MEDICINES CO /DE
Form 10-K
February 29, 2016
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UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K
(Mark One)

þ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended: December 31, 2015

Or

.. TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number 000-31191

THE MEDICINES COMPANY
(Exact name of registrant as specified in its charter)

Delaware	04-3324394
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
8 Sylvan Way Parsippany, New Jersey (Address of principal executive offices)	07054 (Zip Code)

Registrant's telephone number, including area code: (973) 290-6000

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, $.001 Par Value Per Share	NASDAQ Global Select Market

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes þ No o

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes o No þ

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or Section 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes þ No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes þ No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

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 þ Accelerated filer o Non-accelerated filer o Smaller reporting company o (Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No þ

The aggregate market value of voting Common Stock held by non-affiliates of the registrant on June 30, 2015 was approximately $1,907,787,469 based on the last reported sale price of the Common Stock on The NASDAQ Global Select Market on June 30, 2015 of $28.61 per share.

Number of shares of the registrant's class of Common Stock outstanding as of February 24, 2016: 69,615,054

DOCUMENTS INCORPORATED BY REFERENCE

The registrant intends to file a proxy statement pursuant to Regulation 14A within 120 days of the end of the fiscal year ended December 31, 2015. Portions of the proxy statement are incorporated herein by reference into the following parts of this Annual Report on Form 10-K:

Part III, Item 10. Directors, Executive Officers and Corporate Governance;

Part III, Item 11. Executive Compensation;

Part III, Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters;

Part III, Item 13. Certain Relationships and Related Transactions, and Director Independence; and

Part III, Item 14. Principal Accounting Fees and Services.

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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 in this Annual Report on Form 10-K are the property of their respective owners. Except where otherwise indicated, or where the context may otherwise require, references to “Angiomax” in this Annual Report on Form 10-K mean Angiomax and Angiox, collectively, and references to "Kengreal" mean Kengreal and Kengrexal, collectively. References to the Company, “we,” “us” or “our” mean The Medicines Company, a Delaware corporation, and its subsidiaries.

This Annual Report on Form 10-K includes 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 this purpose, any statements contained 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 Discussion and Analysis of this Annual Report on Form 10-K and the factors set forth under the caption “Risk Factors” in Part I, Item 1A. of this Annual Report on Form 10-K. 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 of this Annual Report on Form 10-K.

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PART I
Item 1. Business.
Our Company

Overview

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 ANDAs for its generic versions of bivalirudin were approved by the FDA 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.

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 hemostasis portfolio, consisting of PreveLeak™ (surgical sealant), Raplixa ™ (fibrin sealant) and Recothrom® Thrombin topical (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.

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Product or Product in Development	Development Stage	Mechanism/Target	Clinical Indication(s)/Therapeutic Areas
Marketed and Approved Products			
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
	Marketed in the United States, Australia, Germany, Spain and Switzerland		
Cleviprex	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; Approved in the	Patient-controlled analgesia system	Short-term management of acute postoperative pain in

	European Union		hospitalized patients
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 Acinetobacter 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 Staphylococcus aureus, or MRSA

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Product or Product in Development	Development Stage	Mechanism/Target	Clinical Indication(s)/Therapeutic Areas
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
Research and Development Stage			
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 low-density lipoprotein cholesterol disease modification	Treatment of hypercholesterolemia
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

Marketed Products

Angiomax

Overview

Angiomax is an intravenous direct thrombin inhibitor that is a peptide compound. We licensed Angiomax from Biogen Idec, Inc., or Biogen Idec, in 1997 and have exclusive license rights to develop, market and sell Angiomax worldwide. Angiomax is approved in the United States for use as an anticoagulant in combination with aspirin in patients with unstable angina undergoing PTCA and for patients undergoing PCI, with provisional use of glycoprotein IIb/IIIa receptor inhibitors, or GP IIb/IIIa inhibitors, including patients with or at risk of HIT/HITTS.

We sell Angiomax in the United States under our name as a branded Angiomax product, and also have entered into a supply and distribution agreement with Sandoz under which we granted Sandoz the exclusive right to sell in the United States an authorized generic of Angiomax (bivalirudin).

Angiomax is approved in the European Union for use as an anticoagulant in adult patients undergoing PCI, including patients with STEMI undergoing primary PCI. The approval for ACS in Europe also includes treatment of adult patients with unstable angina or non-STEMI planned for urgent or early intervention, when used with aspirin and clopidogrel. In Europe, we market Angiomax under the tradename Angiox.

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Angiomax is also approved for use in Australia, Canada, New Zealand, Russia, India and a number of countries in Central America, South America and the Middle East for PCI indications similar to those approved by the FDA or European Medicines Agency, or EMA. In addition, Angiomax is approved in Canada for the treatment of patients with HIT/HITTS undergoing cardiac surgery.

In 2015, our net sales of Angiomax totaled approximately $212.0 million, including approximately $193.2 million of net sales in the United States.

Medical Need

Arterial thrombosis is a condition involving the formation of potentially occlusive blood clots in arteries and is associated with life-threatening conditions such as ischemic heart disease, peripheral vascular disease and stroke. When arterial thrombosis occurs in the coronary arteries, depending on the severity of the occlusion, a range of ACS may result.

The spectrum of ACS, from unstable angina to acute myocardial infarction, or AMI, results in chest pain, other ischemic symptoms, and potential damage to the heart muscle. Unstable angina and similar conditions are caused most often by a rupture of atherosclerotic plaque on an arterial wall that results in clot formation and ultimately decreases coronary blood flow but does not cause complete blockage of the artery. AMI occurs when coronary arteries, which supply blood to the heart, become completely blocked by a clot. AMI patients routinely undergo PCI as soon as possible as a primary treatment to unblock clogged arteries. Increasingly, patients with ACS are also undergoing early diagnostic angiography and receive PCI as soon as possible as treatment.

Coronary angioplasty procedures such as PCI or PTCA that are used to restore arterial blood flow inherently increase the risk of clot formation. Clots form as the body reacts to the manipulation of the artery as a result of, for example, the use of catheters, stents, and other devices as well as from mechanical plaque rupture during the angioplasty procedure. Accordingly, anticoagulation therapy is routinely administered to patients undergoing angioplasty to limit both the underlying thrombotic process of ACS, as well as the clotting process stimulated by the procedure itself.

Heparin has historically been used as an anticoagulant in the treatment of arterial thrombosis and during PCI or PTCA. However, heparin pharmacokinetics are non-linear, with intra- and interpatient variability. The result is that a patient’s response to the drug is less predictable and standardized dosing is difficult. In some patients, especially patients with ACS, higher doses of heparin and adjunct therapy, such as GP IIb/IIIa inhibitors, may be required, which may increase the risk of bleeding complications. These shortcomings are significant because effective anticoagulation is important in patients being treated for ischemic heart disease to reduce the risk of further complications such as death, AMI or repeat revascularization.

Additionally, heparin has been associated with an immune syndrome known as HIT/HITTS. The most severe form, while rare, is a potentially devastating condition with a very high risk of morbidity and mortality.

Clinical Development

We have invested significantly in the development of clinical data on the mode of action and clinical effects of Angiomax in procedures including coronary angioplasty and stenting. In our large clinical trials, Angiomax was compared to various drug regimens, including heparin and enoxaparin, a low-molecular weight heparin, which until relatively recently were the only injectable anticoagulants available for use in coronary angioplasty, and combinations of drugs including heparin or enoxaparin and GP IIb/IIIa inhibitors. In these trials, compared with the comparator drug regimens, Angiomax use resulted in similar rates of ischemic complications, such as myocardial infarction, or MI, and in fewer bleeding events, including a reduction in the need for blood transfusion. In addition, in these trials, the therapeutic effects of Angiomax were shown to be more predictable than the therapeutic effects of heparin.

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Cleviprex

Cleviprex is an intravenous small molecule calcium channel blocker. We licensed Cleviprex from AstraZeneca in March 2003 and have exclusive license rights to develop, market, and sell Cleviprex worldwide. We received marketing approval for Cleviprex from the FDA in August 2008 for the reduction of blood pressure when oral therapy is not feasible or not desirable. In June 2011, the FDA approved an sNDA that we submitted for an improved formulation of Cleviprex. The improved formulation triples the maximum allowable infusion time per vial, commonly referred to in hospitals as "hang time", to 12 hours compared to the four-hour hang time of the formulation approved by the FDA in 2008. In October 2011, we re-launched Cleviprex in the United States with the new formulation.

In addition to the United States, the new formulation of Cleviprex is approved for sale in Australia, Austria, Belgium, Canada, France, Germany, Kazakhstan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland and the United Kingdom with various indications, including for short term treatment of hypertension when oral therapy is not feasible or desirable in Australia, for management of acute elevation of blood pressure in perioperative settings in Canada, and for the rapid reduction of blood pressure in perioperative settings in the European Union and Switzerland. The original formulation of Cleviprex is approved in New Zealand for the reduction of blood pressure when rapid and predictable control is desired. We have submitted MAAs for Cleviprex to certain member states of the European Union, pursuant to the European Union's decentralized procedure and are continuing to pursue approval in those countries.

In 2015, our net sales of Cleviprex totaled approximately $10.5 million.

Ionsys

Overview

Ionsys (fentanyl iontophoretic transdermal system) is a compact, needlefree patient-controlled system for the short term management of acute postoperative pain for adults requiring opioid analgesia in the hospital. We obtained rights to Ionsys in January 2013 in connection with our acquisition of Incline Therapeutics, Inc., or Incline. In April 2015, we received FDA approval of our Supplemental New Drug Application, or sNDA, for Ionsys, and in November 2015, the European Commission granted marketing authorization for Ionsys in the European Union. As with all opioids approved in the U.S., Ionsys is subject to a Risk Evaluation and Mitigation Strategy (REMS) Program with the goal to mitigate the risks of respiratory depression resulting from accidental exposure to persons for whom it is not prescribed.

Medical Need

Current post-operative pain management regimens include opioid analgesics administered by patient-controlled pain management systems, known as intravenous patient controlled analgesia or IV PCA, as well as by intermittent bolus administration (intravenously, intramuscular and oral). IV PCAs are controlled infusions pumps that deliver a prescribed amount of an opioid intravenously when a patient activates a button connected to the pump. IV PCA use has been associated with programming, medication, and pump errors, IV line complications, limited patient mobility, and consumption of significant amounts of hospital resources while the use of intermittent opioid analgesics are associated with analgesic gaps. We believe that Ionsys provides on-demand analgesia, avoids the analgesic gaps, and eliminates the programming and other issues associated with IV PCA pump.

Clinical Development

Ionsys was originally developed and evaluated in an extensive clinical program, including seven Phase 3 clinical trials that were conducted prior to our acquisition of the product. Ionsys was approved by the FDA in the United States in 2006 but was never launched. Ionsys was approved by the EMA in Europe in 2006 and launched in Europe in 2008. However, due to device stability issues, Ionsys was voluntarily recalled later that year. The MAA was suspended and subsequently expired in 2011. In 2010, ALZA Corporation, or ALZA, licensed Ionsys to Incline and Incline developed an enhanced version of the system to address the device stability issues while further increasing reliability and improving usability.

We completed both a pharmacokinetic study and usability study of Ionsys in the first quarter of 2013. The objective of the pharmacokinetic study was to demonstrate bioequivalence of fentanyl absorbed between the enhanced Ionsys system and the previously approved Ionsys system in healthy volunteers. The objective of the usability study was to assess ease of use with the enhanced Ionsys system in post-operative patients experienced by nurses, pharmacists and the patients themselves. Bioequivalence was successfully established between Ionsys and the previously approved

Ionsys by statistical comparison of historical pharmacokinetics, or PK, data with in vivo-in vitro correlation re-established for Ionsys. The usability study successfully demonstrated ease of use for both patients and healthcare practitioners.

We are conducting an adolescent trial evaluating the efficacy and safety of Ionsys in postoperative patients ages 12 to 17 years of age.

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Kengreal

Overview

Kengreal is an intravenous small molecule antiplatelet agent approved as an adjunct to percutaneous coronary intervention, or PCI, for reducing the risk of periprocedural thrombotic events in patients who have not been treated with a P2Y12 inhibitor and are not being given a glycoprotein IIb/IIIa inhibitor.

We exclusively licensed Kengreal in December 2003 from AstraZeneca. Under the terms of our agreement with AstraZeneca, we have exclusive license rights to develop, market, and sell Kengreal worldwide, excluding Japan, China, Korea, Taiwan and Thailand. In June 2015, we received FDA approval of our NDA for Kengreal in the United States, and in March 2015, the European Commission granted marketing authorization for Kengrexal in the European Union.

In 2015, our net sales of Kengreal totaled approximately $2.6 million.

Medical Need

In patients undergoing PCI, the use of antiplatelet agents to block platelet activation via the platelet P2Y12 receptor and reduce the risk of clot formation is considered important therapy based on several studies of oral platelet inhibitors that have demonstrated better patient outcomes in coronary angioplasty.

There is currently no intravenous drug that primarily inhibits platelet activation. One of the leading oral platelet inhibitors is clopidogrel, which, like Kengreal, acts by blocking the $P2Y_{12}$ receptor. Clopidogrel is marketed under the brand name Plavix® by Bristol-Myers Squibb Co./Sanofi Pharmaceuticals Partnership. Clopidogrel is also now available in various generic formulations. Clopidogrel is commonly administered at a high dose by giving patients four to eight oral tablets before PCI. This practice is known as pre-loading or pretreatment. However, no randomized controlled study has been conducted to show superiority in improvement of ischemic outcomes in coronary angioplasty with clopidogrel pretreatment. In addition, there are several other efficacy and safety issues with the use of clopidogrel in acute and intensive care practice, including that the effect of clopidogrel can be delayed and variable because clopidogrel requires absorption from the gut and liver metabolism to form the active agent and such metabolism can be influenced by other medications.

Oral agents like clopidogrel also have impaired bioavailability in patients in the acute and intensive care setting due to several issues, including nausea and inability to swallow oral drugs because they received pre-procedural sedatives, are intubated or are in shock. This need for clopidogrel to be swallowed is particularly problematic when there is a need for patients to swallow multiple tablets in a restricted period of time.

Based on input from hospital users in the cardiac catheterization laboratory and cardiovascular surgeons, we believe that the importance of reducing the possibility of ischemic events, including stent thrombosis, through platelet inhibition combined with the limitations of current oral therapy in acute and intensive care settings have created a need for an injectable platelet inhibitor that acts quickly and is cleared from the bloodstream rapidly. We developed Kengreal to address this market.

Clinical Development

We have evaluated Kengreal in 18 studies in approximately 13,800 patients and healthy volunteers since we licensed it from AstraZeneca in 2003.

CHAMPION Program. In October 2010, we commenced the CHAMPION PHOENIX Phase 3 clinical trial of Kengreal to evaluate the use of Kengreal in patients undergoing PCI. The trial was a double-blind parallel group randomized study, which compared Kengreal to a clopidogrel loading dose of 300mg or 600mg administered as soon as possible after it is determined that the patient will undergo PCI. In the trial, Kengreal was infused for at least two hours and up to four hours or until the conclusion of the PCI, whichever was longer. The loading dose of 300mg (labeled dose) or 600mg of clopidogrel is considered the usual care for patients undergoing PCI and is administered either prior to PCI or at the time of PCI, at the physician's discretion or as required by hospital protocol, when the anatomy is known and the decision has been made that the patient will undergo PCI. The primary endpoint of the trial is measured by the composite incidence of death, myocardial infarction, or MI, ischemia-driven revascularization and stent thrombosis at 48 hours after randomization.

In October 2012, we completed enrollment of approximately 10,900 patients in the trial. Data analysis of the trial revealed that the protocol defined primary composite efficacy endpoint of death, myocardial infarction, ischemia

driven revascularization and stent thrombosis at 48 hours was met, as Kengreal demonstrated statistically significant improvement for this endpoint as compared to clopidogrel. Safety outcomes from the trial were similar to those observed in the prior CHAMPION trials.

Prior to conducting the CHAMPION PHOENIX trial, we had conducted two earlier Phase 3 trials of Kengreal. The CHAMPION-PCI and CHAMPION PLATFORM trials were designed to evaluate Kengreal's effectiveness and safety in preventing ischemic

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events in patients who require PCI. In these trials, which we commenced in March 2006 and October 2006, respectively, we compared Kengreal to eight 75 mg clopidogrel tablets (600 mg), given at the beginning of the procedure in the CHAMPION PCI trial and at end of the procedure in the CHAMPION-PLATFORM trial. The primary endpoints of each of the CHAMPION-PCI and the CHAMPION-PLATFORM trials measured a composite of death, MI, or urgent revascularization at 48 hours. In May 2009, we discontinued enrollment in the trials prior to completion after the independent Interim Analysis Review Committee for the program reported to us that the efficacy endpoints of the trial program would not be achieved. Approximately 14,000 patients in the aggregate, reflecting approximately 98% of targeted patients in CHAMPION PCI and 84% of targeted patients in CHAMPION PLATFORM, had been enrolled in these trials when we discontinued enrollment.

In November 2009, the results of the CHAMPION-PCI and CHAMPION PLATFORM trials were, in parallel, published in the New England Journal of Medicine and presented at the American Heart Association Scientific Sessions 2009. Kengreal did not show superiority to clopidogrel in the pre-specified primary endpoints comprising death, MI or urgent revascularization, at 48 hours. However, in a report published in the American Heart Journal in February 2012, a pooled analysis of the data from the two CHAMPION clinical trials using the universal definition of MI showed Kengreal was associated with a significant reduction in early ischemic events when compared with clopidogrel in patients with non-STEMI ACS undergoing PCI. On this basis, in our PHOENIX study, we changed the process of endpoint evaluation as compared to the CHAMPION-PCI and CHAMPION PLATFORM clinical trials to ensure that only the MIs which occur after randomization are counted for the purpose of the endpoints, which is consistent with the universal definition of MI. In addition, we excluded from the CHAMPION PHOENIX trial patients who had already received clopidogrel prior to randomization.

In September 2013, we presented and published a pooled analysis of all three trials in our CHAMPION clinical trial program. In the approximately 25,000 patients undergoing PCI that participated in the trials Kengreal significantly reduced the odds of the primary composite endpoint of death, myocardial infarction, or MI, ischemia-driven revascularization and stent thrombosis at 48 hours after randomization as compared to active control (clopidogrel). We presented this pre-specified, pooled analysis of patient-level data at the European Society of Cardiology and published it in The Lancet.

BRIDGE. In the fourth quarter of 2008, we commenced a clinical trial, which we refer to as the BRIDGE trial, to assess the use of prolonged Kengreal infusion as a platelet inhibiting bridge for patients who need to discontinue clopidogrel before cardiac surgery. The BRIDGE trial enrolled 210 patients with ACS or treated with a coronary stent on clopidogrel or other thienopyridine awaiting CABG surgery with the object of establishing the dosage level of Kengreal that achieves inhibition of platelet aggregation at levels below the threshold needed for prevention of ischemia for up to seven days. In the BRIDGE trial, 99% of Kengreal-treated patients maintained target levels of platelet inhibition for all time points measured over the bridging period compared to 19% percent of placebo-treated patients. In addition, the primary safety measure demonstrated no significant excess in surgical bleeding complications between Kengreal-treated patients and placebo-treated patients. Kengreal was not approved for the BRIDGE indication we originally sought and we withdrew our request for approval for the BRIDGE indication.

Other Studies. In October 2013, we completed two pharmacodynamic trials evaluating the transition of intravenous Kengreal to chronic oral therapy with ticagrelor (BRILINTA®) or prasugrel (Effient®) in patients with coronary artery disease, or CAD. The pharmacodynamic studies were each conducted in 12 CAD patients to test the consistency of inhibition of platelet aggregation when oral ticagrelor or prasugrel were administered during or immediately after Kengreal infusion. Ticagrelor and prasugrel are the newest commercially available agents that inhibit platelets via the $P2Y_{12}$ receptor, the same receptor that is inhibited by Kengreal. These agents are typically administered with the goal of decreasing the risk of thrombotic events during and after PCI. In these studies, patients treated with intravenous Kengreal were directly transitioned to the oral drug without a significant decrease in the extent of inhibition of platelet aggregation. We believe that these studies support the clinical data from the CHAMPION PHOENIX trial in which the transition from Kengreal to oral clopidogrel 600mg administered immediately after cessation of the Kengreal infusion significantly reduced thrombotic events at 48 hours after randomization compared to clopidogrel alone.

Minocin IV

Overview

As a result of our acquisition of Rempex in December 2013, we acquired and began to market Minocin (minocycline) for injection, or Minocin IV, in the United States. Minocin IV is an intravenous formulation of a tetracycline-class antibiotic that is approved in the United States for the treatment of infections due to susceptible strains of designated gram-negative bacteria, including those due to Acinetobacter spp, Escherichia coli, Enterobacter aerogenes, Shigella species, respiratory tract infections caused by Haemophilus influenza and respiratory tract and urinary tract infections caused by Klebsiella species. Minocin IV is also approved for the treatment of infections caused by the following microorganisms when bacteriologic testing indicates appropriate susceptibility to the drug: skin and skin structure infections caused by Staphylococcus aureus and upper respiratory tract infections caused by Streptococcus pneumoniae. In April 2015, we received FDA approval of our sNDA for our proprietary reformulation of Minocin IV utilizing magnesium sulfate that enables formulation and manufacturing of minocycline at a more physiologic pH and thus smaller fluid volumes. We ceased marketing the prior formulation of Minocin IV and commercially launched the new formulation in 2015.

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In 2015, our net sales of Minocin IV totaled approximately $5.4 million.

Medical Need

Acinetobacter has recently emerged as a significant problem in many U.S. hospitals where it can cause serious infections in critically ill patients, particularly in intensive care units. Inadequate treatment of Acinetobacter is associated with high mortality. The U.S. Centers for Disease Control and Prevention, or CDC, recently classified multi-drug resistant, or MDR, Acinetobacter as a serious threat in the United States. According to the CDC, about 63% of Acinetobacter species are considered MDR. Recent studies of a large hospital database presented at ID Week in 2014 showed that infections due to MDR Acinetobacter were associated with a greater cost and increased hospital length of stay compared to non-MDR isolates. Surveillance data show a significant majority of isolates of Acinetobacter baumannii are susceptible to minocycline in vitro. In studies of large collections of isolates from U.S. hospitals, as well as hospitals worldwide, presented at the Interscience Conference on Antimicrobial Agents and Chemotherapy in September 2013 and ID Week in October 2013, minocycline was one of the most active agents in vitro against this pathogen, including MDR strains. In view of the high mortality and cost associated with infections caused by Acinetobacter species, we believe that Minocin IV would be a useful choice in patients infected with susceptible strains of Acinetobacter.

Orbactiv

Overview

Orbactiv is an intravenous antibiotic that is approved by the FDA and EMA for the treatment of adult patients with acute bacterial skin and skin structure infections, or ABSSSI, caused or suspected to be caused by susceptible isolates of designated gram-positive microorganisms, including methicillin-resistant Staphylococcus aureus, or MRSA, with a single dose treatment. Orbactiv is synthetically modified from a naturally occurring compound. In August 2014, we received FDA approval of our NDA for Orbactiv, and in October 2014, we commercially launched Orbactiv in the United States. In March 2015, the European Commission granted marketing authorization for Orbactiv in the European Union.

We obtained rights to Orbactiv as a result of our acquisition of Targanta Therapeutics Corporation, or Targanta, in February 2009. We have exclusive rights to develop, market, and sell Orbactiv worldwide under a license agreement with Eli Lilly, which originally discovered and developed Orbactiv. In November 2013, the FDA designated Orbactiv a qualified infectious disease product, or QIDP, under the “Generating Antibiotic Incentives Now,” or GAIN, provisions of the Food and Drug Administration Safety and Innovation Act, or FDASIA. In August 2014, following approval of Orbactiv, the FDA informed us that Orbactiv met the criteria for an additional five years of non-patent exclusivity in the United States to be added to the five year exclusivity period already provided by the Food, Drug and Cosmetic Act. As a result, the non-patent regulatory exclusivity for Orbactiv is scheduled to expire in August 2024.

In 2015, our net sales of Orbactiv totaled approximately $9.1 million.

Medical Need

Although there are a number of other approved antibiotics for the treatment of ABSSSI, these antibiotics have important shortcomings, including:

- bacteria are becoming non-susceptible or resistant to one or more of these existing antibiotics;
- some of these antibiotics, referred to as bacteriostatic drugs, inhibit the growth of pathogens and do not show bactericidal activity in vitro or in vivo. In contrast, bactericidal antibiotics, such as oritavancin, kill bacteria in vitro and in vivo in experimental models of infection;
- oral antibiotic options can be associated with poor patient adherence to prescribed regimens, resulting in the need to seek retreatment in the emergency room and potentially hospital admission;
- many of the antibiotics used to treat ABSSSI are difficult or inconvenient to administer, as they must be administered intravenously more than once, and in some cases once or twice daily for seven or more days, and may require the insertion of a peripherally inserted central catheter (PICC line). As a result, patients receiving these antibiotics are

typically either hospitalized or receive their antibiotics as an outpatient, either at an infusion center or at home, often once or twice a day; and

- therapeutic monitoring of plasma drug concentrations is commonly utilized when a frequently used intravenous antibiotic used for the treatment of ABSSSI due to MRSA is given to a patient.

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We believe Orbactiv addresses many of the shortcomings of these antibiotics and provides an opportunity to ensure that a complete course of therapy for ABSSSIs is delivered as a single dose in various care settings. The pharmacokinetic and pharmacodynamic profile of Orbactiv includes concentration-dependent killing and a long half-life, which allows for the single dose therapy. We believe this single dose regimen, is beneficial because it assists patient compliance, offers physicians the option to treat patients as either an outpatient or inpatient, and does not require additional patient visits for repeat intravenous infusions.

Clinical Development

In the fourth quarter of 2010, we commenced two independent, pivotal Phase 3 trials of Orbactiv, SOLO I and SOLO II, to evaluate the efficacy and safety of a single 1200 mg intravenous dose of Orbactiv compared to multiple doses of intravenous vancomycin, for the treatment of ABSSSI, including infections caused by MRSA. We designed these large, identically designed, global, randomized, double-blind studies in accordance with guidance from the FDA and the EMA to ensure accurate representation of the population requiring treatment with an antibacterial agent for ABSSSIs, including ABSSSIs caused by MRSA. The protocols were agreed to with the FDA following a special protocol assessment, or SPA, and with the EMA through Final Scientific Advice process.

SOLO. In the SOLO I and SOLO II clinical trials, we compared a single 1,200 mg intravenous dose of Orbactiv with seven to 10 days of intravenous vancomycin treatment given twice daily. The trials were designed to demonstrate that oritavancin was non-inferior to vancomycin using a primary efficacy endpoint that is a composite of resolution of fever and cessation of spread of visible infection without the use of rescue antibiotics at 48 to 72 hours following initiation of treatment. We enrolled 968 patients in the SOLO I clinical trial, and we enrolled 1,019 patients in the SOLO II clinical trial.

In both trials, non-inferiority to vancomycin was demonstrated for all protocol-specified primary and secondary efficacy endpoints, specifically for the Early Clinical Evaluation (48-72 hours after treatment initiation) endpoint required by the FDA and the Post Therapy Evaluation (7-14 days after end of treatment) endpoint required by the EMA. The most frequently reported adverse events associated with Orbactiv were nausea, headache, vomiting and diarrhea. Hypersensitivity reactions have been reported with the use of antibacterial agents including Orbactiv.

QT Studies. In the first quarter of 2013, we conducted a randomized, positive-, placebo-controlled thorough QTc study where 135 healthy subjects were administered a single 1600 mg dose of Orbactiv, placebo, and a positive control (moxifloxacin) by IV infusion over 3 hours. At a single 1600 mg dose of oritavancin, no significant effect on QTc interval was detected at peak plasma concentration or at any other time. We announced data from the trial in the second half of 2014.

Other Clinical Studies. Prior to our acquisition of Targanta, Targanta had completed a number of clinical studies of Orbactiv, including a Phase 2 clinical study evaluating the efficacy and safety of different dosing regimens of oritavancin in 300 patients with ABSSSI. In Arm A of the trial, patients received a single 1,200 mg dose of Orbactiv, in Arm B, patients received a 800 mg dose of Orbactiv on day 1 followed by an optional 400 mg dose of Orbactiv on day 5, and in Arm C, patients received a 200 mg dose of Orbactiv given daily for three to seven days, which was the dose used in the ARRD and ARRI trials. The results showed comparable efficacy and safety across all three treatment arms. In addition, Eli Lilly and InterMune, Inc., which transferred their rights for Orbactiv to Targanta in 2005, conducted two Phase 3 trials of Orbactiv, called ARRI and ARRD, in 1,617 patients with ABSSSI. In the clinical trials, oritavancin was administered once-daily for three to seven days. Both of these Phase 3 clinical trials compared treatment with Orbactiv to a control arm of vancomycin followed by an oral antibiotic, cephalexin, using a non-inferiority trial design. In both of the trials, Orbactiv met the primary endpoint.

Additional development. We are exploring the development of Orbactiv for other potential indications or uses, including ABSSSI in children, uncomplicated bacteremia, endocarditis, prosthetic joint infections, and other gram-positive bacterial infections.

Ready-to-Use Argatroban

In the third quarter of 2009, we licensed from Eagle Pharmaceuticals, Inc., or Eagle, marketing rights in the United States and Canada to a ready-to-use formulation of Argatroban developed by Eagle. Argatroban, which is currently sold by GlaxoSmithKline and West-Ward Pharmaceuticals in a concentrated formulation and by Sandoz, a Novartis company, in two ready-to-use formulations, is approved as an anticoagulant in the United States for prophylaxis or the treatment of thrombosis in patients with or at risk for HIT and for patients with or at risk for HIT undergoing PCI. In June 2011, the FDA approved Eagle's ready-to-use Argatroban 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. We began selling this ready-to-use Argatroban in September 2011. In December 2011, Eagle conducted a voluntary recall of its ready-to-use Argatroban due to the presence of particulate matter in some vials. As a result, we were not able to sell ready-to-use Argatroban from December 2011 to April 2012. In April 2012, we recommenced selling ready-to-use Argatroban to existing and new customers.

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In 2015, our net sales of ready-to-use Argatroban totaled approximately $15.6 million.

Acute Care Generic Products

On January 22, 2012, we entered into a license and supply agreement with APP Pharmaceuticals, LLC, or APP, in connection with the settlement of our patent litigations with APP. Under the license and supply agreement, APP granted to us a non-exclusive license under APP's marketing authorizations and intellectual property to sell ten generic products to hospitals and integrated delivery networks in the United States. The generic products are adenosine, amiodarone, azithromycin, clindamycin, esmolol, haloperidol, ondansetron, midazolam, milrinone and rocuronium. These acute care generic products are used in the therapeutic areas in which we focus or plan to focus, including acute cardiovascular, surgery and perioperative care and serious infectious diseases, and we believe complement our marketed products and product candidates. We began selling three of our acute care generic products, midazolam, ondansetron and rocuronium, in the first quarter of 2013.

Research and Development Stage Products in Development

APB-700

Overview

ABP-700 is an intravenous anesthetic agent being developed for moderate or deep sedation and general anesthesia in patients undergoing diagnostic or therapeutic procedures. We acquired ABP-700 in connection with our acquisition of Annovation BioPharma, Inc. in February 2015. ABP-700 is a positive allosteric modulator of the ã-aminobutyric acid type A (GABAA) ligand-gated ion channel. The endogenous ligand for this channel is GABA, the major inhibitory neurotransmitter in the central nervous system. ABP-700 has an ester bond that undergoes rapid cleavage via non-specific tissue esterases producing an inactive carboxylic acid metabolite. This chemical feature is intended to provide for both rapid onset of anesthesia as well as a more rapid and more consistent emergence than presently available intravenous agents.

Medical Need

Over the past decade, the number of surgical procedures performed has steadily increased and the proportion of those performed on an outpatient basis now exceeds 70% in most parts of the United States. At the same time, surgical care and procedural medicine have moved towards lighter anesthesia, minimal and focused procedural sedation, and teams that include many non-physician care providers. These dynamics are expanding most rapidly in the older population who are generally at higher risk due to a greater number of medical co-morbidities. In the European Union where the patient demographic is similar, there is pressure to provide high quality surgical care services with shorter stays to address the increasing costs and increasing demand for surgical care. In light of these trends, we believe that new agents need to be developed that are capable of producing highly specific depth of sedation or anesthesia yet also be highly reversible. We are developing ABP-700 to meet the need for more effective drugs with a higher therapeutic index that exhibit a predictable pharmacokinetic/pharmacodynamics, or PK/PD, relationship and allow precisely tailored control of sedation and anesthesia.

Clinical Development

Prior to our acquisition of Annovation in February 2015, Annovation advanced ABP-700 into Phase 1 human testing and completed a first-in-human, single bolus escalation Phase 1 study (ANVN-01). Following our acquisition, we completed a 30-minute infusion escalation Phase 1 study (ANVN-02) in 2015. We have subsequently conducted two additional Phase 1 studies: ANVN-03, a bolus dose optimization study, and ANVN-04, an infusion dose optimization study of doses intended to induce light-moderate and deep sedation. ANVN-05 is an ongoing Phase 1 study examining infusion dose regiments of ABP-700 intended for the induction of general anesthesia. These studies have evaluated the drug’s safety and tolerability, PK, PD, with an objective to identify dose ranges useful for both sedation and general anesthesia. The entire Phase 1 program has been conducted in the Netherlands.

ALN-PCSsc

Overview

ALN-PCSsc is a subcutaneously administered PCSK9 synthesis inhibitor which works through RNA interference, or RNAi, and is being developed for the potential treatment of hypercholesterolemia. We obtained rights to this product

candidate under a license and collaboration agreement that we entered into with Alnylam in February 2013 to develop, manufacture and commercialize RNAi therapeutics targeting the PCSK9 gene for the treatment of hypercholesterolemia and other human diseases. RNAi is a naturally occurring biological pathway within cells for selectively silencing and regulating the expression of specific genes. PCSK9 is a gene involved in the regulation of low-density lipoprotein, or LDL, receptor levels on hepatocytes and the metabolism of LDL cholesterol,

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or LDL-C, which is commonly referred to as “bad” cholesterol. ALN-PCSsc is designed to inhibit the synthesis of PCSK9 and lead to reduced levels of LDL-C.

Medical Need

Despite the widespread use of statins, a large number of cardiovascular events still occur. Many of these events occur due to increased lipid related risk, predominantly driven by elevated LDL-C levels. Many patients, particularly those with familial dyslipidemias, do not achieve adequate LDL-C levels at the highest doses of statin even with the addition of therapies such as ezetimibe. Other patients are intolerant of statins or high doses of statins. We believe that, in these scenarios, new effective treatments to significantly lower LDL-C are needed. Clinical studies performed with monoclonal antibodies to PCSK9, with or without statin, and a preclinical study of ALN-PCSsc monotherapy conducted in non-human primates by Alnylam have shown that therapies that act on PCSK9 lower LDL-C by as much as 50%, and therefore have the potential to meet this unmet need for additional significant LDL-C reduction.

Clinical Development

Under our agreement with Alnylam, we and Alnylam initially collaborated on the development of ALN-PCSsc and ALN-PCS02, an intravenously administered RNAi therapeutic. Alnylam was responsible for the development of these product candidates until Phase 1 was completed. We have assumed all other responsibility for the development and commercialization of all product candidates under our agreement with Alnylam. In October 2013, we and Alnylam selected a lead development candidate, ALN-PCSsc, for development for the potential treatment of hypercholesterolemia under the agreement. In making this decision, we and Alnylam considered data from non-human primate studies of ALN-PCSsc, which we presented at the Oligonucleotide Therapeutics Society meeting in which ALN-PCSsc caused an up to a 90% silencing of PCSK9 expression and an up to a 68% lowering of LDL-C in the absence of statins.

In December 2014, under the terms of the license and collaboration agreement with Alnylam, Alnylam initiated a Phase 1 clinical trial of ALN-PCSsc in the United Kingdom. Data from the Phase 1 trial was presented at the European Society of Cardiology meeting in August 2015 and at the American Heart Association meeting in November 2015. In January 2016, we began enrolling patients in the ORION-1 Phase 2 trial. The ORION-1 trial, for which we plan to enroll 480 subjects, is being conducted as a placebo-controlled, double-blind, randomized trial to evaluate the efficacy, safety, and tolerability of ALN-PCSsc injection(s). Different doses of ALN-PCSsc will be given as subcutaneous injections in a quarterly or bi-annual dosing regimen.

