

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM S-3**

**REGISTRATION STATEMENT  
UNDER THE  
SECURITIES ACT OF 1933**

**THE MEDICINES COMPANY**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation or organization)

**04-3324394**

(I.R.S. Employer Identification Number)

**8 Sylvan Way**

**Parsippany, New Jersey 07054**

**(973) 290-6000**

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

**Clive A. Meanwell**

**Chief Executive Officer**

**The Medicines Company**

**8 Sylvan Way**

**Parsippany, New Jersey 07054**

**(973) 290-6000**

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

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**Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective.**

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

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

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

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

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

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

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

**CALCULATION OF REGISTRATION FEE**

Title of Each Class of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, par value \$0.001 per share	944,537(1)	\$ 33.06(2)	\$ 31,228,754.56(2)	\$3,144.74

- (1) This Registration Statement registers 944,537 shares of common stock. Pursuant to Rule 416 under the Securities Act of 1933, as amended, or the Securities Act, this Registration Statement also covers such indeterminable number of additional shares of the Registrant's common stock that may become issuable by reason of any stock split, stock dividend, recapitalization, or similar transaction that is effected without the receipt of consideration and results in an increase in the number of shares of the Registrant's common stock that are outstanding.
  - (2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) under the Securities Act. The price per share and aggregate offering price are based on the average of the high and low price of the Registrant's common stock on March 2, 2016, as reported on the NASDAQ Global Select Market.
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944,537 Shares

# The Medicines Company

**The Medicines Company**

## **Common Stock**

This prospectus relates to the offer and sale from time to time of up to 944,537 shares of The Medicines Company common stock, \$0.001 par value per share, by the selling stockholder identified in this prospectus or in supplements to this prospectus. See “Selling Stockholder.” The registration of the shares of common stock to which this prospectus relates does not require the selling stockholder to sell any of its shares of our common stock.

We will not receive any proceeds from the sale of the shares by the selling stockholder, but we have agreed to pay certain registration expenses, other than underwriting discounts and commissions. The selling stockholder from time to time may offer and sell the shares held by it directly or through underwriters, agents or broker-dealers on terms to be determined at the time of sale, as described in more detail in this prospectus. For more information, see “Plan of Distribution.”

Our common stock trades on the NASDAQ Global Select Market under the symbol “MDCO.” On March 2, 2016, the closing sales price of our common stock as reported on the NASDAQ Global Select Market was \$34.35 per share.

**Investing in our common stock involves risks. Before making a decision to invest in our common stock, you should refer to the risk factors included in our periodic reports, in prospectus supplements relating to specific offerings and in other information that we file with the Securities and Exchange Commission, or SEC. See “Risk Factors” on page 7 of this prospectus.**

**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 March 4, 2016

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## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the SEC, utilizing a “shelf” registration process. Under this shelf registration process, the selling stockholder named in this prospectus may from time to time sell shares of our common stock in one or more offerings.

This prospectus provides you with a general description of the shares of common stock the selling stockholder may offer. Each time the selling stockholder sells shares of our common stock using this prospectus, to the extent necessary, we will provide a prospectus supplement that will contain specific information about the terms of that offering, including the number of shares being offered, the manner of distribution, the identity of any underwriters or other counterparties and other specific terms related to the offering. The prospectus supplement may also add, update or change information contained in this prospectus. To the extent that any statement made in an accompanying prospectus supplement is inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in the accompanying prospectus supplement. You should read both this prospectus and any accompanying prospectus supplement together with the additional information described under the heading “Where You Can Find More Information” beginning on page 14 of this prospectus.

Neither we nor the selling stockholder have authorized anyone to provide you with information different from that contained in this prospectus, any accompanying prospectus supplement or in any related free-writing prospectus filed by us with the SEC. Neither we nor the selling stockholder take any responsibility for, or provide any assurance as to the reliability of, any information other than the information in this prospectus, any accompanying prospectus supplement or in any related free-writing prospectus filed by us with the SEC. This prospectus and any accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus or any accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free-writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Unless otherwise stated, all references in this prospectus and any accompanying prospectus to “we,” “us,” “our,” “The Medicines Company,” “the Company” and similar designations refer to The Medicines Company, a Delaware corporation, and its subsidiaries. The Medicines Company® name and logo, Angiomax®, Angiox®, Cleviprex®, Carbavance®, Ionsys®, Kengreal®, Kengrexal™ and Orbactiv® are either registered trademarks or trademarks of The Medicines Company in the United States and/or other countries. All other trademarks, service marks or other tradenames appearing herein are the property of their respective owners. Except where otherwise indicated, or where the context may otherwise require, references in this prospectus to “Angiomax” mean Angiomax and Angiox, collectively, and references to “Kengreal” mean Kengreal and Kengrexal, collectively.

## PROSPECTUS SUMMARY

*This summary highlights selected information contained elsewhere in this prospectus and in the documents we incorporate by reference. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus and the documents incorporated by reference carefully, especially the risks of investing in our common stock discussed under and incorporated by reference in “Risk Factors” on page 7 of this prospectus, along with our consolidated financial statements and notes to those consolidated financial statements and the other information incorporated by reference in this prospectus, before making an investment decision.*

### Our Business

We are a global biopharmaceutical company focused on saving lives, alleviating suffering and contributing to the economics of healthcare by focusing on leading acute/intensive care hospitals worldwide. We market Angiomax® (bivalirudin), Cleviprex® (clevidipine) injectable emulsion, Ionsys® (fentanyl iontophoretic transdermal system), Kengreal® (cangrelor), Minocin (minocycline) for injection, and Orbactiv® (oritavancin). We also have a pipeline of acute and intensive care hospital products in development, including ABP-700, ALN-PCSsc, Carbavance® and MDCO-216. We have the right to develop, manufacture and commercialize ALN-PCSsc under our collaboration agreement with Alnylam Pharmaceuticals, Inc., or Alnylam. We believe that our products and products in development possess favorable attributes that competitive products do not provide, can satisfy unmet medical needs in the acute and intensive care hospital product market and offer, or, in the case of our products in development, have the potential to offer, improved performance to hospital businesses.

In addition to these products and products in development, we sell a ready-to-use formulation of Argatroban and have a portfolio of ten generic drugs, which we refer to as our acute care generic products, that we have the non-exclusive right to market in the United States. We are currently selling three of our acute care generic products, midazolam, ondansetron and rocuronium.

