("SIX") or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company, the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA (FINMA), and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes ("CISA"). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

Dubai International Financial Centre

This prospectus supplement relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority ("DFSA"). This prospectus supplement is

Table of Contents

intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus supplement nor taken steps to verify the information set forth herein and has no responsibility for the prospectus supplement. The shares to which this prospectus supplement relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus supplement you should consult an authorized financial advisor.

Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission ("ASIC"), in relation to the offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (the "Corporations Act"), and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the shares may only be made to persons (the "Exempt Investors") who are "sophisticated investors" (within the meaning of section 708(8) of the Corporations Act), "professional investors" (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the shares without disclosure to investors under Chapter 6D of the Corporations Act.

The shares applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring shares must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Table of Contents

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Latham & Watkins LLP. Ropes & Gray LLP is counsel to the underwriters in connection with this offering.

EXPERTS

The consolidated financial statements of Momenta Pharmaceuticals, Inc. appearing in Momenta Pharmaceuticals, Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2014 and the effectiveness of Momenta Pharmaceuticals, Inc.'s internal control over financial reporting as of December 31, 2014, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

S-19

Table of Contents

WHERE YOU CAN FIND MORE INFORMATION; INCORPORATION BY REFERENCE

Available Information

We file reports, proxy statements and other information with the SEC. Information filed with the SEC by us can be inspected and copied at the Public Reference Room maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may also obtain copies of this information by mail from the Public Reference Section of the SEC at prescribed rates. Further information on the operation of the SEC's Public Reference Room in Washington, D.C. can be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website that contains reports, proxy and information statements, and other information about issuers, such as us, who file electronically with the SEC. The address of that website is <http://www.sec.gov>.

Our website address is www.momentapharma.com. The information contained in, or accessible through, our website, however, should not be considered a part of this prospectus supplement.

This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the SEC and do not contain all of the information in the registration statement. The full registration statement may be obtained from the SEC or us, as provided below. Other documents establishing the terms of the offered securities are or may be filed as exhibits to the registration statement. Statements in this prospectus supplement or the accompanying prospectus about these documents are summaries, and each such statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters. You may inspect a copy of the registration statement at the SEC's Public Reference Room in Washington, D.C. or through the SEC's website, as provided above.

Incorporation by Reference

The SEC's rules allow us to "incorporate by reference" information into this prospectus supplement and the accompanying prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus supplement and the accompanying prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus supplement and the accompanying prospectus to the extent that a statement contained in this prospectus supplement or the accompanying prospectus modifies or replaces that statement.

We incorporate by reference our documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, which we refer to as the "Exchange Act" in this prospectus supplement and the accompanying prospectus, between the date of this prospectus supplement and the termination of the offering of the securities described in this prospectus supplement. We are not, however, incorporating by reference any documents or portions thereof, whether specifically listed below or filed in the future, that are not deemed "filed" with the SEC, including our Compensation Committee report and performance graph or any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K.

We incorporate by reference the following information or documents that we have filed with the SEC:

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2014, filed with the SEC on February 27, 2015.

Edgar Filing: MOMENTA PHARMACEUTICALS INC - Form 424B5

Table of Contents

Our Quarterly Report on Form 10-Q for the quarterly period ended on March 31, 2015, filed with the SEC on May 5, 2015.

Our Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 24, 2015.

Our Current Reports on Form 8-K filed with the SEC on February 17, 2015, February 23, 2015, April 16, 2015 and April 21, 2015.

The description of our Common Stock contained in our Registration Statement on Form 8-A, dated and filed with the SEC on June 14, 2004, and any amendment or report filed with the SEC for the purpose of updating such description.

You may request a free copy of any of the documents incorporated by reference into this prospectus supplement or the accompanying prospectus (other than exhibits, unless they are specifically incorporated by reference in the documents) by writing or telephoning us at the following address:

Momenta Pharmaceuticals, Inc.
675 West Kendall Street
Cambridge, Massachusetts 02142
Attention: Bruce A. Leicher, Corporate Secretary
(617) 491-9700

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this prospectus supplement or the accompanying prospectus.

S-21

PROSPECTUS

Momenta Pharmaceuticals, Inc.

Common Stock Preferred Stock Debt Securities Warrants

We or selling securityholders may offer and sell the securities identified above from time to time in one or more offerings. This prospectus provides you with a general description of the securities.

Each time we or selling securityholders offer and sell securities, we or such selling securityholders will provide a supplement to this prospectus that contains specific information about the offering and, if applicable, the selling securityholders, as well as the amounts, prices and terms of the securities. The supplement may also add, update or change information contained in this prospectus with respect to that offering. You should carefully read this prospectus and the applicable prospectus supplement before you invest in any of our securities.

We or selling securityholders may offer and sell the securities described in this prospectus and any prospectus supplement to or through one or more underwriters, dealers and agents, or directly to purchasers, or through a combination of these methods. If any underwriters, dealers or agents are involved in the sale of any of the securities, their names and any applicable purchase price, fee, commission or discount arrangement between or among them will be set forth, or will be calculable from the information set forth, in the applicable prospectus supplement. See the sections of this prospectus entitled "About this Prospectus" and "Plan of Distribution" for more information. No securities may be sold without delivery of this prospectus and the applicable prospectus supplement describing the method and terms of the offering of such securities.