Carbavance

Overview

Carbavance is an antibiotic agent that we acquired in connection with our acquisition of Rempex and are developing for the treatment of hospitalized patients with serious gram-negative bacterial infections, including complicated urinary tract infections, hospital-acquired bacterial pneumonia/ventilator-associated bacterial pneumonia, and bacteremia. Carbavance is a combination of vaborbactam (formerly known as RPX-7009), a proprietary, novel beta-lactamase inhibitor, with meropenem, a well-known and marketed carbapenem antibiotic. Carbavance is focused on addressing one of the three urgent antimicrobial resistance threats identified by the U.S. Centers for Disease Control, or CDC, -- carbapenem-resistant Enterobacteriaceae, or CRE. The FDA designated Carbavance a QIDP under the GAIN provisions of the FDASIA. The QIDP designation provides Carbavance priority review by the FDA, eligibility for the FDA's "fast track" status, and an additional five years of exclusivity upon approval of the product. Carbavance is being developed under a cost-sharing arrangement with the Biomedical Advanced Research and Development Authority, or BARDA, of the U.S. Department of Health and Human Services, under which our subsidiary, Rempex Pharmaceuticals Inc., has the potential to receive up to $91.8 million in funding to support the development of Carbavance.

Medical Need

Enterobacteriaceae are the largest group of gram-negative pathogens associated with healthcare-associated infections. Examples of bacterial pathogens that are members of the Enterobacteriaceae family are E. coli, Klebsiella pneumoniae, and Enterobacter cloacae. The CDC reports that approximately 140,000 Enterobacteriaceae infections occur annually. These infections are often treated with a variety of antimicrobial agents, including aminoglycoside, cephalosporin and penicillin derivatives, and the carbapenem class of antibiotics. Over time, Enterobacteriaceae have

developed resistance to these antibiotics. One important mechanism that results in resistance to beta-lactam antibiotics is bacterial acquisition of resistance genes that code for production of enzymes that degrade this class of drugs, called beta lactamases. Over the last decade, clinical isolates of Enterobacteriaceae have acquired beta-lactamases that degrade all of the members of the beta-lactam class, including the carbapenem class of antibiotics. As a result, CRE infections are increasing among hospitalized patients and have become resistant to all or nearly all antibiotics available today. CRE was designated by the CDC as an urgent antimicrobial resistance threat and was the only pathogen designated at this highest resistant threat level that causes systemic infections in hospitalized patients.

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Beta lactamase inhibitors, or BLIs, have been developed to overcome, and are a proven approach to overcoming, beta lactamase-mediated resistance. With the rapid rise of beta lactamases resistant to carbapenems, or carbapenemases, a new generation of BLIs is needed because older agents have no important inhibitory activity against carbapenemases. We discovered a new class of cyclic boronic acid inhibitors, with first novel member of this class being vaborbactam. Vaborbactam was optimized to be combined with meropenem to create our fixed combination product, Carbavance. Meropenem is a carbapenem that is FDA-approved for the treatment of complicated intra-abdominal infections and complicated skin and skin structure infections in adults and pediatric patients, and for the treatment of bacterial meningitis in the U.S. as well as for other indications including urinary tract infections in the European Union. It has been marketed in the U.S. and worldwide for nearly two decades. Meropenem is considered one of the first line agents for the treatment of hospital-acquired infections, including those in the urinary and respiratory tracts, intraabdominal infections, skin and skin-structure infections, and bacteremia. Vaborbactam has broad inhibitory activity against beta-lactamases, but was specifically designed to inhibit serine carbapenemases such as the Klebsiella pneumonia carbapenemase, or KPC, and to be combined with a carbapenem antimicrobial.

We are developing Carbavance for the treatment of serious gram-negative infections in hospitalized patients, particularly in the setting of documented or suspected infections due to KPC-producing carbapenem-resistant Enterobacteriaceae in patients where limited or no alternative therapies are available.

Clinical Development

In December 2013, Rempex completed Phase 1 dose-escalation studies of vaborbactam alone or in combination with meropenem in healthy subjects. In these studies, safety was observed with our beta-lactamase inhibitor, vaborbactam, alone and in combination with a meropenem at expected therapeutic doses. In addition, the pharmacokinetics of our beta-lactamase inhibitor was similar to most carbapenem antibiotics, and there was no evidence of drug-drug interaction between our beta-lactamase inhibitor and meropenem. Additional Phase I studies demonstrated high penetration of meropenem and vaborbactam in lung tissues (to support studies in pulmonary infection), and good safety and pharmacokinetic properties in patients with renal impairment to support use in critically ill patients.

The Phase 3 program for Carbavance was designed following consultations with the FDA and the EMA's Scientific Advice Working Party, and included input from BARDA. In the fourth quarter of 2014, we began enrollment of the first patients in TANGO 1 and TANGO 2, our two Phase 3 clinical trials for Carbavance. The TANGO 1 Phase 3 clinical trial is a multi center, randomized, double blind, double dummy study designed to evaluate the efficacy, safety, and tolerability of Carbavance compared to piperacillin/tazobactam in the treatment of complicated urinary tract infections, or cUTI, including acute pyelonephritis, in adults. Such patients will be randomized on a one-to-one basis to receive either Carbavance or piperacillin/tazobactam each given intravenously for up to 10 days. Recent meetings with the FDA resulted in agreement to widen the non-inferiority margin from 10% to 15%, and thus we now expect to enroll up to approximately 550 patients.

The TANGO 2 Phase 3 clinical trial is a multi center, randomized, open label study of Carbavance versus “best available therapy” in patients with selected serious infections due to carbapenem resistant Enterobacteriaceae. Best available therapy will be selected from among antimicrobial agents that may have little to no activity against the CRE pathogens, but are often used as therapy in patients with serious infections and desperate needs. We expect to enroll approximately 150 patients with cUTI, nosocomial pneumonia and/or bacteremia. Such patients will be randomized on a two-to-one basis into either Carbavance or “best available therapy” for up to 14 days. We expect the available results of this study will be submitted to the FDA and EMA as supporting data for our initial NDA and MAA.

MDCO-216

Overview

MDCO-216, a novel biologic, is a complex of a phospholipid and recombinantly manufactured ApoA-1 Milano, a naturally occurring variant of ApoA-1, a protein found in human high-density lipoprotein, or HDL. MDCO-216 has the potential to reverse atherosclerotic plaque development and reduce the risk of ischemic events in patients with ACS by stimulating the ABCA1 dependent cholesterol efflux pathway which is the first step in reverse cholesterol transport. We licensed exclusive worldwide rights to MDCO-216, from Pfizer in December 2009.

Medical Need

Cardiovascular disease is the major cause of mortality globally. In the first six to 12 months following an ACS, patients are at high risk of subsequent fatal and non-fatal cardiovascular events such as MI and stroke. Current therapies for atherosclerosis, the underlying disease that leads to these cardiovascular events, such as statins, predominantly target the reduction of LDL-C. These therapies primarily prevent cholesterol from accumulating in plaque, but do not leverage HDL or ApoA-1's ability to rapidly remove cholesterol from plaque to treat atherosclerosis. This removal of cholesterol from plaque coupled with the anti-inflammatory properties of HDL and ApoA-1 represents a potential solution for stabilizing plaques and reducing the occurrence of these fatal and non-fatal cardiovascular events.

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Clinical Development

In multiple non-clinical studies conducted prior to our acquisition of license rights in December 2009, the predecessor to MDCO-216, which was manufactured by a different process, was found to rapidly remove excess cholesterol from artery walls, thereby stabilizing and regressing atherosclerotic plaque burden. In a Phase 2 proof of concept study conducted from 2001 through 2003 in 57 patients, the predecessor to MDCO-216 demonstrated statistically significant reductions in total atheroma volume as measured by intravascular ultrasound, or IVUS, by 4.2% in six weeks. These findings were published in the Journal of the American Medical Association in 2003.

In 2010, following our license with Pfizer, we completed a technology transfer program with Pfizer related to improved manufacturing methodologies developed by Pfizer since the initial Phase 2 trial with the predecessor of MDCO-216. Using these new methodologies, we manufactured MDCO-216 on a small scale for use in studies of MDCO-216 in 2010. In November 2011, at The American Heart Association Scientific Sessions 2011, we presented the results of preclinical studies in which MDCO-216 showed a dose dependent ability in an animal model to promote cholesterol efflux, the first step in reverse cholesterol transport. Reverse cholesterol transport is the natural process by which the body removes cholesterol from atherosclerotic plaque in the arteries. In addition, in these studies, the treatment was well tolerated up to the highest dose tested (300 mg/kg).

In January 2014, we completed a Phase 1 single ascending dose study of MDCO-216 in 48 patients, which investigated the safety and tolerability of escalating single doses of MDCO-216 in healthy volunteers and in patients with stable coronary artery disease. This study was designed to characterize the single dose pharmacokinetics and pharmacodynamics of MDCO-216. This study also demonstrated that MDCO-216 significantly increases ABCA1 mediated cholesterol efflux in both healthy volunteers and patients with Coronary Artery Disease. Results were presented at the American Heart Association in November 2014. In December 2015, we initiated a proof-of-concept intravascular ultrasound study, MILANO-PILOT, that will assess the safety and efficacy of MDCO-216. MILANO-PILOT, which is expected to enroll up to 120 subjects, is a double-blind, placebo-controlled trial that will use intravascular ultrasound to measure the effect of MDCO-216 on atherosclerotic plaque burden and continue to evaluate the agent's impact on cholesterol efflux. Two interim analyses are planned with 40 and 80 patients, which would allow us to terminate the study early if certain pre-specified criteria are met. If successful, thereafter we would expect to initiate a Phase 2 dose finding study, which would allow us to select a dose that can be tested for safety and efficacy in Phase 3 studies.

Sales and Distribution

We market and sell Cleviprex, Ionsys, Kengreal, Minocin IV, Orbactiv, our ready-to-use Argatroban and three of our acute care generic products, midazolam, ondansetron and rocuronium, in the United States with a sales force experienced in selling to hospital customers. As of December 31, 2015, our sales force in the United States consisted of 268 representatives, whom we generally refer to as engagement partners and customer solutions managers. In support of our sales efforts, we focus or expect to focus:

- our Cleviprex sales efforts on hospital systems, individual hospitals, and health care providers, including neurology, cardiology, surgical care and emergency medicine departments;
- our Ionsys sales efforts on hospital systems, individual hospitals, and health care providers, including anesthesiologists, surgeons, nurses and pharmacists;
- our Kengreal sales efforts on in the United States on hospital systems, individual hospitals, and health care providers, including interventional cardiologists in cardiac catheterization laboratories;
- our Minocin IV sales efforts on hospital systems and individual hospitals, including infectious disease, emergency medicine and critical care physicians, microbiologists and pharmacists;
- our Orbactiv sales efforts in the United States on hospital systems, individual hospitals, hospital and physician owned infusion centers and health care providers, including infectious disease and emergency room physicians, hospitalists,

infectious disease pharmacists, case managers and microbiologists; and

- our ready-to-use Argatroban sales efforts on group purchasing organizations, hospital systems, including hospital pharmacies and the acute care generic products sales efforts on hospital systems, including hospital pharmacies.

We no longer focus sales efforts on branded Angiomax in the United States. Given the generic competition, we determined to suspend our efforts and expenditures with respect to branded Angiomax other than for supply chain, quality, safety monitoring and limited clinical activities and other necessary activities.

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We believe our ability to deliver relevant, advanced and reliable service and information to our concentrated customer base provides us with significant market advantage in the United States, and will provide us with such advantage outside the United States, even in highly competitive sub-segments of the hospital market such as cardiology and neurocritical care.

We distribute our branded Angiomax product, Cleviprex, Kengreal, Minocin IV, Orbactiv, our ready-to-use Argatroban and the acute care generic products we market in the United States through a sole source distribution model with Integrated Commercialization Solutions, or ICS. Under this model, we currently sell our branded Angiomax product, Cleviprex, Kengreal, Minocin IV, Orbactiv, our ready-to-use Argatroban and our acute care generic products to our sole source distributor, ICS. ICS then sells these products to a limited number of national medical and pharmaceutical wholesalers with distribution centers located throughout the United States and, in certain cases, directly to hospitals and infusion centers. We distribute Ionsys through a similar sole source distribution model with Cardinal Health.

Our agreement with ICS, which we initially entered into in February 2007 and have subsequently amended from time to time, provides that ICS will be our exclusive distributor of our branded Angiomax product, Cleviprex, Kengreal, Minocin IV, Orbactiv, our ready-to-use Argatroban and the acute care generic products we market in the United States. Under the terms of this fee-for-service agreement, ICS places orders with us for sufficient quantities of these products to maintain an appropriate level of inventory based on our wholesalers' historical purchase volumes. ICS assumes all credit and inventory risks, is subject to our standard return policy and has sole responsibility for determining the prices at which it sells the products, subject to specified limitations in the agreement. The agreement terminates on February 28, 2019 and will automatically renew for additional one-year periods unless either party gives notice at least 90 days prior to the automatic extension. Either party may terminate the agreement at any time and for any reason upon 180 days prior written notice to the other party. In addition, either party may terminate the agreement upon an uncured default of a material obligation by the other party and other specified conditions. In connection with a reduction in marketing, sales and distribution fees payable to ICS, in October 2010, we amended our agreement with ICS to extend ICS' payment terms under our distribution agreement with them from 30 days to 45 days, which can be further extended to 49 days if ICS pays by wire transfer.

On July 2, 2015, we entered into a supply and distribution agreement with Sandoz under which we granted Sandoz the exclusive right to sell in the United States bivalirudin (250 mg/ml) under our approved new drug application for Angiomax but labeled and sold under the Sandoz name. We refer to this product herein as authorized generic Angiomax (bivalirudin). Under the agreement, we agreed to supply Sandoz and Sandoz agreed to purchase exclusively from us authorized generic Angiomax (bivalirudin). Sandoz has agreed to use commercially reasonable efforts to market, distribute and sell authorized generic Angiomax (bivalirudin) in the United States during the term of the agreement. Sandoz has agreed to pay us a price per vial equal to our cost of goods, and Sandoz will pay us on a quarterly basis a high double digit percentage of its net profits (net sales less our cost of goods and certain agreed expenses of Sandoz) on sales of authorized generic Angiomax (bivalirudin). The term of the agreement will continue until July 2, 2020 and will automatically renew for successive one-year periods thereafter unless either party provides notice of non-renewal at least six months prior to the end of the applicable term. Either party may terminate the agreement at any time if the other party is in material breach of the agreement and does not cure such breach within 60 days, the other party undergoes bankruptcy events, the other party is unable to perform its obligations under the agreement for more than 120 consecutive days due to a force majeure event, compliance with the agreement would violate law or net profits related to sales of the authorized generic Angiomax in any month fall below a low double digit percentage of net sales of the authorized generic Angiomax in such month. We may also terminate the agreement at any time that no other pharmaceutical product containing bivalirudin in a lyophilized form as its sole active ingredient is being sold in the United States.

In Europe, we market and sell Angiomax, which we market under the trade name Angiox, along with Kengreal, which we market under the trade name Kengrexal, and Cleviprex with a sales force consisting of 10 active key account managers. This European sales force targets key hospitals with cardiac catheterization laboratories. We also have 22 representatives from a contract sales organization who are supporting the launch of Ionsys in Europe. We also market

and sell Angiomax outside the United States through distributors, including Sunovion Pharmaceuticals Inc., which distributes Angiomax in Canada, affiliates of Grupo Ferrer Internacional, which distribute Angiox and Cleviprex in Cyprus, Greece, Portugal and Spain and in a number of countries in Central America and South America. We also have agreements with other third parties for other countries outside of the United States, including Israel, Russia, Slovenia, Hong Kong and certain countries in the Middle East. As of December 31, 2015, we sold Cleviprex outside the United States in Australia and in certain European countries. We have entered into a strategic collaboration with SciClone Pharmaceuticals, or SciClone, under which we granted SciClone a license and the exclusive rights to promote, market and sell Angiomax and Cleviprex in China. We have also entered into an agreement with SymBio Pharmaceuticals Ltd. pursuant to which we granted Symbio an exclusive license in Japan to develop and commercialize Ionsys.

We continue to consider potential global and regional collaboration opportunities for certain of our products and products in development. We believe that partnering with third parties has the potential to improve the performance of our marketed products and provide a viable platform to commercialize our products and products in development that are not yet approved, if and when they are approved and ready to be marketed.

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Manufacturing

We do not have a manufacturing infrastructure and we do not intend to develop one. We are a party to agreements with contract manufacturers for the supply of bulk drug substance for our products and with other third parties for the formulation, packaging and distribution of our products. Our product manufacturing operation is comprised of professionals with expertise in pharmaceutical manufacturing, product development, logistics and supply chain management and quality management and supply chain compliance. These professionals oversee the manufacturing and distribution of our products by third-party companies.

Angiomax

Bulk Drug Substance. In December 1999, we entered into a commercial development and supply agreement with Lonza Braine, S.A., or Lonza Braine, which was formerly known as UCB Bioproducts S.A., for the development and supply of Angiomax bulk drug substance. Together with Lonza Braine, we developed a second generation chemical synthesis process to improve the economics of manufacturing Angiomax bulk drug substance. This process, which was approved by the FDA in May 2003 and is used in the manufacture of Angiomax bulk drug substance today, is known as the Chemilog process. We have agreed that, during the term of the agreement, we will purchase a substantial portion of our Angiomax bulk drug substance manufactured using the Chemilog process from Lonza Braine at agreed upon prices. Following the expiration of the agreement or if we terminate the agreement prior to its expiration, Lonza Braine has agreed to transfer the development technology to us. If we engage a third party to manufacture Angiomax for us using the Chemilog process prior to bivalirudin becoming a generic drug in the United States, we will be obligated to pay Lonza Braine a royalty based on the amount paid by us to the third-party manufacturer. In June 2015, we amended the agreement with Lonza providing for the transition of the manufacture of Angiomax bulk drug substance from the Chemilog process to a solid phase peptide synthesis process. The amendment extends the expiration date of the agreement to December 31, 2019, subject to automatic renewals of consecutive three-year periods unless either party provides notice of non-renewal within eighteen months prior to the expiration of the initial term or any renewal term. We may only terminate the agreement prior to its expiration in the event of a material breach by Lonza Braine, if such breach is not cured within 30 days.

In September 2011, we entered into a supply agreement with Teva API, Inc., or Teva API, under which we agreed to purchase from Teva API certain minimum quantities of Angiomax bulk drug substance for our commercial supply at agreed upon specified prices. The supply agreement had an initial expiration date of December 31, 2015, subject to automatic renewals for up to two successive three-year periods unless terminated by us with at least six-months' written notice or by Teva API with at least 24-months written notice prior to the expiration of the initial term or either renewal term. Under an amendment to the supply agreement entered into in July 2015, we and Teva API agreed to extend the agreement until December 31, 2016, at which time the agreement will terminate unless extended by the parties. Teva API has the right to terminate the supply agreement, effective immediately, if a generic form of bivalirudin is launched in the United States. We and Teva API may terminate the supply agreement in the event of a material breach by the other party, unless the material breach is cured within 30 days of a written notice, and we may terminate the supply agreement upon breach of the settlement agreement and certain breaches of the license agreement entered into by us with Teva API on September 30, 2011 in connection with the settlement of our Angiomax patent litigation.

Drug Product. In March 2011, we entered into a master agreement with Patheon International A.G., or Patheon International, for the manufacture of Angiomax drug product. Pursuant to the agreement, Patheon International conducts the fill-finish of Angiomax drug product for our commercial sale supply in accordance with binding yearly commitments provided by us. Our agreement with Patheon International expires in December 2016, subject to automatic renewals for successive terms of two years each unless either party gives written notice to the other party of its intention to terminate the agreement at least 18 months prior to the end of the then current term. Either party may terminate the agreement for material breach by the other party, if the material breach is not cured within 60 days after written notice, unless the breach by its nature is not curable. In such case, the non-breaching party has the right to terminate the agreement immediately upon providing written notice as long as the written notice is provided within 30 days of the terminating party receiving notice of the breach. We have the right to terminate the agreement upon 30

days' prior written notice in the event that any governmental agency takes any action, or raises any objection, that prevents us from importing, exporting, purchasing or selling Angiomax. Patheon International may terminate the agreement upon six months' prior written notice if we assign any of our rights under the agreement to an assignee that, in the opinion of Patheon International acting reasonably, is not a credit worthy substitute for us, is a competitor of Patheon International, or an entity with whom Patheon International has had prior unsatisfactory business relations.

In January 2012, we entered into a contract manufacturing agreement with APP. Under the contract manufacturing agreement, as amended, we agreed to purchase from APP a specified minimum percentage of our requirements for Angiomax finished product for the sale of the Angiomax product in the United States. We agreed to pay APP a fixed price per vial supplied and to reimburse APP for specified development costs and capital expenditures made by APP. The term of the contract manufacturing agreement ends on May 1, 2019, but may be extended, at our sole option, for an additional term of two years. If a generic form of bivalirudin for injection is marketed by APP or another third party during the term of the contract manufacturing agreement, we have the right to renegotiate the price and minimum quantity terms of the contract manufacturing agreement and, if such terms cannot be agreed to

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by the parties, we will have the right to terminate the contract manufacturing agreement upon 90 days prior written notice. Either party may terminate the contract manufacturing agreement in the event of a material breach by the other party, effective immediately in the case of a non-curable breach and effective upon 60 days prior written notice in the case of a curable breach if such breach is not cured within such 60-day period. Either party may also terminate the contract manufacturing agreement if the other party undergoes bankruptcy events. We may terminate the contract manufacturing agreement upon at least 12 months' prior written notice if we decide to discontinue marketing the Angiomax product in the United States or upon 30 days' prior written notice in the event that any government or regulatory authority prevents us from purchasing or selling the Angiomax product in the United States. We are currently completing a technology transfer with APP and making some required capital expenditures at APP's facility.

Cleviprex

Bulk Drug Substance. In October 2002, we entered into a master research and manufacturing agreement with Johnson Matthey Pharma Services, or Johnson Matthey, for the manufacture of Cleviprex bulk drug substance for use for our clinical trials of Cleviprex and for our commercial requirements. Johnson Matthey manufactures the bulk drug substance under project work orders agreed upon by the parties at the time of the order and governed by the master research and manufacturing agreement. Johnson Matthey has no obligation under the master agreement to accept project work orders from us.

Drug Product. In December 2003, we entered into a contract manufacturing agreement with Fresenius Kabi Clayton, L.P., which was subsequently assigned to Hospira, Inc., or Hospira. Pursuant to the agreement, Hospira is the exclusive supplier for all finished drug product of Cleviprex manufactured according to the original formulation for the intravenous treatment of primarily peri-operative hypertension using its proprietary formulation technology. Under the agreement, Hospira supplied us with the formulation of Cleviprex that was originally approved by the FDA.

In May 2011, we entered into a master contract manufacturing agreement with Fresenius Kabi Austria GmbH, L.P., or Fresenius, for the manufacture of the improved formulation of Cleviprex drug product that the FDA approved in June 2011. Fresenius conducts the fill-finish of Cleviprex drug product for us through purchase order arrangements agreed upon by the parties at the time of the order and governed by the master agreement. Under the agreement, we have annual minimum purchase order requirements.

Minocin IV

Bulk Drug Substance. Prior to our acquisition of Rempex, in January 2013 Rempex entered into a master services agreement with IDT Australia Limited for the manufacture of minocycline hydrochloride parenteral active pharmaceutical ingredient, to be used for the supply of Minocin IV. The agreement expires in January 2020 unless earlier terminated by us, for any reason, with 30 days’ notice or by either party, due to a material breach of the agreement, after 30 days’ notice if such breach is not cured within such 30-day period.

Drug Product. We purchase drug product for Minocin IV through Precision Dermatology, which acquires the drug from Patheon UK Limited, or Patheon UK, through work orders. Patheon UK has no obligation under the master agreement to accept project work orders from us. In December 2011, Rempex entered into a technology transfer services agreement with Patheon UK for the manufacture of engineering and scale-up batches of Minocin IV. We expect to enter into a long-term commercial supply agreement with Patheon UK.

Orbactiv

Bulk Drug Substance. Prior to our acquisition of Orbactiv, in December 2001, Targanta entered into a development and supply agreement with Abbott Laboratories, or Abbott, for the supply of Orbactiv bulk drug substance for clinical use in clinical trials. In January 2013, Abbott separated into two independent companies, Abbott and AbbVie Inc., or AbbVie. As a result of the separation, in August 2013 we entered into a new development and supply agreement regarding Orbactiv with AbbVie. Under the terms of the AbbVie agreement we are required to purchase Orbactiv bulk drug substance exclusively from AbbVie, unless AbbVie fails to deliver sufficient Orbactiv bulk drug substance to meet our needs. In such event, we may use another manufacturer to supply Orbactiv bulk drug substance for as long as AbbVie is unable to supply sufficient Orbactiv bulk drug substance. We are also required to purchase a minimum amount of Orbactiv bulk drug substance from AbbVie. The agreement expires six contract years from the date of the first sale of Orbactiv in the territory a product launch date, subject to automatic three-year renewal periods unless we give notice in writing to AbbVie 30 months prior to the end of any term of our intention not to renew the agreement.

Additionally, AbbVie may terminate the agreement by notifying us in writing three years prior to the end of any term, of its intention to not renew the agreement. Either party may terminate the agreement for breach by the other party, if the breach is not cured within 60 days after receipt of written notice or for breaches of a type that cannot be remedied within 60 days, if a remedy is not promptly commenced and diligently pursued until complete remediation. Upon termination, AbbVie is required to return to us all unused raw materials associated with the bulk drug substance that has been paid for by us, cell banks, cell cultures, samples, viruses, genetic materials, data and any other property or other information furnished by us or acquired by AbbVie at our cost with respect to the commercial supply of bulk drug substance or Orbactiv under the agreement.

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Drug Product. In October 2011, we entered into an agreement with Patheon UK for the commercial scale up and validation of our commercial manufacturing process. In October 2013, we entered into a master services agreement with Patheon UK for the manufacture of Orbactiv. Pursuant to the agreement, Patheon UK conducts the fill-finish of Orbactiv for our commercial sale supply in accordance with minimum quantity, binding yearly commitments provided by us. Our agreement with Patheon UK expires in December 2019, and is subject to automatic renewals for successive terms of two years each unless either party gives written notice to the other Party of its intention to terminate the agreement at least 18 months prior to the end of the then current term.

Ready-to-Use Argatroban

In connection with our license of the marketing rights to Eagle's formulation of Argatroban, Eagle has agreed to supply us with ready-to-use Argatroban at a specified price for certain lots and then at a price equal to Eagle's costs, under a supply agreement we entered into with Eagle in September 2009, as subsequently modified. The supply agreement expires at the earlier of the termination of our license agreement with Eagle or September 24, 2019.

Acute Care Generic Products

APP, a division of Fresenius Kabi USA, LLC, has agreed to supply and we have agreed to purchase from APP, our entire requirement for the acute care generic products under the license and supply agreement we entered into with APP in January 2012. Under the terms of the agreement, we are required pay APP's cost of goods for the supply of the acute care generic products on an ongoing basis. The term of the license and supply agreement ends January 22, 2022. Either party may terminate the agreement in the event of a material breach by the other party, unless the material breach is cured within 90 days of written notice or within 120 days of written notice if the breach is incapable of being cured within the 90-day period. APP may terminate the agreement upon 60 days prior written notice if we fail to pay in full any invoice that is past due unless such payment is the subject of a dispute set forth in writing by us. We may terminate the agreement if, with respect to two purchase orders in a calendar year, APP has failed to supply at least the aggregate quantity of conforming product specified in the purchase order or failed to deliver the product prior to the applicable delivery date specified in the purchase order and APP has failed to cure these breaches in the manner specified in the agreement. In addition, either party may terminate the agreement on a product-by-product basis, effective immediately, upon written notice to the other party in the event the FDA takes any action the result of which is to permanently prohibit the manufacture of the product in the United States. APP may also terminate the agreement on a product-by-product basis upon 180 days prior written notice if APP has determined that it will discontinue the marketing authorization for the product in the United States. We may terminate the agreement on a product-by-product basis upon 180 days prior written notice if the total market value of a product falls below a specified percentage of the total market value of the product as of the effective date of the agreement. In the event that the agreement is terminated with respect to a product, the parties shall agree upon a substitute product.

Kengreal

Bulk Drug Substance. Johnson Matthey manufactures Kengreal bulk drug substance for us for our clinical trial needs under the terms of the same master research and manufacturing agreement we entered into for Cleviprex in October 2002. Johnson Matthey manufactures the bulk drug substance under project work orders agreed upon by the parties and governed by the master research and manufacturing agreement with Johnson Matthey. Johnson Matthey has no obligation under the master agreement to accept project work orders from us.

Drug Product. In October 2011, we entered into an agreement with Patheon UK for the commercial scale up and validation of our commercial manufacturing process. In May 2013, we entered into a master services agreement with Patheon UK for the manufacture of Kengreal. Pursuant to the agreement, Patheon UK conducts the fill-finish of Kengreal drug product for our commercial sale supply in accordance with minimum quantity, binding yearly commitments provided by us. Our agreement with Patheon UK expires in December 2019, and is subject to automatic renewals for successive terms of two years each unless either party gives written notice to the other party of its intention to terminate the agreement at least 18 months prior to the end of the then current term.

Ionsys

Bulk Drug Substance. Prior to our acquisition of Incline, Incline entered into an agreement with Johnson Matthey for the supply of fentanyl hydrochloride, the drug delivered by the Ionsys system, for development, clinical and initial commercial production. At the appropriate time, we expect to enter into a long term commercial supply agreement for

fentanyl hydrochloride with Johnson Matthey.

Drug Unit Manufacturing. In February 2011, Incline entered into agreements with DPT Laboratories, or DPT, for the transfer and management of the process equipment used for to manufacture the drug unit part of the Ionsys system. In January 2012, Incline entered into an agreement for the manufacture, testing and supply of product for development and clinical trial use. We expect to enter into a supply agreement with DPT for commercial drug unit manufacture and testing and final product packaging.

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Controller Manufacturing. The electronic component of the Ionsys system, referred to as the controller, is manufactured by Sanmina Corporation, or Sanmina. In January 2011, Incline entered into an agreement with Sanmina for manufacturing process development and supply of controllers for development, clinical trial and design verification testing use. In September 2013, we entered into a supply agreement with Sanmina for commercial supply of the controller for the Ionsys system.

The controller uses an application specific integrated circuit, or ASIC, manufactured by On Semiconductor. In November 2010, Incline entered into an agreement with On Semiconductor for the development and qualification of the ASIC, and supply of components for development, clinical trial and design verification testing.

MDCO-216

Bulk Drug Substance. In connection with the license of MDCO-216 from Pfizer we acquired sufficient protein to carry out preclinical and early phase clinical studies. In 2010, we completed a technology transfer program with Pfizer related to improved manufacturing methodologies developed by Pfizer. In 2012 and 2013, we worked with Lonza to optimize the protein manufacturing process primarily to reduce the cost to manufacture the drug product to make it commercially viable. In February 2013 we entered into an agreement with Lonza to use this optimized process to manufacture MDCO-216 protein on a small scale for use in the upcoming Phase 2 trial of MDCO-216. In 2014, we entered into an agreement with Lonza to scale up the manufacturing process to supply a sufficient amount of MDCO-216 to support the planned Phase 3 clinical trials through potential commercial supply of MDCO-216.

Drug Product. MDCO-216 drug product for pre-clinical and early clinical studies was manufactured at OctoPlus. In 2014, we entered into an agreement with Cook Pharmica to scale up the drug product process and supply a sufficient amount of MDCO-216 to support the upcoming Phase 2 clinical trial.

ABP-700

Bulk Drug Substance. With our acquisition of Annovation in February 2015, we received sufficient bulk drug substance for our immediate development needs. Subsequently, we entered into a letter of intent with CordenPharma (Synkem S.A.S.) for the manufacture of Phase 2 clinical bulk drug substance, and we expect to enter into a commercial supply agreement with a suitably qualified supplier prior to conducting pivotal clinical trials.

Drug Product. Drug product for Phase 1 and early Phase 2 studies has been manufactured by Kabs Pharmaceutical Services and we expect to enter into an agreement with a suitably qualified drug product manufacturer prior to conducting pivotal clinical studies.

ALN-PCSsc

Under our agreement with Alnylam, Alnylam has agreed to use commercially reasonable efforts to supply the quantity of finished product reasonably required for the conduct of the first Phase 1 clinical trial, which has been completed, and for the first Phase 2 clinical trial of a product candidate. Alnylam will bear the costs of these activities, subject to certain agreed upon caps. After such time, we will have the sole right and responsibility to manufacture and supply licensed product for development and commercialization under our development plan. We and Alnylam intend to enter into a development supply agreement under which Alnylam will supply us with the finished product for the first Phase 2 clinical trial and will transfer the manufacturing technology for the product to us or our third-party manufacturers. We expect to enter into agreements with suitably qualified drug substance and product manufacturers prior to conducting pivotal studies.

Carbavance

Bulk Drug Substance. Prior to our acquisition of Carbavance, Rempex entered into a master services agreement with Sigma-Aldrich, Inc. and a research and manufacturing services agreement with DSM Fine Chemicals Austria Nfg GmbH for the supply of bulk drug substance for vaborbactam (formerly known as RPX-7009), the proprietary, novel beta-lactamase inhibitor used in Carbavance.

Drug Product. Prior to our acquisition of Carbavance, in June 2012, Rempex entered into a development and clinical supply agreement with Hospira Worldwide, Inc. for clinical supplies of vaborbactam. In September 2012, Rempex entered into a master services agreement with ACS Dobfar S.p.A. for additional clinical supplies of vaborbactam. We expect to enter into a long-term commercial supply agreement for the manufacture of both the beta-lactamase inhibitor and the carbapenem used in Carbavance.

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Business Development Strategy

We review opportunities to acquire products through licenses, product acquisitions and company acquisitions. We believe that we have proven capabilities in developing and commercializing in-licensed or acquired acute and intensive care drug candidates. In evaluating product acquisition candidates, we focus on acquisition candidates that are either approved products or late stage products in development that offer improved solutions to our customers and leverage our business infrastructure. In addition, our acquisition strategy has been to acquire global rights for development compounds wherever possible.

We continue to explore potential global and regional collaboration opportunities for certain of our products and products in development. We believe that partnering with third parties has the potential to improve the performance of our marketed products and provide a viable platform to commercialize our products and products in development that are not yet approved, if and when they are approved and ready to be marketed.

Competition

The development and commercialization of new drugs is highly competitive. We face competition from pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. Many of our competitors are substantially larger than we are and have substantially greater capital resources, research and development capabilities and experience, and financial, technical, manufacturing, marketing and human resources than we have. Additional mergers and acquisitions in the pharmaceutical industry may result in even more resources being concentrated in our competitors.

Our business strategy is based on us selectively licensing or acquiring and then developing clinical compound candidates or products approved for marketing. Our success will be based in part on our ability to build and actively manage a portfolio of drugs that addresses unmet medical needs and creates value in patient therapy. However, the acquisition and licensing of pharmaceutical products is a competitive area, and a number of more established companies, which have acknowledged strategies to license and acquire products, may have competitive advantages, as may emerging companies taking similar or different approaches to product acquisition. Established companies pursuing this strategy may have a competitive advantage over us due to their size, cash flows and institutional experience.

In addition, our competitors may develop, market or license products or other novel technologies that are more effective, safer or less costly than any that have been or are being developed by us, or may obtain marketing approval for their products from the FDA or equivalent foreign regulatory bodies more rapidly than we may obtain approval for ours. We compete, in the case of our marketed products, and expect to compete, in the cases of our products in development, on the basis of product efficacy, safety, ease of administration, price and economic value compared to drugs used in current practice or currently being developed.

Angiomax

Due to the incidence and severity of cardiovascular diseases, the market for anticoagulant therapies is large and competition is intense. There are a number of anticoagulant therapies currently on the market, awaiting regulatory approval or in development for the indications for which Angiomax is approved.

Angiomax competes primarily with heparin and treatment regimens combining heparin and GP IIb/IIIa inhibitors. Heparin is widely used in patients with ischemic heart disease, including PCI procedures. Heparin is manufactured and distributed by a number of companies as a generic product and is sold at a price that is significantly less than the price for Angiomax. GP IIb/IIIa inhibitors include ReoPro from Eli Lilly and Johnson & Johnson/Centocor, Inc., Integrilin (eptifibatide) from Merck & Co., Inc., and Aggrastat (tirofiban) from Iroko Pharmaceuticals, LLC and MediCure Inc. Although their use may have decreased in recent years, GP IIb/IIIa inhibitors are widely used and some physicians believe they offer superior efficacy in high risk patients as compared to Angiomax.