On July 2, 2015, we entered into a supply and distribution agreement with Sandoz Inc., or Sandoz, under which we granted Sandoz the exclusive right to sell in the United States an authorized generic of Angiomax (bivalirudin). We entered into the supply and distribution agreement as a result of the July 2, 2015 U.S. Court of Appeals for the Federal Circuit, or Federal Circuit Court, ruling against us in our patent infringement litigation with Hospira, Inc., or Hospira, with respect to U.S. Patent No. 7,582,727, or the ‘727 patent, and U.S. Patent No. 7,598,343, or the ‘343 patent, covering a more consistent and improved Angiomax drug product and the processes by which it is made. In its July 2, 2015 ruling, the Federal Circuit Court held the ‘727 patent and the ‘343 patent invalid. On July 15, 2015, Hospira’s Abbreviated New Drug Applications for its generic versions of bivalirudin were approved by the Food and Drug Administration and Hospira began selling its generic versions of bivalirudin. In November 2015, our petition for en banc review of the Federal Circuit Court’s July 2, 2015 decision was granted and the Federal Circuit Court vacated its July 2, 2015 decision. Notwithstanding the granting of our petition for en banc review, due to the July 2, 2015 decision and our resulting entry into a supply and distribution agreement with Sandoz and Hospira’s entry into the market, Angiomax is now subject to generic competition with the authorized generic and Hospira’s generic bivalirudin products. Given the generic competition, we have decided to suspend our efforts and expenditures with respect to Angiomax other than for supply chain, quality, safety monitoring and limited clinical activities and other necessary activities.

On November 3, 2015, we announced that we were in the process of evaluating our operations with a goal of unlocking stockholder value. In particular, we stated our current intention was to explore strategies for optimizing our capital structure and liquidity position and to narrow our operational focus by strategically separating non-core businesses and products in order to generate non-dilutive cash and reduce associated cash burn and capital requirements, including, among other things, by potentially divesting or partnering our hemostasis portfolio, consisting of PreveLeak™ (surgical sealant), Raplixa™ (fibrin sealant) and Recothrom® Thrombin topical

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(Recombinant). On February 1, 2016, we completed the sale of PreveLeak, Raplixa and Recothrom to wholly owned subsidiaries of Mallinckrodt plc.

The following table identifies each of our marketed and approved products and our products in development, their stage of development, their mechanism of action and the indications for which they have been approved for use or which they are intended to address. The table also identifies each of our acute care generic products and the therapeutic areas which they are intended to address. All of our products and products in development, except for ALN-PCSSc and Ionsys, are administered intravenously. Ionsys is administered transdermally and ALN-PCSSc is being developed as a subcutaneous injectable. All of our acute care generic products are injectable products.

<b>Product or Product in Development</b>	<b>Development Stage</b>	<b>Mechanism/Target</b>	<b>Clinical Indication(s)/Therapeutic Areas</b>
<b>Marketed and Approved Products</b>			
Angiomax	Marketed as a branded product, and as an authorized generic in the United States through Sandoz	Direct thrombin inhibitor	U.S. - for use as an anticoagulant in combination with aspirin in patients with unstable angina undergoing percutaneous transluminal coronary angioplasty, or PTCA, and for use in patients undergoing percutaneous coronary intervention, or PCI, including patients with or at risk of heparin-induced thrombocytopenia and thrombosis syndrome, or HIT/HITTS  Europe - for use as an anticoagulant in patients undergoing PCI, adult patients with acute coronary syndrome, or ACS, and for the treatment of patients with ST-segment elevation myocardial infarction, or STEMI, undergoing primary PCI
Cleviprex	Marketed in the United States, Australia, Germany, Spain and Switzerland  Approved in Austria, Belgium, Canada, France, Kazakhstan, Luxembourg, the Netherlands, New Zealand, Sweden and the United Kingdom  Marketing Authorization Application, or MAA, submitted for other European Union countries	Calcium channel blocker	U.S. - Blood pressure reduction when oral therapy is not feasible or not desirable  Ex-U.S. - with various indications for blood pressure control in perioperative settings
Ionsys	Marketed in the United States;	Patient-controlled analgesia system	Short-term management of acute postoperative pain in hospitalized patients

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<b>Product or Product in Development</b>	<b>Development Stage</b>	<b>Mechanism/Target</b>	<b>Clinical Indication(s)/Therapeutic Areas</b>
	Approved in the European Union		
Kengreal	Marketed in the United States; Approved in the European Union	Antiplatelet agent	Adjunct to PCI for reducing risk of periprocedural thrombotic events in patients who have not been treated with a P2Y12 inhibitor and are not being given a GPI
Minocin IV	Marketed in the United States	Tetracycline-class antibiotic	Treatment of bacterial infections due to susceptible isolates of designated microorganisms, including <i>Acinetobacter</i> species
Orbactiv	Marketed in the United States; Approved in the European Union	Antibiotic	Treatment of adult patients with acute bacterial skin and skin structure infections, or ABSSSI, caused or suspected to be caused by susceptible isolates of the label-designated gram-positive microorganisms, including methicillin-resistant <i>Staphylococcus aureus</i> , or MRSA
Ready-to-use Argatroban	Marketed in the United States	Direct thrombin inhibitor	For prophylaxis or treatment of thrombosis in adult patients with HIT and for use as an anticoagulant in adult patients with or at risk for HIT undergoing PCI
Acute care generic products: Adenosine, Amiodarone, Esmolol and Milrinone	Approved in the United States	Various	Acute cardiovascular
Acute care generic products: Azithromycin and Clindamycin	Approved in the United States	Various	Serious infectious disease
Acute care generic products: Haloperidol, Midazolam, Ondansetron and Rocuronium	Approved in the United States; Midazolam, Ondansetron and Rocuronium marketed in the United States	Various	Surgery and perioperative
<b>Research and Development Stage</b>			
ABP-700	Phase 1	Analogue of etomidate, an intravenous imidazole agent used for induction of general anesthesia	Sedative-hypnotic used to induce and maintain sedation for procedural care and general anesthesia for surgical care
ALN-PCSSc	Phase 2	PCSK-9 gene antagonist addressing	Treatment of hypercholesterolemia

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<b>Product or Product in Development</b>	<b>Development Stage</b>	<b>Mechanism/Target</b>	<b>Clinical Indication(s)/Therapeutic Areas</b>
		low-density lipoprotein cholesterol disease modification	
Carbavance	Phase 3	Combination of vaborbactam (formerly known as RPX-7009), a proprietary, novel beta-lactamase inhibitor, with meropenem, a carbapenem antibiotic	Treatment of hospitalized patients with serious gram-negative bacterial infections
MDCO-216	Phase 1/2	Naturally occurring variant of a protein found in high-density lipoprotein	Reverse cholesterol transport agent to reduce atherosclerotic plaque burden development and thereby reduce the risk of adverse thrombotic events