INVESTING IN OUR SECURITIES INVOLVES RISKS. SEE THE "RISK FACTORS" ON PAGE 5 OF THIS PROSPECTUS AND ANY SIMILAR SECTION CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT CONCERNING FACTORS YOU SHOULD CONSIDER BEFORE INVESTING IN OUR SECURITIES.

Our common stock is listed on the Nasdaq Global Select Market under the symbol "MNTA." On February 26, 2015, the last reported sale price of our common stock on the Nasdaq Global Select Market was \$13.94 per share.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is February 27, 2015.

TABLE OF CONTENTS

<u>ABOUT THIS PROSPECTUS</u>	<u>1</u>
<u>WHERE YOU CAN FIND MORE INFORMATION; INCORPORATION BY REFERENCE</u>	<u>2</u>
<u>THE COMPANY</u>	<u>4</u>
<u>RISK FACTORS</u>	<u>5</u>
<u>USE OF PROCEEDS</u>	<u>6</u>
<u>RATIO OF EARNINGS TO FIXED CHARGES</u>	<u>7</u>
<u>DESCRIPTION OF CAPITAL STOCK</u>	<u>8</u>
<u>DESCRIPTION OF DEBT SECURITIES</u>	<u>10</u>
<u>DESCRIPTION OF WARRANTS</u>	<u>18</u>
<u>GLOBAL SECURITIES</u>	<u>20</u>
<u>SELLING SECURITYHOLDERS</u>	<u>23</u>
<u>PLAN OF DISTRIBUTION</u>	<u>24</u>
<u>LEGAL MATTERS</u>	<u>25</u>
<u>EXPERTS</u>	<u>25</u>

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission, or the SEC, as a "well-known seasoned issuer" as defined in Rule 405 under the Securities Act of 1933, as amended, using a "shelf" registration process. By using a shelf registration statement, we may sell securities from time to time and in one or more offerings as described in this prospectus. Each time that we or selling securityholders offer and sell securities, we will provide a prospectus supplement to this prospectus that contains specific information about the securities being offered and sold and the specific terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement, you should rely on the prospectus supplement. Before purchasing any securities, you should carefully read both this prospectus and the applicable prospectus supplement, together with the additional information described under the heading "Where You Can Find More Information; Incorporation by Reference."

Neither we nor any selling securityholders have authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We and selling securityholders will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus and the applicable prospectus supplement to this prospectus is accurate as of the date on its respective cover, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates.

When we refer to "Momenta," "we," "our," "us" and the "Company" in this prospectus, we mean Momenta Pharmaceuticals, Inc. and its subsidiary, unless otherwise specified. When we refer to "you," we mean the holders of the applicable series of securities.

Our logo, trademarks and service marks are the property of Momenta. Other trademarks or service marks appearing in this prospectus are the property of their respective holders.

WHERE YOU CAN FIND MORE INFORMATION; INCORPORATION BY REFERENCE

Available Information

We file reports, proxy statements and other information with the SEC. Information filed with the SEC by us can be inspected and copied at the Public Reference Room maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may also obtain copies of this information by mail from the Public Reference Section of the SEC at prescribed rates. Further information on the operation of the SEC's Public Reference Room in Washington, D.C. can be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains a web site that contains reports, proxy and information statements and other information about issuers, such as us, who file electronically with the SEC. The address of that website is <http://www.sec.gov>.

Our web site address is www.momentapharma.com. The information on our web site, however, is not, and should not be deemed to be, a part of this prospectus.

This prospectus and any prospectus supplement are part of a registration statement that we filed with the SEC and do not contain all of the information in the registration statement. The full registration statement may be obtained from the SEC or us, as provided below. Forms of the indenture and other documents establishing the terms of the offered securities are or may be filed as exhibits to the registration statement. Statements in this prospectus or any prospectus supplement about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters. You may inspect a copy of the registration statement at the SEC's Public Reference Room in Washington, D.C. or through the SEC's website, as provided above.

Incorporation by Reference

The SEC's rules allow us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus modifies or replaces that statement.

We incorporate by reference our documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, which we refer to as the "Exchange Act" in this prospectus, between the date of this prospectus and the termination of the offering of the securities described in this prospectus. We are not, however, incorporating by reference any documents or portions thereof, whether specifically listed below or filed in the future, that are not deemed "filed" with the SEC, including our Compensation Committee report and performance graph or any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K.

This prospectus and any accompanying prospectus supplement incorporate by reference the documents set forth below that have previously been filed with the SEC:

Our Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on February 27, 2015.

Our Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 22, 2014.

Our Current Reports on Form 8-K filed with the SEC on February 17, 2015 and February 23, 2015.