In some circumstances, Angiomax competes with other anticoagulant drugs for the use of hospital financial resources. For example, many U.S. hospitals receive a fixed reimbursement amount per procedure for the angioplasties and other treatment procedures they perform. As this amount is not based on the actual expenses the hospital incurs, hospitals may choose to use either Angiomax or heparin or a combination of heparin and a GP IIb/IIIa inhibitor but not necessarily more than one of these drugs.

On July 2, 2015, the Federal Circuit Court ruled against us in our patent infringement litigation with Hospira, with respect to the '727 patent and the '343 patent, covering a more consistent and improved Angiomax drug product and the processes by which it is made. In its ruling, the Federal Circuit Court held the '727 patent and the '343 patent invalid. 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. In July 2015, as a result of the Federal Circuit Court's now vacated July 2, 2015 decision, we entered into a supply and distribution agreement with Sandoz under which we granted Sandoz the exclusive right to sell in the United States an authorized generic of Angiomax (bivalirudin). In July 2015, Hospira's ANDAs for its generic versions of bivalirudin were approved by the FDA and Hospira began selling its generic versions of bivalirudin. Notwithstanding the granting of our petition for en banc review,

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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.

In addition to Hospira, a number of other companies have filed ANDAs for their generic versions of Angiomax. The FDA has accepted for filing a 505(b)(2) NDA filed by Eagle for a ready to use liquid formulation of bivalirudin. Eagle has announced that it expects an FDA decision on its NDA in March 2016 and, if approved, expects to launch commercial sales of the product in the United States upon approval.

In addition to Hospira's generic versions of bivalirudin, Sandoz's authorized generic and, if approved, Eagle's formulation of bivalirudin, Angiomax could be subject to generic competition in the United States from Teva Pharmaceuticals USA, Inc. and its affiliates, or Teva, APP Pharmaceuticals LLC, or APP, and Sun Pharmaceutical Industries LTD, or Sun Pharmaceuticals Industries Ltd. and affiliates, or Sun, under the conditions set forth in our respective settlement agreements with such parties and upon the approval of each companies' ANDA filings by the FDA.

Cleviprex

Cleviprex competes with a variety of antihypertensive agents in the acute care setting, many of which are generic and inexpensive. The determination of which therapeutic agent to use depends on a variety of factors, including patient diagnosis, how quickly blood pressure control needs to be achieved, relevant surgeries or procedures that may be planned in the near future, co-morbidities and end organ damage. Treatment options vary widely, have different mechanisms of action, including variable PK/PD effects and metabolic pathways. Cleviprex’s principal competitors include labetalol, nicardipine, sodium nitroprusside and nitroglycerine.

Ready-to-Use Argatroban

Our ready-to-use formulation of Argatroban that we license from Eagle competes with marketed versions of Argatroban sold by GlaxoSmithKline, West-Ward Pharmaceuticals and by Sandoz. In the first quarter of 2013, Sandoz launched a second generic version of ready-to-use Argatroban with the same size specifications as our ready-to-use formulation. In addition, we expect our ready-to-use Argatroban to compete with other potential generic versions of a ready-to-use formulation or other innovative forms of the product. We believe that our infrastructure and relationships with customers are our competitive strengths in competing with the other generic versions of Argatroban.

Minocin IV

Minocin IV competes with other antibiotics that are used for the treatment of infections due to Acinetobacter. These include carbapenems, aninoglycosides and other beta-lactam agents. The predominant antibiotic agents used to treat multi-drug resistant Ancinetobacter infections are tigecycline, colistin and polymyxin B. These agents are used “off-label” for this pathogen, but are more established in the marketplace and are less expensive.

Orbactiv

Orbactiv competes with a number of drugs that target gram-positive infections acquired in the community or hospital and treated in an outpatient setting or hospital. Competition in the market for therapeutic products that address serious gram positive bacterial infections is intense. Some of these products are branded and subject to patent protection, and others are available on a generic basis. The more established products include vancomycin, ceftaroline (Teflaro), clindamycin, daptomycin (Cubicin), linezolid (Zyvox) and televancin (Vibativ), and recently approved products that may be competitive include Sivextro from Cubist Pharmaceuticals, Inc (now a subsidiary of Merck & Co., Inc.) and Dalvance from Durata Therapeutics, Inc. (now a subsidiary of Allergan). Recently, Dalvance received FDA approval of an sNDA for single-dose treatment of ABSSSIs. Several companies have products in varying stages of development that, if approved, may compete with Orbactiv.

Acute Care Generic Products

The acute care generic products will compete with their respective brand name reference products and other equivalent generic products that may be sold by APP and other third parties. We believe that our infrastructure and relationships with customers assist us in competing with respective brand name reference products and other equivalent generic products of the acute care generic products.

Kengreal

Kengreal competes with oral platelet inhibitors that are well known and widely used in acute and intensive care settings, such as Plavix (clopidogrel) from Bristol Meyers Squibb/Sanofi Pharmaceuticals Partnership and generic formulations of clopidogrel,

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Effient (prasugrel), an anti-platelet agent from Eli Lilly and Daiichi Sankyo, and Brilinta (ticagrelor) from AstraZeneca. Kengreal also competes with intraveneous glycoprotein IIb/IIIa inhibitors (GPI) including ReoPro from Eli Lilly and Johnson & Johnson/Centocor, Integrilin (eptifibatide) from Merck & Co. and Aggrastat (tirofiban) from Iroko Pharmaceuticals and MediCure. We believe that Kengreal competes with these products on the basis of its profile which addresses the needs in acute intensive care setting by combining its bioavailability and fast onset of platelet inhibition to prevent thrombotic events during and immediately after PCI while providing fast offset of effect to prevent bleeding risk during and after surgery.

Ionsys

Ionsys competes with a number of injectable opioid delivery systems, including nurse-administered bolus injections and IV PCA. A potential patient-controlled competitor for Ionsys is an oral sufentanil dispensing system, Zalviso using NanoTab, which is in Phase 3 development by AcelRx, Inc. We believe that Ionsys has advantages over other patient-controlled systems due to its reduced potential for medication errors, a smaller overall opioid-related adverse event burden, improved postoperative mobility, fewer analgesic gaps, and reduced labor requirements.

Patents, Proprietary Rights and Licenses

Our success will depend in part on our ability to protect the products we acquire or license by obtaining and maintaining patent protection both in the United States and in other countries. We rely upon trade secrets, know-how, continuing technological innovations, contractual restrictions and licensing opportunities to develop and maintain our competitive position. We plan to prosecute and defend patents or patent applications we file, acquire or license.

Angiomax. We have exclusively licensed from Biogen Idec and Health Research Inc., or HRI, patents and patent applications covering Angiomax and Angiomax analogs and other novel anticoagulants as compositions of matter, and processes for using Angiomax and Angiomax analogs and other novel anticoagulants. We also own two U.S. patents covering a more consistent and improved Angiomax drug product and the processes by which it is made. We have also filed and are currently prosecuting a number of patent applications relating to Angiomax in the United States and Europe.

The principal U.S. patents covering Angiomax include U.S. Patent No. 5,196,404, or the '404 patent, '727 patent, and '343 patent. The '404 patent covers the composition of matter of Angiomax. The '404 patent was set to expire in March 2010, but the term was extended to December 15, 2014 by the U.S. Patent and Trademark Office, or PTO, under the Hatch-Waxman Act. As a result of our study of Angiomax in the pediatric setting, we had an additional six-month period of pediatric exclusivity following expiration of the '404 patent. This period of exclusivity expired in June 2015.

In the second half of 2009, the PTO issued to us the '727 patent and the '343 patent, covering a more consistent and improved Angiomax drug product and the processes by which it is made. The '727 patent and the '343 patent are set to expire in July 2028 and are also entitled to a six-month period of pediatric exclusivity following expiration of the patents. In response to Paragraph IV Certification Notice letters we received with respect to abbreviated new drug applications, or ANDAs, filed with the FDA seeking approval to market generic versions of Angiomax, we have filed lawsuits against the ANDA filers alleging patent infringement of the '727 patent and '343 patent. In September 2011, we settled our patent infringement litigation with Teva. In connection with the settlement, we entered into a license agreement with Teva under which we granted Teva a non-exclusive license under the '727 patent and '343 patent to sell a generic bivalirudin for injection product under a Teva ANDA in the United States beginning June 30, 2019 or earlier under certain conditions. The license agreement also contains a grant by Teva to us of an exclusive (except as to Teva) license under Teva’s bivalirudin patents and right to enforce Teva’s bivalirudin patents. In January 2012, we settled our patent infringement litigation with APP. In connection with the settlement, we entered into a license agreement with APP under which we granted APP a non-exclusive license under the '727 patent and '343 patent to sell a generic bivalirudin for injection product under an APP ANDA in the United States beginning on May 1, 2019. In addition, in certain limited circumstances, the license to APP could include the right to sell a generic bivalirudin product under our NDA for Angiomax in the United States beginning on May 1, 2019 or, in certain limited circumstances, on June 30, 2019 or on a date prior to May 1, 2019. In March 2015, we settled our patent infringement litigation with Sun. In connection with the settlement, we entered into a license agreement with Sun under which we granted Sun a non-exclusive license under the '727 patent and '343 patent to sell a generic bivalirudin for injection

product under Sun's ANDA in the United States beginning on June 30, 2019 or earlier in certain circumstances. We remain in infringement litigation involving the '727 patent and '343 patent with the other ANDA filers. Our patent infringement litigation involving the '727 patent and '343 patent are described in more detail in Part I, Item 3. Legal Proceedings, of this Annual Report on Form 10-K.

In Europe, the principal patent covering Angiomax expired in August 2015. This patent covered the composition of matter of Angiomax.

Cleviprex. We have exclusively licensed from AstraZeneca rights to patents and patent applications covering Cleviprex as a composition of matter and covering formulations and uses of Cleviprex. Under the license, AstraZeneca is responsible for prosecuting and maintaining certain patents and patent applications licensed from AstraZeneca which relate to Cleviprex. The principal U.S.

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patent for Cleviprex is U.S. Patent No. 5,856,346, or the '346 patent. The '346 patent was set to expire in January 2016, but the term was extended to January 2021 by the PTO under the Hatch-Waxman Act. We also have an issued patent, U.S. Patent No. 8,658,676, which covers the Cleviprex formulation and which is set to expire in October 2031. In Europe, the principal patent covering Cleviprex was set to expire in November 2014, but the term has been extended to November 2019 in most European countries where Cleviprex has been approved via a supplementary protection certificate. The European patent office has also issued to us a patent covering compositions of matter of Cleviprex having certain stability profiles, which will expire in July 2029. In addition, we have filed and are currently prosecuting a number of patent applications relating to Cleviprex covering compositions of matter and uses in the United States, Europe and other foreign countries.

Orbactiv. As a result of our acquisition of Targanta, we obtained an exclusive license from Eli Lilly to patents and patent applications covering Orbactiv, its uses, formulations and analogs. Under this license, we are responsible for prosecuting and maintaining these patents and patent applications. The principal patent for Orbactiv in both the United States and Europe is set to expire in November 2016. We have filed for a patent term extension for this patent in the United States. We have issued patents directed to the process of making Orbactiv in the United States. These patents are set to expire in 2017 if no patent term extension is obtained. We also have a U.S. patent covering the use of Orbactiv in treating certain skin infections that expires in August 2029. We have also filed and are prosecuting a number of patent applications relating to Orbactiv and its uses.

Ready-to-Use Argatroban. We exclusively licensed from Eagle rights to two U.S. patents covering certain formulations of Argatroban. Our exclusive license is limited to the United States and Canada. The patents are set to expire in September 2027. In February 2012, we were notified that Sandoz had submitted an ANDA seeking permission to market its second generic version of ready-to-use Argatroban prior to the expiration of these patents. On March 29, 2012, Eagle, which directed and controlled the enforcement of its intellectual property rights with respect to ready-to-use Argatroban, filed suit against Sandoz in the U.S. District Court for the District of New Jersey for infringement of its ready-to-use Argatroban patents. In November 2012, Eagle advised us that it entered into a settlement agreement with Sandoz, and as part of the settlement, Eagle agreed to give Sandoz the right to introduce an authorized generic version of ready-to-use Argatroban. Sandoz currently markets two ready-to-use generic formulations of Argatroban.

Kengreal. We have exclusively licensed from AstraZeneca rights to patent and patent applications covering formulations, process of making, and uses of Kengreal. Under the license, AstraZeneca is responsible for prosecuting and maintaining the patents and patent applications licensed from AstraZeneca which relate to Kengreal. We have issued patents directed to Kengreal pharmaceutical compositions which expire in 2017 and 2018, and the applications for patent term extension have been filed and are currently pending. In February 2016, we received a notice of allowance from the U.S. Patent and Trademark Office for a pending application directed to certain Kengreal compositions. Upon issuance, the resulting patent will expire in July 2035. We also have issued patents directed to various methods of administering Kengreal, expiring in 2029 and 2033 in the United States. We have also filed and are currently prosecuting a number of patent applications related to Kengreal.

Ionsys. As a result of our acquisition of Incline, we acquired a portfolio of patents and patent applications covering the Ionsys device and its uses. Some of these patents and patent applications were exclusively licensed from ALZA. The expiration dates of patents covering the Ionsys device and its use range from December 2016 to February 2033 in the United States. In Europe, the expiration date of patents covering the Ionsys device range from May 2016 to September 2021. In addition, we have an allowed application, which, upon issuance, expires in March 2032, covering the Ionsys device in Europe. We are also currently prosecuting patent applications relating to Ionsys in the United States and in certain foreign countries.

MDCO-216. In connection with our acquisition of MDCO-216, we obtained an exclusive license from Pfizer to patents and patent applications covering MDCO-216 and its uses. We are maintaining a number of U.S. patents with respect to MDCO-216, including patents that claim the use of MDCO-216 in certain disease indications. One of these U.S. patents is directed to the use of MDCO-216 for the treatment of ACS and is set to expire in October 2024 if no patent term extension is obtained. We are also prosecuting a number of patent applications related to the use of MDCO-216 in Europe and other foreign countries. As a biologic, we believe MDCO-216 is entitled to receive 12 years of regulatory exclusivity as a "reference product" in the United States and 10 years of regulatory exclusivity in Europe from the date of the initial marketing approval of MDCO-216, if approved.

ABP-700. In connection with our acquisition of Annovation, we obtained an exclusive license from The General Hospital Corporation pertaining to certain patents and patent applications covering ABP-700 and its analogs. One of the patents contains claims directed specifically to ABP-700 and expires in January 2033. These patent applications are currently being prosecuted by The General Hospital Corporation in the United States and in certain foreign countries. We are also prosecuting certain other patent applications relating to ABP-700.

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ALN-PCS. We have exclusively licensed from Alnylam patents covering RNAi therapeutics targeting PCSK9 for the treatment of hypercholesterolemia and other human diseases for purposes of developing and commercializing such RNAi therapeutics. Some of these patents are directed to general RNAi technology and expire between 2016 and 2028 in the United States. Other patents are directed to compositions of the PCSK9 product being developed under our license from Alnylam and to methods of treatment using such PCSK9 product and expire in May 2027 in the United States. In addition, Alnylam has filed and is prosecuting a number of patent applications in the United States and in certain foreign countries. One of these applications, which, if issued, expires in December 2033, contains claims directed to specific compositions of the PCSK9 product we are developing and methods of administrating such compositions.

Carbavance. As a result of our acquisition of Rempex, we acquired a portfolio of patent applications covering the composition of matter of Carbavance and its formulation and use. The principal U.S. patent for Carbavance is set to expire in August 2031 if no patent term extension is obtained. A corresponding patent application is pending in Europe and other foreign countries. In addition, we are currently prosecuting other patent applications relating to Carbavance's composition of matter and its use in the United States and in certain foreign countries.

Minocin. As a result of our acquisition of Rempex, we acquired a family of patent applications covering certain minocycline formulations and certain methods of administering minocycline. In July 2015, the U.S. Patent and Trademark Office issued to us a patent covering certain methods of administering minocycline. This patent expires in May 2031. We are also prosecuting a number of patent applications relating to minocycline formulations and use in the United States and in certain foreign countries.

The patent positions of pharmaceutical and biotechnology firms like us can be uncertain and involve complex legal, scientific and factual questions. In addition, the coverage claimed in a patent application can be significantly reduced before the patent is issued. Consequently, we do not know whether any of the patent applications we acquire, license or file will result in the issuance of patents or, if any patents are issued, whether they will provide significant proprietary protection or will be challenged, circumvented or invalidated. Because unissued U.S. patent applications filed prior to November 29, 2000 and patent applications filed within the last 18 months are maintained in secrecy until patents issue, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain of the priority of inventions covered by pending patent applications. Moreover, we may have to participate in interference proceedings declared by the PTO to determine priority of invention, or in opposition proceedings in a foreign patent office. Participation in these proceedings could result in substantial cost to us, even if the eventual outcome is favorable to us. Even issued patents may not be held valid by a court of competent jurisdiction. An adverse outcome could subject us to significant liabilities to third parties, require disputed rights to be licensed from third parties or require us to cease using such technology.

The development of acute and intensive care hospital products is intensely competitive. A number of pharmaceutical companies, biotechnology companies, universities and research institutions have filed patent applications or received patents in this field. Some of these patent applications could be competitive with applications we have acquired or licensed, or could conflict in certain respects with claims made under our applications. Such conflict could result in a significant reduction of the coverage of the patents we have acquired or licensed, if issued, which would have a material adverse effect on our business, financial condition and results of operations. In addition, if patents are issued to other companies that contain competitive or conflicting claims with claims of our patents and such claims are ultimately determined to be valid, we may not be able to obtain licenses to these patents at a reasonable cost, or develop or obtain alternative technology.

We also rely on trade secret protection for our confidential and proprietary information. However, others may independently develop substantially equivalent proprietary information and techniques. Others may also otherwise gain access to our trade secrets or disclose such technology. We may not be able to meaningfully protect our trade secrets.

It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships

with us. These agreements generally provide that all confidential information developed or made known to the individual during the course of the individual's relationship with us is to be kept confidential and not disclosed to third parties except in specific circumstances. In the case of employees and consultants, the agreements provide that all inventions conceived by the individual shall be our exclusive property. These agreements may not provide meaningful protection or adequate remedies for our trade secrets in the event of unauthorized use or disclosure of such information.

We have a number of trademarks that we consider important to our business. The Medicines Company® name and logo, Angiomax®, Angiox®, Cleviprex®, Carbavance®, Ionsys®, Kengreal®, Kengrexal™ and Orbactiv® names and logos are either our registered trademarks or our trademarks in the United States and other countries. We have also registered some of these marks in a number of foreign countries. Although we have a foreign trademark registration program for selected marks, we may not be able to register or use such marks in each foreign country in which we seek registration. We believe that our products are identified by our trademarks and, thus, our trademarks are of significant value. Each registered trademark has a duration of 10 to 15 years, depending on the date it was registered and the country in which it is registered, and is subject to an infinite number of renewals for a like

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period upon continued use and appropriate application. We intend to continue the use of our trademarks and to renew our registered trademarks based upon each trademark's continued value to us.

License Agreements

A summary of our licenses for our products and products in development is set forth below.

Angiomax. In March 1997, we entered into an agreement with Biogen, Inc., a predecessor of Biogen Idec, for the license of the anticoagulant pharmaceutical bivalirudin, which we have developed and market as Angiomax. Under the terms of the agreement, we acquired exclusive worldwide rights to the technology, patents, trademarks, inventories and know-how related to Angiomax. In exchange for the license, we paid $2.0 million on the closing date and are obligated to pay up to an additional $8.0 million upon the first commercial sales of Angiomax for the treatment of AMI in the United States and Europe. In addition, we are obligated to pay royalties on sales of Angiomax and on any sublicense royalties on a country-by-country basis earned until the later of the date 12 years after the date of the first commercial sales of the product in a country and the date on which the product or its manufacture, use or sale is no longer covered by a valid claim of the licensed patent rights in such country. The royalty rate due to Biogen Idec on sales increases as annual sales of Angiomax increase. Under the agreement, we are obligated to use commercially reasonable efforts to develop and commercialize Angiomax in the United States and specified European markets, including for PTCA and AMI indications. The license and rights under the agreement remain in force until our obligation to pay royalties ceases. Either party may terminate the agreement for material breach by the other party, if the material breach is not cured within 90 days' after written notice. In addition, we may terminate the agreement for any reason upon 90 days' prior written notice. During 2015, we incurred approximately $1.7 million in royalties related to Angiomax under our agreement with Biogen Idec. In August 2012, we and Biogen Idec amended the license agreement providing, among other things, that effective solely for the period from January 1, 2013 through and including December 15, 2014, each of the royalty rate percentages payable by us as set forth in the license agreement increased by one percentage point. As of December 15, 2014, we no longer owe royalties to Biogen Idec or HRI relating to sales of Angiomax in the United States.

In March 1997, in connection with entering into the Biogen Idec license, Biogen Idec assigned to us a license agreement with HRI under which Biogen Idec had licensed HRI's right to a specified patent application held jointly with Biogen Idec which resulted in a series of U.S. patents including the '404 patent. Under the terms of the agreement, we have exclusive worldwide rights to HRI's rights to the licensed patent application and patents arising from the licensed patent application, other than rights for noncommercial research and educational purposes, which HRI retained. We are obligated to pay royalties on sales of Angiomax and on any sublicense income we earn. The royalty rate due to HRI on sales increases as annual sales of Angiomax increase. Under the agreement, we are obligated to use commercially reasonable efforts to research and develop, obtain regulatory approval and commercialize Angiomax. The license and rights under the agreement remain in force until the expiration of the last remaining patent granted under the licensed patent application. HRI may terminate the agreement for a material breach by us, if the material breach is not cured within 90 days after written notice or, in the event of bankruptcy, liquidation or insolvency, immediately on written notice. In addition, we may terminate the agreement for any reason upon 90 days' prior written notice upon payment of a termination fee equal to the minimum royalty fee payable under the license agreement. During 2015, we incurred approximately $0.1 million in royalties related to Angiomax under the agreement with HRI. As of December 15, 2014, we no longer owe royalties to HRI relating to sales of Angiomax in the United States.

Cleviprex. In March 2003, we licensed from AstraZeneca exclusive worldwide rights to Cleviprex for all countries other than Japan. In May 2006, we amended our license agreement with AstraZeneca to provide us with exclusive license rights in Japan in exchange for an upfront payment. Under the terms of the agreement, we have the rights to the patents, trademarks, inventories and know-how related to Cleviprex. We paid AstraZeneca $1.0 million in 2003 upon entering into the license and agreed to pay up to an additional $5.0 million upon reaching agreed upon regulatory milestones, of which we paid $1.5 million in September 2007 as a result of the FDA's acceptance to file of our NDA for Cleviprex for the treatment of acute hypertension and $1.5 million in the third quarter of 2008 as a result of Cleviprex's approval for sale by the FDA. We are obligated to pay royalties on a country-by-country basis on annual sales of Cleviprex, and on any sublicense income earned, until the later of the duration of the licensed patent rights

which are necessary to manufacture, use or sell Cleviprex in a country and the date ten years from our first commercial sale of Cleviprex in such country. Under the agreement, we are obligated to use commercially reasonable efforts to develop, market and sell Cleviprex.

The licenses and rights under the agreement remain in force on a country-by-country basis until we cease selling Cleviprex in such country or the agreement is otherwise terminated. We may terminate the agreement upon 30 days' written notice, unless AstraZeneca, within 20 days of having received our notice, requests that we enter into good faith discussions to redress our concerns. If we cannot reach a mutually agreeable solution with AstraZeneca within three months of the commencement of such discussions, we may then terminate the agreement upon 90 days' written notice. Either party may terminate the agreement for material breach upon 60 days prior written notice if the breach is not cured within such 60 days. During 2015, we incurred $1.3 million in royalties related to Cleviprex under our agreement with AstraZeneca.

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Orbactiv. As a result of our acquisition of Targanta, we are a party to a license agreement with Eli Lilly through our Targanta subsidiary. Under the terms of the agreement, we have exclusive worldwide rights to patents and other intellectual property related to Orbactiv and other compounds claimed in the licensed patent rights. We are required to make payments to Eli Lilly upon reaching specified regulatory and sales milestones. In addition, we are obligated to pay royalties based on net sales of products containing Orbactiv or the other compounds in any jurisdiction in which we hold license rights to a valid patent. The royalty rate due to Eli Lilly on sales increases as annual sales of these products increase. We are obligated to use commercially reasonable efforts to obtain and maintain regulatory approval for Orbactiv in the United States and to commercialize Orbactiv in the United States. If we breach that obligation, Eli Lilly may terminate our license in the United States, license rights to Orbactiv could revert to Eli Lilly and we would lose our rights to develop and commercialize Orbactiv. The license rights under the agreement remain in force, on a country-by-country basis, until there is no valid patent in such country and our obligation to pay royalties ceases in that country. Either party may terminate the agreement upon an uncured material breach by the other party. In addition, either party may terminate the agreement upon the other party’s insolvency or bankruptcy.

Ready-to-Use Argatroban. In September 2009, we licensed marketing rights in the United States and Canada to an intravenous, ready-to-use formulation of Argatroban from Eagle. Under the license agreement, as amended in January 2010 and September 2012, we paid Eagle a $5.0 million technology license fee. We also agreed to pay additional approval and commercialization milestones up to a total of $15.0 million and royalties on sales or ready-to-use Argatroban, but such milestones and royalties have been replaced under the license agreement by a profit sharing arrangement in which we share equally with Eagle the gross profits, as defined in the license agreement, of our sales of ready-to-use Argatroban. The license agreement expires at the later of the termination of the development plan under the agreement or upon us ceasing to exploit the products under the agreement. Either party may terminate the agreement for material breach by the other party, if the material breach is not cured after receipt of written notice within 30 days or up to 60 days if the breaching party gives notice that it is in good faith attempting to cure the breach. In addition, we have the right to terminate the agreement at any time upon 60 days’ notice.

Acute Care Generic Products. In January 2012, we entered into settlement documents with APP, including a license agreement with APP under which APP granted us a non-exclusive license under APP's marketing authorizations and intellectual property to sell the acute care generic products to hospitals and integrated delivery networks in the United States. Under the settlement documents, we made a one-time, upfront payment of $32.0 million to APP. We also agreed to purchase our entire requirements for these products from APP for a price equal to APP's cost of goods. The term of the license and supply agreement ends January 22, 2022. We and APP may terminate the agreement in the event of a material breach by the other party, unless the material breach is cured within 90 days of written notice or within 120 days of written notice if the breach is incapable of being cured within the 90-day period. APP may terminate the agreement upon 60 days written notice if we fail to pay in full any invoice that is past due unless such payment is the subject of a dispute set forth in writing by us. We may terminate the agreement if, with respect to two purchase orders in a calendar year, APP has failed to supply at least the aggregate quantity of conforming product specified in the purchase order or failed to deliver the product prior to the applicable delivery date specified in the purchase order and APP has failed to cure these breaches in the manner specified in the agreement. In addition, either party may terminate the license and supply agreement on a product-by-product basis, effective immediately, upon written notice to the other party in the event the FDA takes any action the result of which is to permanently prohibit the manufacture of the product in the United States. APP may also terminate the license and supply agreement on a product-by-product basis upon 180 days written notice if APP has determined that it will discontinue the marketing authorization for the product in the United States. We may terminate the agreement on a product-by-product basis upon 180 days written notice if the total market value of a product falls below a specified percentage of the total market value of the product as of the effective date of the agreement. In the event that the agreement is terminated with respect to a product, the parties shall agree upon a substitute product.

Kengreal. In December 2003, we licensed from AstraZeneca exclusive rights to Kengreal for all countries other than Japan, China, Korea, Taiwan and Thailand. Under the terms of the agreement, we have the rights to the patents, trademarks, inventories and know-how related to Kengreal. In June 2010, we entered into an amendment to our license agreement with AstraZeneca. The amendment requires us to commence certain clinical studies of Kengreal,

eliminates the specific development time lines set forth in the license agreement and terminates certain regulatory assistance obligations of AstraZeneca. We paid an upfront payment of $1.5 million upon entering into the license and $3.0 million upon entering the amendment to the license. We also agreed to make additional milestone payments of up to $54.5 million in the aggregate upon reaching agreed upon regulatory and commercial milestones. We also paid AstraZeneca $0.2 million for the transfer of technology in 2004. We are obligated to pay royalties on a country-by-country basis on annual sales of Kengreal, and on any sublicense income earned, until the later of the duration of the licensed patent rights which are necessary to manufacture, use or sell Kengreal in a country ten years from our first commercial sale of Kengreal in such country.

Under the agreement we are obligated to use commercially reasonable efforts to diligently and expeditiously file NDAs in the United States and in other agreed upon major markets. The licenses and rights under the agreement remain in force on a country-by-country basis until we cease selling Kengreal in such country or the agreement is otherwise terminated. We may terminate the agreement upon 30 days' written notice, unless AstraZeneca, within 20 days of having received our notice, requests that we enter

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into good faith discussions to redress our concerns. If we cannot reach a mutually agreeable solution with AstraZeneca within three months of the commencement of such discussions, we may then terminate the agreement upon 90 days' written notice. In the event that a change of control of our company occurs in which we are acquired by a specified company at a time when that company is developing or commercializing a specified competitor product, AstraZeneca may terminate the agreement upon 120 days' written notice. Either party may terminate the agreement for material breach upon 60 days' prior written notice if the breach is not cured within such 60 days.

Ionsys. As a result of our acquisition of Incline, we are a party to a license agreement with ALZA through our Incline subsidiary. Under the terms of the agreement, Incline acquired from ALZA certain rights to the Ionsys product and ALZA transferred to Incline specified trademarks, know-how, domain names and tangible assets relating to the Ionsys product. ALZA also granted Incline worldwide licenses under specified patent rights and know-how to develop, manufacture and commercialize iontophoretic transdermal systems providing delivery under the influence of an electric current which is from a source external to the human body of specified fentanyl analogs. The licenses granted by ALZA under the agreement are exclusive with respect to specified patent rights and know-how and nonexclusive under other specified patent rights.

We, through our subsidiary, Incline have the sole responsibility for the development and commercialization of licensed products under the agreement, and are required to use commercially reasonable efforts to develop and commercialize at least one licensed product in the United States, United Kingdom, Germany, France, Italy and Spain. In addition to the other rights and licenses granted to Incline under the ALZA Agreement, if, at any time during the 10-year period following the date of the agreement, ALZA wishes to grant a license under specified licensed patents to a third party, other than in connection with the settlement of litigation, to develop, manufacture and/or commercialize specified systems that deliver opioid compounds or combinations of opioid compounds with fentanyl analogs or generic compounds, in each case that do not contain any active compound that is proprietary to, licensed by or otherwise controlled by the third party or, except for specified fentanyl analogs, by ALZA, then we will have a right of first negotiation to obtain the proposed license.

If, at any time during the 10-year period following the date of the agreement, we wish to obtain from ALZA a license under specified licensed patents to develop, manufacture and/or commercialize specified systems that deliver generic compounds, combinations of generic compounds with fentanyl analogs or compounds exclusively owned, licensed or otherwise controlled by Incline, alone or in combination with generic compounds or specified fentanyl analogs, in each case that do not contain any active compound, other than specified fentanyl analogs, that is proprietary to, licensed by or otherwise controlled by ALZA or that is a generic drug owned, licensed or controlled by ALZA, then upon notice to ALZA of our desire to obtain the license, ALZA will be obligated to negotiate in good faith with Incline to grant the proposed license.

Under the ALZA Agreement, Incline paid ALZA an upfront payment and we will be obligated to pay ALZA up to an aggregate of $32.5 million in regulatory and commercial launch milestone payments and up to an aggregate of $83.0 million in sales milestone payments, of which we paid $2.5 million in September 2014 upon MAA submission in EU. ALZA is also entitled to specified royalties based on net sales of licensed products, on a licensed product-by-licensed product and country-by-country basis, during the period commencing on the first commercial sale of the licensed product in the applicable country and ending on the latest of the expiration of the licensed patents covering the licensed product, the expiration of applicable regulatory exclusivity or the 20th anniversary of the first commercial sale of the licensed product in the applicable country. We will also be required to pay amounts that become payable, if any, under specified ALZA third party licenses as a result of our development and commercialization of licensed products.

Either ALZA or we may terminate the agreement due to the other party's material breach of the agreement if such breach is not cured within 60 days of notice of the breach except that if the breach relates solely to the United States, any country in Europe or any other country in the world, the termination right shall apply to the United States, applicable countries in Europe or the rest of the world (other than the US and Europe), as the case may be. ALZA may also terminate the agreement due to our bankruptcy. Neither party has any discretionary right to terminate the agreement. If not terminated earlier pursuant to its terms, the agreement terminates upon the expiration and satisfaction of all payment obligations under the agreement.

MDCO-216. In December 2009, we licensed exclusive worldwide rights to MDCO-216 from Pfizer. Under the terms of the agreement, we have rights under specified Pfizer patents, patent applications and know-how to develop, manufacture and commercialize products containing MDCO-216 and improvements to the compound. We paid Pfizer $10.0 million upon entering into the agreement and agreed to pay up to an aggregate of $410.0 million upon the achievement of specified clinical, regulatory and sales milestones. We are obligated to make royalty payments, which are payable on a product-by-product and country-by-country basis, until the latest of the expiration of the last patent or patent application covering MDCO-216, the expiration of any market exclusivity and a specified period of time after the first commercial sale of MDCO-216. In addition, we agreed to pay Pfizer a portion of the consideration received by us or our affiliates in connection with sublicenses. Under the agreement, we may sublicense the intellectual property to third parties, provided that we have complied with Pfizer's right of first negotiation and, in the case of sublicenses to unaffiliated third parties in certain countries, provided that we first obtain Pfizer's consent. We, either directly or

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through our affiliates or sublicensees, have also agreed to use commercially reasonable efforts to develop at least one product with MDCO-216 and to commercialize any approved products related thereto.

The agreement expires upon the expiration of our obligation to pay royalties under the agreement. Either party may terminate the agreement upon an uncured material breach by the other party. In addition, either party may terminate the agreement upon the other party's insolvency or bankruptcy or if the other party is subject to a force majeure event. We may terminate the agreement in its entirety, or on a product-by-product basis, at any time and for any reason upon prior written notice. Pfizer may terminate the agreement if we notify them that we intend to permanently abandon the development, manufacture and commercialization of the products or if we otherwise cease, for a specified period of time, to use commercially reasonable efforts to develop, manufacture and commercialize, as applicable, at least one product.

We also paid $7.5 million to third parties in connection with the license and agreed to make additional payments to them of up to $12.0 million in the aggregate upon the achievement of specified development milestones and continuing payments on sales of MDCO-216.

Alnylam License Agreement. In February 2013, we entered into a license and collaboration agreement with Alnylam to develop, manufacture and commercialize therapeutic products targeting the human PCSK-9 gene based on certain of Alnylam's RNAi technology. Under the terms of the agreement, we obtained the exclusive, worldwide right under Alnylam's technology to develop, manufacture and commercialize PCSK-9 products for the treatment, palliation and/or prevention of all human diseases. We paid Alnylam $25.0 million in an initial license payment and agreed to pay up to $180.0 million in success-based development and commercialization milestones. In addition, Alnylam will be eligible to receive scaled double-digit royalties based on annual worldwide net sales of PCSK-9 products by us or our affiliates and sublicensees. Royalties to Alnylam are payable on a product-by-product and country-by-country basis until the last to occur of the expiration of patent rights in the applicable country that cover the applicable product, the expiration of non-patent regulatory exclusivities for such product in such country, and the twelfth anniversary of the first commercial sale of the product in such country. The royalties are subject to reduction in specified circumstances. We are also responsible for paying royalties, and in some cases milestone payments, owed by Alnylam to its licensors with respect to intellectual property covering these products.

The agreement expires when the last royalty term expires under the agreement, unless earlier terminated. We may terminate the agreement at any time with four months prior written notice to Alnylam. Either party may terminate the agreement on 60 days (10 days in the event of a payment breach) prior written notice if the other party materially breaches the agreement and fails to cure such breach within the applicable notice period. Such cure period may be extended in certain circumstances. If the agreement is terminated by us for convenience or by Alnylam for our uncured material breach or challenge of the patents licensed from Alnylam, we have agreed to grant a license to Alnylam under certain of its technology developed in the course of our activities under the Agreement, subject to a royalty to be negotiated between the parties, and we will provide certain other assistance to Alnylam to continue the development and commercialization of the products. The exclusivity restrictions imposed on us will survive termination of the agreement for specified periods of time if we terminate the agreement for convenience or if Alnylam terminates the agreement for cause or for a patent challenge by us.