In 2015, we had net product revenues from sales of Angiomax of approximately \$212.0 million and aggregate net product revenues from sales of Cleviprex, Minocin IV, Orbactiv, ready-to-use Argatroban, Kengreal and Ionsys of approximately \$43.2 million. During this period, net product revenues from sales of Angiomax decreased by \$423.7 million from 2014. As a result of our July 2015 supply and distribution agreement with Sandoz, we recognized \$53.9 million of royalty revenues related to the authorized generic sales of Angiomax (bivalirudin) in 2015. We expect that net revenues from sales of Angiomax will continue to decline in 2016 and in future years due to competition from generic versions of bivalirudin following the loss of market exclusivity in the United States in July 2015 and in Europe in August 2015. Based on our current business, we expect to incur net losses for the foreseeable future.

**Company Information**

We are a Delaware corporation. We were incorporated in Delaware on July 31, 1996. The address of our principal executive offices is 8 Sylvan Way, Parsippany, New Jersey 07054, and the telephone number at our principal executive offices is (973) 290-6000. Our website address is <http://www.themedicinescompany.com>. The information contained on or accessible through our website is not incorporated by reference into, and should not be considered part of, this prospectus supplement. We have included our website address in this prospectus supplement as an inactive textual reference only.

**THE OFFERING**

Common Stock offered by us in this offering	We are not selling any shares of common stock pursuant to this prospectus.
Common Stock offered by the selling stockholder	Up to 944,537 shares of common stock.
Common stock outstanding as of March 2, 2016	69,902,949 shares of common stock. Does not reflect shares issuable upon the exercise of outstanding stock options, shares reserved for future issuance under our stock incentive and employee stock purchase plans and shares, if any, issuable upon conversion of our convertible senior notes due 2017 and our convertible senior notes due 2022. Except as otherwise noted, we have presented the information in this prospectus

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assuming no exercise of outstanding stock options, no issuance of additional awards under stock plans, and no conversion of convertible senior notes.

Use of proceeds	The selling stockholder will receive all of the proceeds of the sale of shares of common stock offered from time to time pursuant to this prospectus. Accordingly, we will not receive any proceeds from the sale of shares of common stock that may be sold from time to time pursuant to this prospectus. See “Use of Proceeds” and “Plan of Distribution” on pages 7 and 12, respectively, of this prospectus.
Dividend policy	We have never declared or paid cash dividends on our common stock. We anticipate that we will retain all of our future earnings, if any, for use in the expansion and operation of our business and do not anticipate paying cash dividends in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors.
Risk factors	You should read the “Risk Factors” section of this prospectus on page 7 and the information incorporated by reference therein for a discussion of factors to consider before deciding to purchase shares of our common stock.
Listing	Our common stock is listed on the NASDAQ Global Select Market under the symbol “MDCO.”

## **RISK FACTORS**

Investing in our securities involves significant risks. You should carefully consider the risks and uncertainties described in this prospectus and any accompanying prospectus supplement, including the risk factors set forth in our filings with the SEC that are incorporated by reference herein, including the risk factors in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, before making an investment decision pursuant to this prospectus and any accompanying prospectus supplement relating to a specific offering.

Our business, financial condition and results of operations could be materially and adversely affected by any or all of these risks or by additional risks and uncertainties not presently known to us or that we currently deem immaterial that may adversely affect us in the future.

## **FORWARD-LOOKING STATEMENTS**

This prospectus and the information incorporated by reference in this prospectus include “forward-looking statements” within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and Section 27A of the Securities Act of 1933, as amended, or the Securities Act. For these purposes, any statements contained or incorporated by reference herein regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management, other than statements of historical facts, are forward-looking statements. The words “anticipates,” “believes,” “estimates,” “expects,” “intends,” “may,” “plans,” “projects,” “will,” “would” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We cannot guarantee that we actually will achieve the plans, intentions or expectations expressed or implied in our forward-looking statements. There are a number of important factors that could cause actual results, levels of activity, performance or events to differ materially from those expressed or implied in the forward-looking statements we make. These important factors include our “critical accounting estimates” described in Part II, Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Application of Critical Accounting Estimates” of our most recent annual report filed on Form 10-K, and the factors set forth under and incorporated by reference in the caption “Risk Factors” in this prospectus.

Any forward-looking statement speaks only as of the date on which it is made. Although we may elect to update forward-looking statements in the future, we specifically disclaim any obligation to do so, even if our estimates change, and readers should not rely on our forward-looking statements as representing our views as of any date subsequent to the date the statements were made.

## **USE OF PROCEEDS**

The selling stockholder will receive all of the proceeds of the sale of shares of common stock offered from time to time pursuant to this prospectus. Accordingly, we will not receive any proceeds from the sale of shares of common stock that may be sold from time to time pursuant to this prospectus.

## **SELLING STOCKHOLDER**

On August 25, 2015, we entered into an investment agreement, or Investment Agreement, with Eshelman Ventures, LLC, a North Carolina limited liability company, and, solely for purposes of Article IV and Article V of the Investment Agreement, Fredric N. Eshelman, Pharm.D. On August 28, 2015, pursuant to the Investment Agreement, Eshelman Ventures, LLC, an entity wholly owned by Dr. Eshelman, purchased from us 944,537 shares of common stock, par value \$0.001 per share, of the Company, for an aggregate purchase price of \$30,000,000. In addition, effective August 28, 2015, Dr. Eshelman was appointed to the Company’s board of directors as a Class II director and he became non-executive Chairman of the board of directors.

Based upon information requested from and provided by Dr. Eshelman, the Company’s board of directors has determined that he is “independent” as that term is defined under Rule 5605(a)(2) of the NASDAQ rules. As a non-employee director, Dr. Eshelman is compensated in accordance with the Company’s director compensation program

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as disclosed in our 2015 Annual Meeting Proxy Statement on Schedule 14A filed with the SEC on April 30, 2015. As non-executive Chairman of the board of directors, he also receives a \$10,000 annual retainer. In 2015, Dr. Eshleman earned total cash compensation from the Company of \$21,667, which represents the prorated portion of the cash component of his director compensation. In addition, pursuant to the Company's director compensation program, the Company granted him an option to purchase 24,080 shares of common stock at a per share price of \$33.64 on August 28, 2015 (which is scheduled to vest on August 28, 2018), or the Director Option. As of March 2, 2016, Dr. Eshelman beneficially owned, directly and indirectly, 944,537 shares of common stock as described above, a currently exercisable call option purchased on November 23, 2015 with respect to 100,000 shares of common stock at an exercise price of \$42.00 per share, which call option expires on April 16, 2016, and the Director Option. We incorporate by reference into this Form S-3 our Form 8-K filed with the SEC on August 31, 2015, which provides further information about the Investment Agreement and Dr. Eshelman.