Edgar Filing: MOMENTA PHARMACEUTICALS INC - Form 424B5

The description of our Common Stock contained in our Registration Statement on Form 8-A, dated June 14, 2004, filed with the SEC on June 14, 2004 and any amendment or report filed with the SEC for the purpose of updating the description.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this offering, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents.

You may request a free copy of any of the documents incorporated by reference in this prospectus (other than exhibits, unless they are specifically incorporated by reference in the documents) by writing or telephoning us at the following address:

Momenta Pharmaceuticals, Inc.
675 West Kendall Street
Cambridge, Massachusetts 02142
Attention: Bruce A. Leicher, Corporate Secretary
(617) 491-9700

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this prospectus and any accompanying prospectus supplement.

THE COMPANY

We are a biotechnology company focused on developing generic versions of complex drugs, biosimilars and novel therapeutics for oncology and autoimmune disease.

In addition to our generic version of Lovenox® (enoxaparin sodium injection), which was approved by the FDA in July 2010 and is marketed in the United States, we currently are developing a generic version of Copaxone® (glatiramer acetate injection); a portfolio of biosimilar candidates, including a biosimilar of HUMIRA® (adalimumab); a novel oncology product candidate, necuparanib; and several novel product candidates targeting autoimmune disease.

We filed our certificate of incorporation with the Secretary of State of Delaware on May 17, 2001.

Our principal executive offices are located at 675 West Kendall Street, Cambridge, Massachusetts 02142, and our telephone number is (617) 491-9700.

RISK FACTORS

Investment in any securities offered pursuant to this prospectus and the applicable prospectus supplement involves risks. You should carefully consider the risk factors incorporated by reference to our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K we file after the date of this prospectus, and all other information contained or incorporated by reference into this prospectus, as updated by our subsequent filings under the Exchange Act, and the risk factors and other information contained in the applicable prospectus supplement before acquiring any of such securities. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of the securities as set forth in the applicable prospectus supplement. We will not receive any of the proceeds from the sale of common stock being offered by any of the selling securityholders.

RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth our ratio of earnings to fixed charges for each of the periods indicated. You should read this table in conjunction with the consolidated financial statements and notes incorporated by reference in this prospectus.

	Year Ended December 31,				
	2014	2013	2012	2011	2010
Ratio of earnings to fixed charges				339x	55x

For purposes of calculating the ratios above, earnings consist of pre-tax loss from continuing operations plus fixed charges. Fixed charges include interest expense on indebtedness and an estimate of interest expense within rental expense.

We did not record earnings for the years ended December 31, 2014, 2013 and 2012. Accordingly, our earnings were insufficient to cover fixed charges in such periods and we are unable to disclose a ratio of earnings to fixed charges for such periods. Due to our losses for the years ended December 31, 2014, 2013 and 2012, the ratio of earnings to fixed charges was less than 1x. We would have needed to generate additional earnings of \$98,600,000, \$108,408,000 and \$58,648,000, respectively, to achieve a coverage ratio of earnings to fixed charges of 1x in those periods.

Our ratios of earnings to combined fixed charges and preferred stock dividends for the periods indicated above are the same as our ratios of earnings to fixed charges set forth above because we had no shares of preferred stock outstanding during the periods indicated and currently have no shares of preferred stock outstanding.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is not complete and may not contain all the information you should consider before investing in our capital stock. This description is summarized from, and qualified in its entirety by reference to, our certificate of incorporation, which has been publicly filed with the SEC. See "Where You Can Find More Information; Incorporation by Reference."

Our authorized capital stock consists of:

100,000,000 shares of common stock, \$0.0001 par value; and

5,000,000 shares of preferred stock, \$0.01 par value.

Common Stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Accordingly, holders of a majority of the shares of common stock entitled to vote in any election of directors may elect all of the directors standing for election. Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of outstanding preferred stock.

In the event of our liquidation, dissolution or winding up, the holders of our common stock are entitled to receive proportionately our net assets available after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Co.

Preferred Stock

Under the terms of our certificate of incorporation, our board of directors is authorized to direct us to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences of each series of preferred stock. We have designated one series of preferred stock. See " Series A Preferred Stock" below.

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of our outstanding voting stock.

The preferred stock of each series will rank senior to the common stock and the Series A Junior Participating Preferred Stock in priority of payment of dividends and in the distribution of assets in the event of our liquidation, dissolution or winding up, to the extent of the preferential amounts to which the preferred stock of the respective series will be entitled. Upon issuance, the shares of preferred stock will be fully paid and nonassessable, which means that its holders will have paid their purchase price in full and we may not require them to pay additional funds.

Series A Preferred Stock

On October 31, 2005, in connection with the adoption of a rights plan, which has subsequently expired, our board of directors designated 100,000 shares of preferred stock as Series A Junior Participating Preferred Stock, \$0.01 par value per share, or Series A preferred stock, as set forth in the Certificate of Designations of Series A Junior Participating Preferred Stock filed with the Secretary of State of the State of Delaware on November 8, 2005.