ABP-700. As a result of our acquisition of Annovation, we, through our subsidiary Annovation, are a party to a license agreement with The General Hospital Corporation. Under the terms of the agreement, Annovation licensed from the General Hospital Corporation exclusive worldwide rights to certain patents, patent applications and other intellectual property related to ABP-700. We will be obligated to pay General Hospital Corporation up to an aggregate of $6.5 million upon achievement of specified development, regulatory and sales milestones. In addition, we will be obligated to pay General Hospital Corporation low single-digit percentage royalties on a product-by-product and country-by-country basis based on net sales of ABP-700 products until the later of the duration of the licensed patent rights which are necessary to manufacture, use or sell ABP-700 products in a country and the date ten years from our first commercial sale of ABP-700 products in such country. We are required to use commercially reasonable efforts to develop the ABP-700 product and achieve specified stages of clinical development within specified time periods.

Customers

We currently sell branded Angiomax, Cleviprex, Kengreal, Minocin IV, Orbactiv, the acute care generic products that we market and ready-to-use Argatroban in the United States to our sole source distributor, ICS. ICS accounted for 88%, 94% and 91% of our net product revenue for 2015, 2014 and 2013, respectively. At December 31, 2015 and 2014, amounts due from ICS represented approximately $33.2 million and $193.4 million, or 47% and 95%, of gross accounts receivable, respectively. We also have a supply and distribution arrangement with Sandoz under which Sandoz sells authorized generic Angiomax (bivalirudin) in the United States. At December 31, 2015, amounts due from Sandoz represented approximately $32.3 million or 46% of gross accounts receivable.

Government Regulation

Government authorities in the United States and other countries extensively regulate the research, testing, manufacturing, labeling, safety, advertising, promotion, storage, sales, distribution, import, export and marketing, among other things, of our products

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and product candidates. In the United States, the FDA regulates drugs and biologics, under the Federal Food, Drug, and Cosmetic Act and the Public Health Service Act respectively and their implementing regulations. We cannot market or commercially distribute a drug until we have submitted an application for marketing authorization to the FDA, and the FDA has approved it. Both before and after approval is obtained, violations of regulatory requirements may result in various adverse consequences, including, among other things, clinical holds, untitled letters, warning letters, fines and other monetary penalties, the FDA's delay in approving or refusal to approve a product, product recall or seizure, suspension or withdrawal of an approved product from the market, interruption of production, operating restrictions, injunctions and the imposition of civil or criminal penalties. The steps required before a drug may be approved by the FDA and marketed in the United States generally include:

- pre-clinical laboratory tests, animal studies and formulation studies;
- submission to the FDA of an IND for human clinical testing, which must become effective before human clinical trials may begin;
- adequate and well-controlled clinical trials to establish the safety and efficacy of the drug for each indication;
- submission to the FDA of an NDA or BLA;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the drug is produced to assess compliance with current good manufacturing practices, or cGMP; and
- FDA review and approval of the NDA or BLA.

Pre-Clinical Tests

Pre-clinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies. The results of the pre-clinical tests, together with manufacturing information, analytical data, study protocols, and other information, are submitted to the FDA as part of an IND, which must become effective before human clinical trials may begin. An IND will automatically become effective 30 days after receipt by the FDA, unless before that time the FDA puts the trial on clinical hold because of concerns or questions about issues such as the design of the trials or the safety of the drug for administration to humans. In such a case, the IND sponsor and the FDA must resolve any outstanding FDA concerns or questions before clinical trials can proceed. Submission of an IND does not necessarily result in the FDA allowing clinical trials to commence. In addition, the FDA may impose a clinical hold on an ongoing clinical trial if, for example, safety concerns arise, in which case the trial cannot recommence without the FDA's authorization.

Clinical Trials

Clinical trials involve the administration of the investigational drug to human subjects under the supervision of qualified investigators. Clinical trials are conducted under protocols detailing the objectives of the study, the parameters to be used in monitoring subject safety, and the effectiveness criteria, or endpoints, to be evaluated. Each protocol must be submitted to the FDA as part of the IND, and the FDA may or may not allow that trial to proceed. Each trial also must be reviewed and approved by an independent Institutional Review Board, or IRB, at each proposed study site before it can begin.

Clinical trials typically are conducted in three sequential phases, but the phases may overlap or be combined. Phase 1 usually involves the initial introduction of the investigational drug into people to evaluate its safety, dosage tolerance, pharmacokinetics, and, if possible, to gain an early indication of its effectiveness. Phase 2 usually involves trials in a limited patient population to:

- evaluate dosage tolerance and appropriate dosage;
- identify possible adverse effects and safety risks; and

- evaluate preliminarily the efficacy of the drug for specific indications.

Phase 3 trials typically involve administration of the drug to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product, and to provide adequate information for the labeling of the product. We cannot guarantee that Phase 1, Phase 2 or Phase 3 testing will be completed successfully within any specified period of time, if at all. Furthermore, we, the IRB, or the FDA may suspend clinical trials at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk.

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Sponsors are required to publicly disseminate information about ongoing and completed clinical trials on a government website administered by the National Institutes of Health, or NIH, and are subject to civil money penalties and other civil and criminal sanctions for failing to meet these obligations.

Sponsors of drugs may apply for a Special Protocol Assessment, or SPA, from the FDA. The SPA process is a procedure by which the FDA provides official evaluation and written guidance on the design and size of proposed protocols that are intended to form the primary basis for determining a drug product's efficacy. Even if the FDA agrees on the design, execution and analyses proposed in protocols reviewed under an SPA, the FDA may revoke or alter its agreement if, among other reasons, new public health concerns emerge or the relevant assumptions change or are determined to be inaccurate. Moreover, an SPA does not guarantee approval, which depends on the results of the trials, the adverse event profile, and an evaluation of the benefit/risk profile of the drug product.

Marketing Approval

Assuming successful completion of the required clinical testing, the results of the pre-clinical studies and of the clinical studies, together with other detailed information, including information on the manufacture and composition of the drug, are submitted to the FDA in the form of an NDA or BLA requesting approval to market the product for one or more indications. The submission of an NDA or BLA typically requires the payment of a significant user fee to FDA. Before approving an application, the FDA usually will inspect the facility or the facilities at which the drug is manufactured, and will not approve the product unless cGMP compliance is satisfactory. The FDA also often inspects one or more sites at which the pivotal clinical trial or trials were conducted to ensure the integrity of the data and compliance with Good Clinical Practice, or GCP, requirements. If the FDA determines the application, data or manufacturing facilities are not acceptable, the FDA may outline the deficiencies in the submission and often will request additional testing or information. Notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. As a condition of approval of an application, the FDA may request or require post-market testing and surveillance to monitor the drug's safety or efficacy. The FDA also may impose requirements designed to ensure the safety of the drug up to and including distribution and use restrictions under a Risk Evaluation and Mitigation Strategy, or REMS. After approval, certain changes to the approved product, such as adding new indications, manufacturing changes, or additional labeling claims, are subject to further FDA review and approval before the changes can be implemented. The testing and approval process requires substantial time, effort and financial resources, and we cannot be sure that any approval will be granted on a timely basis, if at all.

The FDA regulates combinations of products that cross FDA centers, such as drug, biologic or medical device components that are physically, chemically or otherwise combined into a single entity, as a combination product. The FDA center with primary jurisdiction for the combination product will take the lead in the premarket review of the product, with the other center consulting or collaborating with the lead center, and often will require approval of only a single application, such as an NDA or BLA. The FDA's Office of Combination Products, or OCP, determines which center will have primary jurisdiction for the combination product based on the combination product's "primary mode of action." A mode of action is the means by which a product achieves an intended therapeutic effect or action. The primary mode of action is the mode of action that provides the most important therapeutic action of the combination product, or the mode of action expected to make the greatest contribution to the overall intended therapeutic effects of the combination product. For example, our Ionsys product is considered to be a combination drug-device product, but because it has a primary mode of action of a drug, it has been approved under an NDA by FDA's Center for Drug Evaluation and Research, or CDER.

Manufacturing Requirements

After the FDA approves a product, we, our suppliers, and our contract manufacturers must comply with a number of post-approval requirements. For example, holders of an approved NDA or BLA are required to report certain adverse reactions and production problems, if any, to the FDA, and to comply with certain requirements concerning advertising and promotional labeling for their products. Also, quality control and manufacturing procedures must continue to conform to cGMP after approval, and the FDA periodically inspects manufacturing facilities to assess compliance with cGMP. Accordingly, we and our contract manufacturers must continue to expend time, money, and effort to maintain compliance with cGMP and other aspects of regulatory compliance. In addition, discovery of

problems such as safety problems may result in changes in labeling, imposition or modification of a REMS, or other restrictions on a product manufacturer, or NDA or BLA holder, including removal of the product from the market. We use and will continue to use third-party manufacturers to produce our products in clinical and commercial quantities, and we cannot be sure that future FDA inspections will not identify compliance issues at the facilities of our contract manufacturers that may disrupt production or distribution, or require substantial resources to correct. In addition, discovery of problems with a product may result in restrictions on a product, manufacturer, or holder of an approved NDA or BLA, including withdrawal of the product from the market. Also, new government requirements may be established that could delay or prevent regulatory approval of our products under development.

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Abbreviated New Drug Applications and Section 505(b)(2) New Drug Applications

Once an NDA is approved, the product covered thereby becomes a listed drug that can, in turn, be relied upon by potential competitors in support of approval of an ANDA or 505(b)(2) application. The FDA may approve an ANDA if the product is the same in important respects as the listed drug or if the FDA has declared it suitable for an ANDA submission. In these situations, applicants must submit studies showing that the product is bioequivalent to the listed drug, meaning that the rate and extent of absorption of the drug does not show a significant difference from the rate and extent of absorption of the listed drug. ANDA applicants are not required to conduct or submit results of preclinical or clinical tests to prove the safety or effectiveness of their drug product, other than the requirement for bioequivalence testing. Conducting bioequivalence studies is generally less time-consuming and costly than conducting pre-clinical and clinical trials necessary to support an NDA or BLA. Drugs approved via ANDAs on the basis that they are the “same” as a listed drug are commonly referred to as "generic equivalents" to the listed drug, and can often be and are substituted by pharmacists under prescriptions written for the original listed drug. A number of ANDAs have been filed with respect to Angiomax. The regulations governing marketing exclusivity and patent protection are complex, and until the outcomes of our effort to extend the patent term and our patent infringement litigation, we may not know the disposition of such ANDA submissions.

In seeking approval for a drug through an NDA, applicants are required to list with the FDA each patent with claims that cover the applicant's product or a method of using the product. Upon approval of a drug, each of the patents listed in the application for the drug is then published in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the Orange Book. An ANDA applicant relying upon a listed drug is required to certify to the FDA concerning any patents listed for the listed drug product in the FDA's Orange Book, except for patents covering methods of use for which the ANDA applicant is not seeking approval. Specifically, the applicant must certify with respect to each patent that:

- the required patent information has not been filed;
- the listed patent has expired;
- the listed patent has not expired, but will expire on a particular date and approval is sought after patent expiration; or
- the listed patent is invalid, unenforceable, or will not be infringed by the new product.

A certification that the proposed generic product will not infringe the already approved product's listed patents or that such patents are invalid or unenforceable is called a Paragraph IV certification. If the ANDA applicant does not challenge the listed patents or indicate that it is not seeking approval of a patented method of use, the ANDA application will not be approved until all the listed patents claiming the referenced product have expired.

If the ANDA applicant has provided a Paragraph IV certification to the FDA, the applicant must also send notice of the Paragraph IV certification to the NDA and patent holders once the ANDA has been accepted for filing by the FDA. The NDA and patent holders may then initiate a patent infringement lawsuit in response to the notice of the Paragraph IV certification. The filing of a patent infringement lawsuit within 45 days after the receipt of a Paragraph IV certification notice automatically prevents the FDA from granting final approval to the ANDA until the earlier of 30 months, expiration of the patent, settlement of the lawsuit or a decision in the infringement case that is favorable to the ANDA applicant.

The ANDA also will not be approved until any applicable non-patent exclusivity period, such as exclusivity for obtaining approval of a new chemical entity, for the referenced product has expired, unless the exclusivity period protects an indication or other aspect of labeling that can be “carved out” of the labeling for the proposed generic product. Federal law provides a period of five years following approval of a drug containing no previously approved active moiety during which ANDAs for generic versions of those drugs cannot be submitted unless the submission contains a Paragraph IV challenge to a listed patent, in which case the submission may be made four years following the original product approval. Federal law provides for a period of three years of exclusivity during which the FDA cannot grant effective approval of an ANDA if a listed drug contains a previously approved active moiety but FDA requires as a condition of approval new clinical trials conducted by or for the sponsor. This three-year exclusivity

period often protects changes to a previously approved product, such as a new dosage form, route of administration, combination, or indication. Under the Best Pharmaceuticals for Children Act, federal law also provides that periods of patent and non-patent marketing exclusivity listed in the Orange Book for a drug may be extended by six months if the NDA sponsor conducts pediatric studies identified by the FDA in a written request. For written requests issued by the FDA after September 27, 2007, the date of enactment of the Food and Drug Administrative Amendment Act (FDAAA), the FDA must grant pediatric exclusivity no later than nine months prior to the date of expiration of patent or non-patent exclusivity in order for the six-month pediatric extension to apply to that exclusivity period.

Most drug products obtain FDA marketing approval pursuant to an NDA or an ANDA. A third alternative is a special type of NDA, commonly referred to as a Section 505(b)(2) NDA, which enables the applicant to rely, in part, on the FDA's previous approval of a similar product, or published literature, in support of its application. 505(b)(2) NDAs often provide an alternate path to FDA

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approval for new or improved formulations or new uses of previously approved products. Section 505(b)(2) permits the filing of an NDA where at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference. If the 505(b)(2) applicant can establish that reliance on the FDA's previous approval is scientifically appropriate, it may eliminate the need to conduct certain preclinical or clinical studies of the new product. The FDA may also require companies to perform additional studies or measurements to support the change from the approved product. The FDA may then approve the new product candidate for all or some of the labeled indications for which the referenced product has been approved, as well as for any new indication(s) sought by the Section 505(b)(2) applicant.

To the extent that the Section 505(b)(2) applicant is relying on studies conducted for an already approved product, the applicant is required to certify to the FDA concerning any patents listed for the approved product in the Orange Book to the same extent that an ANDA applicant would be required to do so. As a result, approval of a 505(b)(2) NDA can be prevented until all the listed patents claiming the referenced product have expired, until any non-patent exclusivity, such as exclusivity for obtaining approval of a new chemical entity, listed in the Orange Book for the referenced product has expired, and, in the case of a Paragraph IV certification and subsequent patent infringement suit, until the earlier of 30 months, settlement of the lawsuit or a decision in the infringement case that is favorable to the Section 505(b)(2) applicant.

Biologics Price Competition and Innovation Act

Under the Biologics Price Competition and Innovation Act, or BPCIA, enacted in the United States in 2010, the FDA now has the authority to approve biosimilar and interchangeable versions of previously-approved biological products through an abbreviated pathway following periods of data and marketing exclusivity. A competitor seeking approval of a biosimilar must file an application to show its molecule is highly similar to an approved innovator biologic, also known as a reference product, address the challenges of biologics manufacturing, and include a certain amount of safety and efficacy data which the FDA will evaluate on a case-by-case basis. A competitor seeking approval of an interchangeable biological product must demonstrate not only biosimilarity but also that the products can be expected to produce the same clinical effects in any given patient. Under the data protection provisions of this law, the FDA cannot accept a biosimilar application until four years, or approve a biosimilar application until 12 years, after initial marketing approval of the reference product. Although the FDA has issued draft guidance documents, to date it has not issued any regulations or final guidance explaining how it will implement the abbreviated BLA or biosimilar provisions enacted in 2010 under the BPCIA, including the exclusivity provisions for reference products. Regulators in the European Union and other countries also have been given the authority to approve biosimilars. The extent to which a biosimilar, once approved, will be approved as interchangeable with or substituted for the innovator biologic in a way that is similar to traditional generic substitution for non-biologic products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing. A number of states have recently considered and, in some cases, adopted legislation governing the substitution of interchangeable biosimilars for the reference product.

Patient Protection and Affordable Care Act

In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, or PPACA, which was amended by the Health Care and Education Reconciliation Act of 2010. The PPACA, as amended, contains numerous provisions that impact the pharmaceutical and healthcare industries that are expected to be implemented over the next several years. We are continually evaluating the impact of the PPACA on our business. As of the date of this Annual Report on Form 10-K, we have not identified any provisions that currently materially impact our business and results of operations other than the BPCIA provisions of PPACA discussed above. However, the potential impact of the PPACA on our business and results of operations is inherently difficult to predict as many of the details regarding the implementation of this legislation have not been determined and the impact on our business and results of operations may change as and if our business evolves.

“Generating Antibiotic Incentives Now,” Provisions of Food and Drug Administration Safety and Innovation Act

On July 9, 2012, President Obama signed the FDASIA. Under the GAIN provisions of FDASIA, the FDA may designate a product as a qualified infectious disease product, or QIDP. A QIDP is defined as an antibacterial or antifungal drug for human use intended to treat serious or life-threatening infections, including those caused by either

an antibacterial or antifungal resistant pathogen, including novel or emerging infectious pathogens or a so-called "qualifying pathogen" found on a list of potentially dangerous, drug-resistant organisms to be established and maintained by the FDA under the new law. The GAIN provisions describe several examples of "qualifying pathogens," including MRSA and Clostridium difficile. Upon the designation of a drug by the FDA as a QIDP, any non-patent exclusivity period awarded to the drug will be extended by an additional five years. This extension is in addition to any pediatric exclusivity extension awarded.

We developed Orbactiv for the treatment of ABSSSI, including infections caused by MRSA, and are exploring the development of Orbactiv for other indications, including ABSSSIs in children, uncomplicated bacteremia, endocarditis, prosthetic joint infections, and other gram-positive bacterial infections. We developed the new formulation of Minocin IV, which is approved by the FDA, for the treatment of infections due to susceptible strains of designated gram-negative bacteria, including those due to Acinetobacter spp, and designated gram-positive bacteria. We are also developing Carbavance for the treatment of hospitalized patients with serious

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gram-negative bacterial infections. In November 2013, the FDA designated Orbactiv a QIDP. In August 2014, following approval of Orbactiv, the FDA informed us that Orbactiv met the criteria for an additional five years of non-patent exclusivity to be added to the five year exclusivity period already provided by the Food, Drug and Cosmetic Act. As a result, Orbactiv's non-patent regulatory exclusivity is scheduled to expire in August 2024. In December 2013, the FDA designated Carbavance a QIDP. We expect that, if we submit an NDA for Carbavance and the NDA is approved, Carbavance would receive an additional five years of non-patent exclusivity. In April 2015, the FDA designated the RPX-602 formulation of Minocin IV a QIDP for certain additional potential indications involving gram-negative bacteria, and we expect that if we submit a supplemental NDA for one or more of those indications and such supplemental NDA is approved, Minocin IV would receive an additional five years of non-patent exclusivity with respect to such indications.

Pharmaceutical Coverage, Pricing and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any drug products for which we obtain regulatory approval. Sales of any of our product candidates, if approved, will depend, in part, on the extent to which the costs of the products will be covered by third-party payers, including government health programs such as Medicare and Medicaid, commercial health insurers and managed care organizations. The process for determining whether a payer will provide coverage for a drug product may be separate from the process for setting the price or reimbursement rate that the payer will pay for the drug product once coverage is approved. Third-party payers may limit coverage to specific drug products on an approved list, or formulary, which might not include all of the approved drugs for a particular indication.

In order to secure coverage and reimbursement for any product that might be approved for sale, we may need to conduct expensive health economic studies in order to demonstrate the economics of the product, in addition to incurring the costs required to obtain FDA or other comparable regulatory approvals. Our product candidates may not be considered medically reasonable or necessary or economically viable. Even if a drug product is covered, a payer's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Third-party reimbursement may not be sufficient to enable us to maintain price levels high enough to realize an appropriate return on our investment in product development.

The containment of healthcare costs has become a priority of federal, state and foreign governments, and the prices of drugs have been a focus in this effort. Third-party payers are increasingly challenging the prices charged for medical products and services and examining the medical necessity and economic benefit of medical products and services, in addition to their safety and efficacy. If these third-party payers do not consider our products to be economically beneficial compared to other available therapies, they may not cover our products after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products at a profit. Third-party payers may provide coverage, but place stringent limitations on such coverage, such as requiring alternative treatments to be tried first. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost-containment programs to limit the growth of government-paid health care costs, including price controls, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs. For example, in a recent final rule regarding the Medicare Hospital Outpatient Prospective Payment System, CMS finalized a new “bundling” policy that will affect reimbursement for a number of medicines prescribed in connection with certain Medicare hospital outpatient services, including PCI, beginning on January 1, 2015. The medicines affected by this policy include, among others, Angiomax. This particular policy is one example of a broader trend in health care in which the government and other payors are seeking to move from individualized “fee for service” payments toward a system focused on “bundled” payments for more comprehensive packages of services and episodes of care. Adoption of such controls and measures, and tightening of restrictive policies in jurisdictions with existing controls and measures, could limit payments for pharmaceuticals such as the drug product candidates that we are developing and could adversely affect our net revenue and results.

Pricing and reimbursement schemes vary widely from country to country. Some countries provide that drug products may be marketed only after a reimbursement price has been agreed. Some countries may require the completion of additional studies that compare the cost-effectiveness of a particular product candidate to currently available therapies.

For example, the European Union provides options for its member states to restrict the range of drug products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. European Union member states may approve a specific price for a drug product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the drug product on the market. Other member states allow companies to fix their own prices for drug products, but monitor and control company profits. The downward pressure on health care costs in general, particularly prescription drugs, has become intense. As a result, increasingly high barriers are being erected to the entry of new products. In addition, in some countries, cross-border imports from low-priced markets exert competitive pressure that may reduce pricing within a country. There can be no assurance that any country that has price controls or reimbursement limitations for drug products will allow favorable reimbursement and pricing arrangements for any of our products.

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The marketability of any products for which we receive regulatory approval for commercial sale may suffer if the government and third-party payers fail to provide adequate coverage and reimbursement. In addition, emphasis on managed care in the United States has increased and we expect will continue to increase the pressure on drug pricing. Coverage policies, third party reimbursement rates and drug pricing regulation may change at any time. In particular, the PPACA and a related reconciliation bill, which we collectively refer to as the Affordable Care Act, or ACA, contain provisions that may reduce the profitability of drug products, including, for example, increased rebates for covered outpatient drugs sold to Medicaid programs, extension of Medicaid rebates to Medicaid managed care plans, mandatory discounts for certain Medicare Part D beneficiaries, and annual fees based on pharmaceutical companies' share of sales to federal health care programs. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Foreign Regulations

In addition to regulations in the United States, we are subject to a variety of regulations in other jurisdictions governing, among other things, clinical trials and any commercial sales and distribution of our products.

Whether or not we obtain FDA approval for a product, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product in those countries. Certain countries outside of the United States have a similar process that requires the submission of a clinical trial application much like the IND prior to the commencement of human clinical trials. In Europe, for example, a clinical trial application, or CTA, must be submitted to each country's national health authority and an independent ethics committee, much like the FDA and IRB, respectively. Once the CTA is approved in accordance with a country's requirements, clinical trial development may proceed.

The requirements and process governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In all cases, the clinical trials are conducted in accordance with Good Clinical Practices, or GCPs, and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

To obtain regulatory approval of an investigational drug or biological product under European Union regulatory systems, we must submit a marketing authorization application. The application used to file the NDA or BLA in the United States is similar to that required in Europe, with the exception of, among other things, country-specific document requirements.

For other countries outside of the European Union, such as countries in Eastern Europe, Latin America or Asia, the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In all cases, again, the clinical trials are conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

If we fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

Drugs can be authorized in the European Union by using either the centralized authorization procedure or national authorization procedures.

Centralized EMA Procedure. The EMA, formerly the EMEA, implemented the centralized procedure for the approval of human medicines to facilitate marketing authorizations that are valid throughout the European Union. This procedure results in a single marketing authorization issued by the EMA that is valid across the European Union, as well as Iceland, Liechtenstein and Norway. The centralized procedure is compulsory for human medicines that are derived from biotechnology processes, such as genetic engineering, contain a new active substance indicated for the treatment of certain diseases, such as HIV/AIDS, cancer, diabetes, neurodegenerative disorders or autoimmune diseases and other immune dysfunctions, and officially designated orphan medicines.

For drugs that do not fall within these categories, an applicant has the option of submitting an application for a centralized marketing authorization to the EMA, as long as the drug concerned is a significant therapeutic, scientific or technical innovation, or if its authorization would be in the interest of public health.

National EMA Procedures. There are also two other possible routes to authorize medicinal products outside the scope of the centralized procedure:

- Decentralised procedure. Using the decentralised procedure, an applicant may apply for simultaneous authorization in more than one European Union country of medicinal products that have not yet been authorized in any European Union country and that do not fall within the mandatory scope of the centralised procedure.

- Mutual recognition procedure. In the mutual recognition procedure, a medicine is first authorized in one European Union member state, in accordance with the national procedures of that country. Following this, further marketing authorizations

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can be sought from other European Union countries in a procedure whereby the countries concerned agree to recognize the validity of the original, national marketing authorization.

Research and Development

Our research and development expenses totaled $123.6 million in 2015, $139.5 million in 2014 and $138.3 million in 2013.

Employees

As of February 24, 2016, we employed 614 persons worldwide. We believe that our success depends greatly on our ability to identify, attract and retain capable employees. We have assembled a management team with significant experience in drug development and commercialization. Our employees are not represented by any collective bargaining unit, and we believe our relations with our employees are good.

Segments and Geographic Information

We have one reporting segment. For information regarding revenue and other information regarding our results of operations, including geographic segment information, for each of our last three fiscal years, please refer to our consolidated financial statements and note 19 to our consolidated financial statements, which are included in Part II, Item 8. Financial Statements and Supplementary Data of this Annual Report on Form 10-K, and Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations included in this Annual Report on Form 10-K.

Our Corporate Information

We were incorporated in Delaware on July 31, 1996. Our principal executive offices are located at 8 Sylvan Way, Parsippany, New Jersey 07054, and our telephone number is (973) 290-6000.

Available Information

Our Internet address is http://www.themedicinescompany.com. The contents of our website are not part of this Annual Report on Form 10-K, and our Internet address is included in this document as an inactive textual reference only. We make our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports available free of charge on our website as soon as reasonably practicable after we file such reports with, or furnish such reports to, the Securities and Exchange Commission, or SEC.

Item 1A. Risk Factors.

Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below in addition to the other information included or incorporated by reference in this Annual Report on Form 10-K. If any of the following risks actually occur, our business, financial condition or results of operations would likely suffer. In that case, the trading price of our common stock could decline. In addition to the risk factors identified under the captions below, the operation and results of our business are subject to risks and uncertainties identified elsewhere in this Annual Report on Form 10-K as well as general risks and uncertainties such as those relating to general economic conditions and demand in the market for our products.

Risks Related to Our Financial Results

We no longer have market exclusivity for Angiomax and face generic and other competition that will cause our net revenue to decline significantly.

A substantial majority of our historic revenue has come from sales of Angiomax (bivalirudin) in the United States. The principal U.S. patents covering Angiomax included the '404 patent, the '727 patent and the '343 patent. The term of the '404 patent expired on December 15, 2014 and the six-month period of pediatric exclusivity following expiration of the '404 patent resulting from our study of Angiomax in the pediatric setting ended June 15, 2015. On July 2, 2015, the Federal Circuit Court ruled against us in our patent infringement litigation with Hospira with respect to the '727 patent and the '343 patent, covering a more consistent and improved Angiomax drug product and the

processes by which it is made. In its ruling, the Federal Circuit Court held the '727 patent and '343 patent invalid. 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. In July 2015, as a result of the Federal Circuit Court's now vacated July 2, 2015 decision, we entered into a supply and distribution agreement with Sandoz under which we granted Sandoz the exclusive right to sell in the United States an authorized generic of Angiomax (bivalirudin). In July 2015,

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Hospira's ANDAs for its generic versions of bivalirudin were approved by the FDA and Hospira began selling its generic versions of bivalirudin. 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, which we expect will continue to cause our net revenue to decline significantly.

In addition to Hospira, a number of companies have filed ANDAs for their generic versions of Angiomax. The FDA has accepted for filing a 505(b)(2) NDA filed by Eagle for a ready to use liquid formulation of bivalirudin. Eagle has announced that it expects an FDA decision on its NDA in March 2016 and, if approved, expects to launch commercial sales of the product in the United States upon approval.

In addition to Hospira's generic versions of bivalirudin, Sandoz's authorized generic and, if approved, Eagle's formulation of bivalirudin, Angiomax could be subject to generic competition in the United States from Teva, APP and Sun under the circumstances set forth in our respective settlement agreements with such parties and upon the approval of each companies' ANDA filings by the FDA. We remain in patent infringement litigation involving the '727 patent and '343 patent with Hospira and other ANDA filers, as described in Part I, Item 3. Legal Proceedings, of this Annual Report on Form 10-K. There can be no assurance as to the outcome of our infringement litigation. We may continue to incur substantial legal expenses related to these matters.

In addition, the principal patent covering Angiomax in Europe expired in August 2015. As a result, we could face generic competition in Europe.

Net product revenue from sales of Angiomax decreased from $635.7 million for the year ended December 31, 2014 to $212.0 million for the year ended December 31, 2015. We expect that net revenue from sales of Angiomax will continue to decline in 2016 and in future years due to generic and other competition. Although we have entered into a supply and distribution agreement with Sandoz to sell an authorized generic version of Angiomax, the royalty income from the sale of the authorized generic, which for the year ended December 31, 2015 was approximately $53.9 million, is expected to only partially offset the expected further decline in Angiomax net revenue.

We have a history of net losses and may not achieve profitability in future periods or maintain profitability on an annual basis due in particular to expected decreases in net revenue from sales of Angiomax and other results of our loss of exclusivity on Angiomax.

We have incurred net losses in many years and on a cumulative basis since our inception, and we expect to continue to incur net losses. As of December 31, 2015, we had an accumulated deficit of approximately $429.9 million. In those periods in which we were able to achieve profitability, our profitability was based on revenue from sales of Angiomax, as a substantial majority of our historic revenue has been generated from sales of Angiomax in the United States. However, generic competition for Angiomax commenced in the United States in July 2015 and we lost market exclusivity for Angiomax in Europe in August 2015. We expect that net revenue from sales of Angiomax will continue to decline in future years due to competition from generic versions of bivalirudin, including our authorized generic being marketed by Sandoz and other generic versions of bivalirudin which have been and may be approved by the FDA.

We expect to make substantial expenditures to further develop and commercialize our products, including costs and expenses associated with research and development, clinical trials, nonclinical and preclinical studies, regulatory approvals and commercialization, including milestone payments under our license agreements and acquisition agreements. We will need to generate greater revenue in future periods from our marketed products other than Angiomax and from our products in development in order to achieve and maintain profitability in light of our planned expenditures. If we are unable to generate greater revenue, we may not achieve profitability in future periods, and may

not be able to maintain any profitability we do achieve. Our ability to generate future revenue will be substantially dependent on our ability to successfully commercialize our approved products and our product candidates upon approval. If we fail to achieve profitability or maintain profitability on a quarterly or annual basis within the time frame expected by investors or securities analysts, the market price of our common stock may decline.

We review our inventory, including inventory purchase commitments, and provide reserves, as appropriate, against the carrying amount of inventory. For the year ended December 31, 2015, we recorded a $29.5 million inventory obsolescence charge and a charge of $12.1 million for potential losses on future inventory purchases primarily due to the loss of exclusivity of Angiomax. As of December 31, 2015, our inventory of Angiomax was $35.9 million, and we had inventory-related purchase commitments totaling $17.2 million for 2016 for Angiomax bulk drug substance. If sales of Angiomax decline more than our current expectations, we could be required to make an additional allowance for excess or obsolete inventory, increase our accrual for product returns or increase our deferred tax valuation allowance, or we could incur other costs related to operating our business, each of which could negatively impact our results of operations and our financial condition.

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We have commercially launched or plan to commercially launch and commence sales of several of our recently approved products in the United States. If we are not successful with the commercial launches of these products, or launches of other products, or experience significant delays in doing so, our business likely would be materially harmed.

We commercially launched Orbactiv in the United States in the third quarter of 2014. We also launched Ionsys, Kengreal and the new formulation of Minocin IV in the United States in 2015. We may also commercially launch by ourselves or through arrangements with third parties several additional products and products in development in Europe and the United States in the coming years, subject to receiving regulatory approval. Commercial launches of this number of products in such a short period of time will require significant efforts from us and the devotion of substantial resources as we will need to finalize regulatory submissions, work with regulatory authorities in their evaluation of our submissions, have manufactured sufficient quantities of product to commence commercial sales and establish the infrastructure necessary to commercially launch these products and products in development.

Our ability to successfully commercially launch these products and products in development will depend on our ability to:

- make regulatory submissions and obtain regulatory approvals in the timeframes anticipated;
- train our existing sales force to market and sell the products that are to be sold by it;
- train, deploy and support a qualified sales force to market and sell newly launched products;
- secure formulary approvals at our hospital customers;
- have third parties manufacture and release the products in sufficient quantities;
- implement and maintain agreements with wholesalers, distributors and group purchasing organizations;
- receive adequate levels of coverage and reimbursement for these products from governments and third-party payors;
- develop and execute marketing and sales strategies and programs for the products.

We expect that the revenues from these products and products in development will represent a significant portion of our revenues in the future, particularly given that Angiomax is subject to generic competition. As a result, if we are unable to successfully commercialize these products and products in development, our business, results of operations and financial condition likely would be materially harmed.

We may need to raise additional capital. If we are unable to obtain such capital on favorable terms or at all, we may not be able to execute on our business plans and our business, financial condition and results of operations may be adversely affected.

On November 3, 2015, we announced that our current intention was to explore strategies for optimizing our capital structure and liquidity position. At December 31, 2015, we had approximately $373.2 million of cash and cash equivalents. We expect to devote substantial financial resources to our research and development efforts, clinical trials, nonclinical and preclinical studies and regulatory approvals and to our commercialization and manufacturing programs associated with our products and our products in development. We also will require cash to pay interest on the $275.0 million aggregate principal amount of the 2017 notes and the $400.0 million aggregate principal amount of the 2022 notes, and to make principal payments on the 2017 notes and the 2022 notes at maturity or upon conversion. In addition, as part of our business development strategy, we generally structure our license agreements and acquisition agreements so that a significant portion of the total license or acquisition cost is contingent upon the successful achievement of specified development, regulatory or commercial milestones. As a result, we will require cash to make payments upon achievement of these milestones under the license agreements and acquisition agreements to which we are a party. As of February 26, 2016, we may have to make contingent cash payments upon the achievement of specified development, regulatory or commercial milestones of up to:

- $49.4 million due to the former equityholders of Targanta and up to $25.0 million in additional payments to other third parties related to the Targanta transaction;
- $60.0 million due to the former equityholders of Incline and up to $93.0 million in additional payments to other third parties related to the Incline transaction;

$289.8 million for the Rempex transaction;

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- $26.3 million for the Annovation transaction and up to $6.5 million in additional payments to other third parties related to the Annovation transaction;

- $170.0 million for the license and collaboration agreement with Alnylam;

- $422.0 million due to our licensing of MDCO 216 from Pfizer; and

- $50.0 million due to our licensing of Kengreal from AstraZeneca.

As of February 26, 2016, our total potential milestone payment obligations related to development, regulatory and commercial milestones for our products and products in development under our license agreements and acquisition agreements, assuming all milestones are achieved in accordance with the terms of these agreements, would be approximately $1,192.0 million. Of this amount, approximately $164.0 million relates to development milestones, $234.0 million relates to regulatory approval milestones and $794.0 million relates to commercial milestones.
In addition, of the total potential milestone payment obligations, based on our anticipated timeline for the achievement of development, regulatory and commercial milestones, we expect that we would make total milestone payments under our license agreements and acquisition agreements of approximately $49.0 million during the remainder of 2016. The majority of these anticipated payments for 2016 relate to the achievement of development and commercial milestones. We may pay additional milestone payments under our license agreements and acquisition agreements during 2016 if we achieve additional development, regulatory and commercial milestones during the year.
Net revenue from sales of Angiomax were significantly lower in the year ended December 31, 2015, and we expect these revenues will decline further. These reduced revenues are likely to significantly impact our cash and cash equivalents and how we fund our future capital requirements.
We continually evaluate our liquidity requirements, capital needs and availability of resources in view of, among other things, alternative sources and uses of capital, debt service requirements, the cost of debt and equity capital and estimated future operating cash flow. We may raise additional capital; sell interests in subsidiaries or other assets, including asset sales of products or businesses that generate a material portion of our revenue; restructure or refinance outstanding debt; repurchase material amounts of outstanding debt or equity; or take a combination of such steps or other steps to increase or manage our liquidity and capital resources. Any such actions or steps could have a material effect on us.