This prospectus covers 944,537 shares of our common stock that may be offered for resale by Eshelman Ventures, LLC or its transferees.

The following table sets forth information as of March 2, 2016, with respect to the selling stockholder and the shares of our common stock beneficially owned by the selling stockholder that may from time to time be offered or sold pursuant to this prospectus. Beneficial ownership is determined in accordance with the rules of the SEC. Information concerning the selling stockholder may change from time to time, and any changed information will be set forth in supplements to this prospectus or a post-effective amendment to the registration statement to which this prospectus relates, if and when necessary. The selling stockholder may offer all, some or none of its shares of common stock. We cannot advise you as to whether the selling stockholder will in fact sell any or all of such shares of common stock. In addition, the selling stockholder may have sold or transferred, in transactions pursuant to this prospectus or otherwise, some or all of its shares since the date as of which the information is presented in the table below. The selling stockholder is not a broker-dealer nor an affiliate of a broker-dealer.

Selling Stockholder	Shares of Common Stock Beneficially Owned		Shares of Common Stock that May be Offered for Resale	Shares of Common Stock Beneficially Owned After the Sale of the Maximum Number of Shares of Common Stock	
	Number of Shares	Percent of Common Stock Outstanding		Number of Shares	Percent of Common Stock Outstanding
Eshelman Ventures LLC	1,044,537(1)	1.49%(2)	944,537	100,000	0.14%(2)

- (1) Reflects 944,537 shares of common stock directly held by Eshelman Ventures, LLC, an entity wholly owned by Fredric N. Eshelman, Pharm.D, Chairman of the Company's board of directors. Dr. Eshelman may be deemed to be the beneficial owner of such shares. Dr. Eshelman also beneficially owns 100,000 shares that may be acquired by him upon exercise of a currently exercisable call option purchased on November 23, 2015.
- (2) Based on 69,902,949 shares issued and outstanding as of March 2, 2016, plus the number of shares that may be issued upon exercise of the currently exercisable call option.

#### DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is intended as a summary only. This description is based upon, and is qualified by reference to, our certificate of incorporation, our bylaws and applicable provisions of Delaware corporate law. This summary is not complete. You should read our certificate of incorporation and bylaws, which are filed as exhibits to the registration statement of which this prospectus forms a part, for the provisions that are important to you.

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Our authorized capital stock consists of 187,500,000 shares of common stock, par value \$0.001 per share, and 5,000,000 shares of preferred stock, par value \$1.00 per share. As of March 2, 2016, 69,902,949 shares of common stock were outstanding (excluding 2,192,982 shares held in treasury) and no shares of preferred stock were outstanding.

### **Common Stock**

*Annual Meeting.* Our second amended and restated bylaws provide that annual stockholder meetings will be held at a date, time and place, if any, as selected by our board of directors. Written notice must be mailed to each stockholder entitled to vote not less than ten nor more than 60 days before the date of the meeting. The presence in person or by proxy of the holders of record of a majority of our issued and outstanding shares entitled to vote at such meeting constitutes a quorum for the transaction of business at meetings of the stockholders. Special meetings of the stockholders may be called for any purpose only by the board of directors. Except as may be otherwise provided by applicable law, our certificate of incorporation or our bylaws, a nominee for election as a director in an uncontested election (an election where the number of nominees for election is equal to or less than the number of directors to be elected at such meeting) will only be elected if the votes cast for such nominee exceeds the number of votes cast against the nominee, all contested elections (an election in which the number of nominees for election as directors exceeds the number of directors to be elected at such meeting) shall be decided by a plurality, and all other questions shall be decided by a majority, of the votes cast by stockholders entitled to vote thereon at a duly held meeting of stockholders at which a quorum is present.

*Voting Rights.* Each holder of common stock is entitled to one vote for each share held on all matters to be voted upon by stockholders.

*Dividends.* The holders of common stock, after any preferences of holders of any preferred stock, are entitled to receive proportionally any dividends when and if declared by the board of directors out of legally available funds.

*Liquidation, Dissolution or Winding-Up.* Upon our liquidation, dissolution or winding-up, the holders of the common stock will be entitled to share equally in all assets available for distribution to stockholders, subject to preferences that may apply to shares of preferred stock outstanding at that time. The amount available for common stockholders is calculated after payment of liabilities.

*Other Rights.* Holders of common stock have no preemptive, subscription, redemption or conversion rights.

Holders of common stock do not have cumulative voting rights. Holders of common stock are not required to make additional capital contributions.

*Transfer Agent and Registrar.* American Stock Transfer & Trust Company is transfer agent and registrar for the common stock.

*NASDAQ Global Select Market.* Our common stock is listed on the NASDAQ Global Select Market under the symbol "MDCO."

### **Preferred Stock**

As of March 2, 2016, no shares of preferred stock were outstanding. The terms of any series of preferred stock will be described in any prospectus supplement or SEC filing relating to that series of preferred stock. The terms of any series of preferred stock may differ from the terms described below. Certain provisions of the preferred stock described below and in any applicable prospectus supplement or SEC filing are not complete.

We are authorized to issue "blank check" preferred stock, which may be issued in one or more series upon authorization of our board of directors. Our board of directors is authorized to fix the designation of the series, the number of authorized shares of the series, dividend rights and terms, conversion rights, voting rights, redemption rights and terms, liquidation preferences and any other rights, powers, preferences and limitations applicable to each series of preferred stock. The authorized shares of our preferred stock are available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange on which our securities may be listed. If the approval of our stockholders is not required for the issuance of shares of our preferred stock, our board may determine not to seek stockholder approval.

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A series of our preferred stock could, depending on the terms of such series, impede the completion of a merger, tender offer or other takeover attempt. Our board of directors will make any determination to issue such shares based upon its judgment as to the best interests of our stockholders. Our directors, in so acting, could issue preferred stock having terms that could discourage an acquisition attempt through which an acquirer may be able to change the composition of our board of directors, including a tender offer or other transaction that some, or a majority, of our stockholders might believe to be in their best interests or in which stockholders might receive a premium for their stock over the then-current market price of the stock.