Anti-Takeover Effects of Delaware Law and Our Charter and By-Laws

We are subject to Section 203 of the General Corporation Law of the State of Delaware. Subject to certain exceptions, Section 203 prevents a publicly-held Delaware corporation from engaging in a "business combination" with any "interested stockholder" for three years following the date that the person became an interested stockholder, unless the interested stockholder attained such status with the approval of our board of directors or unless the business combination is approved in a prescribed manner. A "business combination" includes, among other things, a merger or consolidation involving us, and the interested stockholder and the sale of more than 10% of our assets. In general, an "interested stockholder" is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person.

Our certificate of incorporation provides that the directors elected may be removed only for cause and only by the affirmative vote of the holders of at least 75% of the votes which all our stockholders would be entitled to cast in any annual election of directors. Under our certificate of incorporation, any vacancy or newly created directorships on the board of directors can be filled only by vote of a majority of our directors then in office. The limitations on the ability of our stockholders to remove directors and fill vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of our company.

Our certificate of incorporation provides that any action required or permitted to be taken by our stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written action in lieu of a meeting. Our certificate of incorporation and our by-laws also provide that, except as otherwise required by law, special meetings of the stockholders can only be called by our chief executive officer, president, our chairman of the board, or a majority of our board of directors. In addition, our by-laws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to our board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors or by a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying stockholder actions that are favored by the holders of a majority of our outstanding voting securities until the next stockholder meeting.

The General Corporation Law of the State of Delaware provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or by-laws, unless a corporation's certificate of incorporation or by-laws, as the case may be, requires a greater percentage. Our by-laws may be amended or repealed by a majority vote of our board of directors or by the affirmative vote of the holders of at least 75% of the votes which all our stockholders would be entitled to cast in any annual election of directors.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes certain general terms and provisions of the debt securities that we may offer under this prospectus. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a supplement to this prospectus. We will also indicate in the supplement to what extent the general terms and provisions described in this prospectus apply to a particular series of debt securities.

We may issue debt securities either separately, or together with, or upon the conversion or exercise of or in exchange for, other securities described in this prospectus. Debt securities may be our senior, senior subordinated or subordinated obligations and, unless otherwise specified in a supplement to this prospectus, the debt securities will be our direct, unsecured obligations and may be issued in one or more series.

The debt securities will be issued under an indenture between us and Wilmington Trust, National Association, as trustee. We have summarized select portions of the indenture below. The summary is not complete. The form of the indenture has been filed as an exhibit to the registration statement and you should read the indenture for provisions that may be important to you. Capitalized terms used in the summary and not defined herein have the meanings specified in the indenture.

As used in this section only, "Momenta," "we," "our" or "us" refer to Momenta Pharmaceuticals, Inc. excluding our subsidiary, unless expressly stated or the context otherwise requires.

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 a resolution of our board of directors, in an officer's certificate or by a supplemental indenture. The particular terms of each series of debt securities will be described in a prospectus supplement relating to such series (including any pricing supplement or term sheet).

We can issue an unlimited amount of debt securities under the indenture that may be in one or more series with the same or various maturities, at par, at a premium, or at a discount. We will set forth in a prospectus supplement (including any pricing supplement or term sheet) relating to any series of debt securities being offered, the aggregate principal amount and the following terms of the debt securities, if applicable:

the title and ranking of the debt securities (including the terms of any subordination provisions);

the price or prices (expressed as a percentage of the principal amount) at which we will sell the debt securities;

any limit on the aggregate principal amount of the debt securities;

the date or dates on which the principal of the securities of the series is payable;

the rate or rates (which may be fixed or variable) per annum or the method used to determine the rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the debt securities will bear interest, the date or dates from which interest will accrue, the date or dates on which interest will commence and be payable and any regular record date for the interest payable on any interest payment date;

the place or places where principal of, and interest, if any, on the debt securities will be payable (and the method of such payment), where the securities of such series may be surrendered for registration of transfer or exchange, and where notices and demands to us in respect of the debt securities may be delivered;

Edgar Filing: MOMENTA PHARMACEUTICALS INC - Form 424B5

the period or periods within which, the price or prices at which and the terms and conditions upon which we may redeem the debt securities;

any obligation we have to redeem or purchase the debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder of debt securities and the period or periods within which, the price or prices at which and in the terms and conditions upon which securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;

the dates on which and the price or prices at which we will repurchase debt securities at the option of the holders of debt securities and other detailed terms and provisions of these repurchase obligations;

the denominations in which the debt securities will be issued, if other than denominations of \$1,000 and any integral multiple thereof;

whether the debt securities will be issued in the form of certificated debt securities or global debt securities;

the portion of principal amount of the debt securities payable upon declaration of acceleration of the maturity date, if other than the principal amount;

the currency of denomination of the debt securities, which may be United States Dollars or any foreign currency, and if such currency of denomination is a composite currency, the agency or organization, if any, responsible for overseeing such composite currency;

the designation of the currency, currencies or currency units in which payment of principal of, premium and interest on the debt securities will be made;

if payments of principal of, premium or interest on the debt securities will be made in one or more currencies or currency units other than that or those in which the debt securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;

the manner in which the amounts of payment of principal of, premium, if any, or interest on the debt securities will be determined, if these amounts may be determined by reference to an index based on a currency or currencies other than that in which the debt securities are denominated or designated to be payable or by reference to a commodity, commodity index, stock exchange index or financial index;

any provisions relating to any security provided for the debt securities;

any addition to, deletion of or change in the Events of Default described in this prospectus or in the indenture with respect to the debt securities and any change in the acceleration provisions described in this prospectus or in the indenture with respect to the debt securities;

any addition to, deletion of or change in the covenants described in this prospectus or in the indenture with respect to the debt securities;