Our future capital requirements will depend on many factors, including:

- the extent to which our products are commercially successful globally;

- the decline in Angiomax sales and the extent to which royalties on sales of the authorized generic of Angiomax offset the expected decrease in sales of Angiomax;

- whether we are successful in narrowing our operational focus by strategically separating non-core businesses and products, and the amount of consideration paid to us in connection with any related sales or divestitures;

- the extent to which our submissions and planned submissions for regulatory approval of products in development are approved on a timely basis, if at all;

- the consideration paid by us and to be paid by us in connection with acquisitions and licenses of development-stage compounds, clinical-stage product candidates, approved products, or businesses, and in connection with other

strategic arrangements;

- the progress, level, timing and cost of our research and development activities related to our clinical trials and non-clinical studies with respect to our products and products in development;

- the cost and outcomes of regulatory submissions and reviews for approval of our approved products in additional countries and for additional indications, and of our products in development globally;

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- whether we develop and commercialize our products in development on our own or through licenses and collaborations with third parties and the terms and timing of such arrangements, if any;
- the continuation or termination of third-party manufacturing, distribution and sales and marketing arrangements;
- the size, cost and effectiveness of our sales and marketing programs globally;
- the amounts of our payment obligations to third parties as to our products and products in development; and
- our ability to defend and enforce our intellectual property rights.

If our existing cash resources, together with cash that we generate from sales of our products and other sources, are insufficient to satisfy our product launch, research and development and other funding requirements, we will need to sell additional equity or debt securities, engage in asset sales, including asset sales of products or businesses that generate a material portion of our revenue, engage in other strategic transactions, or seek additional financing through other arrangements, any of which could be material. In addition, we will need to sell additional equity or debt securities, seek additional financing through other arrangements or engage in other cash generating transactions in order to meet our obligations with respect to the principal under the 2017 notes and the 2022 notes, or we will need to restructure or refinance such notes. Any sale of additional equity or convertible debt securities may result in dilution to our stockholders. Public or private financing may not be available in amounts or on terms acceptable to us, if at all. If we seek to raise funds through collaboration or licensing arrangements with third parties, we may be required to relinquish rights to products, products in development or technologies that we would not otherwise relinquish or grant licenses on terms that may not be favorable to us. Moreover, our ability to obtain additional debt financing may be limited by the 2017 notes and the 2022 notes, market conditions or otherwise. If we are unable to obtain additional financing or otherwise increase our cash resources, we may be required to delay, reduce the scope of, or eliminate one or more of our planned research, development and commercialization activities, which could adversely affect our business, financial condition and operating results.

If we seek to raise additional capital by selling equity or debt securities or through other arrangements in the future, our stockholders could be subject to dilution and we may become subject to financial restrictions and covenants, which may limit our activities.

If we seek to acquire any development-stage compounds, clinical-stage product candidates, approved products, or businesses or determine that raising capital would be in our interest and in the interest of our stockholders, we may seek to sell equity or debt securities or seek financings through other arrangements. Any sale of equity or debt securities may result in dilution to our stockholders and increased liquidity requirements. Debt financing may involve covenants limiting or restricting our ability to take specific actions, such as incurring additional debt or making capital expenditures. Our ability to comply with these financial restrictions and covenants could be dependent on our future performance, which is subject to prevailing economic conditions and other factors, including factors that are beyond our control such as foreign exchange rates, interest rates and changes in the level of competition. Failure to comply with the financial restrictions and covenants would adversely affect our business, financial condition and operating results.

Our revenue in the United States from sales of our products is dependent in part on our sole source distributor, Integrated Commercialization Solutions, or ICS, and our revenue outside the United States is substantially dependent on a limited number of international distributors. If the buying patterns of ICS or these international distributors for our products are not consistent with underlying hospital demand, then our revenue for certain products will be subject to fluctuation from quarter to quarter based on these buying patterns and not underlying demand for the products. Any change in these buying patterns could adversely affect our financial results and our stock price.

We distribute the products we sell in the United States through a sole source distribution model, other than our authorized generic Angiomax (bivalirudin) which is sold by Sandoz. Under this model, we currently sell these products to a sole source distributor. The sole source distributor then sells these products to a limited number of national medical and pharmaceutical wholesalers with distribution centers located throughout the United States and, in certain cases, directly to hospitals. We expect that we will also sell most of our future products in the United States through the same sole source distribution model. Most of our revenue from sales of our products in the United States, other than our authorized generic Angiomax (bivalirudin), comes from sales to ICS pursuant to our agreement with them. In connection with a reduction in marketing, sales and distribution fees payable to ICS, in October 2010 we amended our agreement with ICS to extend the ICS payment terms under our distribution agreement with them from 30 days to 45 days, which can be further extended to 49 days if ICS pays by wire transfer. The amendment has caused, and may continue to cause, an increase in accounts receivable. As a result of our relationship with ICS, we expect that our revenue for certain products will continue to be subject to fluctuation from quarter to quarter based on the buying patterns of ICS, which may be independent of underlying hospital demand.

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In some countries outside the European Union and in a few countries in the European Union, we sell certain products to international distributors and these distributors then sell these products to hospitals. Our reliance on a small number of distributors for international sales of products could cause our revenue to fluctuate from quarter to quarter based on the buying patterns of these distributors, independent of underlying hospital demand.

If inventory levels at ICS or at our international distributors become too high, these distributors may seek to reduce their inventory levels by reducing purchases from us, which could have a material and adverse effect on our revenue in periods in which such purchase reductions occur.

We may not realize the anticipated benefits of past or future acquisitions or product licenses and integration of these acquisitions and any products and product candidates acquired or licensed may disrupt our business and management.

We have in the past and may in the future acquire or license additional development-stage compounds, clinical-stage product candidates, approved products, technologies or businesses. For example, we acquired Annovation, Incline, ProFibrix, Rempex, Tenaxis and the Recothrom product and related assets from Bristol-Myers Squibb Company, or BMS, and we entered into a license and collaboration agreement with Alnylam to develop, manufacture and commercialize RNAi therapeutics targeting the PCSK9 gene for the treatment of hypercholesterolemia and other human diseases. We may not realize the anticipated benefits of an acquisition, license, or collaboration, each of which involves numerous risks. These risks include:

- difficulty in integrating the operations, products or product candidates and personnel of an acquired company;
- entry into markets in which we have no or limited direct prior experience and where competitors in such markets have stronger market positions;
- failure to successfully further develop the acquired or licensed business, product, compounds, programs or technology or to achieve strategic objectives, including commercializing and marketing successfully the development stage compounds and clinical stage candidates that we acquire or license;
- disruption of our ongoing business and distraction of our management and employees from other opportunities and challenges;
- inadequate or unfavorable clinical trial results from acquired or contracted for products in development;
- inability to retain personnel, key customers, distributors, vendors and other business partners of the acquired company, or acquired or licensed product or technology;
- potential failure of the due diligence processes to identify significant problems, liabilities or other shortcomings or challenges of an acquired company, or acquired or licensed product or technology, including but not limited to, problems, liabilities or other shortcomings or challenges with respect to intellectual property, product quality, revenue recognition or other accounting practices, employee, customer or partner disputes or issues and other legal and financial contingencies and known and unknown liabilities;
- liability for activities of the acquired company or licensor before the acquisition or license, including intellectual property infringement claims, violations of laws, commercial disputes, tax liabilities, and other known and unknown liabilities;
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exposure to litigation or other claims in connection with, or inheritance of claims or litigation risk as a result of, an acquisition or license, including but not limited to, claims from terminated employees, customers, former stockholders or other third-parties; and

- difficulties in the integration of the acquired company's departments, systems, including accounting, human resource and other administrative systems, technologies, books and records, and procedures, as well as in maintaining uniform standards, controls, including internal control over financial reporting required by the Sarbanes-Oxley Act of 2002 and related procedures and policies.

Acquisitions and licensing arrangements are inherently risky, and ultimately, if we do not complete an announced acquisition or license transaction or integrate an acquired business, or an acquired or licensed product or technology successfully and in a timely manner, we may not realize the benefits of the acquisition or license to the extent anticipated and the perception of the effectiveness of our management team and our company may suffer in the marketplace. In addition, even if we are able to achieve

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the long-term benefits associated with our strategic transactions, our expenses and short-term costs may increase materially and adversely affect our liquidity and short-term profitability. Further, if we cannot successfully integrate acquired businesses, or acquired or licensed products or technologies we may experience material negative consequences to our business, financial condition or results of operations. Further, if we sell products that have been acquired through acquisitions or licensing arrangements, we may incur losses depending on the consideration received and structure of the transaction. For example, in connection with our sale of our hemostasis business consisting of PreveLeak, Raplixa and Recothrom, which we completed on February 1, 2016, we incurred impairment charges of $133.3 million, including $24.5 million related to goodwill. Future acquisitions or licenses could also result in dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities, or amortization expenses, or impairment of goodwill and intangible assets, and restructuring charges, any of which could harm our business, financial condition or results of operations.

Risks Related to Our Notes

We have incurred substantial indebtedness, and our leverage and maintenance of high levels of indebtedness may adversely affect our business, financial condition and results of operations. Servicing this debt, including the 2017 notes and the 2022 notes, will require a significant amount of cash, and we may not have sufficient cash flow from our business to pay the 2017 notes, the 2022 notes or our other debt.

We have incurred a significant amount of indebtedness. Our maintenance of this level of indebtedness could have adverse consequences, including:

- requiring us to dedicate a substantial portion of cash flow from operations to the payment of interest on, and principal of, our debt, which will reduce the amounts available to fund working capital, capital expenditures, product development efforts and other general corporate purposes;
- increasing our vulnerability to general adverse economic, industry and market conditions;
- limiting our ability to obtain additional financing in the future or engage in certain strategic transactions without securing bondholder consent;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industry in which we compete; and
- placing us at a possible competitive disadvantage to less leveraged competitors and competitors that have less debt, better debt servicing options or better access to capital resources.

In addition, our ability to make scheduled payments of the principal of, to pay interest on or to refinance the 2017 notes or the 2022 notes depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not generate cash flow from operations in the future sufficient to service our debt, including the notes. If we are unable to generate cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be unfavorable to us or highly dilutive, any of which may be material to the holders of our common stock. Our ability to refinance our indebtedness will depend on the capital markets and our financial condition at the time we seek to refinance such indebtedness. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

We may not have the ability to raise the funds necessary to settle conversions of the 2017 notes or the 2022 notes or to repurchase the 2017 notes or the 2022 notes upon a fundamental change, and our future debt may contain limitations on our ability to pay cash upon conversion or repurchase of the 2017 notes or 2022 notes.

Holders of the 2017 notes and the 2022 notes will have the right to require us to repurchase their notes upon the occurrence of a fundamental change, as defined in the applicable indenture, at a repurchase price equal to 100% of their principal amount, plus accrued and unpaid interest, if any, as described in the applicable indenture. In addition, upon conversion of the 2017 notes and the 2022 notes, we will be required to make with respect to each $1,000 in principal amount of notes converted cash payments of at least the lesser of $1,000 and the sum of the daily conversion values as described in the applicable indenture. However, we may not have enough available cash or be able to obtain financing at the time we are required to repurchase notes, to pay the notes at maturity or to pay cash upon conversions of notes. In addition, our ability to repurchase notes or to pay cash upon conversions of notes may be limited by law, by regulatory authority or by agreements governing our existing indebtedness (including, in the case of the 2017 notes, the 2022 notes) and future indebtedness. Our failure to repurchase notes at a time when the repurchase is required by the applicable

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indenture would constitute a default under the applicable indenture. A default under the applicable indenture governing the 2017 notes or the 2022 notes, respectively, or the fundamental change itself could also lead to a default under agreements governing our existing indebtedness (including, in the case of the 2017 notes, the 2022 notes) and future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the notes or make cash payments upon conversions thereof.

The conditional conversion feature of the 2017 notes or the 2022 notes, if triggered, may adversely affect our financial condition and operating results.

The conditional conversion feature of the 2017 notes has been triggered and the holders are currently entitled to convert the notes into our common stock through March 31, 2016 pursuant to the terms of the 2017 notes indenture. In the event the conditional conversion feature of the 2017 notes is again triggered or the conditional conversion feature of the 2022 notes is triggered, holders of such notes will be entitled to convert the notes at any time during specified periods at their option, which are set forth in the applicable indenture. If one or more holders elect to convert their notes, we would be required, with respect to each $1,000 principal amount of notes, to make cash payments equal to the lesser of $1,000 and the sum of the daily conversion values, which could adversely affect our liquidity. In addition, even if holders do not elect to convert their notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the notes as a current rather than long term liability, which would result in a material reduction of our net working capital.

The accounting method for convertible debt securities that may be settled in cash, such as the 2017 notes and the 2022 notes, could have a material effect on our reported financial results.

Under Accounting Standards Codification 470-20, Debt with Conversion and Other Options, which we refer to as ASC 470-20, an entity must separately account for the liability and equity components of the convertible debt instruments that may be settled entirely or partially in cash upon conversion (such as the 2017 notes and the 2022 notes) in a manner that reflects the issuer's economic interest cost. The effect of ASC 470-20 on the accounting for the 2017 notes and the 2022 notes is that the equity component is required to be included in the additional paid in capital section of stockholders' equity on our consolidated balance sheet, and the value of the equity component would be treated as original issue discount for purposes of accounting for the debt component of the 2017 notes and the 2022 notes. As a result, we will be required to record a greater amount of non-cash interest expense in current periods presented as a result of the amortization of the discounted carrying value of the notes to their face amount over the term of the 2017 notes and the 2022 notes. We will report lower net income in our financial results because ASC 470-20 will require interest to include both the current period's amortization of the debt discount and the instrument's coupon interest, which could adversely affect our reported or future financial results, the market price of our common stock and the trading price of the 2017 notes and 2022 notes.

In addition, under certain circumstances, convertible debt instruments that may be settled entirely or partly in cash (such as the 2017 notes and 2022 notes) are currently accounted for utilizing the treasury stock method, the effect of which is that the shares issuable upon conversion of the notes are not included in the calculation of diluted earnings per share except to the extent that the conversion value of the notes exceeds their principal amount. Under the treasury stock method, for diluted earnings per share purposes, the transaction is accounted for as if the number of shares of common stock that would be necessary to settle such excess are issued. We cannot be sure that the accounting standards in the future will continue to permit the use of the treasury stock method. If we are unable to use the treasury stock method in accounting for the shares issuable upon conversion of the 2017 notes or the 2022 notes, then our diluted earnings per share would be adversely affected.

We may incur substantially more debt or take other actions which would intensify the risks discussed above.

We and our subsidiaries may be able to incur substantial additional debt in the future, some of which may be secured debt. We and our subsidiaries are not restricted under the terms of the applicable indenture governing the 2017 notes or the 2022 notes from incurring additional debt, securing existing or future debt, recapitalizing our debt or taking a number of other actions that are not limited by the terms of the applicable indenture governing the 2017 notes or the 2022 notes that could have the effect of diminishing our ability to make payments on the notes when due.

Risks Related to Commercialization

We face substantial competition, which may result in others discovering, developing or commercializing competing products before or more successfully than we do.

Our industry is highly competitive. Competitors in the United States and other countries include major pharmaceutical companies, specialty pharmaceutical companies and biotechnology firms, universities and other research institutions. Many of

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our competitors are substantially larger than we are and have substantially greater research and development capabilities and experience, and greater manufacturing, marketing and financial resources, than we do.

Our competitors may develop, market or license products or novel technologies that are more effective, safer, more convenient or less costly than any that have been or are being developed or sold by us, or may obtain marketing approval for their products from the FDA or equivalent foreign regulatory bodies more rapidly than we may obtain approval for ours.

There are well established products, including in many cases generic products, that are approved and marketed for the indications for which our products are approved and the indications for which we are developing our products in development. In addition, competitors are developing products for such indications. Set forth in the first risk factor above regarding Angiomax and the risk factor that immediately follows this risk factor is additional information regarding competition for two marketed products, Angiomax and Orbactiv. We have also launched, or expect to launch, other products that face competition. A description of the competition for our other products and products in development is included under the caption “Part I, Item 1. Business-Competition” of this Annual Report on Form 10 K.

We compete, in the case of our approved and marketed products, and expect to compete, in the cases of our products in development, on the basis of product efficacy, safety, ease of administration, price and economic value compared to drugs used in current practice or currently being developed. If we are not successful in demonstrating these attributes, physicians and other key healthcare decision makers may choose other products over our products, switch from our products to new products or choose to use our products only in limited circumstances, which could adversely affect our business, financial condition and results of operations.

Orbactiv faces significant competition from branded and generic drugs treating ABSSSI, which may limit the use of Orbactiv and adversely affect our anticipated revenue.

Orbactiv is an intravenous antibiotic approved by the FDA for the treatment of ABSSSI, caused or suspected to be caused by susceptible gram positive bacteria, including MRSA.

Competition in the market for therapeutic products that address gram positive bacterial infections is intense. In particular, there are a variety of available therapies marketed for the treatment of ABSSSI. Some of these products are branded and subject to patent protection, and others are available on a generic basis. Many of these approved products, including vancomycin, ceftaroline (Teflaro), clindamycin, daptomycin (Cubicin), telavancin (Vibativ) and linezolid (Zyvox) are well established therapies and are widely accepted by physicians, patients and hospital decision makers. Additionally, insurers and other third party payers may encourage the use of generic products. Vancomycin, for instance, which is sold in a relatively inexpensive generic form, has been widely used for over 50 years, is the most frequently used IV antibiotic, and we believe, based on our market research, is prescribed to approximately two thirds of all hospitalized ABSSSI patients. If physicians and hospital decision makers do not accept the potential advantages of Orbactiv, or are otherwise hesitant or slow to adopt Orbactiv, our anticipated revenues could be adversely affected.

There are also a number of products recently approved or in clinical development by third parties to treat ABSSSI. Recently approved products include Sivextro from Cubist Pharmaceuticals, Inc., (now a subsidiary of Merck & Co, Inc.) and Dalvance from Durata Therapeutics, Inc. (now a subsidiary of Allergan plc). Additionally, several companies have products in development that, if approved, may compete with Orbactiv. If any of these product candidates or any other products developed by our competitors are more effective, safer, more convenient or less costly than Orbactiv, or would otherwise render Orbactiv obsolete or non competitive, our anticipated revenues from Orbactiv could be adversely affected.

If we are unable to successfully identify and acquire or license development stage compounds, clinical stage product candidates or approved products and develop or commercialize those compounds and products, our business, financial condition and results of operations may be adversely affected.

Our business strategy is based on us selectively licensing or acquiring and then successfully developing and commercializing development stage compounds, clinical stage product candidates and approved products. Because we have only the limited internal scientific research capabilities that we acquired in some of our acquisitions and we do not anticipate establishing additional scientific research capabilities, we are dependent upon pharmaceutical and biotechnology companies and other researchers to sell or license to us development stage compounds, clinical stage product candidates or approved products. Since 2008, for instance, we have acquired, among others, Targanta, Incline, Rempex, and Annovation, licensed marketing rights to the ready to use formulation of Argatroban, licensed development and commercialization rights to MDCO-216 and ALN PCSsc, and licensed the non exclusive rights to sell and distribute ten acute care generic products. The success of this business strategy depends upon our ability to identify, select and acquire or license pharmaceutical products that meet the criteria we have established. However, the acquisition and licensing of pharmaceutical products is a competitive area. A number of more established companies, which have acknowledged

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strategies to license and acquire products, may have competitive advantages over us due to their size, available cash flows and institutional experience. In addition, we may compete with emerging companies taking similar or different approaches to product acquisition. Therefore, we may not be able to acquire or license the rights to additional product candidates or approved products on terms that we find acceptable, or at all.

Because of the intense competition for these types of product candidates and approved products, the cost of acquiring, in-licensing or otherwise obtaining rights to such candidates and products has grown dramatically in recent years and are often at levels that we cannot afford or that we believe are not justified by market potential. Any acquisition or license of product candidates or approved products that we pursue may not result in any short or long term benefit to us. We may incorrectly judge the value or worth of an acquired or licensed product candidate or approved product. Even if we succeed in acquiring product candidates, we may not be successful in developing them and obtaining marketing approval for them, manufacturing them economically or commercializing them successfully. We have previously acquired or licensed rights to clinical or development stage compounds and, after having conducted development activities, determined not to devote further resources to those compounds. For example, in October 2012, we voluntarily discontinued our clinical trials and further development of MDCO-2010, which we had acquired in connection with our acquisition of Curacyte Discovery GmbH in August 2008, in response to serious unexpected patient safety issues encountered during a clinical trial. Similarly, following our review of data from the pharmacokinetic and pharmacodynamic study of several doses of MDCO-157 and oral clopidogrel in healthy volunteers, we elected not to proceed with the further development of MDCO-157, which we had licensed from CyDex Pharmaceuticals, Inc.

In addition, our future success will depend in part on our ability to manage any required growth associated with some of these acquisitions and licenses. Any acquisition might distract resources from the development of our existing products in development and could otherwise negatively impact sales of our other marketed products. Furthermore, the development or expansion of any licensed or acquired product candidate or approved product may require a substantial capital investment by us, and we may not have these necessary funds to do so.

If we are unable to identify and acquire additional promising candidates or to develop and commercialize successfully those candidates we have, we will not be able to implement our business strategy and our business, operating results and financial condition may be materially and adversely affected.

If we are not able to convince hospitals to include our products on their approved formulary lists, our revenues may not meet expectations and our business, results of operations and financial condition may be adversely affected.

Hospitals establish formularies, which are lists of drugs approved for use in the hospital. If a drug is not included on the formulary, the ability of our engagement partners and customer solutions managers to promote and sell the drug may be limited or denied. For example, in connection with the launch of Cleviprex, we experienced difficulties in getting Cleviprex included on hospitals' formulary lists, in part because hospital formularies may limit the number of intravenous antihypertensive drugs in each drug class, and revenues from Cleviprex were adversely affected. If we fail to secure and maintain formulary inclusion for our products on favorable terms or are significantly delayed in doing so, we may have difficulty achieving market acceptance of our products and our business, results of operations and financial condition could be materially adversely affected.

If we are unable to negotiate and maintain satisfactory arrangements with group purchasing organizations with respect to the purchase of our products, our sales, results of operations and financial condition could be adversely affected.

Our ability to sell our products to hospitals in the United States depends in part on our relationships with group purchasing organizations, or GPOs. Many existing and potential customers for our products become members of GPOs. GPOs negotiate pricing arrangements and contracts, sometimes on an exclusive basis, with medical supply

manufacturers and distributors. These negotiated prices are then made available to a GPO's affiliated hospitals and other members. If we are not one of the providers selected by a GPO, affiliated hospitals and other members may be less likely to purchase our products, and if the GPO has negotiated a strict sole source, market share compliance or bundling contract for another manufacturer's products, we may be precluded from making sales to members of the GPO for the duration of the contractual arrangement. Our failure to renew contracts with GPOs may cause us to lose market share and could have a material adverse effect on our sales, financial condition and results of operations. We cannot assure you that we will be able to renew these contracts at the current or substantially similar terms. If we are unable to keep our relationships and develop new relationships with GPOs, our competitive position may suffer.

If we are unable to successfully develop our business infrastructure and operations, our ability to generate future product revenue will be adversely affected and our business, results of operations and financial condition may be adversely affected.

Our ability to support the sales and marketing of our products in the United States and globally will depend on our ability to properly scale our internal organization and infrastructure to accommodate the development and, upon approval, commercialization

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of our products and products in development. To manage our existing and planned future growth and the increasing breadth and complexity of our activities, we need to properly invest in personnel, infrastructure, information management systems and other operational resources. If we are unable to scale global operations successfully and in a timely manner, the growth of our business may be limited. Developing our business infrastructure and operations may be more difficult, more expensive or take longer than we anticipate. We may also need to revise our strategy for developing the proper infrastructure and operations periodically. In the fourth quarter of 2014, we implemented a reorganization of our European operations, including a workforce reduction and the consolidation of European sites, for which we recorded, in the aggregate, a one time charge of approximately $9.0 million in the fourth quarter of 2014. If we are not able to successfully market and sell our products globally, our business, results of operations and financial condition may be adversely affected.

Future development of our business infrastructure and operations could strain our operational, human and financial resources. In order to manage the development of our business infrastructure and global operations, we must:

- continue to improve operating, administrative, and information systems;
- accurately predict future personnel and resource needs to meet contract commitments;
- track the progress of ongoing projects; and
- attract and retain qualified management, sales, professional, scientific and technical operating personnel.

If we do not take these actions and are not able to manage our business, then our operations may be less successful than anticipated.
The success of our global operations may be adversely affected by international risks and uncertainties. If these operations are not successful, our business, results of operations and financial condition could be adversely affected.

Our future profitability will depend in part on our ability to grow and ultimately maintain our product sales in foreign markets, particularly in Europe. For the year ended December 31, 2015, we had $19.4 million in sales outside of the United States, most of which are sales of Angiomax. The principal patent covering Angiomax in Europe expired in August 2015 and, as a result, we may face generic competition in Europe. Our foreign operations subject us to additional risks and uncertainties, particularly because we have limited experience in marketing, servicing and distributing our products or otherwise operating our business outside of the United States. These risks and uncertainties include:

- political and economic determinations that adversely impact pricing or reimbursement policies;
- our customers' ability to obtain reimbursement for procedures using our products in foreign markets;
- compliance with complex and changing foreign legal, tax, accounting and regulatory requirements;
- language barriers and other difficulties in providing long-range customer support and service;
- longer accounts receivable collection times;
- significant foreign currency fluctuations, which could result in increased operating expenses and reduced revenues;
- trade restrictions and restrictions on direct investment by foreign entities;

- reduced protection of intellectual property rights in some foreign countries; and

- the interpretation of contractual provisions governed by foreign laws in the event of a contract dispute.

Our foreign operations could also be adversely affected by export license requirements, the imposition of governmental controls, political and economic instability, trade restrictions, changes in tariffs and difficulties in staffing and managing foreign operations.

If reimbursement by government payers or other third-party payers is not available or limited for our products, pricing is delayed or set at unfavorable levels or access to our products is reduced or terminated by governmental and other third-party payers, our ability to generate revenue would be adversely affected.

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Acceptable levels of coverage and reimbursement of drug treatments by government payers, such as Medicare and Medicaid programs, private health insurers and other organizations, have a significant effect on our ability to successfully commercialize our products. Reimbursement in the United States, Europe or elsewhere may not be available for any products we may develop or, if already available, may be decreased in the future. We may not get reimbursement or reimbursement may be limited if government payers, private health insurers and other organizations are influenced by the prices of existing drugs in determining whether our products will be reimbursed and at what levels. For example, the availability of numerous generic antibiotics at lower prices than branded antibiotics, such as Orbactiv, could substantially affect the likelihood of reimbursement and the level of reimbursement for Orbactiv. If reimbursement is not available or is available only at limited levels, we may not be able to commercialize our products, or may not be able to obtain a satisfactory financial return on our products.

In certain countries, particularly the countries of the European Union, the pricing of prescription pharmaceuticals and the level of reimbursement are subject to governmental control. In some countries, pricing and reimbursement are set with limited, if any, participation in the process by the marketing authorization holder. In addition, it can take an extended period of time after the receipt of initial approval of a product to establish and obtain reimbursement or pricing approval. Reimbursement approval also may be required at the individual patient level, which can lead to further delays. In addition, in some countries, it may take an extended period of time to collect payment even after reimbursement has been established. If prices are set at unsatisfactory levels, such prices may negatively impact our revenues from sales in those countries. An increasing number of countries are taking initiatives to attempt to reduce large budget deficits by focusing cost-cutting efforts on pharmaceuticals for their state-run health care systems. These international price control efforts have impacted all regions of the world, but have been most drastic in the European Union. Further, a number of European Union countries use drug prices from other countries of the European Union as “reference prices” to help determine pricing in their own countries. Consequently, a downward trend in drug prices for some countries could contribute to similar occurrences elsewhere. If reimbursement of our future products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, we may be unable to achieve or sustain profitability.

Third-party payers, including Medicare and Medicaid, increasingly are challenging prices charged for and the cost-effectiveness of medical products and services and they increasingly are limiting both coverage and the level of reimbursement for drugs. If these third-party payers do not consider our products to be economically beneficial compared to other available therapies, they may not cover our products after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products at a profit. Third-party payers may provide coverage, but place stringent limitations on such coverage, such as requiring alternative treatments to be tried first. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost-containment programs to limit the growth of government-paid health care costs, including price controls, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs. For example, in a final rule adopted in late 2014 regarding the Medicare Hospital Outpatient Prospective Payment System, CMS finalized a new “bundling” policy that affects reimbursement for a number of medicines prescribed in connection with certain Medicare hospital outpatient services, including PCI, beginning on January 1, 2015. The medicines affected by this policy include, among others, Angiomax. This particular policy is one example of a broader trend in health care in which the government and other payors are seeking to move from individualized “fee for service” payments toward a system focused on “bundled” payments for more comprehensive packages of services and episodes of care. Also, the trend toward managed health care in the United States and the changes in health insurance programs may result in lower prices for pharmaceutical products and health care reform.

The PPACA may also have a significant impact on pricing as the legislation contains a number of provisions that are intended to reduce or limit the growth of healthcare costs. The provisions of the PPACA could, among other things, increase pressure on pricing and, as a result, the number of procedures that are performed. Since the PPACA was

enacted, other legislative changes have been proposed and adopted. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding. In addition to federal legislation, state legislatures and foreign governments have also shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. The establishment of limitations on patient access to our drugs, adoption of price controls and cost-containment measures in new jurisdictions or programs, and adoption of more restrictive policies in jurisdictions with existing controls and measures could adversely impact our business and future results. If governmental organizations and third-party payers do not consider our products to be cost-effective compared to other available therapies, they may not reimburse providers or consumers of our products or, if they do, the level of reimbursement may not be sufficient to allow us to sell our products on a profitable basis.

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Use or misuse of our products may result in serious injuries or even death to patients and may subject us to significant claims for product liability. If we are unable to obtain insurance at acceptable costs and adequate levels or otherwise protect ourselves against potential product liability claims, we could be exposed to significant liability.

Our business exposes us to potential significant product liability risks which are inherent in the testing, manufacturing, marketing and sale of human healthcare products. Product liability claims might be made by patients in clinical trials, consumers, health care providers or pharmaceutical companies or others that sell our products. These claims may be made even with respect to those products that are manufactured in licensed and regulated facilities or otherwise possess regulatory approval for commercial sale or study.

These claims could expose us to significant liabilities that could prevent or interfere with the development or commercialization of our products. Product liability claims could require us to spend significant time and money in litigation or pay significant damages. With respect to our commercial sales and our clinical trials, we are covered by product liability insurance in the amount of $10.0 million per occurrence and $10.0 million annually in the aggregate on a claims-made basis. This coverage may not be adequate to cover all or any product liability claims that we face.

As we continue to commercialize our products, we may wish to increase our product liability insurance. Product liability coverage is expensive. In the future, we may not be able to maintain or obtain such product liability insurance on reasonable terms, at a reasonable cost or in sufficient amounts to protect us against losses due to product liability claims.

Our reliance on government funding for Carbavance adds uncertainty to our research and commercialization efforts with respect to Carbavance.

We expect that a significant portion of the funding for the development of Carbavance will come from a contract with BARDA. BARDA is entitled to terminate our BARDA contract for convenience at any time, in whole or in part, and is not required to provide continued funding beyond amounts currently obligated under the existing contract, and there can be no assurance that our BARDA contract will not be terminated. Changes in government budgets and agendas may result in a decreased and deprioritized emphasis on supporting the development of antibacterial products such as Carbavance. If our BARDA contract is terminated or suspended, or if there is any reduction or delay in funding under our BARDA contract, we may be forced to seek alternative sources of funding, which may not be available on non-dilutive terms, terms favorable to us or at all. If alternative sources of funding are not available, we may be forced to suspend or terminate development activities related to Carbavance.

Our reliance on government funding for Carbavance may impose requirements that increase the costs of commercialization and production of Carbavance developed under that government-funded program.

Our BARDA contract includes provisions that reflect the U.S. government’s substantial rights and remedies, many of which are not typically found in commercial contracts, including powers of the government to:

- unilaterally reduce or modify the government’s obligations under such contracts, including by imposing equitable price adjustments, without the consent of the other party;
- cancel multi-year contracts and related orders if funds for contract performance for any subsequent year become unavailable;
- decline, in whole or in part, to exercise an option to renew the contract;
- claim rights to data, including intellectual property rights, developed under such contracts;

- audit contract-related costs and fees, including allocated indirect costs;
- suspend the contractor from receiving new contracts pending resolution of alleged violations of procurement laws or regulations in the event of wrongdoing by us;
- take actions that result in a longer development timeline than expected;
- direct the course of a development program in a manner not chosen by the government contractor;
- impose U.S. manufacturing requirements for products that embody inventions conceived or first reduced to practice under such contracts;

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- suspend or debar the contractor from doing future business with the government or a specific government agency;
- pursue criminal or civil remedies under the False Claims Act, False Statements Act and similar remedy provisions specific to government agreements; and
- limit the government's financial liability to amounts appropriated by the U.S. Congress on a fiscal-year basis, thereby leaving some uncertainty about the future availability of funding for a program even after it has been funded for an initial period.

We may not have the right to prohibit the U.S. government from using certain technologies funded by the government and developed by us related to Carbavance, and we may not be able to prohibit third party companies, including our competitors, from using those technologies in providing products and services to the U.S. government. The U.S. government generally takes the position that it has the right to royalty-free use of technologies that are developed under U.S. government contracts.

In addition, government contracts normally contain additional requirements that may increase our costs of doing business, reduce our profits, and expose us to liability for failure to comply with these terms and conditions. These requirements include, for example:

- specialized accounting systems unique to government contracts;
- potential liability for price adjustments or recoupment of government funds after such funds have been spent;
- public disclosures of certain non-proprietary contract information, which may enable competitors to gain insights into our research program; and
- mandatory socioeconomic compliance requirements, including labor standards, non-discrimination and affirmative action programs and environmental compliance requirements.

As a U.S. government contractor, we are subject to financial audits and other reviews by the U.S. government of our costs and performance under our BARDA contract, as well as our accounting and general business practices related to our BARDA contract. Based on the results of its audits, the government may adjust our contract-related costs and fees, including allocated indirect costs.

Laws and regulations affecting government contracts, including our BARDA contract, make it more costly and difficult for us to successfully conduct our business. Failure to comply with these laws and regulations could result in significant civil and criminal penalties and adversely affect our business.

We must comply with numerous laws and regulations relating to the administration and performance of our BARDA contract. Among the most significant government contracting regulations are:

- the Federal Acquisition Regulation, or FAR, and agency-specific regulations supplemental to the FAR, which comprehensively regulate the procurement, formation, administration and performance of government contracts;
- the business ethics and public integrity obligations, which govern conflicts of interest and the hiring of former government employees, restrict the granting of gratuities and funding of lobbying activities and incorporate other requirements such as the Anti-Kickback Act, the Procurement Integrity Act, the False Claims Act and the Foreign Corrupt Practices Act;

- export and import control laws and regulations; and
- laws, regulations and executive orders restricting the exportation of certain products and technical data.

In addition, U.S. government agencies such as the Department of Health and Human Services, or DHHS, and the Defense Contract Audit Agency, or DCAA, routinely audit and investigate government contractors for compliance with applicable laws and standards. These agencies review a contractor's performance under its contracts, including contracts with BARDA, cost structure and compliance with applicable laws, regulations and standards.

These agencies also review the adequacy of, and a contractor's compliance with, its internal control systems and policies, including the contractor's purchasing, property, estimating, compensation and management information systems. Any costs found

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to be improperly allocated to a specific contract will not be paid, while such costs already paid must be refunded. If we are audited and such audit uncovers improper or illegal activities, we may be subject to civil and criminal penalties and administrative sanctions, including:

- termination of any government contracts, including our BARDA contract;
- suspension of payments;
- fines; and
- suspension or prohibition from conducting business with the U.S. government.

In addition, we could suffer serious reputational harm if allegations of impropriety were made against us, which could cause our stock price to decrease.

We may not be able to manage our business effectively if we are unable to attract and retain key personnel and consultants.