Any preferred stock will have terms established by us and set forth in a prospectus supplement or SEC filing relating to a particular series of preferred stock. You should read the prospectus supplement or SEC filing relating to any particular series of preferred stock for specific terms, including:

- the designation and stated value per share of the preferred stock and the number of shares of the series;
- the amount of liquidation preference per share;
- the price at which the preferred stock will be issued;
- the dividend rate, or method of calculation of dividends, the dates on which dividends will be payable, whether dividends will be cumulative or noncumulative and, if cumulative, the dates from which dividends will commence to accumulate;
- any redemption or sinking fund provisions;
- if other than the currency of the United States, the currency or currencies including composite currencies in which the preferred stock is denominated and/or in which payments will or may be payable;
- any conversion provisions;
- the voting rights, if any, of the holders of the series; and
- any other rights, preferences, privileges, limitations and restrictions on the preferred stock.

### **Effects of Authorized but Unissued Stock**

We have shares of common stock and preferred stock available for future issuance without stockholder approval, subject to any limitations imposed by the listing standards of the NASDAQ Global Select Market. We may utilize these additional shares for a variety of corporate purposes, including for future public offerings to raise additional capital, or facilitate corporate acquisitions or for payment as a dividend on our capital stock. The existence of unissued and unreserved common stock and preferred stock may enable our board of directors to issue shares to persons friendly to current management or to issue preferred stock with terms that 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 controlling interest in our company by means of a merger, tender offer, proxy contest or otherwise. In addition, if we issue preferred stock, the issuance could adversely affect the voting power of holders of common stock, and the likelihood that such holders will receive dividend payments and payments upon liquidation.

### **Provisions of Our Certificate of Incorporation and Bylaws and Delaware Law That May Have Anti-Takeover Effects**

*Board of Directors.* Our certificate of incorporation and bylaws provide for a board of directors divided as nearly equally as possible into three classes. Each class is elected to a term expiring at the annual meeting of stockholders held in the third year following the year of such election. The number of directors comprising our board of directors is fixed from time to time by the board of directors.

*Removal of Directors by Stockholders.* Both our certificate of incorporation and bylaws provide that members of our board of directors may only be removed for cause and then only by the affirmative vote of the holders of at

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least 75% of the votes which all stockholders would be entitled to cast in any annual election of directors or class of directors.

*Stockholder Nomination of Directors.* Our bylaws provide that a stockholder must notify us in writing of any stockholder nomination of a director in the case of an election of directors at an annual meeting of stockholders, not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year's annual meeting; *provided, however*, that in the event that the date of the annual meeting in any other year is advanced by more than 30 days, or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting, a stockholder's notice must be so received not earlier than the 120<sup>th</sup> day prior to such annual meeting and not later than the 90<sup>th</sup> day prior to such annual meeting or, if later, the tenth day following the day on which we first made public disclosure of the date of such annual meeting. In the case of an election of directors at a special meeting of stockholders, a stockholder must notify us in writing of any stockholder nomination of a director not earlier than the 120<sup>th</sup> day prior to such special meeting and not later than the 90<sup>th</sup> day prior to such special meeting or, if later, the tenth day following the day on which we first made public disclosure of the date of such special meeting.

*No Action By Written Consent.* Our certificate of incorporation and bylaws provide that our stockholders may not act by written consent and may only act at duly called meetings of stockholders.

*Delaware Business Combination Statute.* We are subject to Section 203 of the Delaware General Corporation Law. 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 such person became an interested stockholder, unless either the interested stockholder attained such status with the approval of our board of directors, the business combination is approved by our board of directors and stockholders in a prescribed manner, or the interested stockholder acquired at least 85% of our outstanding voting stock in the transaction in which such person became an interested stockholder. 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.

*Super-Majority Voting.* The Delaware General Corporation Law 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 bylaws, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our bylaws may be amended or repealed by a majority vote of our board of directors or the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any annual election of directors or class of directors. In addition, the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any annual election of directors or class of directors is required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our certificate of incorporation described above.

*Exclusive Forum.* Our second amended and restated bylaws provide that unless we consent to the selection of an alternative forum, the sole and exclusive forum for any (i) derivative action or proceeding brought on behalf of the Company, (ii) action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Company to the Company or the Company's stockholders, (iii) action asserting a claim against the Company or any director or officer of the Company arising pursuant to any provision of the Delaware General Corporation Law, our third amended and restated certificate of incorporation or our second amended and restated bylaws, (iv) any action to interpret, apply, enforce or determine the validity of our third amended and restated certificate of incorporation or our second amended and restated bylaws or (v) action asserting a claim against the Company or any director or officer of the Company governed by the internal affairs doctrine shall be the Court of Chancery of the State of Delaware, or, if the Court of Chancery of the State of Delaware does not have jurisdiction, the Superior Court of the State of Delaware, or, if the Superior Court of the State of Delaware does not have jurisdiction, the United States District Court for the District of Delaware. Any person purchasing or otherwise acquiring any interest in shares of capital stock of the Company shall be deemed to have notice of and consented to the forum provisions in our second amended and restated bylaws. However, it is possible that a court could find our forum selection provision to be inapplicable or unenforceable.

### **Limitations on Liability and Indemnification of Officers and Directors**

Our certificate of incorporation limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the Delaware General Corporation Law and provides that no director will have personal liability to us or to our stockholders for monetary damages for breach of fiduciary duty as a director. However, these provisions do not eliminate or limit the liability of any of our directors:

- for any breach of the director's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- for voting or assenting to unlawful payments of dividends, stock repurchases or other distributions; or
- for any transaction from which the director derived an improper personal benefit.

Any amendment to or repeal of these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to such amendment or repeal. If the Delaware General Corporation Law is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the Delaware General Corporation Law.

Our certificate of incorporation provides that we must indemnify our directors and officers and we must advance expenses, including attorneys' fees, to our directors and officers in connection with legal proceedings, subject to very limited exceptions.

We maintain a general liability insurance policy that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

### **Indemnification Agreements**

We have entered into indemnification agreements with each of our directors and executive officers. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors or executive officers, we have been informed that in the opinion of the SEC such indemnification is against public policy and is therefore unenforceable.

### **PLAN OF DISTRIBUTION**

The selling stockholder, and its transferees or other successors in interest, may from time to time offer and sell, separately or together, shares of common stock covered by this prospectus. Registration of the shares of common stock covered by this prospectus does not mean, however, that those shares of common stock necessarily will be offered or sold.