Edgar Filing: MOMENTA PHARMACEUTICALS INC - Form 424B5

any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents with respect to the debt securities;

the provisions, if any, relating to conversion or exchange of any debt securities of such series, including if applicable, the conversion or exchange price and period, provisions as to whether conversion or exchange will be mandatory, the events requiring an adjustment of the conversion or exchange price and provisions affecting conversion or exchange;

any other terms of the debt securities, which may supplement, modify or delete any provision of the indenture as it applies to that series, including any terms that may be required under applicable law or regulations or advisable in connection with the marketing of the securities; and

whether any of our direct or indirect subsidiaries will guarantee the debt securities of that series, including the terms of subordination, if any, of such guarantees.

We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium and interest on any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Transfer and Exchange

Each debt security will be represented by either one or more global securities registered in the name of The Depository Trust Company, or the Depository, or a nominee of the Depository (we will refer to any debt security represented by a global debt security as a "book-entry debt security"), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a "certificated debt security") as set forth in the applicable prospectus supplement. Except as set forth under the heading "Global Debt Securities and Book-Entry System" below, book-entry debt securities will not be issuable in certificated form.

Certificated Debt Securities. You may transfer or exchange certificated debt securities at any office we maintain for this purpose in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may effect the transfer of certificated debt securities and the right to receive the principal of, premium and interest on certificated debt securities only by surrendering the certificate representing those certificated debt securities and either reissuance by us or the trustee of the certificate to the new holder or the issuance by us or the trustee of a new certificate to the new holder.

Global Debt Securities and Book-Entry System. Each global debt security representing book-entry debt securities will be deposited with, or on behalf of, the Depository, and registered in the name of the Depository or a nominee of the Depository. Please see "Global Securities."

Covenants

We will set forth in the applicable prospectus supplement any restrictive covenants applicable to any issue of debt securities.

No Protection in the Event of a Change of Control

Unless we state otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we have

Edgar Filing: MOMENTA PHARMACEUTICALS INC - Form 424B5

a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control) which could adversely affect holders of debt securities.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to any person (a "successor person") unless:

we are the surviving corporation or the successor person (if other than Momenta) is a corporation organized and validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes our obligations on the debt securities and under the indenture; and

immediately after giving effect to the transaction, no Default or Event of Default, shall have occurred and be continuing.

Notwithstanding the above, any of our subsidiaries may consolidate with, merge into or transfer all or part of its properties to us.

Events of Default

"Event of Default" means with respect to any series of debt securities, any of the following:

default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of such default for a period of 30 days (unless the entire amount of the payment is deposited by us with the trustee or with a paying agent prior to the expiration of the 30-day period);

default in the payment of principal of any security of that series at its maturity;

default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 60 days after we receive written notice from the trustee or Momenta and the trustee receive written notice from the holders of not less than 25% in principal amount of the outstanding debt securities of that series as provided in the indenture;

certain voluntary or involuntary events of bankruptcy, insolvency or reorganization of Momenta;

any other Event of Default provided with respect to debt securities of that series that is described in the applicable prospectus supplement.

No Event of Default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an Event of Default with respect to any other series of debt securities. The occurrence of certain Events of Default or an acceleration under the indenture may constitute an event of default under certain indebtedness of ours or our subsidiaries outstanding from time to time.

We will provide the trustee written notice of any Default or Event of Default within 30 days of becoming aware of the occurrence of such Default or Event of Default, which notice will describe in reasonable detail the status of such Default or Event of Default and what action we are taking or propose to take in respect thereof.

If an Event of Default with respect to debt securities of any series at the time outstanding occurs and is continuing, then the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal of (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms

of that series) and accrued and unpaid interest, if any, on all debt securities of that series. In the case of an Event of Default resulting from certain events of bankruptcy, insolvency or reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, on all outstanding debt securities will become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of the money due has been obtained by the trustee, the holders of a majority in principal amount of the outstanding debt securities of that series may rescind and annul the acceleration if all Events of Default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of such discount securities upon the occurrence of an Event of Default.

The indenture provides that the trustee will be under no obligation to exercise any of its rights or powers under the indenture unless the trustee receives indemnity satisfactory to it against any cost, liability or expense which might be incurred by it in exercising such right or power. Subject to certain rights of the trustee, 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.

No holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

that holder has previously given to the trustee written notice of a continuing Event of Default with respect to debt securities of that series; and

the holders of not less than 25% in principal amount of the outstanding debt securities of that series have made written request, and offered reasonable indemnity or security, to the trustee to institute the proceeding as trustee, and the trustee has not received from the holders of not less than a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding any other provision in the indenture, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, premium and any interest on that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

The indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a statement as to compliance with the indenture. If a Default or Event of Default occurs and is continuing with respect to the securities of any series and if it is known to a responsible officer of the trustee, the trustee shall mail to each Securityholder of the securities of that series notice of a Default or Event of Default within 90 days after it occurs. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any Default or Event of Default (except in payment on any debt securities of that series) with respect to debt securities of that series if the trustee determines in good faith that withholding notice is in the interest of the holders of those debt securities.

Modification and Waiver

We and the trustee may modify and amend the indenture or the debt securities of any series without the consent of any holder of any debt security:

to cure any ambiguity, defect or inconsistency;

to comply with covenants in the indenture described above under the heading "Consolidation, Merger and Sale of Assets";

to provide for uncertificated securities in addition to or in place of certificated securities;

to add guarantees with respect to debt securities of any series or secure debt securities of any series;

to surrender any of our rights or powers under the indenture;

to add covenants or events of default for the benefit of the holders of debt securities of any series;

to comply with the applicable procedures of the applicable depository;

to make any change that does not adversely affect the rights of any holder of debt securities;

to provide for the issuance of and establish the form and terms and conditions of debt securities of any series as permitted by the indenture;

to effect the appointment of a successor trustee with respect to the debt securities of any series and to add to or change any of the provisions of the indenture to provide for or facilitate administration by more than one trustee; or

to comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act.

We may also modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We may not make any modification or amendment without the consent of the holders of each affected debt security then outstanding if that amendment will:

reduce the amount of debt securities whose holders must consent to an amendment, supplement or waiver;

reduce the rate of or extend the time for payment of interest (including default interest) on any debt security;

reduce the principal of or premium on or change the fixed maturity of any debt security or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any series of debt securities;

reduce the principal amount of discount securities payable upon acceleration of maturity;

Edgar Filing: MOMENTA PHARMACEUTICALS INC - Form 424B5

waive a default in the payment of the principal of, premium or interest on any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from such acceleration);

make the principal of or premium or interest on any debt security payable in currency other than that stated in the debt security;

make any change to certain provisions of the indenture relating to, among other things, the right of holders of debt securities to receive payment of the principal of, premium and interest on

those debt securities and to institute suit for the enforcement of any such payment and to waivers or amendments; or

waive a redemption payment with respect to any debt security.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all debt securities of that series waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of such series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or any interest on any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration.

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

Legal Defeasance. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, we may be discharged from any and all obligations in respect of the debt securities of any series (subject to certain exceptions). We will be so discharged upon the deposit with the trustee, in trust, of money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. Dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money or U.S. government obligations in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, we have delivered to the trustee an opinion of counsel stating that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred.

Defeasance of Certain Covenants. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, upon compliance with certain conditions:

we may omit to comply with the covenant described under the heading "Consolidation, Merger and Sale of Assets" and certain other covenants set forth in the indenture, as well as any additional covenants which may be set forth in the applicable prospectus supplement; and

any omission to comply with those covenants will not constitute a Default or an Event of Default with respect to the debt securities of that series ("covenant defeasance").

The conditions include:

depositing with the trustee money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. Dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient

Edgar Filing: MOMENTA PHARMACEUTICALS INC - Form 424B5

in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities; and

delivering to the trustee an opinion of counsel to the effect that the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

Covenant Defeasance and Events of Default. In the event we exercise our option to effect covenant defeasance with respect to any series of debt securities and the debt securities of that series are declared due and payable because of the occurrence of any Event of Default, the amount of money and/or U.S. government obligations or foreign government obligations on deposit with the trustee will be sufficient to pay amounts due on the debt securities of that series at the time of their stated maturity but may not be sufficient to pay amounts due on the debt securities of that series at the time of the acceleration resulting from the Event of Default. However, we shall remain liable for those payments.

No Personal Liability of Directors, Officers, Employees or Stockholders

None of our past, present or future directors, officers, employees or stockholders, as such, will have any liability for any of our obligations under the debt securities or the indenture or for any claim based on, or in respect or by reason of, such obligations or their creation. By accepting a debt security, each holder waives and releases all such liability. This waiver and release is part of the consideration for the issue of the debt securities. However, this waiver and release may not be effective to waive liabilities under U.S. federal securities laws, and it is the view of the SEC that such a waiver is against public policy.

Governing Law

The indenture and the debt securities, including any claim or controversy arising out of or relating to the indenture or the securities, will be governed by the laws of the State of New York (without regard to the conflicts of laws provisions thereof other than Section 5-1401 of the General Obligations Law).

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of shares of our common stock or preferred stock or of debt securities. We may issue warrants independently or together with other securities, and the warrants may be attached to or separate from any offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and the investors or a warrant agent. The following summary of material provisions of the warrants and warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to a particular series of warrants. The terms of any warrants offered under a prospectus supplement may differ from the terms described below. We urge you to read the applicable prospectus supplement and any related free writing prospectus, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants.