Our industry has experienced a high rate of turnover of management personnel in recent years. At our company, for example, Glenn P. Sblendorio, President and Chief Financial Officer, announced his retirement from the company in the fourth quarter of 2015, and Brent Furse, Executive Vice President, Chief Customer Officer, and Cees Heiman, Executive Vice President, Chief Innovation Officer, departed from our company in the fourth quarter of 2014. We are highly dependent on our ability to attract and retain qualified personnel for the acquisition, development and commercialization activities we conduct or sponsor. If we lose one or more of the members of our senior management, including our Chief Executive Officer, Clive A. Meanwell, or other key employees or consultants, our ability to implement successfully our business strategy could be seriously harmed. Our ability to replace these key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to acquire, develop and commercialize products successfully. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate such additional personnel.

Risks Related to our Dependence on Third Parties for Manufacturing, Research and Development, and Distribution Activities

We do not have manufacturing or supply capabilities and are completely dependent on third parties for the manufacture and supply of our products. We depend on a limited number of suppliers for the production of bulk drug substance for our products and products in development and to carry out fill-finish activities. If any of these suppliers does not or cannot fulfill its manufacturing or supply obligations to us, our ability to meet commercial demands for our products and to conduct clinical trials of our products and products in development could be impaired and our business could be harmed.

We do not manufacture any of our products or products in development, and do not plan to develop any capacity to manufacture them. We currently rely on a limited number of manufacturers and other third parties for bulk substance and to carry out fill-finish activities for our products and products in development. We expect to continue this manufacturing strategy for all of our other products and products in development for the foreseeable future.

In the event that any third-party is unable or unwilling to carry out its respective manufacturing or supply obligations or terminates or refuses to renew its arrangements with us, we may be unable to obtain alternative manufacturing or supply on commercially reasonable terms on a timely basis or at all. In such cases, the third-party manufacturers have

made no commitment to supply the drug product to us on a long-term basis and could reject our purchase orders. Only a limited number of manufacturers are capable of manufacturing our products and products in development. Consolidation within the pharmaceutical manufacturing industry could further reduce the number of manufacturers capable of producing our products, or otherwise affect our existing contractual relationships.

If we were required to transfer manufacturing processes to other third-party manufacturers and we were able to identify an alternative manufacturer, we would still need to satisfy various regulatory requirements. Satisfaction of these requirements could cause us to experience significant delays in receiving an adequate supply of our products and products in development and could be costly. Moreover, we may not be able to transfer processes that are proprietary to the manufacturer. Any delays in the manufacturing process may adversely impact our ability to meet commercial demands for our products on a timely basis, which could reduce our revenue, and to supply product for clinical trials of our products and products in development, which could affect our ability to complete clinical trials of our products and products in development on a timely basis.

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If third parties on whom we rely to manufacture and support the development and commercialization of our products do not fulfill their obligations or we are unable to establish or maintain such arrangements, the development and commercialization of our products may be terminated or delayed, and the costs of development and commercialization may increase.

Our development and commercialization strategy involves entering into arrangements with corporate and academic collaborators, contract research organizations, distributors, third-party manufacturers, licensors, licensees and others to conduct development work, manage or conduct our clinical trials, manufacture our products and market and sell our products outside of the United States. We do not have the expertise or the resources to conduct many of these activities on our own and, as a result, are particularly dependent on third parties in many areas.

We may not be able to maintain our existing arrangements with respect to the commercialization or manufacture of our products or establish and maintain arrangements to develop, manufacture and commercialize our products in development or any additional product candidates or products we may acquire on terms that are acceptable to us. Any current or future arrangements for development and commercialization may not be successful. If we are not able to establish or maintain agreements relating to our products, our products in development or any additional products or product candidates we may acquire, our results of operations would be materially adversely affected.

Third parties may not perform their obligations as expected. The amount and timing of resources that third parties devote to developing, manufacturing and commercializing our products are not within our control. Our collaborators may develop, manufacture or commercialize, either alone or with others, products and services that are similar to or competitive with the products that are the subject of the collaboration with us. Furthermore, our interests may differ from those of third parties that manufacture or commercialize our products. Our collaborators may reevaluate their priorities from time to time, including following mergers and consolidations, and change the focus of their development, manufacturing or commercialization efforts. Disagreements that may arise with these third parties could delay or lead to the termination of the development or commercialization of our product candidates, or result in litigation or arbitration, which would be time consuming and expensive.

If any third party that manufactures or supports the development or commercialization of our products breaches or terminates its agreement with us, fails to commit sufficient resources to our collaboration or conduct its activities in a timely manner, or fails to comply with regulatory requirements, such breach, termination or failure could:

- delay or otherwise adversely impact the manufacturing, development or commercialization of our products, our products in development or any additional products or product candidates that we may acquire or develop;
- require us to seek a new collaborator or undertake unforeseen additional responsibilities or devote unforeseen additional resources to the manufacturing, development or commercialization of our products; or
- result in the termination of the development or commercialization of our products.

Our reliance on third-party manufacturers and suppliers to supply our products and products in development may increase the risk that we will not have appropriate supplies of our products or our products in development, which could adversely affect our business, results of operations and financial condition.

Reliance on third-party manufacturers and suppliers entails risks to which we would not be subject if we manufactured products or products candidates ourselves, including:

- reliance on the third party for regulatory compliance and quality assurance;

- the possible breach of the manufacturing or supply agreement by the third party; and

- the possible termination or non-renewal of the agreement by the third party, based on its own business priorities, at a time that is costly or inconvenient for us.

For example, in December 2009 and March 2010, we conducted voluntary recalls of manufactured lots of Cleviprex due to the presence of visible particulate matter at the bottom of some vials that were manufactured for us by a third party. As a result, we were not able to supply the market with Cleviprex or sell Cleviprex from the first quarter of 2010 until April 2011. In addition, in December 2011, Eagle, the licensor and sole supplier of ready-to-use Argatroban, conducted a voluntary recall of the product due to the presence of particulate matter in some vials. As a result, we were not able to sell ready-to-use Argatroban from December 2011 to April 2012.

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Our products and products in development may compete with products and products in development of third parties for access to manufacturing facilities. If we are not able to obtain adequate supplies of our products and products in development, it will be more difficult for us to compete effectively, market and sell our approved products and develop our products in development.

Our manufacturers are subject to ongoing, periodic, unannounced inspection by the FDA and corresponding state and foreign agencies or their designees to evaluate compliance with the FDA's current good manufacturing practices, or cGMP, regulations and other governmental regulations and corresponding foreign standards. We cannot be certain that our present or future manufacturers will be able to comply with cGMP regulations and other FDA regulatory requirements or similar regulatory requirements outside the United States. We do not control compliance by our manufacturers with these regulations and standards. Failure of our third-party manufacturers or us to comply with applicable regulations could result in sanctions being imposed on us, including fines and other monetary penalties, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval of our products in development, delays, suspension or withdrawal of approvals, suspension of clinical trials, license revocation, seizures or recalls of products in development or products, interruption of production, warning letters, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our products and products in development.

We may depend on collaborations with third parties for the development and commercialization of certain of our products in development. If those collaborations are not successful, we may not be able to capitalize on the market potential of these products in development.

We may seek to develop and commercialize certain of our products in development through a variety of types of collaboration arrangements. Our likely collaborators for any marketing, distribution, development, licensing or broader collaboration arrangements include large and mid size pharmaceutical companies, regional and national pharmaceutical companies and biotechnology companies. We may not be able to enter into these types of arrangements on a timely basis, on favorable terms or at all. Our ability to enter into such arrangements with respect to products in development that are subject to licenses may be limited by the terms of those licenses. If we do enter into any such arrangements with any third parties in the future, we will likely have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our products in development. Our ability to generate revenues from these arrangements will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements.

Collaborations involving our products in development could pose a number of risks to us, including:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not pursue development and commercialization of our products in development or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborators' strategic focus or available funding, or external factors such as an acquisition that diverts resources or creates competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products in development if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- a collaborator with marketing and distribution rights to one or more products may not commit sufficient resources to the marketing and distribution of such product or products;

- collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or otherwise expose us to potential litigation;

- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;

- disputes may arise with respect to the ownership of intellectual property developed pursuant to our collaborations;

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- disputes may arise between the collaborators and us that result in the delay or termination of the research, development or commercialization of our products or products in development or that result in costly litigation or arbitration that diverts management attention and resources; and

- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable products and products in development.

Collaboration agreements may not lead to development or commercialization of products in development in the most efficient manner or at all. If a collaborator of ours were to be involved in a business combination, the continued pursuit and emphasis on our product development or commercialization program could be delayed, diminished or terminated.

If we use hazardous and biological materials in a manner that causes injury or violates applicable law, we may be liable for damages or subject to fines and penalties.

We conduct research and development activities that involve the controlled use of potentially hazardous substances, including chemical, biological and radioactive materials and viruses. In addition, our operations produce hazardous waste products. Federal, state and local laws and regulations in the United States and Canada govern the use, manufacture, storage, handling and disposal of hazardous materials. We may incur significant additional costs to comply with applicable laws in the future. Also, we cannot completely eliminate the risk of contamination or injury resulting from hazardous materials and we may incur liability as a result of any such contamination or injury. In the event of an accident, we could be held liable for damages or penalized with fines, and the liability could exceed our resources. We have only limited insurance for liabilities arising from hazardous materials. Compliance with applicable environmental laws and regulations is expensive, and current or future environmental regulations may restrict our research, development and production efforts, which could harm our business, operating results and financial condition.

Risks Related to Regulatory Matters

If we do not obtain regulatory approvals for our products in development in any jurisdiction or for our products in any additional jurisdictions, we will not be able to market our products and products in development in those jurisdictions and our ability to generate additional revenue could be materially impaired.

We must obtain approval from the FDA in order to sell our products in development in the United States and from foreign regulatory authorities in order to sell our products in development in other countries. In addition, we must obtain approval from foreign regulatory authorities in order to sell our U.S.-approved products in other countries.

We have a pipeline of acute and intensive care hospital products in development, including ABP-700, ALN-PCSsc, Carbavance and MDCO-216. We cannot be assured that we will make our planned submissions when we anticipate, that the submissions will be accepted for filing, or that the applicable regulatory authorities will approve our applications on a timely basis or at all.

Developing and obtaining regulatory approval for product candidates is a lengthy process, often taking a number of years, is uncertain and is expensive. All of the product candidates that we are developing, or may develop in the future, require research and development, preclinical studies, nonclinical testing and clinical trials prior to seeking regulatory approval and commencing commercial sales. In addition, we may need to address a number of technological challenges in order to complete development of our product candidates. As a result, the development of product candidates may take longer than anticipated or not be successful at all.

Any regulatory approval we ultimately obtain may limit the indicated uses for the product or subject the product to restrictions or post-approval commitments that render the product commercially non-viable. Securing regulatory approval requires the submission of extensive non-clinical and clinical data, information about product manufacturing processes and inspection of facilities and supporting information to the regulatory authorities for each therapeutic indication to establish the product's safety and efficacy. If we are unable to submit the necessary data and information, for example, because the results of clinical trials are not favorable, or if the applicable regulatory authority delays reviewing or does not approve our applications, we will be unable to obtain regulatory approval. Delays in obtaining or failure to obtain regulatory approvals may:

- delay or prevent the successful commercialization of any of the products or product candidates in the jurisdiction for which approval is sought;
- diminish our competitive advantage; and
- defer or decrease our receipt of revenue.

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The regulatory review and approval process to obtain marketing approval takes many years and requires the expenditure of substantial resources. This process can vary substantially based on the type, complexity, novelty and indication of the product involved. Regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that data are insufficient for approval and require additional pre-clinical, clinical or other studies. In addition, varying interpretations of the data obtained from pre-clinical and clinical testing could delay, limit or prevent regulatory approval of a product. Moreover, recent events, including complications experienced by patients taking FDA-approved drugs, have raised questions about the safety of marketed drugs and may result in new legislation by the U.S. Congress or foreign legislatures and increased caution by the FDA and comparable foreign regulatory authorities in reviewing applications for marketing approval.

Certain of our products in development have experienced regulatory and/or clinical setbacks in the past. For example, in February 2014, the FDA Cardiovascular and Renal Drugs Advisory Committee advised against approval of Kengreal for use in patients undergoing PCI or those that require bridging from oral antiplatelet therapy to surgery. On April 30, 2014, the FDA issued a Complete Response Letter regarding our NDA for Kengreal.

The procedures to obtain marketing approvals vary among countries and can involve additional clinical trials or other pre-filing requirements. The time required to obtain foreign regulatory approval may differ from that required to obtain FDA approval. The foreign regulatory approval process may include all the risks associated with obtaining FDA approval, or different or additional risks. We may not obtain foreign regulatory approvals on a timely basis, if at all. Approval by the FDA does not ensure approval by the regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval by the FDA or regulatory authorities in other foreign countries. We may not be able to file for regulatory approvals and may not receive necessary approvals to commercialize our products and products in development in any market.

We cannot expand the indications for which we are marketing our products unless we receive regulatory approval for each additional indication. Failure to expand these indications will limit the size of the commercial market for our products.

In order to market our products for expanded indications, we will need to conduct appropriate clinical trials, obtain positive results from those trials and obtain regulatory approval for such proposed indications. Obtaining regulatory approval is uncertain, time-consuming and expensive. The regulatory review and approval process to obtain marketing approval for a new indication can take many years and require the expenditure of substantial resources. This process can vary substantially based on the type, complexity, novelty and indication of the product involved. The regulatory authorities have substantial discretion in the approval process and may refuse to accept any application. Alternatively, they may decide that any data submitted is insufficient for approval and require additional pre-clinical, clinical or other studies, which studies could require the expenditure of substantial resources. Even if we undertook such studies, we might not be successful in obtaining regulatory approval for these indications or any other indications in a timely manner or at all. In addition, varying interpretations of the data obtained from pre-clinical and clinical testing could delay, limit or prevent regulatory approval of a new indication for a product. If we are unsuccessful in expanding the product label of our products, the size of the commercial market for our products will be limited.

Clinical trials of product candidates are expensive and time-consuming, and the results of these trials are uncertain. If we are unable to conduct clinical trials that demonstrate the safety and efficacy of our product candidates on a timely basis, then our costs of developing the product candidates may increase and we may not be able to obtain regulatory approval for our product candidates on a timely basis or at all.

Before we can obtain regulatory approvals to market any product for a particular indication, we will be required to complete pre-clinical studies and extensive clinical trials in humans to demonstrate the safety and efficacy of such

product for such indication.

Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. Success in pre-clinical testing or early clinical trials does not ensure that later clinical trials will be successful, and interim results of a clinical trial do not necessarily predict final results. An unexpected result in one or more of our clinical trials can occur at any stage of testing. For example, in October 2012, we voluntarily discontinued our Phase 2b dose-ranging study of MDCO-2010, a serine protease inhibitor which we were developing to reduce blood loss during surgery, in response to serious unexpected patient safety issues encountered during the trial. Further, in November 2009, we discontinued enrollment in our Phase 3 clinical trials of Kengreal prior to completion after the independent Interim Analysis Review Committee for the program reported to us that the efficacy endpoints of the trial program would not be achieved.

We may experience numerous unforeseen events during, or as a result of, the clinical trial process that could delay or prevent us from receiving regulatory approval or commercializing our products in development, including:

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- our clinical trials may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials which even if undertaken cannot ensure we will gain approval;

- data obtained from pre-clinical testing and clinical trials may be subject to varying interpretations, which could result in the FDA or other regulatory authorities deciding not to approve a product in a timely fashion, or at all;

- the cost of clinical trials may be greater than we currently anticipate;

- regulators, ethics committees or institutional review boards may not authorize us to commence a clinical trial or conduct a clinical trial at a prospective trial site;

- we, or the FDA or other regulatory authorities, might suspend or terminate a clinical trial at any time on various grounds, including a finding that participating patients are being exposed to unacceptable health risks. For example, we have in the past voluntarily suspended enrollment in one of our clinical trials to review an interim analysis of safety data from the trial; and

- the effects of our product candidates may not be the desired effects or may include undesirable side effects or the product candidates may have other unexpected characteristics.

The rate of completion of clinical trials depends in part upon the rate of enrollment of patients. Patient enrollment is a function of many factors, including the size of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the existence of competing clinical trials and the availability of alternative or new treatments. In particular, the patient population targeted by some of our clinical trials may be small. Delays in patient enrollment in any of our current or future clinical trials may result in increased costs and program delays.

If we or the contract manufacturers manufacturing our products and products in development fail to comply with the extensive regulatory requirements to which we, our contract manufacturers and our products and products in development are subject, our products could be subject to restrictions or withdrawal from the market, the development of our product candidates could be jeopardized, and we could be subject to penalties.

The research, testing, manufacturing, labeling, safety, advertising, promotion, storage, sales, distribution, import, export and marketing, among other things, of our products, both before and after approval, are subject to extensive regulation by governmental authorities in the United States, Europe and elsewhere throughout the world. Both before and after approval of a product, quality control and manufacturing procedures must conform to cGMP. Regulatory authorities, including the FDA, periodically inspect manufacturing facilities to assess compliance with cGMP. Our failure or the failure of contract manufacturers to comply with the laws administered by the FDA, the EMA or other governmental authorities could result in, among other things, any of the following:

- delay in approving or refusal to approve a product;

- product recall or seizure;

- suspension or withdrawal of an approved product from the market;

- delays in, suspension of or prohibition of commencing clinical trials of products in development;

- interruption of production;

- operating restrictions;

- untitled or warning letters;
- injunctions;
- fines and other monetary penalties;
- the imposition of civil or criminal penalties;
- disruption of importing and exporting activities; and

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- unanticipated expenditures.

We may incur significant liability if it is determined that we are promoting the “off-label” use of any of our products.

Physicians may prescribe drug products for uses that are not described in the product's labeling and that differ from those approved by the FDA or other applicable regulatory agencies. Off-label uses are common across medical specialties. Although the FDA and other regulatory agencies do not regulate a physician's choice of treatments, the FDA and other regulatory agencies do restrict communications on the subject of off-label use. Companies may not promote drugs for off-label uses. The FDA and other regulatory and enforcement authorities actively enforce laws and regulations prohibiting promotion of off-label uses and the promotion of products for which marketing approval has not been obtained. A company that is found to have promoted off-label uses may be subject to significant liability, including civil and administrative remedies as well as criminal sanctions.

Notwithstanding the regulatory restrictions on off-label promotion, the FDA and other regulatory authorities allow companies to engage in truthful, non-misleading, and non-promotional scientific exchange concerning their products. We engage in medical education activities and communicate with investigators and potential investigators regarding our clinical trials. If the FDA or another regulatory or enforcement authority determines that our communications regarding our marketed products are not in compliance with the relevant regulatory requirements and that we have improperly promoted off-label uses, we may be subject to significant liability, including civil and administrative remedies as well as criminal sanctions.

If we do not comply with federal, state and foreign laws and regulations relating to the health care business, we could face substantial penalties.

We and our customers are subject to extensive regulation by the federal government, and the governments of the states and foreign countries in which we may conduct our business. In the United States, the laws that directly or indirectly affect our ability to operate our business include the following:

- the Federal Anti-Kickback Law, which prohibits persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce either the referral of an individual or furnishing or arranging for a good or service for which payment may be made under federal health care programs such as Medicare and Medicaid;

- other Medicare laws and regulations that prescribe the requirements for coverage and payment for services performed by our customers, including the amount of such payment;

- the Federal False Claims Act, which imposes civil and criminal liability on individuals and entities who submit, or cause to be submitted, false or fraudulent claims for payment to the government;

- the Federal False Statements Act, which prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with delivery of or payment for health care benefits, items or services; and

- various state laws that impose similar requirements and liability with respect to state healthcare reimbursement and other programs.

If our operations are found to be in violation of any of the laws and regulations described above or any other law or governmental regulation to which we or our customers are or will be subject, we may be subject to civil and criminal penalties, damages, fines, exclusion from the Medicare and Medicaid programs and the curtailment or restructuring of

our operations. Similarly, if our customers are found to be non-compliant with applicable laws, they may be subject to sanctions, which could also have a negative impact on us. Any penalties, damages, fines, curtailment or restructuring of our operations would adversely affect our ability to operate our business and our financial results. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses, divert our management's attention from the operation of our business and damage our reputation.

Failure to comply with the U.S. Foreign Corrupt Practices Act, or FCPA, as well as the anti-bribery laws of the nations in which we conduct business, could subject us to penalties and other adverse consequences.

We are subject to the FCPA, which generally prohibits U.S. companies from engaging in bribery or other prohibited payments to foreign officials for the purpose of obtaining or retaining business and requires companies to maintain accurate books and records and internal controls, including at foreign-controlled subsidiaries. In addition, we are subject to other anti-bribery laws

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of the nations in which we conduct business that apply similar prohibitions as the FCPA. Our employees or other agents may engage in prohibited conduct without our knowledge under our policies and procedures and the FCPA and other anti-bribery laws that we may be subject to for which we may be held responsible. If our employees or other agents are found to have engaged in such practices, we could suffer severe penalties and other consequences that may have a material adverse effect on our business, financial condition and results of operations.

The production of fentanyl hydrochloride, which is used in Ionsys, is highly regulated through an annual allocation quota made by the Drug Enforcement Administration, or DEA, in the United States and our specific allocation by the DEA could significantly limit the development, production or sale of Ionsys.

Fentanyl hydrochloride is subject to the DEA's production and procurement quota scheme where the DEA establishes annually an aggregate quota for how much fentanyl may be produced in total in the United States based on an estimate of the quantity needed to meet legitimate scientific and medicinal needs that is then allocated among individual companies based on applications submitted annually by these individual companies to request an individual production and procurement quotas. These applications generally require substantial evidence and documentation of expected legitimate medical and scientific needs before the DEA makes its decision in allocating annual quotas to those manufacturers. The aggregate production quotas and individual production and procurement quotas may be adjusted from time to time during the year, although the DEA has substantial discretion in whether or not to make such adjustments. The DEA may choose to set the aggregate fentanyl hydrochloride quota lower than the total amount requested by the companies.

While it is possible to petition the DEA for an increase in the annual aggregate quota allocated to us after it is fixed, there is no guarantee that the DEA would act favorably upon such a petition. Our production and procurement quota of fentanyl hydrochloride may not be sufficient to meet commercial demand or clinical development needs. Any delay or refusal by the DEA in establishing the production and/or procurement quota or a reduction in our quota for fentanyl or a failure to increase it over time as we anticipate could delay or stop the development, production or sale of Ionsys or cause us to fail to achieve our expected operating results, which could have a material adverse effect on our business, results of operations, financial condition and prospects.

Risks Related to Our Intellectual Property

If we breach any of the agreements under which we license rights to products or technology from others, we could lose license rights that are material to our business or be subject to claims by our licensors.

We license rights to products and technology that are important to our business, and we expect to enter into additional licenses in the future. For instance, we have exclusively licensed patents and patent applications relating to each of our products and products in development. Under these agreements, we are subject to a range of commercialization and development, sublicensing, royalty, patent prosecution and maintenance, insurance and other obligations.

Any failure by us to comply with any of these obligations or any other breach by us of our license agreements could give the licensor the right to terminate the license in whole, terminate the exclusive nature of the license or bring a claim against us for damages. Any such termination or claim could have a material adverse effect on our financial condition, results of operations, liquidity or business. Even if we contest any such termination or claim and are ultimately successful, such dispute could lead to delays in the development or commercialization of potential products and result in time-consuming and expensive litigation or arbitration. In addition, on termination we may be required to license to the licensor any related intellectual property that we developed.

If we are unable to obtain or maintain protection for the intellectual property relating to our products, the value of our products will be adversely affected.

The patent positions of pharmaceutical companies like us are generally uncertain and involve complex legal, scientific and factual issues. We cannot be certain that our patents and patent applications, including our own and those that we have rights to through licenses from third parties, will adequately protect our intellectual property. Our success protecting our intellectual property depends significantly on our ability to:

- obtain and maintain U.S. and foreign patents, including defending those patents against adverse claims;
- secure patent term extension for the patents covering our approved products;
- protect trade secrets;

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- operate without infringing the proprietary rights of others; and

- prevent others from infringing our proprietary rights.

We may not have any additional patents issued from any patent applications that we own or license. If additional patents are granted, the claims allowed may not be sufficiently broad to protect our technology. In addition, issued patents that we own or license may be challenged in contested proceedings such as opposition, derivation, reexamination, inter partes review, post-grant review or interference proceedings and may be narrowed, invalidated or circumvented, which could limit our ability to stop competitors from marketing similar products or limit the length of term of patent protection we may have for our products, and we may not be able to obtain patent term extension to prolong the terms of the principal patents covering our approved products. Changes in patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property or narrow the scope of our patent protection.

In addition, the U.S. Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. This combination of events has created uncertainty with respect to the value of patents, once obtained, and with regard to our ability to obtain patents in the future. Depending on decisions by the U.S. Congress, the federal courts, and the PTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

Our patents also may not afford us protection against competitors with similar technology. Because patent applications in the United States and many foreign jurisdictions are typically not published until eighteen months after filing, or in some cases not at all, and because publications of discoveries in the scientific literature often lag behind actual discoveries, neither we nor our licensors can be certain that others have not filed or maintained patent applications for technology used by us or covered by our pending patent applications without our being aware of these applications.

We exclusively license patents and patent applications for each of our products and products in development, for which we own the patents and patent applications, and we license on a non-exclusive basis the acute care generic products from APP which are not covered by any patents or patent applications. The patents covering our approved products and our products in development are currently set to expire at various dates:

Angiomax. The principal U.S. patents covering Angiomax included the '404 patent, the '727 patent and the '343 patent. The '404 patent covered the composition of matter of Angiomax. The '404 patent was set to expire in March 2010, but the term was extended to December 15, 2014 by the PTO under the Hatch-Waxman Act. As a result of our study of Angiomax in the pediatric setting, we had an additional six-month period of pediatric exclusivity following expiration of the '404 patent. This period of exclusivity expired in June 2015.

In the second half of 2009, the PTO issued to us the '727 patent and the '343 patent, covering a more consistent and improved Angiomax drug product and the processes by which it is made. The '727 patent and the '343 patent are set to expire in July 2028. In response to Paragraph IV Certification Notice letters we received with respect to ANDAs filed by a number of parties with the FDA seeking approval to market generic versions of Angiomax, we filed lawsuits against the ANDA filers alleging patent infringement of the '727 patent and '343 patent and have since entered into settlement agreements with respect to our suits against three ANDA filers, Teva, APP and Sun. In our lawsuit against Hospira, on July 2, 2015, the Federal Circuit Court ruled against us, finding the '727 patent and '343 patent invalid. On July 15, 2015, Hospira's ANDAs for its generic versions of bivalirudin were approved by the FDA and Hospira began selling its generic versions of bivalirudin. 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.

In addition to Hospira's generic versions of bivalirudin, Sandoz's authorized generic and, if approved, Eagle's formulation of bivalirudin, Angiomax could be subject to generic competition in the United States from Teva, APP and Sun under the circumstances set forth in our respective settlement agreements with such parties and upon the approval of each companies' ANDA filings by the FDA. Further, we remain in infringement litigation involving the '727 patent and '343 patent with the other ANDA filers. Our patent infringement litigation involving the '727 patent and '343 patent is described in more detail in Part I, Item 3. Legal Proceedings, of this Annual Report on Form 10-K. If we are unable to enforce our U.S. patents covering Angiomax, Angiomax could become subject to further generic competition, which could have a material adverse impact on our business, financial condition and operating results. Following our settlements with Teva, APP and Sun, we submitted the settlement documents for each settlement to the U.S. Federal Trade Commission, or the FTC, and the U.S. Department of Justice, or the DOJ. The FTC, the DOJ and state attorney

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general offices could seek to challenge our settlements with Teva, APP or Sun, or a third party could initiate a private action under antitrust or other laws challenging our settlements with Teva, APP or Sun. While we believe our settlements are lawful, we may not prevail in any such challenges or litigation, in which case the other party might obtain injunctive relief, remedial relief, or such other relief as a court may order. In any event, we may incur significant costs in the event of an investigation or in defending any such action and our business and results of operations could be materially impacted if we fail to prevail against any such challenges.

In Europe, the principal patent covering Angiomax expired in August 2015. This patent covered the composition of matter of Angiomax. As a result, we do not have market exclusivity for Angiomax in Europe.

Cleviprex. The principal U.S. patent for Cleviprex is U.S. Patent No. 5,856,346 or the '346 patent. The '346 patent was set to expire in January 2016, but the term was extended to January 2021 by the PTO under the Hatch-Waxman Act. We also have an issued patent, U.S. Patent No. 8,658,676, or the '676 patent, which covers the Cleviprex formulation and is set to expire in October 2031. In Europe, the principal patent covering Cleviprex was set to expire in November 2014, but the term has been extended to November 2019 in most European countries where Cleviprex has been approved via a supplementary protection certificate. The European patent office has also issued to us a patent covering compositions of matter of Cleviprex having certain stability profiles, which will expire in July 2029. In addition, we have filed and are currently prosecuting a number of patent applications relating to Cleviprex covering compositions of matter and uses in the United States, Europe and other foreign countries.

Ready-to-Use Argatroban. We exclusively licensed from Eagle rights to two U.S. patents covering certain formulations of Argatroban. Our exclusive license is limited to the United States and Canada. The patents are set to expire in September 2027. In February 2012, we were notified that Sandoz had submitted an ANDA seeking permission to market its second generic version of ready-to-use Argatroban prior to the expiration of these patents. On March 29, 2012, Eagle, which directed and controlled the enforcement of its intellectual property rights with respect to ready-to-use Argatroban, filed suit against Sandoz in the U.S. District Court for the District of New Jersey for infringement of its ready-to-use Argatroban patents. In November 2012, Eagle advised us that it entered into a settlement agreement with Sandoz, and as part of the settlement, Eagle agreed to give Sandoz the right to introduce an authorized generic version of ready-to-use Argatroban. Sandoz currently markets two ready-to-use generic formulations of Argatroban.

Kengreal. We have issued patents directed to Kengreal pharmaceutical compositions which expire in 2017 and 2018, and applications for patent term extension for extending these patents have been filed and are currently pending. In February 2016, we received a notice of allowance from the U.S. Patent and Trademark Office for a pending application directed to certain Kengreal compositions. Upon issuance, the resulting patent will expire in July 2035. We also have issued patents directed to various methods of administering Kengreal, expiring in 2029 and 2033 in the United States. We have also filed and are currently prosecuting a number of patent applications related to Kengreal.

Orbactiv. The principal patent for Orbactiv in both the United States and Europe is set to expire in November 2016. We have filed for a patent term extension for this patent in the United States. We also have issued patents directed to the process of making Orbactiv. These patents are set to expire in 2017 if no patent term extension is obtained. We also have a U.S. patent covering the use of Orbactiv in treating certain skin infections that expires in August 2029. In Europe, we have an allowed patent application with claims directed to Orbactiv composition for treating certain diseases and the resulting patent, upon issuance, expires in August 2029. We have also filed and are prosecuting a number of patent applications relating to Orbactiv and its uses.

Ionsys. As a result of our acquisition of Incline, we acquired a portfolio of patents and patent applications covering the Ionsys device and its uses. Some of these patents and patent applications were exclusively licensed from ALZA. The expiration dates of patents covering the Ionsys device and its use range from December 2016 to February 2033 in the

United States. In Europe, the expiration dates of patents covering the Ionsys device range from May 2016 to September 2021. In addition, we have an allowed application, which, upon issuance, expires in March 2032, covering the Ionsys device in Europe. We are also currently prosecuting patent applications relating to Ionsys in the United States and in certain foreign countries.

Minocin. As a result of our acquisition of Rempex, we acquired a family of patent applications covering certain minocycline formulations and certain methods of administering minocycline. In July 2015, the U.S. Patent and Trademark Office issued to us a patent covering certain methods of administering minocycline. This patent expires in May 2031. We are also prosecuting a number of patent applications relating to minocycline formulations and use in the United States and in certain foreign countries.

MDCO-216. We are maintaining a number of U.S. patents with respect to MDCO-216, including patents that claim the use of MDCO-216 in certain disease indications. One of these U.S. patents is directed to the use of MDCO-216 for the treatment of ACS and is set to expire in March 2025 if no patent term extension is obtained. We have issued patents related to the use of MDCO-216 in certain European countries expiring in October 2024. As a biologic, we believe MDCO-216 is entitled to receive 12 years of

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regulatory exclusivity as a "reference product" in the United States and 10 years of regulatory exclusivity in Europe from the date of the initial marketing approval of MDCO-216, if approved.

ABP-700. In connection with our acquisition of Annovation, we obtained an exclusive license from The General Hospital Corporation pertaining to certain patents and patent applications covering ABP-700 and its analogs. One of the patents contains claims directed specifically to ABP-700 and expires in January 2033. These patent applications, some of which are jointly owned by Annovation and The General Hospital Corporation, are currently being prosecuted by The General Hospital Corporation in the United States and in certain foreign countries. We are also prosecuting certain other patent applications relating to ABP-700.

ALN-PCS. We have exclusively licensed from Alnylam patents covering RNAi therapeutics targeting PCSK9 for the treatment of hypercholesterolemia and other human diseases for purposes of developing and commercializing such RNAi therapeutics. Some of these patents are directed to general RNAi technology and expire between 2016 and 2028 in the United States. Other patents are directed to compositions of the PCSK9 product being developed under our license from Alnylam and to methods of treatment using such PCSK9 product and expire in May 2027 in the United States. In addition, Alnylam has filed and is prosecuting a number of patent applications in the United States and in certain foreign countries. One of these applications, which, if issued, expires in December 2033, contains claims directed to specific compositions of the PCSK9 product we are developing and methods of administrating such compositions.

Carbavance. As a result of our acquisition of Rempex, we acquired a portfolio of patent applications covering the composition of matter of Carbavance and its formulation and use. The principal U.S. patent for Carbavance is set to expire in August 2031 if no patent term extension is obtained. A corresponding patent application is pending in Europe and other foreign countries. In addition, we are currently prosecuting other patent applications relating to Carbavance’s composition of matter and its use in the United States and in certain foreign countries.

We plan to file applications for patent term extension for our products in development upon their approval. If we do not receive patent term extensions for the periods requested by us or at all, our patent protection for our products in development could be limited.

We are a party to a number of lawsuits that we brought against pharmaceutical companies that have notified us that they have filed ANDAs seeking approval to market generic versions of Angiomax. We cannot predict the outcome of these lawsuits. Involvement in litigation, regardless of its outcome, is time-consuming and expensive and may divert our management's time and attention. During the period in which these matters are pending, the uncertainty of their outcome may cause our stock price to decline. An adverse result in these matters, whether appealable or not, will likely cause our stock price to decline. Any final, unappealable, adverse result in these matters will likely have a material adverse effect on our results of operations and financial conditions and cause our stock price to decline.

In addition to seeking to enforce our patent rights, we have in the past and may in the future seek to enforce our other intellectual property rights, including, for example, our trademark rights in order to prevent third parties from using the same or confusingly similar trademarks. We may not be successful in enforcing such rights and preventing such use. Further, certain of our trademark rights are licensed to us by third parties and, in certain circumstances, on a non-exclusive basis, which does not afford us the right to prevent third parties from using such trademarks. Failure to adequately pursue and enforce our intellectual property rights could damage our brands, enable others to compete with our products and impair our competitive position.

If we are not able to keep our trade secrets confidential, our technology and information may be used by others to compete against us.

We rely significantly upon unpatented proprietary technology, information, processes and know-how. We seek to protect this information by confidentiality agreements and invention assignment agreements with our employees, consultants and other third-party contractors, as well as through other security measures. We may not have adequate remedies for any breach by a party to these confidentiality agreements or invention assignment agreements. In addition, our competitors may learn or independently develop our trade secrets. If our confidential information or trade secrets become publicly known, they may lose their value to us.

If we infringe or are alleged to infringe intellectual property rights of third parties, our business may be adversely affected.

Our research, development and commercialization activities, as well as any product candidates or products resulting from these activities, may infringe or be claimed to infringe patents or patent applications under which we do not hold licenses or other rights. Third parties may own or control these patents and patent applications in the United States and abroad. These third parties could bring claims against us or our collaborators that would cause us to incur substantial expenses and, if successful against us, could

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cause us to pay substantial damages. Further, if a patent infringement suit were brought against us or our collaborators, we or they could be forced to stop or delay research, development, manufacturing or sales of the product or product candidate that is the subject of the suit.

As a result of patent infringement claims, or in order to avoid potential claims, we or our collaborators may choose or be required to seek a license from the third party and be required to pay license fees or royalties or both. These licenses may not be available on acceptable terms, or at all. Even if we or our collaborators were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property. Ultimately, we could be prevented from commercializing a product, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we or our collaborators are unable to enter into licenses on acceptable terms. This could harm our business significantly.