The shares of common stock covered by this prospectus may be sold from time to time, at market prices prevailing at the time of sale, at prices related to market prices, at a fixed price or prices subject to change or at negotiated prices, by a variety of methods including the following:

- on the NASDAQ Global Select Market (including through at the market offerings);
- in the over-the-counter market;
- in privately negotiated transactions;
- through broker-dealers, who may act as agents or principals;
- through one or more underwriters on a firm commitment or best-efforts basis;

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- in a block trade in which a broker-dealer will attempt to sell a block of shares of common stock as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- through put or call option transactions relating to the shares of common stock;
- directly to one or more purchasers;
- through agents; or
- in any combination of the above.

In effecting sales, brokers or dealers engaged by us and/or the selling stockholder may arrange for other brokers or dealers to participate. Broker/dealer transactions may include:

- purchases of the shares of common stock by a broker-dealer as principal and resales of the shares of common stock by the broker-dealer for its account pursuant to this prospectus;
- ordinary brokerage transactions; or
- transactions in which the broker/dealer solicits purchasers on a best efforts basis.

The selling stockholder has not entered into any agreements, understandings or arrangements with any underwriters or broker-dealers regarding the sale of the common stock covered by this prospectus. At any time a particular offer of the shares of common stock covered by this prospectus is made, a revised prospectus or prospectus supplement, if required, will set forth the aggregate amount of shares of common stock covered by this prospectus being offered and the terms of the offering, including the name or names of any underwriters, dealers, brokers or agents. In addition, to the extent required, any discounts, commissions, concessions and other items constituting underwriters' or agents' compensation, as well as any discounts, commissions or concessions allowed or reallocated or paid to dealers, will be set forth in such prospectus supplement. To the extent required, any such prospectus supplement, and, if necessary, a post-effective amendment to the registration statement of which this prospectus is a part, will be filed with the SEC to reflect the disclosure of additional information with respect to the distribution of the shares of common stock covered by this prospectus.

To the extent required, the applicable prospectus supplement will set forth whether or not underwriters may over-allot or effect transactions that stabilize, maintain or otherwise affect the market price of the common stock at levels above those that might otherwise prevail in the open market, including, for example, by entering stabilizing bids, effecting syndicate covering transactions or imposing penalty bids.

If the selling stockholder utilizes a dealer in the sale of the securities being offered pursuant to this prospectus, the selling stockholder will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

The selling stockholder may also authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities at a public offering price set forth in a revised prospectus or prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The conditions to these contracts and the commission that the selling stockholder must pay for solicitation of these contracts will be described in a revised prospectus or prospectus supplement, to the extent such revised prospectus or prospectus supplement is required.

In connection with the sale of the shares of common stock covered by this prospectus through underwriters, underwriters may receive compensation in the form of underwriting discounts or commissions and may also receive commissions from purchasers of shares of common stock for whom they may act as agent. Underwriters may sell to or through dealers, and such dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agent.

Any underwriters, broker/dealers or agents participating in the distribution of the shares of common stock covered by this prospectus may be deemed to be "underwriters" within the meaning of the Securities Act, and any

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commissions received by any of those underwriters, broker/dealers or agents may be deemed to be underwriting commissions under the Securities Act.

We and the selling stockholder may agree to indemnify underwriters, broker-dealers or agents against certain liabilities, including liabilities under the Securities Act, and may also agree to contribute to payments which the underwriters, broker/dealers or agents may be required to make.

Certain of the underwriters, broker/dealers or agents who may become involved in the sale of the shares of common stock may engage in transactions with and perform other services for us in the ordinary course of their business for which they receive customary compensation.

Some of the shares of common stock covered by this prospectus may be sold by selling stockholder in private transactions or under Rule 144 under the Securities Act rather than pursuant to this prospectus.

#### **DIVIDEND POLICY**

We have never declared or paid cash dividends on our common stock. We anticipate that we will retain all of our future earnings, if any, for use in the expansion and operation of our business and do not anticipate paying cash dividends in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors.

#### **LEGAL MATTERS**

Unless the applicable prospectus supplement indicates otherwise, the validity of the securities in respect of which this prospectus is being delivered will be passed upon by Cadwalader, Wickersham & Taft LLP.

#### **EXPERTS**

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements and schedule included in our Annual Report on Form 10-K for the year ended December 31, 2015, and the effectiveness of our internal control over financial reporting as of December 31, 2015, as set forth in their reports, which are incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements and schedule and our management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2015 are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.

#### **WHERE YOU CAN FIND MORE INFORMATION**

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

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

## INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference in this prospectus much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below (File No. 000-31191) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) until the offering of the securities under the registration statement is terminated or completed:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2015;
- Current Reports on Form 8-K filed on August 31, 2015 and February 3, 2016; and
- The description of our common stock contained in our Registration Statement on Form 8-A filed on July 28, 2000, including any amendments or reports filed for the purpose of updating such description.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address or phone number:

8 Sylvan Way  
Parsippany, New Jersey 07054  
Attn: Investor Relations  
Phone: (973) 290-6000

Any statement in a document incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this Registration Statement to the extent that a statement contained herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

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**The Medicines Company**

**Common Stock**

**PROSPECTUS**

March 4, 2016

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**PART II.**

**INFORMATION NOT REQUIRED IN PROSPECTUS**

**ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.**

Set forth below is an estimate (except in the case of the registration fee) of the amount of fees and expenses to be incurred in connection with the issuance and distribution of the offered securities, other than underwriting discounts and commissions, if any.

SEC registration fee	\$	3,144.74
Accounting fees and expenses		30,000.00
Legal fees and expenses		50,000.00
Miscellaneous fees and expenses		10,000.00
Total	\$	<u>93,144.74</u>

**ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS.**

Section 102 of the Delaware General Corporation Law permits a corporation to eliminate the personal liability of its directors or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. The Registrant's certificate of incorporation provides that no director shall be personally liable to it or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the Delaware General Corporation Law prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the Delaware General Corporation Law provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnify for such expenses which the Court of Chancery or such other court shall deem proper.

The Registrant's certificate of incorporation provides that it will indemnify each person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Registrant), by reason of the fact that he is or was, or has agreed to become, a director or officer of the Registrant, or is or was serving, or has agreed to serve, at the request of the Registrant, as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan) (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or on his behalf in connection with such action, suit or proceeding and any appeal therefrom, if he acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the best interests of the Registrant, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

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The Registrant's certificate of incorporation also provides that the Registrant will indemnify any Indemnitee who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Registrant to procure a judgment in its favor by reason of the fact that he is or was, or has agreed to become, a director or officer of the Registrant, or is or was serving, or has agreed to serve, at the request of the Registrant, as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred by him or on his behalf in connection with such action, suit or proceeding and any appeal therefrom, if he acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the best interests of the Registrant, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Registrant unless and only to the extent that the Court of Chancery of Delaware shall determine upon application that, despite the adjudication of such liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses (including attorneys' fees) which the Court of Chancery of Delaware shall deem proper.