The particular terms of any issue of warrants will be described in the prospectus supplement relating to the issue. Those terms may include:

the number of shares of common stock or preferred stock purchasable upon the exercise of warrants to purchase such shares and the price at which such number of shares may be purchased upon such exercise;

the designation, stated value and terms (including, without limitation, liquidation, dividend, conversion and voting rights) of the series of preferred stock purchasable upon exercise of warrants to purchase preferred stock;

the principal amount of debt securities that may be purchased upon exercise of a debt warrant and the exercise price for the warrants, which may be payable in cash, securities or other property;

the date, if any, on and after which the warrants and the related debt securities, preferred stock or common stock will be separately transferable;

the terms of any rights to redeem or call the warrants;

the date on which the right to exercise the warrants will commence and the date on which the right will expire;

United States Federal income tax consequences applicable to the warrants; and

any additional terms of the warrants, including terms, procedures, and limitations relating to the exchange, exercise and settlement of the warrants.

Holders of equity warrants will not be entitled:

to vote, consent or receive dividends;

receive notice as stockholders with respect to any meeting of stockholders for the election of our directors or any other matter; or

exercise any rights as stockholders of Momenta.

Each warrant will entitle its holder to purchase the principal amount of debt securities or the number of shares of preferred stock or common stock at the exercise price set forth in, or calculable as set forth in, the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Edgar Filing: MOMENTA PHARMACEUTICALS INC - Form 424B5

A holder of warrant certificates may exchange them for new warrant certificates of different denominations, present them for registration of transfer and exercise them at the corporate trust office

of the warrant agent or any other office indicated in the applicable prospectus supplement. Until any warrants to purchase debt securities are exercised, the holder of the warrants will not have any rights of holders of the debt securities that can be purchased upon exercise, including any rights to receive payments of principal, premium or interest on the underlying debt securities or to enforce covenants in the applicable indenture. Until any warrants to purchase common stock or preferred stock are exercised, the holders of the warrants will not have any rights of holders of the underlying common stock or preferred stock, including any rights to receive dividends or payments upon any liquidation, dissolution or winding up on the common stock or preferred stock, if any.

GLOBAL SECURITIES

Book-Entry, Delivery and Form

Unless we indicate differently in a prospectus supplement, the securities initially will be issued in book-entry form and represented by one or more global notes or global securities, or, collectively, global securities. The global securities will be deposited with, or on behalf of, The Depository Trust Company, New York, New York, as depository, or DTC, and registered in the name of Cede & Co., the nominee of DTC. Unless and until it is exchanged for individual certificates evidencing securities under the limited circumstances described below, a global security may not be transferred except as a whole by the depository to its nominee or by the nominee to the depository, or by the depository or its nominee to a successor depository or to a nominee of the successor depository.

DTC has advised us that it is:

a limited-purpose trust company organized under the New York Banking Law;

a "banking organization" within the meaning of the New York Banking Law;

a member of the Federal Reserve System;

a "clearing corporation" within the meaning of the New York Uniform Commercial Code; and

a "clearing agency" registered pursuant to the provisions of Section 17A of the Exchange Act.

DTC holds securities that its participants deposit with DTC. DTC also facilitates the settlement among its participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book-entry changes in participants' accounts, thereby eliminating the need for physical movement of securities certificates. "Direct participants" in DTC include securities brokers and dealers, including underwriters, banks, trust companies, clearing corporations and other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation, or DTCC. DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others, which we sometimes refer to as indirect participants, that clear through or maintain a custodial relationship with a direct participant, either directly or indirectly. The rules applicable to DTC and its participants are on file with the SEC.

Purchases of securities under the DTC system must be made by or through direct participants, which will receive a credit for the securities on DTC's records. The ownership interest of the actual purchaser of a security, which we sometimes refer to as a beneficial owner, is in turn recorded on the direct and indirect participants' records. Beneficial owners of securities will not receive written confirmation from DTC of their purchases. However, beneficial owners are expected to receive written confirmations providing details of their transactions, as well as periodic statements of their holdings, from the direct or indirect participants through which they purchased securities. Transfers of ownership interests in global securities are to be accomplished by entries made on the books of participants acting on behalf of beneficial owners. Beneficial owners will not receive certificates representing their ownership interests in the global securities, except under the limited circumstances described below.

To facilitate subsequent transfers, all global securities deposited by direct participants with DTC will be registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of securities with DTC and their registration in the name of Cede & Co. or such other nominee will not change the beneficial ownership of the securities. DTC has no knowledge of the actual beneficial owners of the securities. DTC's records reflect only the identity of the direct participants to whose accounts the securities are credited,

Edgar Filing: MOMENTA PHARMACEUTICALS INC - Form 424B5

which may or may not be the beneficial owners. The participants are responsible for keeping account of their holdings on behalf of their customers.

So long as the securities are in book-entry form, you will receive payments and may transfer securities only through the facilities of the depositary and its direct and indirect participants. We will maintain an office or agency in the location specified in the prospectus supplement for the applicable securities, where notices and demands in respect of the securities and the indenture may be delivered to us and where certificated securities may be surrendered for payment, registration of transfer or exchange.