There has been substantial litigation and other proceedings regarding patent and other intellectual property rights in the pharmaceutical and biotechnology industries. In addition to infringement claims against us, we may become a party to other patent litigation and other proceedings, including interference proceedings declared by the PTO and opposition proceedings in the European Patent Office, regarding intellectual property rights with respect to our products and technology. Patent litigation and other proceedings may also absorb significant management time. The cost to us of any patent litigation or other proceeding, even if resolved in our favor, could be substantial. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their substantially greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace. Patent litigation and other proceedings may also absorb significant management time.

Risks Related to Our Common Stock

Fluctuations in our operating results could affect the price of our common stock.

Our operating results may vary from period to period based on factors including the amount and timing of sales of and underlying hospital demand for our products, our customers' buying patterns, the timing, expenses and results of clinical trials, announcements regarding clinical trial results and product introductions by us or our competitors, the availability and timing of third-party reimbursement, including in Europe, sales and marketing expenses and the timing of regulatory approvals. If our operating results do not meet the expectations of securities analysts and investors as a result of these or other factors, the trading price of our common stock will likely decrease.

The warrant transactions and the derivative transactions that we entered into in connection with the convertible note hedge and warrant transactions may affect the price of our common stock.

In connection with the sale of the 2017 notes, we entered into convertible note hedge and warrant transactions with several of the initial purchasers of the 2017 notes, their affiliates and other financial institutions, whom we refer to as hedge counterparties. Upon settlement, the warrants could have a dilutive effect on our earnings per share and the market price of our common stock to the extent that the market price per share of our common stock exceeds the then applicable strike price of the warrants. However, subject to certain conditions, we may elect to settle all of the warrants in cash.

In connection with establishing their hedges of the convertible note hedge and warrant transactions, the hedge counterparties or their affiliates entered into various derivative transactions with respect to our common stock. These parties may modify their hedge positions in the future by entering into or unwinding various derivatives with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the 2017 notes (and are likely to do so during any observation period related to a

conversion of the 2017 notes). These activities could cause a decrease or avoid an increase in the market price of our common stock.

Our stock price has been and may in the future be volatile. This volatility may make it difficult for you to sell common stock when you want or at attractive prices.

Our common stock has been and in the future may be subject to substantial price volatility. From January 1, 2014 to February 26, 2016, the last reported sale price of our common stock ranged from a high of $43.31 per share to a low of $20.36 per share. The value of your investment could decline due to the effect upon the market price of our common stock of any of the following factors, many of which are beyond our control:

- approval or rejection of submissions for marketing approval for our products and products in development;

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- regulatory actions by the FDA or a foreign jurisdiction limiting or revoking the use of our products or products in development;
- changes in securities analysts' estimates of our financial performance;
- changes in valuations of similar companies;
- variations in our operating results;
- whether we are successful in narrowing our operational focus by strategically separating non-core businesses and products, and the amount of consideration paid to us in connection with any related sales or divestitures;
- acquisitions and strategic partnerships;
- announcements of technological innovations or new commercial products by us or our competitors or the filing of ANDAs, NDAs or BLAs for products competitive with ours;
- announcements of results of clinical trials or nonclinical studies by us or third parties relating to our products, products in development or those of our competitors or of regulatory proceedings by us or our competitors;
- the timing, amount and receipt of revenue from sales of our products and margins on sales of our products;
- changes in governmental regulations;
- developments in patent rights or other proprietary rights;
- the extent to which our products are commercially successful globally;
- developments in our ongoing litigation and significant new litigation;
- developments or issues with our contract manufacturers;
- changes in our management; and
- general market conditions.

We believe that period-to-period comparisons of our financial results will not necessarily be indicative of our future performance. If our revenues in any particular period do not meet expectations, we may not be able to adjust our expenditures in that period, which could cause our operating results to suffer. If our operating results in any future period fall below the expectations of securities analysts or investors, our stock price may fall by a significant amount.

The stock markets in general, and The NASDAQ Global Select Market and the market for biopharmaceutical companies in particular, have experienced extreme price and volume fluctuations recently. These fluctuations often have been unrelated or disproportionate to the operating performance of these companies. These broad market and industry factors may adversely affect the market price of our common stock, regardless of our actual operating performance.

We are currently subject to securities class action litigation and may be subject to similar or other litigation in the future, which may divert management's attention and have a material adverse effect on our business, financial condition and results of operations.

In February 2014, a class action lawsuit was filed against us and certain of our current and former officers alleging, among other things, that we and certain of our current and former officers violated federal securities laws because we and certain current and former officers allegedly made misrepresentations or did not make proper disclosures regarding the results of clinical trials which tested the efficacy and safety of Kengreal. On February 12, 2016, the parties executed a stipulation for a proposed class settlement, subject to court approval. On February 25, 2016, the court preliminarily approved the settlement and set a final approval hearing for June 7, 2016. The class action lawsuit is described in more detail in Part I, Item 3, Legal Proceedings, of this Annual Report on Form 10-K.

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There may be additional suits or proceedings brought in the future. Monitoring and defending against legal actions, whether or not meritorious, is time-consuming for our management and detracts from our ability to fully focus our internal resources on our business activities, and we cannot predict how long it may take to resolve these matters. In addition, we may incur substantial legal fees and costs in connection with litigation. Although we have insurance, coverage could be denied or prove to be insufficient.

Our corporate governance structure, including provisions in our certificate of incorporation and by-laws and Delaware law, may prevent a change in control or management that security holders may consider desirable.

The General Corporation Law of the State of Delaware and our certificate of incorporation and by-laws contain provisions that might enable our management to resist a takeover of our company or discourage a third party from attempting to take over our company. These provisions include

- Section 203 of the Delaware General Corporation Law, which provides that we may not enter into a business combination with an interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in the manner prescribed in Section 203;
- our board of directors has the authority to issue, without a vote or action of stockholders, up to 5,000,000 shares of a new series of preferred stock and to fix the price, rights, preferences and privileges of those shares, each of which could be superior to the rights of holders of our common stock;
- our directors are elected to staggered terms, which prevents our entire board of directors from being replaced in any single year;
- our directors may be removed only for cause and then only by the affirmative vote of the holders of at least 75% of the votes which all stockholders would be entitled to cast in any annual election of directors;
- the size of our board of directors is determined by resolution of the board of directors;
- any vacancy on our board of directors, however occurring, including a vacancy resulting from an enlargement of our board, may only be filled by vote of a majority of our directors then in office, even if less than a quorum;
- only our board of directors, the chairman of the board or our president may call special meetings of stockholders;
- our by-laws may be amended, altered or repealed by (i) the affirmative vote of a majority of our directors, subject to any limitations set forth in the by-laws, or (ii) the affirmative vote of the holders of at least 75% of the votes which all the stockholders would be entitled to cast in any annual election of directors;
- stockholders must provide us with advance notice, and certain information specified in our by-laws, in connection with nominations or proposals by such stockholder for consideration at an annual meeting;
- stockholders may not take any action by written consent in lieu of a meeting; and
- our certificate of incorporation may only be amended or repealed by the affirmative vote of a majority of our directors and the affirmative vote of the holders of at least 75% of the votes which all the stockholders would be entitled to cast in any annual election of directors (and plus any separate class vote that might in the future be required pursuant to the terms of any series of preferred stock that might be outstanding at the time any of these amendments are submitted to stockholders).

These provisions could have the effect of delaying, deferring, or preventing a change in control of us or a change in our management that stockholders may consider favorable or beneficial. These provisions could also discourage proxy contests and make it more difficult for stockholders to elect directors and take other corporate actions. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock or our other securities.

Our business could be negatively affected as a result of the actions of activist shareholders.

Proxy contests have been waged against many companies in the biopharmaceutical industry over the last few years. If faced with a proxy contest, we may not be able to successfully defend against the contest, which would be disruptive to our business. Even if we are successful, our business could be adversely affected by a proxy contest because:

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- responding to proxy contests and other actions by activist shareholders may be costly and time-consuming and may disrupt our operations and divert the attention of management and our employees;

- perceived uncertainties as to our future direction may result in our inability to consummate potential acquisitions, collaborations or in-licensing opportunities and may make it more difficult to attract and retain qualified personnel and business partners; and

- if individuals are elected to our board of directors with a specific agenda different from ours, it may adversely affect our ability to effectively and timely implement our strategic plan and create additional value for our stockholders.

Item 1B. Unresolved Staff Comments.
None.

Item 2. Properties.

We lease our principal offices in Parsippany, New Jersey, U.S., which we refer to as Global Center-1. The lease for Global Center-1 covers 173,146 square feet and expires January 2024. In December 2013, we opened our Global Center-2 office in Zurich, Switzerland. The lease for Global Center-2 covers 1,651 square meters and expires November 30, 2022.

We also lease small offices and other facilities in Redwood City and San Diego, California, U.S.; Seattle, Washington, U.S.; Montreal, Canada; Milton Park, Abingdon, United Kingdom; Hong Kong; Paris, France; Rome, Italy; Vienna, Austria; Brussels, Belgium; Amsterdam, Netherlands; Madrid, Spain; Helsinki, Finland; Copenhagen, Denmark; Stockholm, Sweden; Auckland, New Zealand; and New Delhi, India.
We believe that all of our facilities are in good condition and are well maintained and that our current arrangements will be sufficient to meet our needs for the foreseeable future and that any required additional space will be available on commercially reasonable terms to meet space requirements if they arise.

Item 3. Legal Proceedings.

From time to time we are party to legal proceedings in the course of our business in addition to those described below. We do not, however, expect such other legal proceedings to have a material adverse effect on our business, financial condition or results of operations.

'727 Patent and '343 Patent Litigations

Hospira, Inc.

In July 2010, we were notified that Hospira, Inc., or Hospira, had submitted two ANDAs seeking permission to market its generic version of Angiomax prior to the expiration of the '727 patent and '343 patent. On August 19, 2010, we filed suit against Hospira in the U.S. District Court for the District of Delaware for infringement of the '727 patent and '343 patent. On August 25, 2010, the case was reassigned in lieu of a vacant judgeship to the U.S. District Court for the Eastern District of Pennsylvania. Hospira's answer denied infringement of the '727 patent and '343 patent and raised counterclaims of non-infringement and invalidity of the '727 patent and '343 patent. On September 24, 2010, we filed a reply denying the counterclaims raised by Hospira. The Hospira action was consolidated for discovery purposes with the then pending and now settled cases against Teva and APP. The case was reassigned back to the U.S. District Court for the District of Delaware. A Markman hearing was held on December 5, 2012. On July 12, 2013, the Court issued its Markman decision as to the claim construction of the '727 patent and the '343 patent. The Court's

decision varied from the other Markman decisions that we have received in our other patent infringement litigations. On July 22, 2013, we filed a motion for reconsideration of the Court's claim construction ruling on the grounds that the Court (i) impermissibly imported process limitations disclosed in a preferred embodiment into the claims, (ii) improperly transformed product claims into product-by-process claims, (iii) improperly rendered claim language superfluous and violated the doctrine of claim differentiation, and (iv) improperly construed limitations based on validity arguments that have not yet been presented. On August 22, 2013, the district court denied the motion for reconsideration. A three day bench trial was held in September 2013 and a post-trial briefing was completed in December 2013. On March 31, 2014, the Court issued its trial opinion. With respect to patent validity, the Court held that the ‘727 and ‘343 patents were valid on all grounds. Specifically, the Court found that Hospira had failed to prove that the patents were either anticipated and/or obvious. The Court further held that the patents satisfied the

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written description requirement, were enabled and were not indefinite. With respect to infringement, based on its July 2013 Markman decision, the Court found that Hospira's ANDAs did not meet the "efficient mixing" claim limitation and thus did not infringe the asserted claims of the '727 and '343 patents. The Court found that the other claim limitations in dispute were present in Hospira's ANDA products. The Court entered a final judgment on April 15, 2014. On May 9, 2014, we filed a notice of appeal to the United States Court of Appeals for the Federal Circuit. On May 23, 2014, Hospira filed a notice of cross-appeal. We filed our opening appeal brief on August 13, 2014. Hospira filed its opening appeal brief on September 26, 2014 asserting that the claim constructions and non-infringement findings were correct. Hospira also seeks to overturn the finding of patent validity. Briefing was completed in December 2014. An oral argument before the United States Court of Appeals for the Federal Circuit was held on March 6, 2015. On July 2, 2015, the Federal Circuit Court issued an opinion finding the asserted claims of the ‘727 patent and ‘343 patent invalid. The decision was based on a finding that third-party manufacturer, Ben Venue Laboratories, “sold” manufacturing services for three validation batches to us before a critical date. On July 15, 2015, Hospira received final approval for its ANDAs. On July 31, 2015, we filed with the Federal Circuit Court a combined petition for panel rehearing and rehearing en banc. On August 24, 2015, the Federal Circuit Court invited Hospira to respond to the petition. On September 8, 2015, Hospira filed a response. On November 13, 2015, the Federal Circuit Court granted our petition for rehearing en banc and vacated its earlier July 2, 2015 decision. The Federal Circuit Court set a briefing schedule, specified specific questions to be answered, instructed the DOJ to file a brief expressing the views of the United States and also invited any other amicii curiae to file briefs on the en banc issues raised. Hospira filed its opening brief on January 11, 2016. We filed our response on February 24, 2016 and Hospira's reply brief is due March 10, 2016. To date, there have been three amicus briefs filed: American Intellectual Property Law Association, Intellectual Property Owners Association and a Texas law firm, Miller Patti Pershern PLLC. The Federal Circuit Court has not yet set an oral argument date.

Mylan Pharmaceuticals, Inc.

In January 2011, we were notified that Mylan Pharmaceuticals, Inc. had submitted an ANDA seeking permission to market its generic version of Angiomax prior to the expiration of the '727 patent and '343 patent. On February 23, 2011, we filed suit against Mylan Inc., Mylan Pharmaceuticals Inc. and Bioniche Pharma USA, LLC, which we refer to collectively as Mylan, in the U.S. District Court for the Northern District of Illinois for infringement of the '727 patent and '343 patent. Mylan's answer denied infringement of the '727 patent and '343 patent and raised counterclaims of non-infringement and invalidity of the '727 patent and '343 patent. On April 13, 2011, we filed a reply denying the counterclaims raised by Mylan. On May 4, 2011, the Court set a pretrial schedule. Following a joint request, the Court issued an amended scheduling order on September 22, 2011. On November 29, 2011, Mylan moved to amend its answer to add counterclaims and affirmative defenses of inequitable conduct and unclean hands. Following motion practice, the Court granted Mylan's request to add counterclaims and affirmative defenses of inequitable conduct and to add affirmative defenses of unclean hands. On March 7, 2012, we filed a reply denying these counterclaims. A Markman hearing was held on July 30, 2012. The Court issued a Markman Order on August 6, 2012. The parties have completed fact and expert discovery. On June 21, 2013, Mylan filed a summary judgment motion of non-infringement of the ‘727 and ‘343 patents and alternatively that the ‘727 patent was invalid. The Court’s decision granted non-infringement of the ‘343 patent and denied the motion with respect to non-infringement and invalidity of the ‘727 patent. A six day trial directed to the '727 patent was completed on June 18, 2014. Post-trial briefs were filed on July 1, 2014 and July 11, 2014. On October 27, 2014, the Court issued an opinion and order finding that Mylan’s ANDA product infringes all of the asserted claims of the ‘727 patent. The Court further found that Mylan failed to prove that the same asserted claims of the ‘727 patent are invalid or unenforceable. Specifically, the Court found that Mylan failed to prove its allegations of anticipation, obviousness, non-enablement and unenforceability due to inequitable conduct. On October 28, 2014 and November 13, 2014, Mylan filed Notices of Appeal to the U.S. Court of Appeals for the Federal Circuit. On November 25, 2014, we filed a Notice of Cross Appeal of the district court’s summary judgment of noninfringement of the asserted claims of the ‘343 patent that it had issued on December 16, 2013 and the district court’s Markman Order on August 6, 2012. Appellate briefing was completed in April 2015. An oral argument

before the U.S. Court of Appeals for the Federal Circuit was scheduled for September 11, 2015. On July 29, 2015, following a Mylan motion for disposition of its appeal in view of the July 2, 2015 Hospira decision, the Federal Circuit Court granted the motion (1) reversing the district court's judgment as to the '727 patent (2) dismissing as moot our cross-appeal (3) vacating the district court's entry of an injunction, and (4) holding that each party shall bear its own costs. On August 27, 2015, we filed a petition for panel rehearing. Following the November 13, 2015 decision granting our en banc hearing request in the Hospira appeal and vacating the July 2, 2015 decision, we moved to vacate the Federal Circuit's July 29, 2015 Order terminating the Mylan appeal. Following briefing, the Federal Circuit granted our motion and reopened the appeal, vacated its July 29 Order and then stayed the Mylan appeal pending resolution of the Hospira appeal.

Dr. Reddy's Laboratories, Inc.

In March 2011, we were notified that Dr. Reddy's Laboratories, Ltd. and Dr. Reddy's Laboratories, Inc. had submitted an ANDA seeking permission to market its generic version of Angiomax prior to the expiration of the '727 and '343 patents. On April 28, 2011, we filed suit against Dr. Reddy's Laboratories, Ltd., Dr. Reddy's Laboratories, Inc. and Gland Pharma, Inc., which we refer

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to collectively as Dr. Reddy's, in the U.S. District Court for the District of New Jersey for infringement of the '727 patent and '343 patent. Dr. Reddy's answer denied infringement of the '727 patent and '343 patent and raised counterclaims of non-infringement and invalidity of the '727 patent and '343 patent. On May 11, 2012, Dr. Reddy's filed a motion for summary judgment. On October 2, 2012, the Court held oral argument on Dr. Reddy's summary judgment motion and conducted a Markman hearing. On October 15, 2012, the Court denied Dr. Reddy's summary judgment motion. A Markman decision was issued by the Court on January 2, 2013. On January 25, 2013, Dr. Reddy's filed a second summary judgment motion this time for non-infringement. At the direction of the Court, on May 13, 2013, the motion was withdrawn by Dr. Reddy’s. We have pending motions seeking further fact discovery of Dr. Reddy’s. The parties have yet to enter the expert phase of the case. On May 12, 2015 the Court issued a Stipulation and Order staying the case as Dr. Reddy's had yet to respond to an FDA Complete Response Letter dated December 7, 2012. The parties are to inform the Court when Dr. Reddy's submits its response to the FDA and then within 14 days provide a schedule to complete fact and expert discovery in the case.

Sun Pharmaceutical Industries LTD

In October 2011, we were notified that Sun Pharmaceutical Industries LTD had submitted an ANDA seeking permission to market its generic version of Angiomax prior to the expiration of the '727 and '343 patents. On November 21, 2011, we filed suit against Sun Pharma Global FZE, Sun Pharmaceutical Industries LTD., Sun Pharmaceutical Industries Inc., and Caraco Pharmaceutical Laboratories, LTD., which we refer to collectively as Sun, in the U.S. District Court for the District of New Jersey for infringement of the '727 patent and '343 patent. The case has been assigned to the same judge and magistrate judge as the Dr. Reddy's action. Sun's answer denied infringement of the '727 patent and '343 patent. On June 7, 2012, the Court held an initial case scheduling conference. The parties proceeded with fact discovery. Following a December 20, 2013 status conference, the parties began discussing a stay in the case. Following further conferences with the Court a stipulation to stay the case was submitted and subsequently entered by the Court on April 1, 2014. Following settlement discussions, the case was settled and a final judgment finding the ‘727 and ‘343 patents valid, enforceable and infringed by Sun’s ANDA product was entered by the Court on March 27, 2015. In connection with the Sun settlement, we entered into a license agreement with Sun under which we granted Sun a non-exclusive license under the '727 patent and '343 patent to sell a generic bivalirudin for injection product under Sun's ANDA in the United States beginning on June 30, 2019 or earlier in certain circumstances. The settlement documents were submitted to the U.S. Federal Trade Commission and U.S. Department of Justice in March 2015.

Apotex Inc.

In March 2013, we were notified that Apotex Inc. had submitted an ANDA seeking permission to market its generic version of Angiomax prior to the expiration of the '727 and '343 patents. On May 1, 2013, we filed suit against Apotex Inc. and Apotex Corp., which we refer to collectively as Apotex, in the U.S. District Court for the District of New Jersey for infringement of the '727 and '343 patents. The case has been assigned to the same judge and magistrate judge as the Dr. Reddy's and Sun actions. Apotex filed its answer on July 19, 2013 and raised counterclaims of non-infringement and invalidity. A scheduling conference before the magistrate judge was held on December 16, 2013. Following a subsequent conference on April 15, 2014 and further directions from the Court to resubmit a discovery schedule, the Court entered a revised discovery schedule on July 17, 2014. A Markman hearing commenced on January 22, 2015 and was completed on March 3, 2015. Following the July 2, 2015 Hospira decision, the parties requested and the Court entered an order staying the case until the Federal Circuit Court issues a mandate in the Hospira appeal.

Exela Pharma Sciences, LLC

In March 2014, we were notified that Exela Pharma Sciences, LLC, had submitted an ANDA seeking permission to market its generic version of Angiomax prior to the expiration of the '727 and '343 patents. On April 25, 2014, we filed suit against Exela Pharma Sciences, LLC, Exela PharmSci, Inc. and Exela Holdings, Inc., which we collectively refer to as Exela, in the U.S. District Court for the Western District of North Carolina for infringement of the '727 and '343 patents. Exela filed its answer on June 3, 2014 and raised counterclaims of non-infringement, invalidity and unenforceability due to inequitable conduct. We filed a reply on July 11, 2014. The parties have conducted a Rule 26 conference. The Court has set a pretrial schedule through a June 2015 Markman hearing. On November 4, 2014, Exela filed a motion for judgment on the pleadings based on noninfringement. The motion was fully briefed on December 23, 2014. Claim construction discovery was under way. Following the July 2, 2015 Hospira decision, the parties requested and the court entered an order staying the case until the Federal Circuit Court issues a mandate in the Hospira appeal. On January 29, 2016, even though no mandate from the Hospira appeal has issued, Exela filed a motion to lift the stay and resume claim construction proceedings and other pretrial matters. On February 29, 2016, the court denied Exela's motion to lift the stay on the case.

Accord Healthcare Inc., USA

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In June 2014, we were notified that Accord Healthcare Inc., or Accord, had submitted an ANDA seeking permission to market its generic version of Angiomax prior to the expiration of the '727 and '343 patents. On July 24, 2014, we filed suit against Accord and its parent, Intas Pharmaceuticals Ltd., or Intas, in the U.S. District Court for the Middle District of North Carolina for infringement of the '727 patent and '343 patent. On September 26, 2014, Accord and Intas filed an answer denying infringement and asserting that the ‘727 and ‘343 patents are invalid. The parties have conducted a Rule 26 conference. The Court has set February 17, 2016 for the close of all discovery and October 3, 2016 as a trial date. Following the July 2, 2015 Hospira decision, the parties requested and the Court entered an order staying the case until the Federal Circuit Court issues a mandate in the Hospira appeal.

Aurobindo Pharma Limited

In March 2014, we were notified that Aurobindo Pharma Limited had submitted an ANDA seeking permission to market its generic version of Angiomax prior to the expiration of the '727 and '343 patents. On April 11, 2014, we filed suit against Aurobindo Pharma Limited and Aurobindo Pharma USA, Inc., which we refer to collectively as Aurobindo, in the U.S. District Court for the District of New Jersey for infringement of the '727 and '343 patents. The case has been assigned to the same judge and magistrate judge as the Dr. Reddy's, Sun and Apotex actions. Aurobindo filed its answer on July 3, 2014 and raised counterclaims of non-infringement and invalidity. A scheduling conference before the magistrate judge was held on November 20, 2014. The parties engaged in fact discovery and claim construction exchanges. On April 6, 2015, the Court entered a revised fact and expert discovery schedule. Thereafter, the parties proposed a stay of the case pending a decision in the above-referenced Hospira appeal to the Court, which the Court entered on April 15, 2015. Following the July 2, 2015 Hospira decision, the Court was informed of the decision and the parties requested the present stay to remain in effect until Federal Circuit Court issues a mandate in the Hospira appeal. The Court entered this request on July 20, 2015.

Sagent Pharmaceuticals Inc.

In July 2015, we were notified that Sagent Pharmaceuticals Inc., or Sagent, had submitted an ANDA seeking permission to market its generic version of Angiomax prior to the expiration of the ‘727 patent and ‘343 patent. On August 26, 2015, we filed suit against Sagent in the U.S. District Court for the Northern District of Illinois for infringement of the ‘727 patent and ‘343 patent. Sagent filed its answer on November 30, 2015 and raised counterclaims of non-infringement and invalidity. We filed a reply on December 22, 2015. A scheduling conference was held on January 21, 2016. The case has been stayed pending resolution of the Hospira en banc appeal. A further status conference is scheduled for April 5, 2016.

Class Action Litigation

On February 21, 2014, a class action lawsuit was filed against us and certain of our current and former officers in the United States District Court for the District of New Jersey by David Serr on behalf of stockholders who purchased or otherwise acquired our common stock between February 20, 2013 through February 12, 2014, which we refer to as the class period. On July 22, 2014, the Court entered an order appointing one of our stockholders, Warren H. Schuler, the lead plaintiff and Pomerantz LLP the lead counsel. Plaintiffs filed an amended complaint on September 17, 2014, which asserts claims under Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder, including allegations that our stock was artificially inflated during the class period because we and certain current and former officers allegedly made misrepresentations or did not make proper disclosures regarding the results of clinical trials, which tested the efficacy and safety of cangrelor. Specifically, the amended complaint alleges that statements made throughout the class period about the trials were misleading because they failed to disclose that cangrelor did not show superiority to the drug clopidogrel, that the clinical trials were unethically and inappropriately administered, that clopidogrel was not administered optimally, and that cangrelor patients exhibited higher bleeding rates. The amended complaint seeks, among other relief, class certification of the lawsuit, unspecified damages, interest,

attorneys' fees, expert fees and other costs. On November 17, 2014, we and certain of our current and former officers moved to dismiss the amended complaint. Plaintiffs filed an opposition to the motion to dismiss on December 19, 2014 and we filed a reply brief in further support of the motion on January 16, 2015. Briefing is now complete. On July 16, 2015, the court heard oral argument on the motion, which remains under consideration by the court. On February 12, 2016, the parties executed a stipulation for a proposed class settlement, subject to court approval. On February 25, 2016, the court preliminarily approved the settlement and set a final approval hearing for June 7, 2016.

Biogen Idec Litigation

On September 15, 2015, Biogen Idec, notified us that after completing an audit of our books and records for the fourth quarter of 2014, Biogen Idec believes it is owed additional royalties relating to Angiomax under our license agreement with Biogen Idec. On September 23, 2015, we filed suit against Biogen Idec in the United States District Court for the District of New Jersey seeking, inter alia, declaratory judgments that we have satisfied our obligations under the license agreement. On November 12, 2015,

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Biogen Idec answered the complaint denying our claims and asserting counterclaims for breach of contract. The parties are currently engaged in fact discovery and a trial date has not been set by the court. We believe we will prevail in this suit, however, there can be no assurance that we will be successful. An adverse resolution could have a material adverse effect on our business, financial condition or results of operations.

Eagle Litigation

On February 2, 2016, we filed suit against Eagle, SciDose LLC and TherDose Pharma Pvt. Ltd. for infringement of U.S. Patent Nos. 7,713,928, or the ’928 patent, and 7,803,762, or the ’762 patent, by Eagle’s New Drug Application No. 208298 for ready-to-use bivalirudin. In the lawsuit, we assert that the ‘928 and ‘762 patents are co-owned by us and Eagle and are exclusively licensed to us. The complaint also seeks a declaration that we are an owner and exclusive licensee of U.S. Patent Application No. 14/711,359 pursuant to the parties’ License and Development Agreement, which Eagle represents covers the product described in its NDA No. 208298. As of February 26, 2016, Eagle, SciDose and TherDose have not answered the complaint.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Our common stock trades on The NASDAQ Global Select Market under the symbol “MDCO”. The following table reflects the range of the high and low sale price per share of our common stock, as reported on The NASDAQ Global Select Market for the periods indicated. These prices reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not necessarily represent actual transactions.

	Common Stock Price	
	High	Low
Year Ended December 31, 2014		
First Quarter	$41.28	$27.14
Second Quarter	$29.75	$23.53
Third Quarter	$29.82	$22.31
Fourth Quarter	$28.03	$19.92
Year Ended December 31, 2015		
First Quarter	$32.44	$23.32
Second Quarter	$33.64	$25.27
Third Quarter	$43.79	$25.38
Fourth Quarter	$43.00	$31.07

American Stock Transfer & Trust Company is the transfer agent and registrar for our common stock. As of the close of business on February 24, 2016, we had 163 holders of record of our common stock.

Dividends

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.

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Performance Graph

The graph below matches our cumulative five-year total return on common equity with the cumulative total returns of The NASDAQ Composite Index and The NASDAQ Biotechnology Index. The graph tracks the performance of a $100 investment in our common stock and in each of the indexes (with the reinvestment of all dividends) from December 31, 2010 to December 31, 2015. The stock price performance included in this graph is not necessarily indicative of future stock price performance.

	12/10*	12/11*	12/12*	12/13*	12/14*	12/15*
The Medicines Company	100.00	131.92	169.64	273.32	195.82	264.26
NASDAQ Composite	100.00	100.53	116.92	166.19	188.78	199.95
NASDAQ Biotechnology	100.00	113.92	153.97	263.29	348.49	369.06

* Fiscal year ended December 31.

This performance graph shall not be deemed “filed” for purposes of Section 18 of the Exchange Act, or incorporated by reference into any of our filings under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

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Item 6. Selected Financial Data.

In the table below, we provide you with our selected consolidated financial data for the periods presented. We have prepared this information using our audited consolidated financial statements for the years ended December 31, 2015, 2014, 2013, 2012, and 2011. We have made certain reclassifications to the selected financial data associated with our presentation of the hemostasis business as discontinued operations. Refer to Note 23 "Discontinued Operations," in Appendix A to this Annual Report on Form 10-K.

You should read the following selected consolidated financial data in conjunction with our consolidated financial statements and related notes included in this Annual Report on Form 10-K and “Item 7 — Management’s Discussion and Analysis of Financial Condition and Results of Operations” of this Annual Report on Form 10-K.

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	Year Ended December 31,				
	2015	2014	2013	2012	2011
	(In thousands, except per share data)				
Statements of Operations Data					
Net product revenues	$255,148	$659,690	$624,608	$558,588	$484,732
Royalty revenues	53,859	—	—	—	—
Total net revenues	309,007	659,690	624,608	558,588	484,732
Operating expenses:					
Cost of product revenue	119,931	233,330	216,636	177,339	156,866
Research and development	123,606	139,512	138,260	126,423	110,180
Selling, general and administrative	337,943	314,954	247,823	171,753	159,617
Total operating expenses	581,480	687,796	602,719	475,515	426,663
(Loss) income from operations	(272,473)	(28,106)	21,889	83,073	58,069
Legal settlement	5,000	25,736	—	—	17,984
Co-promotion and license income	10,132	24,236	17,383	10,000	—
Gain on remeasurement of equity investment	22,741	—	—	—	—
Gain on sale of investment	19,773	—	—	—	—
Loss in equity investment	(144)	(1,711)	—	—	—
Interest expense	(37,092)	(15,701)	(15,531)	(8,005)	—
Investment impairment	—	(7,500)	—	—	—
Other income	400	918	1,420	1,140	1,790
(Loss) income from continuing operations before income taxes	(251,663)	(2,128)	25,161	86,208	77,843
Benefit (provision) for income taxes	29,743	2,309	(2,273)	(35,038)	50,034
Net (loss) income from continuing operations	(221,920)	181	22,888	51,170	127,877
Loss from discontinued operations, net of tax	(130,826)	(32,529)	(7,628)	—	—
Net (loss) income	(352,746)	(32,348)	15,260	51,170	127,877
Net (income) loss attributable to non-controlling interest	(10)	138	252	84	—
Net (loss) income attributable to The Medicines Company	$(352,756)	$(32,210)	$15,512	$51,254	$127,877
Basic (loss) earnings per common share attributable to The Medicines Company:					
(Loss) earnings from continuing operations	$(3.32)	$—	$0.40	$0.96	$2.39
Loss from discontinued operations	(1.96)	(0.50)	(0.13)	—	—
Basic (loss) earnings per share	$(5.28)	$(0.50)	$0.27	$0.96	$2.39
Diluted (loss) earnings per common share attributable to The Medicines Company:					
(Loss) earnings from continuing operations	$(3.32)	$—	$0.37	$0.93	$2.35
Loss from discontinued operations	$(1.96)	(0.49)	(0.12)	—	—
Diluted (loss) earnings per share	$(5.28)	$(0.49)	$0.25	$0.93	$2.35
Shares used in computing basic (loss) earnings per common share	66,809	64,473	58,096	53,545	53,496
Shares used in computing diluted (loss) earnings per common share	66,809	66,668	62,652	55,346	54,407

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	As of December 31,				
	2015	2014	2013	2012	2011
	(In thousands)				
Balance Sheet Data					
Cash and cash equivalents, available for sale securities and accrued interest receivable	$373,173	370,741	376,727	$570,669	$340,886
Working capital	296,232	220,071	417,188	621,169	327,088
Total assets	1,806,951	1,885,705	1,741,282	972,182	692,647
Long-term liabilities	521,403	561,791	674,868	250,754	26,370
Accumulated deficit	(429,865)	(77,109)	(44,899)	(60,411)	(111,665)
Total stockholders' equity	731,774	920,091	892,161	586,222	511,642

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Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

You should read the following discussion and analysis of our financial condition and results of operations together with "Selected Consolidated Financial Data" and our financial statements and accompanying notes included elsewhere in this Annual Report on Form 10-K. In addition to the historical information, the discussion in this Annual Report on Form 10-K contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated by the forward-looking statements due to our critical accounting estimates discussed below and important factors set forth in this Annual Report on Form 10-K, including under "Risk Factors" in Item 1A of this Annual Report on Form 10-K.

Overview

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 ANDAs for its generic versions of bivalirudin were approved by the FDA 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 PreveLeak, Raplixa and Recothrom. On February 1, 2016, we completed the sale of PreveLeak, Raplixa and Recothrom to wholly owned

subsidiaries of Mallinckrodt plc, or Mallinckrodt. At the completion of the sale, we received approximately $174.1 million in cash, and may receive up to an additional $235.0 million in the aggregate following the achievement of certain specified calendar year net sales milestones with respect to net sales of PreveLeak and Raplixa. As a result of the transaction, we are accounting for the assets and liabilities of the hemostasis business to be sold as held for sale. As a result of the classification as held for sale, we recorded impairment charges of $133.3 million, including $24.5 million related to goodwill, to reduce the hemostasis business disposal group's carrying value to its estimated fair value, less costs to sell.

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 are described in more detail in Part I, Item 1. Business of this Annual Report on Form 10-K. In addition, each of our acute care generic products and the therapeutic areas which they are intended to address are described in Part I, Item 1. Business of this Annual Report on Form 10-K.

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Our revenues to date have been generated primarily from sales of Angiomax in the United States. In 2015, we had net product revenue from sales of Angiomax of approximately $212.0 million and aggregate net revenue from sales of Cleviprex, Minocin IV, Orbactiv, ready-to-use Argatroban, Kengreal and Ionsys of approximately $43.2 million. During this period, net product revenue 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 revenue related to the authorized generic sales of Angiomax (bivalirudin) in 2015. We expect that net revenue 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.

Cost of revenue represents expenses in connection with contract manufacture of our products sold and logistics, product costs, royalty expenses and amortization of the costs of license agreements, amortization and impairments of product rights and other identifiable intangible assets from product and business acquisitions and expenses related to excess inventory. Research and development expenses represent costs incurred for licenses of rights to products, clinical trials, nonclinical and preclinical studies, regulatory filings and manufacturing development efforts. We outsource much of our clinical trials, nonclinical and preclinical studies and all of our manufacturing development activities to third parties to maximize efficiency and minimize our internal overhead. We expense our research and development costs as they are incurred. Selling, general and administrative expenses consist primarily of salaries and related expenses, costs associated with general corporate activities, changes in fair value of contingent purchase price obligations related to our acquisitions, and costs associated with marketing and promotional activities. Research and development expense, selling, general and administrative expense and cost of revenue also include share-based compensation expense, which we allocate based on the responsibilities of the recipients of the share-based compensation.

Angiomax Patent Litigation

The principal U.S. patents covering Angiomax include U.S. Patent No. 5,196,404, or the '404 patent, the '727 patent, and the '343 patent.