In addition, the Registrant has entered into indemnity agreements with each of its directors and executive officers. The indemnity agreements, among other things, require the Registrant to hold harmless, indemnify, and exonerate an indemnitee thereunder to the fullest extent permitted by applicable law against all expenses, judgments, liabilities, fines, penalties and amounts paid in settlement actually and reasonably incurred in connection with being a party to, or otherwise participating in, any legal proceeding by virtue of having served as a director, officer, employee or agent of the Registrant, if the indemnitee acted in good faith and in a manner the indemnitee reasonably believed to be in or not opposed to the best interests of the Registrant. For proceedings brought by or in the right of the Registrant, indemnification is limited to expenses actually and reasonably incurred by an indemnitee in connection with such proceedings. The indemnity agreements also require the Registrant to advance expenses incurred by indemnitees in defending against such proceedings.

The Registrant maintains a general liability insurance policy which covers certain liabilities of its directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

### **ITEM 16. EXHIBITS.**

The exhibits to this Registration Statement are listed in the exhibit index, which appears elsewhere herein and is incorporated herein by reference.

### **ITEM 17. UNDERTAKINGS.**

The undersigned Registrant hereby undertakes:

- (a) (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
  - (i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act");
  - (ii) to reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
  - (iii) to include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement;

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provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are incorporated by reference in this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this registration statement.

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

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

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

(i) each prospectus filed by a Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

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

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

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

(i) That, for purposes of determining any liability under the Securities Act:

(1) the information omitted from the form of prospectus filed as part of the registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant

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pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of the registration statement as of the time it was declared effective; and

(2) each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Parsippany, State of New Jersey, on March 4, 2016.

THE MEDICINES COMPANY

By: /s/ Clive A. Meanwell  
CLIVE A. MEANWELL

Name: Clive A. Meanwell  
Title: Chief Executive Officer

**POWER OF ATTORNEY AND SIGNATURES**

We, the undersigned officers and directors of The Medicines Company hereby severally constitute and appoint Clive A. Meanwell and William B. O'Connor, and each of them singly, our true and lawful attorneys with full power to any of them, and to each of them singly, to sign for us and in our names in the capacities indicated below the Registration Statement on Form S-3 filed herewith and any and all amendments (including post-effective amendments) to said Registration Statement, and to file or cause to be filed the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, and generally to do all such things in our name and on our behalf in our capacities as officers and directors to enable The Medicines Company to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming all that said attorneys, and each of them, or their substitute or substitutes, shall do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Clive A. Meanwell</u> Clive A. Meanwell	Chief Executive Officer (Principal Executive Officer) and Director	March 4, 2016
<u>/s/ William B. O'Connor</u> William B. O'Connor	Chief Financial Officer (Principal Financial and Accounting Officer)	March 4, 2016
<u>/s/ William W. Crouse</u> William W. Crouse	Director	March 4, 2016
<u>Alexander J. Denner</u>	Director	March 4, 2016
<u>/s/ Fredric N. Eshelman</u> Fredric N. Eshelman	Chairman of the Board of Directors	March 4, 2016
<u>/s/ Robert J. Hugin</u> Robert J. Hugin	Director	March 4, 2016
<u>/s/ John C. Kelly</u> John C. Kelly	Director	March 4, 2016
<u>/s/ Armin M. Kessler</u> Armin M. Kessler	Director	March 4, 2016
<u>/s/ Robert G. Savage</u> Robert G. Savage	Director	March 4, 2016
<u>/s/ Hiroaki Shigeta</u> Hiroaki Shigeta	Director	March 4, 2016
<u>/s/ Melvin K. Spigelman</u> Melvin K. Spigelman	Director	March 4, 2016
<u>/s/ Elizabeth H.S. Wyatt</u> Elizabeth H.S. Wyatt	Director	March 4, 2016

EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION
1.1*	Form of Underwriting Agreement
2.1	Agreement and Plan of Merger among the registrant, Boxford Subsidiary Corporation, and Targanta Therapeutics Corporation, dated as of January 12, 2009 (incorporated by reference to Exhibit 2.1 to the registrant's current report on Form 8-K, filed on January 14, 2009)
2.2#†	Agreement and Plan of Merger, dated December 11, 2012, by and among the registrant, Incline Therapeutics, Inc., Silver Surfer Acquisition Corp. and Fortis Advisors LLC (incorporated by reference to Exhibit 2.1 to the registrant's current report on Form 8-K, filed January 10, 2013)
2.3†	Settlement and Amendment to Agreement and Plan of Merger, dated as of December 8, 2014, by and between the registrant and Fortis Advisors LLC (incorporated by reference to Exhibit 2.3 to the registrant's annual report on Form 10-K, filed March 2, 2015)
2.4#†	Master Transaction Agreement, dated December 11, 2012, by and between the registrant and Bristol-Myers Squibb Company (incorporated by reference to Exhibit 2.1 to the registrant's current report on Form 8-K, filed February 8, 2013)
2.5#†	Share Purchase Agreement, dated June 4, 2013, by and among the registrant, ProFibrix B.V., the equityholders of ProFibrix, certain members of the management team of ProFibrix in their capacities as warrantors of certain information in the Share Purchase Agreement, the holders of options to acquire equity interests in ProFibrix and the representative (incorporated by reference to Exhibit 2.1 to the registrant's current report on Form 8-K, filed August 7, 2013)
2.6#†	Agreement and Plan of Merger, dated December 3, 2013, by and among the registrant, Rempex Pharmaceuticals, Inc., Ravioli Acquisition Corp. and Fortis Advisors LLC (incorporated by reference to Exhibit 2.1 to the registrant's current report on Form 8-K filed December 6, 2013)
2.7#†	Agreement and Plan of Merger, dated April 21, 2014, by and among the Company, Tenaxis, Napa Acquisition Corp. and Fortis Advisors LLC (incorporated by reference to Exhibit 2.1 to the registrant's current report on Form 8-K, filed May 7, 2014)
2.8#†	Purchase and Sale Agreement dated as of December 18, 2015 among the registrant and Mallinckrodt Hospital Products Inc., Mallinckrodt Group Sarl and Mallinckrodt Pharmaceuticals Ireland Limited (incorporated by reference to Exhibit 2.1 to the registrant's current report on Form 8-K, filed February 3, 2016)
3.1	Third Amended and Restated Certificate of Incorporation of the registrant, as amended (filed as Exhibit 3.1 to the registrant's quarterly report on Form 10-Q, filed August 7, 2015)
3.2	Second Amended and Restated Bylaws of the registrant, as amended (filed as Exhibit 3.1 to the registrant's current report on Form 8-K, filed December 18, 2015)
4.1	Indenture (including Form of Notes), dated as of June 11, 2012, by and between The Medicines Company and Wells Fargo Bank, National Association, a national banking association, as trustee (filed as Exhibit 4.1 to the registrant's current report on Form 8-K, filed June 14, 2012)