Conveyance of notices and other communications by DTC to direct participants, by direct participants to indirect participants and by direct participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any legal requirements in effect from time to time.

Redemption notices will be sent to DTC. If less than all of the securities of a particular series are being redeemed, DTC's practice is to determine by lot the amount of the interest of each direct participant in the securities of such series to be redeemed.

Neither DTC nor Cede & Co. (or such other DTC nominee) will consent or vote with respect to the securities. Under its usual procedures, DTC will mail an omnibus proxy to us as soon as possible after the record date. The omnibus proxy assigns the consenting or voting rights of Cede & Co. to those direct participants to whose accounts the securities of such series are credited on the record date, identified in a listing attached to the omnibus proxy.

So long as securities are in book-entry form, we will make payments on those securities to the depositary or its nominee, as the registered owner of such securities, by wire transfer of immediately available funds. If securities are issued in definitive certificated form under the limited circumstances described below, we will have the option of making payments by check mailed to the addresses of the persons entitled to payment or by wire transfer to bank accounts in the United States designated in writing to the applicable trustee or other designated party at least 15 days before the applicable payment date by the persons entitled to payment, unless a shorter period is satisfactory to the applicable trustee or other designated party.

Redemption proceeds, distributions and dividend payments on the securities will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit direct participants' accounts upon DTC's receipt of funds and corresponding detail information from us on the payment date in accordance with their respective holdings shown on DTC records. Payments by participants to beneficial owners will be governed by standing instructions and customary practices, as is the case with securities held for the account of customers in bearer form or registered in "street name." Those payments will be the responsibility of participants and not of DTC or us, subject to any statutory or regulatory requirements in effect from time to time. Payment of redemption proceeds, distributions and dividend payments to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC, is our responsibility, disbursement of payments to direct participants is the responsibility of DTC, and disbursement of payments to the beneficial owners is the responsibility of direct and indirect participants.

Except under the limited circumstances described below, purchasers of securities will not be entitled to have securities registered in their names and will not receive physical delivery of securities. Accordingly, each beneficial owner must rely on the procedures of DTC and its participants to exercise any rights under the securities and the indenture.

The laws of some jurisdictions may require that some purchasers of securities take physical delivery of securities in definitive form. Those laws may impair the ability to transfer or pledge beneficial interests in securities.

Edgar Filing: MOMENTA PHARMACEUTICALS INC - Form 424B5

DTC may discontinue providing its services as securities depository with respect to the securities at any time by giving reasonable notice to us. Under such circumstances, in the event that a successor depository is not obtained, securities certificates are required to be printed and delivered.

As noted above, beneficial owners of a particular series of securities generally will not receive certificates representing their ownership interests in those securities. However, if:

DTC notifies us that it is unwilling or unable to continue as a depository for the global security or securities representing such series of securities or if DTC ceases to be a clearing agency registered under the Exchange Act at a time when it is required to be registered and a successor depository is not appointed within 90 days of the notification to us or of our becoming aware of DTC's ceasing to be so registered, as the case may be;

we determine, in our sole discretion, not to have such securities represented by one or more global securities; or

an Event of Default has occurred and is continuing with respect to such series of securities,

we will prepare and deliver certificates for such securities in exchange for beneficial interests in the global securities. Any beneficial interest in a global security that is exchangeable under the circumstances described in the preceding sentence will be exchangeable for securities in definitive certificated form registered in the names that the depository directs. It is expected that these directions will be based upon directions received by the depository from its participants with respect to ownership of beneficial interests in the global securities.

We have obtained the information in this section and elsewhere in this prospectus concerning DTC and DTC's book-entry system from sources that are believed to be reliable, but we take no responsibility for the accuracy of this information.

SELLING SECURITYHOLDERS

Information about selling securityholders, where applicable, will be set forth in a prospectus supplement, in a post-effective amendment or in filings we make with the SEC under the Exchange Act that are incorporated by reference.

PLAN OF DISTRIBUTION

We or any of the selling securityholders may sell the offered securities from time to time:

through underwriters or dealers;

through agents;

directly to one or more purchasers; or

through a combination of any of these methods of sale.

We will identify the specific plan of distribution, including any underwriters, dealers, agents or direct purchasers and their compensation in the applicable prospectus supplement.

LEGAL MATTERS

Latham & Watkins LLP will pass upon certain legal matters relating to the issuance and sale of the securities offered hereby on behalf of Momenta Pharmaceuticals, Inc. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements of Momenta Pharmaceuticals, Inc. appearing in Momenta Pharmaceuticals, Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2014 and the effectiveness of Momenta Pharmaceuticals, Inc.'s internal control over financial reporting as of December 31, 2014, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

Table of Contents

7,250,000 Shares

Momenta Pharmaceuticals, Inc.

Common Stock

PROSPECTUS SUPPLEMENT

Goldman, Sachs & Co.

J.P. Morgan

Stifel
May 19, 2015