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4.2	Indenture (including Form of Notes), dated as of January 13, 2015, by and between The Medicines Company and Wells Fargo Bank, National Association, a national banking association, as trustee (filed as Exhibit 4.1 to the registrant's current report on Form 8-K, filed January 13, 2015)
5.1	Opinion of Cadwalader, Wickersham & Taft LLP
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm for the registrant
23.2	Consent of Cadwalader, Wickersham & Taft LLP (included in Exhibit 5.1)
24.1	Powers of Attorney (included on the signature pages to the Registration Statement)

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\* To be filed, if necessary, by amendment to this Registration Statement or incorporated by reference from documents filed with the SEC under the Exchange Act in connection with the offering of securities.

# Schedules (and similar attachments) have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The Company agrees to furnish supplementally copies of any of the omitted schedules (or similar attachments) to the Securities and Exchange Commission upon request.

† Confidential treatment requested as to certain portions, which portions have been omitted and filed separately with the Securities and Exchange Commission Unless otherwise indicated, the exhibits incorporated herein by reference were filed under Commission file number 000-31191.

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## [Letterhead of Cadwalader, Wickersham &amp; Taft LLP]

March 4, 2015

The Medicines Company  
8 Sylvan Way  
Parsippany, New Jersey

Re: The Medicines Company

Ladies and Gentlemen:

We have acted as special counsel to The Medicines Company, a Delaware corporation (the "Company"), which is filing with the Securities and Exchange Commission (the "Commission") a Registration Statement on Form S-3 (the "Registration Statement") for the purpose of registering under the Securities Act of 1933, as amended (the "Securities Act"), the resale by a selling stockholder of 944,537 shares (the "Shares") of the Company's common stock, \$0.001 par value per share.

In rendering the opinion set forth below, we have examined and relied upon the originals, copies or specimens, certified or otherwise identified to our satisfaction, of the Registration Statement relating to the Shares and such certificates, corporate and public records, agreements and instruments and other documents, as we have deemed appropriate as a basis for the opinion expressed below. In such examination we have assumed the genuineness of all signatures, the authenticity of all documents, agreements and instruments submitted to us as originals, the conformity to original documents, agreements and instruments of all documents, agreements and instruments submitted to us as copies or specimens, the authenticity of the originals of such documents, agreements and instruments submitted to us as copies or specimens, the conformity of the text of each document filed with the Commission through its Electronic Data Gathering, Analysis and Retrieval System to the printed document reviewed by us, the accuracy of the matters set forth in the documents, agreements and instruments we reviewed, and that such documents, agreements and instruments evidence the entire understanding between the parties thereto and have not been amended, modified or supplemented in any manner material to the opinion expressed herein. As to matters of fact relevant to the opinion expressed herein, we have relied upon, and assumed the accuracy of, certificates and oral or written statements and other information obtained from the Company, the other parties to the transaction referenced herein, and public officials. Except as expressly set forth herein, we have not undertaken any independent investigation (including, without limitation, conducting any review, search or investigation of any public files, records or dockets) to determine the existence or absence of the facts that are material to our opinion, and no inference as to our knowledge concerning such facts should be drawn from our reliance on the representations of the Company in connection with the preparation and delivery of this letter.

We have also assumed (x) the legal capacity of all natural persons and (y) (except to the extent expressly opined on herein) that all documents, agreements and instruments have been duly authorized, executed and delivered by all parties thereto, that all such parties are validly existing and in good standing under the laws of their respective jurisdictions of organization, that all such parties had the power and legal right to execute and deliver all such documents, agreements and instruments, and that such documents, agreements and instruments constitute the legal,

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valid and binding obligations of such parties, enforceable against such parties in accordance with their respective terms. As used herein, “to our knowledge,” “known to us” or words of similar import mean the actual knowledge, without independent investigation, of any lawyer in our firm actively involved in representing the Company with respect to the transactions contemplated by the Registration Statement.

We express no opinion concerning the laws of any jurisdiction other than the federal laws of the United States of America and the laws of the State of New York, to the extent expressly referred to in this letter, and the General Corporation Law of the State of Delaware, including the applicable provisions of the Delaware Constitution and the reported judicial decisions interpreting such law (the “GCL”), with respect to the opinion expressed in numbered paragraph 1. While we are not licensed to practice law in the State of Delaware, we have reviewed applicable provisions of the GCL as we have deemed appropriate in connection with the opinion expressed herein. Except as described in this paragraph, we have neither examined nor do we express any opinion with respect to Delaware law.

Based upon and subject to the foregoing, we are of the opinion that:

1. The Shares to be offered pursuant to the Registration Statement have been duly authorized by the Company and are validly issued and fully paid and nonassessable.

We hereby consent to the filing of this letter as an exhibit to the Registration Statement as it relates to the Shares, and to the reference to Cadwalader, Wickersham & Taft LLP and the discussion of our opinion set forth in this letter under the heading “LEGAL MATTERS” in the Registration Statement. This consent is not to be construed as an admission that we are a person whose consent is required to be filed with the Registration Statement under the provisions of the Securities Act.

In addition, we disclaim any obligation to update this letter for changes in fact or law, or otherwise.

Very truly yours,

/s/ Cadwalader, Wickersham & Taft LLP

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**Consent of Independent Registered Public Accounting Firm**

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Form S-3) and related Prospectus of The Medicines Company for the registration of 944,537 shares of its common stock and to the incorporation by reference therein of our reports dated February 29, 2016, with respect to the consolidated financial statements and schedule of The Medicines Company, and the effectiveness of internal control over financial reporting of The Medicines Company, included in its Annual Report (Form 10-K) for the year ended December 31, 2015, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

MetroPark, New Jersey  
February 29, 2016

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