In the second half of 2009, the U.S. Patent and Trademark Office, or PTO, issued to us the '727 patent and the '343 patent, covering a more consistent and improved Angiomax drug product and the processes by which it is made. The '727 patent and the '343 patent are set to expire in July 2028. In response to Paragraph IV Certification Notice letters we received with respect to abbreviated new drug applications, or ANDAs, filed by a number of parties with the FDA seeking approval to market generic versions of Angiomax, we have filed lawsuits against the ANDA filers alleging patent infringement of the '727 patent and '343 patent.

In September 2011, we settled our '727 patent and '343 patent infringement litigation with Teva Pharmaceuticals USA, Inc. and its affiliates, which we collectively refer to as Teva. In connection with the Teva settlement we entered into a license agreement with Teva under which we granted Teva a non-exclusive license under the '727 patent and '343 patent to sell a generic bivalirudin for injection product under a Teva ANDA in the United States beginning June 30, 2019 or earlier under certain conditions.

In January 2012, we settled our patent infringement litigation with APP. In connection with the APP settlement, we entered into a license agreement with APP under which we granted APP a non-exclusive license under the '727 patent and '343 patent to sell a generic bivalirudin for injection product under an APP ANDA in the United States beginning on May 1, 2019. In certain limited circumstances, the license to APP could include the right to sell a generic bivalirudin product under our new drug application, or NDA, for Angiomax in the United States beginning on May 1, 2019 or, in certain limited circumstances, on June 30, 2019 or on a date prior to May 1, 2019.

On July 12, 2013, the U.S. District Court for the District of Delaware in our patent infringement litigation with Hospira issued its Markman decision as to the claim construction of the ‘727 patent and the ‘343 patent. The district court’s decision varied from the other Markman decisions that we have received in our other patent infringement litigations. On July 22, 2013, we filed a motion for reconsideration of the district court’s claim construction ruling on the grounds that the district court (i) impermissibly imported process limitations disclosed in a preferred embodiment into the claims, (ii) improperly transformed product claims into product by process claims, (iii) improperly rendered claim language superfluous and violated the doctrine of claim differentiation, and (iv) improperly construed limitations based on validity arguments that have not yet been presented. On August 22, 2013, the district court denied the motion for reconsideration. A three day bench trial was held in September 2013 and a post trial briefing was completed in December 2013. On March 31, 2014, the district court issued its trial opinion. With respect to patent validity, the district court held that the ‘727 and ‘343 patents were valid on all grounds. Specifically, the district court found that Hospira had failed to prove that the patents were either anticipated and/or obvious. The district court further held that the patents satisfied the written description requirement, were enabled and were not indefinite. With respect to infringement, based on its July 2013 Markman decision, the district court found that Hospira’s ANDAs did not meet the “efficient mixing” claim limitation and

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thus did not infringe the asserted claims of the ‘727 and ‘343 patents. The district court found that the other claim limitations in dispute were present in Hospira’s ANDA products. The district court entered a final judgment on April 15, 2014. On May 9, 2014, we filed a Notice of Appeal to the United States Court of Appeals for the Federal Circuit. On May 23, 2014, Hospira filed a notice of cross appeal. We filed our opening appeal brief on August 13, 2014. Hospira filed its opening appeal brief on September 26, 2014 asserting that the claim constructions and noninfringement findings were correct. Hospira also seeks to overturn the finding of patent validity. Briefing was completed in December 2014. An oral argument before the United States Court of Appeals for the Federal Circuit was held on March 6, 2015. On July 2, 2015, the Federal Circuit Court issued an opinion finding the asserted claims of the ‘727 patent and ‘343 patent invalid. The decision was based on a finding that third-party manufacturer, Ben Venue Laboratories, “sold” manufacturing services for three validation batches to us before a critical date. On July 15, 2015, Hospira received final approval for its ANDAs. On July 31, 2015, we filed with the Federal Circuit Court a combined petition for panel rehearing and rehearing en banc. On August 24, 2015, the Federal Circuit Court invited Hospira to respond to the petition. On September 8, 2015, Hospira filed a response. On November 13, 2015, the Federal Circuit Court granted our petition for rehearing en banc and vacated its earlier July 2, 2015 decision. The Federal Circuit Court set a briefing schedule, specified specific questions to be answered, instructed the United States Department of Justice to file a brief expressing the views of the United States and also invited any other amicii curiae to file briefs on the en banc issues raised. Hospira filed its opening brief on January 11, 2016. We filed our response on February 24, 2016 and Hospira's reply brief is due March 10, 2016. To date, there have been three amicus briefs filed: American Intellectual Property Law Association, Intellectual Property Owners Association and a Texas law firm, Miller Patti Pershern PLLC. The Federal Circuit Court has not yet set an oral argument date.

In our patent infringement litigation with Mylan, we completed a six day trial directed to the validity and infringement of the ‘727 patent in June 2014. On October 27, 2014, the U.S. District Court for the Northern District of Illinois issued an opinion and order finding that Mylan’s ANDA product infringes all of the asserted claims of the ‘727 patent. The district court further found that Mylan failed to prove that the same asserted claims of the ‘727 patent are invalid or unenforceable. Specifically, the district court found that Mylan failed to prove its allegations of anticipation, obviousness, non enablement and unenforceability due to inequitable conduct. On October 28, 2014 and November 13, 2014, Mylan filed Notices of Appeal to the U.S. Court of Appeals for the Federal Circuit. On November 25, 2014, we filed a Notice of Cross Appeal of the district court’s summary judgment of noninfringement of the asserted claims of the ‘343 patent that it had issued on December 16, 2013 and the district court’s Markman Order on August 6, 2012. Appellate briefing was completed in April 2015. An oral argument before the U.S. Court of Appeals for the Federal Circuit was scheduled for September 11, 2015. On July 29, 2015, following a Mylan motion for disposition of its appeal in view of the July 2, 2015 Hospira decision, the Federal Circuit Court granted the motion (1) reversing the district court’s judgment as to the ‘727 patent (2) dismissing as moot our cross-appeal (3) vacating the district court’s entry of an injunction, and (4) holding that each party shall bear its own costs. On August 27, 2015, we filed a petition for panel rehearing. Following the November 13, 2015 decision granting our en banc hearing request in the Hospira appeal and vacating the July 2, 2015 decision, we moved to vacate the Federal Circuit Court's July 29, 2015 Order terminating the Mylan appeal. Following briefing, the Federal Circuit Court granted our motion and reopened the appeal, vacated its July 29 Order and then stayed the Mylan appeal pending resolution of the Hospira appeal.

We remain in infringement litigation involving the '727 patent and '343 patent with the other ANDA filers, as described in Part I, Item 3. Legal Proceedings, of this Annual Report on Form 10-K. There can be no assurance as to the outcome of our infringement litigation.

We expect to incur substantial legal expenses related to these matters.

Business Development Activity

Sale of Hemostasis Business. On February 1, 2016, we completed the sale of our hemostasis business, consisting of PreveLeak, Raplixa and Recothrom products, to wholly owned subsidiaries of Mallinckrodt plc, or Mallinckrodt. Under the terms of the purchase and sale agreement, Mallinckrodt acquired all of the outstanding equity of Tenaxis Medical, Inc. and ProFibrix B.V. and assets exclusively related to the Recothrom product. Mallinckrodt assumed all liabilities arising out of Mallinckrodt's operation of the businesses and the acquired assets after closing, including all obligations with respect to milestones relating to the PreveLeak and Raplixa products. At the completion of the sale, we received approximately $174.1 million in cash from Mallinckrodt, and may receive up to an additional $235.0 million in the aggregate following the achievement of certain specified calendar year net sales milestones with respect to net sales of PreveLeak and Raplixa. The amount paid at closing is subject to a post-closing purchase price adjustment process with respect to the Recothrom inventory and the net working capital of the hemostasis business as of the date of the closing. As a result of the transaction we are accounting for the assets and liabilities of the hemostasis business to be sold as held for sale. As a result of the classification as held for sale, we recorded impairment charges of $133.3 million, including $24.5 million related to goodwill, to reduce the hemostasis business disposal group’s carrying value to its estimated fair value, less costs to sell.

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Annovation BioPharma, Inc. In February 2015, we completed the acquisition of Annovation BioPharma, Inc., or Annovation, and Annovation became our wholly owned subsidiary. As a result of the acquisition of Annovation, we acquired ABP-700, a novel intravenous anesthetic. Under the terms of the acquisition agreement, we paid to the holders of Annovation's capital stock and the holders of options to purchase shares of Annovation's capital stock, which we refer to collectively as the Annovation equityholders, an aggregate of approximately $28.4 million in cash. In addition, we may be required to pay Annovation equityholders up to an additional $26.3 million in milestone payments subsequent to the closing if we achieve certain development and regulatory approval milestones at the times and on the conditions set forth in the acquisition agreement. We have also agreed to pay Annovation equityholders a low single digit percentage of worldwide net sales, if any, of certain Annovation products, including ABP-700, during a specified earnout period. In addition, as a result of our acquisition of Annovation, we, through our subsidiary Annovation, are a party to a license agreement with The General Hospital Corporation. Under the agreement, we will be obligated to pay General Hospital Corporation up to an aggregate of $6.5 million upon achievement of specified development, regulatory and sales milestones. We will also be obligated to pay General Hospital Corporation low single-digit percentage royalties on a product-by-product and country-by-country basis based on net sales of ABP-700 products until the later of the duration of the licensed patent rights which are necessary to manufacture, use or sell ABP-700 products in a country and the date ten years from our first commercial sale of ABP-700 products in such country.

Promus PREMIER Stent System Co-Promotion. In December 2013, we entered into a co-promotion agreement with Boston Scientific Corporation, or BSX, for the Promus PREMIER Everolimus-Eluting Platinum Chromium Coronary Stent System, or Promus PREMIER Stent System, to provide promotional support for the Promus PREMIER Stent System in U.S. hospitals. For the year ended December 31, 2014, we recognized $5.0 million in co-promotion income from BSX. Effective December 31, 2014, our co-promotion agreement with BSX was terminated and we ceased to co-promote the Promus PREMIER Stent System.

Rempex Pharmaceuticals, Inc. In December 2013, we acquired Rempex Pharmaceuticals, Inc., or Rempex, and Rempex became our wholly-owned subsidiary. As a result of the transaction, we acquired Rempex's marketed product, Minocin IV, a broad-spectrum tetracycline antibiotic, and Rempex's portfolio of product candidates, including RPX-602, a proprietary reformulation of Minocin IV utilizing magnesium sulfate, Carbavance, an investigational agent that is a combination of vaborbactam, a proprietary, novel beta-lactamase inhibitor, with a carbapenem, and Rempex's other product candidates.

Under the terms of the merger agreement for the acquisition, we paid to the holders of Rempex's capital stock, the holders of options to purchase shares of Rempex's capital stock and the holders of certain phantom stock units, which we collectively refer to as the Rempex equityholders, an aggregate of approximately $140.0 million in cash, plus approximately $0.3 million in purchase price adjustments.

In addition, we agreed to pay to the Rempex equityholders milestone payments subsequent to the closing, if we achieve certain development and regulatory approval milestones and commercial sales milestones with respect to Minocin IV, RPX-602, Carbavance and Rempex's other product candidates, at the times and on the conditions set forth in the merger agreement. In the event that all of the milestones set forth in the merger agreement are achieved in accordance with the terms of the merger agreement, we will pay the Rempex equityholders an additional $214.0 million in cash in the aggregate for achieving development and regulatory milestones and an additional $120.0 million in cash in the aggregate for achieving commercial milestones, in each case, less certain transaction expenses and employer taxes owing because of the milestone payments.

Pursuant to the terms of the merger agreement, as a result of certain milestone payments becoming due within eighteen months following the closing, in October 2014, we entered into an escrow agreement and deposited an aggregate of $14.0 million into an escrow fund during the fourth quarter of 2014. In June 2015, the escrow fund was

released to the Rempex equityholders.

Alnylam License Agreement. In February 2013, we entered into a license and collaboration agreement with Alnylam to develop, manufacture and commercialize therapeutic products targeting the human PCSK-9 gene based on certain of Alnylam's RNAi technology. Under the terms of the agreement, we obtained the exclusive, worldwide right under Alnylam's technology to develop, manufacture and commercialize PCSK-9 products for the treatment, palliation and/or prevention of all human diseases. We paid Alnylam $25.0 million in an initial license payment and agreed to pay up to $180.0 million in success-based development, regulatory and commercialization milestones. In addition, Alnylam will be eligible to receive scaled double-digit royalties based on annual worldwide net sales of PCSK-9 products by us or our affiliates and sublicensees. Royalties to Alnylam are payable on a product-by-product and country-by-country basis until the last to occur of the expiration of patent rights in the applicable country that cover the applicable product, the expiration of non-patent regulatory exclusivities for such product in such country, and the twelfth anniversary of the first commercial sale of the product in such country. The royalties are subject to reduction in specified circumstances. We are also responsible for paying royalties, and in some cases milestone payments, owed by Alnylam to its licensors with respect to intellectual property covering these products. Alnylam is responsible for developing the lead product through the end of the first Phase 1 clinical trial and to supply the lead product for the first Phase 1 clinical trial and the first phase 2 clinical trial. Alnylam will bear the costs for these activities, subject to certain caps on its costs. If Alnylam's development and supply costs

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exceed the applicable cap, Alnylam need not bear any additional development and supply costs except for costs directly caused by Alnylam's gross negligence and we shall have the option to assume such excess costs. We will direct and pay for all other development, manufacturing and commercialization activities under the Agreement.

Incline Therapeutics, Inc. In January 2013, we acquired Incline Therapeutics, Inc., or Incline, a company focused on the development of Ionsys, a compact, disposable, needleless patient-controlled system for the short-term management of acute postoperative pain in the hospital setting.

Under the terms of our merger agreement with Incline, we paid to Incline's equityholders and optionholders an aggregate of approximately $155.2 million in cash. In addition, we paid approximately $13.0 million to Cadence Pharmaceuticals, Inc., or Cadence, to terminate Cadence's option to acquire Incline pursuant to an agreement between Cadence and Incline and deposited an additional $18.5 million in cash into an escrow fund for the purposes of securing the indemnification obligations of the Incline equityholders to us for any and all losses for which we are entitled to indemnification pursuant to the merger agreement and to provide the source of recovery for any amounts payable to us as a result of the post-closing purchase price adjustment process. Under the merger agreement, to the extent that any amounts remained in the escrow fund after July 4, 2014 and were not subject to claims by us, such amounts were to be released to Incline's equityholders and optionholders, subject to certain conditions set forth in the merger agreement. In December 2014, we entered into a settlement and amendment to the merger agreement, which resulted in revisions to certain milestone triggers, a reduction in total potential milestone payments and the immediate release of the escrow fund to us.

Under the terms of our agreement with Incline, as amended, we agreed to pay up to $189.3 million in cash in the aggregate, less certain related expenses, to Incline's former equityholders and optionholders and up to $115.5 million in additional payments to other third parties.

Collaboration with AstraZeneca LP. On April 25, 2012, we entered into a global collaboration agreement with AstraZeneca LP, or AstraZeneca, pursuant to which we and AstraZeneca agreed to collaborate globally to develop and commercialize certain acute ischemic heart disease compounds. For the year ended December 31, 2014, AstraZeneca LP paid us $16.0 million under the agreement. Effective December 31, 2014, our global collaboration agreement with AstraZeneca LP was terminated and we ceased to co-promote AstraZeneca LP's BRILINTA.

Targanta Therapeutics Corporation. In February 2009, we acquired Targanta Therapeutics Corporation, or Targanta, a biopharmaceutical company focused on developing and commercializing innovative antibiotics to treat serious infections in the hospital and other institutional settings.

Under the terms of our agreement with Targanta, we paid Targanta shareholders an aggregate of approximately $42.0 million in cash at closing. In addition, we originally agreed to pay contingent cash payments up to an additional $90.4 million in the aggregate. This amount has been reduced to $49.4 million as certain milestones have not been achieved by specified dates. We will owe $49.4 million if aggregate net sales of Orbactiv in four consecutive calendar quarters ending on or before December 31, 2021 reach or exceed $400 million, and up to an additional $40.0 million in additional payments to other third parties.

BARDA Agreement

In February 2014, our subsidiary Rempex entered into an agreement with the Biomedical Advanced Research and Development Authority, or BARDA, of the U.S. Department of Health and Human Services, under which Rempex has the potential to receive up to $89.8 million in funding to support the development of Carbavance. The BARDA agreement is a cost-sharing arrangement that consists of an initial base period and seven option periods that BARDA may exercise in its sole discretion pursuant to the BARDA agreement. The BARDA agreement provides for an initial commitment by BARDA of an aggregate of $19.8 million for the initial base period and the first option period, and up to an additional $70.0 million if the remaining six option periods are exercised by BARDA. In October 2014, BARDA exercised the second option, increasing BARDA's total commitment to $37.8 million. In September 2015, BARDA exercised the third option, increasing BARDA's total commitment to $53.8 million. Under the cost-sharing arrangement, Rempex will be responsible for a designated portion of the costs associated with each period of work. If

all option periods are exercised by BARDA, the estimated period of performance would be extended until approximately July 31, 2019. BARDA is entitled to terminate the agreement, including the projects under the BARDA agreement for convenience, in whole or in part, at any time and is not obligated to provide continued funding beyond current year amounts from Congressionally approved annual appropriations. We expect to use the total award under the BARDA agreement to support non-clinical development activities, clinical studies, manufacturing and associated regulatory activities designed to obtain marketing approval of Carbavance in the United States for treatment of serious gram-negative infections. The BARDA agreement also covers initial non-clinical studies to assess the potential usefulness of Carbavance for treatment of certain gram-negative bioterrorism agents. Under the terms of our agreement with Rempex, we agreed to pay Rempex equityholders on a quarterly basis, as part of our development milestones, a specified percentage of amounts actually received by us from BARDA. We recorded approximately $22.5 million

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and $9.5 million of reimbursements by the government as a reduction of research and development expenses for the years ended December 31, 2015 and 2014, respectively.

Convertible Senior Note Offerings

2022 Notes

On January 13, 2015, we completed our private offering of $400.0 million aggregate principal amount of our 2.50% convertible senior notes due 2022, or the 2022 notes, and entered into an indenture with Wells Fargo Bank, National Association, a national banking association, as trustee, governing the 2022 notes. The aggregate principal amount of 2022 notes sold reflects the exercise in full by the initial purchasers of the 2022 notes of their option to purchase up to an additional $50.0 million in aggregate principal amount of the 2022 notes. The net proceeds from the offering were $387.2 million, after deducting the initial purchasers' discounts and commissions and our offering expenses.

The 2022 notes bear cash interest at a rate of 2.50% per year, payable semi-annually on January 15 and July 15 of each year, beginning on July 15, 2015. The 2022 notes will mature on January 15, 2022. The 2022 notes do not contain any financial or operating covenants or any restrictions on the payment of dividends, incurrence of other indebtedness, or issuance or repurchase of securities by us.

Holders may convert their 2022 notes at their option at any time prior to the close of business on the business day immediately preceding October 15, 2021 only under the following circumstances: (1) during any calendar quarter commencing on or after March 31, 2015 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (2) during the five business day period after any five consecutive trading day period, or measurement period, in which the trading price, as defined in the indenture governing the 2022 notes, per $1,000 principal amount of 2022 notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate on each such trading day; (3) during any period after we have issued notice of redemption until the close of business on the scheduled trading day immediately preceding the relevant redemption date; or (4) upon the occurrence of specified corporate events. On or after October 15, 2021, until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their 2022 notes at any time, regardless of the foregoing circumstances. Upon conversion, we will pay cash up to the aggregate principal amount of the 2022 notes to be converted and deliver shares of our common stock in respect of the remainder, if any, of its conversion obligation in excess of the aggregate principal amount of 2022 notes being converted, subject to a daily share cap, as described in the indenture governing the 2022 notes. Holders of 2022 notes will not receive any additional cash payment or additional shares representing accrued and unpaid interest, if any, upon conversion of a note, except in limited circumstances. Instead, accrued but unpaid interest will be deemed to be paid by the cash and shares, if any, of our common stock, together with any cash payment for any fractional share, paid or delivered, as the case may be, upon conversion of a 2022 note.

The conversion rate for the 2022 notes was initially, and remains, 29.8806 shares of our common stock per $1,000 principal amount of the 2022 notes, which is equivalent to an initial conversion price of approximately $33.47 per share of our common stock. The conversion rate and the conversion price are subject to customary adjustments for certain events, including, but not limited to, the issuance of certain stock dividends on our common stock, the issuance of certain rights or warrants, subdivisions, combinations, distributions of capital stock, indebtedness, or assets, cash dividends and certain issuer tender or exchange offers, as described in the indenture governing the 2022 notes.

We may not redeem the 2022 notes prior to January 15, 2019. We may redeem for cash all or any portion of the 2022 notes, at our option, on or after January 15, 2019 if the last reported sale price of our common stock has been at least 130% of the conversion price then in effect on the last trading day of, and for at least 19 other trading days (whether or not consecutive) during, any 30 consecutive trading day period ending on, and including, the trading day immediately

preceding the date on which we provides notice of redemption, at a redemption price equal to 100% of the principal amount of the 2022 notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. No sinking fund is provided for the 2022 notes, which means that we are not required to redeem or retire the 2022 notes periodically.

If we undergo a fundamental change, as defined in the indenture governing the 2022 notes, subject to certain conditions, holders of the 2022 notes may require us to repurchase for cash all or part of their 2022 notes at a repurchase price equal to 100% of the principal amount of the 2022 notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date. Following certain corporate transactions that constitute a change of control, we would increase the conversion rate for a holder who elects to convert the 2022 notes in connection with such change of control in certain circumstances.

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The 2022 notes are our senior unsecured obligations and will rank senior in right of payment to our future indebtedness that is expressly subordinated in right of payment to the 2022 notes; equal in right of payment to our existing and future unsecured indebtedness that is not so subordinated (including the 2017 notes); effectively junior in right of payment to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally junior to all existing and future indebtedness and other liabilities (including trade payables) incurred by our subsidiaries.

The indenture governing the 2022 notes contains customary events of default with respect to the 2022 notes, including that upon certain events of default (including our failure to make any payment of principal or interest on the 2022 notes when due and payable) occurring and continuing, the trustee for the 2022 notes by notice to us, or the holders of at least 25% in principal amount of the outstanding 2022 notes by notice to us and the trustee for the 2022 notes, may, and the trustee at the request of such holders (subject to the provisions of the indenture governing the 2022 notes) shall, declare 100% of the principal of and accrued and unpaid interest, if any, on all the 2022 notes to be due and payable. In case of certain events of bankruptcy, insolvency or reorganization, involving us or a significant subsidiary, 100% of the principal of and accrued and unpaid interest on the 2022 notes will automatically become due and payable. Upon such a declaration of acceleration, such principal and accrued and unpaid interest, if any, will be due and payable immediately.

2017 Notes

On June 11, 2012, we completed our private offering of $275.0 million aggregate principal amount of our 1.375% convertible senior notes due 2017, or the 2017 notes, and entered into an indenture with Wells Fargo Bank, National Association, a national banking association, as trustee, governing the 2017 notes. The net proceeds from the offering were $266.2 million, after deducting the initial purchasers' discounts and commissions and our offering expenses.

The 2017 notes bear cash interest at a rate of 1.375% per year, payable semi-annually on June 1 and December 1 of each year. The 2017 notes will mature on June 1, 2017. The 2017 notes do not contain any financial or operating covenants or any restrictions on the payment of dividends, the incurrence of other indebtedness, or the issuance or repurchase of securities by us.

Holders may convert their 2017 notes at their option at any time prior to the close of business on the business day immediately preceding March 1, 2017 only under the following circumstances: (1) during any calendar quarter commencing on or after September 1, 2012 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (2) during the five business day period after any five consecutive trading day period, or measurement period, in which the trading price, as defined in the indenture governing the 2017 notes, per $1,000 principal amount of 2017 notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate on each such trading day; or (3) upon the occurrence of specified corporate events. The conditional conversion feature of the 2017 notes has been triggered and the holders are currently entitled to convert the notes into our common stock through March 31, 2016 pursuant to the terms of the 2017 notes indenture. Additionally, on or after March 1, 2017, until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their 2017 notes at any time, regardless of the foregoing circumstances. Upon conversion, we will pay cash up to the aggregate principal amount of the 2017 notes to be converted and deliver shares of our common stock in respect of the remainder, if any, of our conversion obligation in excess of the aggregate principal amount of the 2017 notes being converted, subject to a daily share cap, as described in the indenture governing the 2017 notes. Holders of 2017 notes will not receive any additional cash payment or additional shares representing accrued and unpaid interest, if any, upon conversion of a note, except in limited circumstances. Instead, accrued but unpaid interest will be deemed to be paid by the cash and

shares, if any, of our common stock, together with any cash payment for any fractional share, paid or delivered, as the case may be, upon conversion of a 2017 note.

The conversion rate for the 2017 notes was initially, and remains, 35.8038 shares of our common stock per $1,000 principal amount of 2017 notes, which is equivalent to an initial conversion price of $27.93 per share of our common stock. The conversion rate and the conversion price are subject to customary adjustments for certain events, including, but not limited to, the issuance of certain stock dividends on our common stock, the issuance of certain rights or warrants, subdivisions, combinations, distributions of capital stock, indebtedness, or assets, cash dividends and certain issuer tender or exchange offers, as described in the indenture governing the 2017 notes.

We may not redeem the 2017 notes prior to maturity and are not required to redeem or retire the 2017 notes periodically. However, upon the occurrence of a "fundamental change", as defined in the indenture governing the 2017 notes, subject to certain conditions, in lieu of converting their 2017 notes, holders may require us to repurchase for cash all or part of their 2017 notes at a repurchase price equal to 100% of the principal amount of the 2017 notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date. Following certain corporate transactions that constitute a change of

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control, we will increase the conversion rate for a holder who elects to convert the 2017 notes in connection with such change of control in certain circumstances.

The 2017 notes are our senior unsecured obligations and will rank senior in right of payment to our future indebtedness, if any, that is expressly subordinated in right of payment to the 2017 notes and equal in right of payment to our existing and future unsecured indebtedness that is not so subordinated (including the 2022 notes). The 2017 notes are effectively junior in right of payment to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness and are structurally junior to all existing and future indebtedness and other liabilities, including trade payables, incurred by our subsidiaries.

The indenture governing the 2017 notes contains customary events of default with respect to the 2017 notes, including that upon certain events of default, including our failure to make any payment of principal or interest on the 2017 notes when due and payable, occurring and continuing, the trustee for the 2017 notes by notice to us, or the holders of at least 25% in principal amount of the outstanding 2017 notes by notice to us and the trustee for the 2017 notes, may, and the trustee at the request of such holders, subject to the provisions of the indenture governing the 2017 notes, shall, declare 100% of the principal of and accrued and unpaid interest, if any, on all the 2017 notes to be due and payable. In case of an event of default involving certain events of bankruptcy, insolvency or reorganization, involving us or a significant subsidiary of ours, 100% of the principal of and accrued and unpaid interest on the 2017 notes will automatically become due and payable. Upon a declaration of acceleration, such principal and accrued and unpaid interest, if any, will be due and payable immediately.

Convertible Note Hedge and Warrant Transactions

In connection with the offering of the 2017 notes, on June 5, 2012, we entered into convertible note hedge transactions and warrant transactions with several of the initial purchasers of the 2017 notes, their respective affiliates and other financial institutions, which we refer to as the hedge counterparties. We used approximately $19.8 million of the net proceeds from the offering of the 2017 notes to pay the cost of the convertible note hedge transactions, after such cost was partially offset by the proceeds to us from the sale of warrants in the warrant transactions.

We expect the convertible note hedge transactions to reduce the potential dilution with respect to shares of our common stock upon any conversion of the 2017 notes in the event that the market price per share of our common stock, as measured under the terms of the convertible note hedge transactions, is greater than the strike price of the convertible note hedge transactions, which initially corresponds to the conversion price of the 2017 notes and is subject to anti-dilution adjustments substantially similar to those applicable to the conversion rate of the 2017 notes. The warrant transactions will have a dilutive effect with respect to our common stock to the extent that the market price per share of our common stock, as measured under the terms of the warrant transactions, exceeds the applicable strike price of the warrants. However, subject to certain conditions, we may elect to settle all of the warrants in cash.

Biogen Letter Agreement

On August 7, 2012, we and Biogen Idec MA Inc., or Biogen, entered into a letter agreement resolving a disagreement between the parties as to the calculation and amount of the royalties required to be paid to Biogen by us under our license agreement with Biogen under which Biogen licensed Angiomax to us. The letter agreement amends the license agreement providing, among other things, that effective solely for the period from January 1, 2013 through and including December 15, 2014, each of the royalty rate percentages payable by us as set forth in the license agreement shall be increased by one percentage point. As of December 15, 2014, we no longer owe royalties to Biogen or Health Research, Inc. relating to sales of Angiomax in the United States. In the third quarter of 2015, Biogen completed an audit of our books and records and indicated its belief that additional amounts are owed to Biogen under the license agreement. In September 2015, we filed suit in the United States District Court for the District of New Jersey seeking declaratory judgments that we have satisfied our obligations under the license agreement. In November 2015, Biogen answered the complaint denying our claims and asserting counterclaims for breach of contract. See Part I, Item 3.

Legal Proceedings of this Annual Report on Form 10-K for additional information.

European Reorganization

On October 22, 2014, we commenced implementation of a reorganization of our European operations intended to improve efficiency and better align our costs and employment structure with our strategic plans. The reorganization included a workforce reduction and the consolidation of certain European sites into a single location in Zurich, Switzerland. We substantially completed this reorganization by the end of the fourth quarter of 2014.

In the year ended December 31, 2014, we recorded, in the aggregate, a one-time charge of approximately $9.0 million associated with this reorganization of our European operations. Of the approximately $9.0 million of charges related to the 2014 European

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reorganization, $8.5 million were cash charges and $0.5 million were non-cash charges. We substantially completed this reorganization by the end of the fourth quarter of 2014.

U.S. Health Care Reform

In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, or PPACA, which was amended by the Health Care and Education Reconciliation Act of 2010. The PPACA, as amended, contains numerous provisions that impact the pharmaceutical and healthcare industries that are expected to be implemented over the next several years. We are continually evaluating the impact of the PPACA on our business. As of the date of this Annual Report on Form 10-K, we have not identified any provisions that currently materially impact our business or results of operations other than the Biologics Price Competition and Innovation Act provisions of PPACA described in Part I, Item 1. Business - Government Regulation, of this Annual Report on Form 10-K. However, the potential impact of the PPACA on our business and results of operations is inherently difficult to predict because many of the details regarding the implementation of this legislation have not been determined. In addition, the impact on our business and results of operations may change as and if our business evolves.

On July 9, 2012, President Obama signed the Food and Drug Administration Safety and Innovation Act, or FDASIA. Under the “Generating Antibiotic Incentives Now,” or GAIN, provisions of FDASIA, the FDA may designate a product as a qualified infectious disease product, or QIDP. A QIDP is defined as an antibacterial or antifungal drug for human use intended to treat serious or life-threatening infections, including those caused by either an antibacterial or antifungal resistant pathogen, including novel or emerging infectious pathogens or a so-called “qualifying pathogen” found on a list of potentially dangerous, drug-resistant organisms to be established and maintained by the FDA under the new law. The GAIN provisions describe several examples of “qualifying pathogens,” including methicillin-resistant Staphylococcus aureus, or MRSA, and Clostridium difficile. Upon the designation of a drug by the FDA as a QIDP, any non-patent exclusivity period awarded to the drug will be extended by an additional five years. This extension is in addition to any pediatric exclusivity extension awarded.

We developed Orbactiv for the treatment of ABSSSI, including infections caused by MRSA, and are exploring the development of Orbactiv for other indications, including ABSSSI in children, uncomplicated bacteremia, endocarditis, prosthetic joint infections, and other gram-positive bacterial infections. We developed the new formulation of Minocin IV, which is approved by the FDA, for the treatment of infections due to susceptible strains of designated gram-negative bacteria, including those due to Acinetobacter spp, and designated gram-positive bacteria. We are also developing Carbavance for the treatment of hospitalized patients with serious gram-negative bacterial infections. In November 2013, the FDA designated Orbactiv a QIDP. In August 2014, following approval of Orbactiv, the FDA informed us that Orbactiv met the criteria for an additional five years of non-patent exclusivity to be added to the five year exclusivity period already provided by the Food, Drug and Cosmetic Act. As a result, Orbactiv's non-patent regulatory exclusivity is scheduled to expire in August 2024. In December 2013, the FDA designated Carbavance a QIDP. We expect that, if we submit an NDA for Carbavance and the NDA is approved, Carbavance would receive an additional five years of non-patent exclusivity. In April 2015, the FDA designated the new formulation of Minocin IV a QIDP for certain additional potential indications involving gram-negative bacteria, and we expect that if we submit a supplemental NDA for one or more of those indications and such supplemental NDA is approved, Minocin IV would receive an additional five years of non-patent exclusivity with respect to such indications.

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Results of Operations

Years Ended December 31, 2015 and 2014

Net Revenues:

Net revenues decreased 53.2% to $309.0 million for the year ended December 31, 2015 as compared to $659.7 million for the year ended December 31, 2014.

	Year Ended December 31,		Change	Change
	2015	2014	$	%
	(In thousands)			
Net product revenues	$255,148	$659,690	$(404,542)	(61.3)%
Royalty revenues	53,859	—	53,859	100.0 %
Total net revenues	$309,007	$659,690	$(350,683)	(53.2)%

Net Product Revenues:

Net product revenues decreased 61.3% to $255.1 million for the year ended December 31, 2015 as compared to $659.7 million for the year ended December 31, 2014.

The following table reflects the components of net product revenues for the years ended December 31, 2015 and 2014:

	Year Ended December 31,		Change	Change
	2015	2014	$	%
	(In thousands)			
Angiomax	$211,970	$635,703	$(423,733)	(66.7)%
Other products	43,178	23,987	19,191	80.0 %
Total net product revenues	$255,148	$659,690	$(404,542)	(61.3)%

Net product revenues decreased by $404.6 million, or 61.3%, to $255.1 million in 2015 compared to $659.7 million in 2014, reflecting a decrease of $333.5 million, or 53.5%, in the United States and a decrease of $17.1 million, or 46.9%, in international markets. The total net product revenue decrease was comprised of price decreases of $144.3 million, principally due to price decreases for Angiomax in the United States due to the launch of the generic versions of bivalirudin, net volume decreases of $258.3 million due to decreased unit shipments to our customers and an unfavorable impact from foreign exchange rates of $1.9 million.

Angiomax. Net product revenue decreased by $423.7 million, or 66.7%, to $212.0 million in 2015 compared to $635.7 million in 2014, primarily due to price decreases in the United States and decreased unit shipments to customers. Angiomax sales in the United States decreased by $406.3 million reflecting a decrease of $141.5 million associated with price decreases and a decrease of $264.8 million due to decreased shipments to our customers. International sales of Angiomax decreased by $17.4 million primarily as a result of decreased unit shipments to our customers. Volume decreases for Angiomax in 2015 were primarily the result of the launch of generic versions of bivalirudin in the United States in July 2015. On July 2, 2015, the Federal Circuit Court ruled that our '343 patent and our '727 patent, each covering Angiomax, were invalid. On July 15, 2015, Hospira's ANDAs for its generic versions of bivalirudin were approved by the FDA and Hospira began selling its generic version 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.

In July 2015, we granted an exclusive license to Sandoz to market and sell an authorized generic of Angiomax (bivalirudin). We agreed to supply Sandoz with Angiomax, and Sandoz has agreed to purchase Angiomax exclusively from us. In 2015, we recognized $10.9 million in product revenue related to shipments of generic Angiomax to Sandoz. We expect that net revenue from sales of Angiomax will continue to decline in the future due to competition from generic versions of bivalirudin following the loss of market exclusivity in the United States in July 2015 and in Europe after August 2015.

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Net revenues in the United States in both 2015 and 2014 reflect chargebacks related to the 340B Drug Pricing Program under the Public Health Services Act and rebates related to the PPACA. Under the 340B Drug Pricing Program, we offer qualifying entities a discount off the commercial price of Angiomax for patients undergoing percutaneous coronary intervention, or PCI, on an outpatient basis. Chargebacks related to the 340B Drug Pricing Program decreased by $24.0 million to $49.6 million in 2015 compared to $73.6 million in 2014, primarily due to a decrease in sales of Angiomax. Rebates related to the PPACA decreased by $0.7 million to $1.6 million in 2015 compared to $2.3 million in 2014.

Other products. Net revenues from sales of Cleviprex, Orbactiv, Minocin IV, ready-to-use Argatroban, Kengreal and Ionsys increased by $19.2 million or 80.0%, to $43.2 million in 2015 compared to $24.0 million in 2014, primarily due to increases in revenue of $8.3 million for Orbactiv, $4.0 million for Minocin IV and $3.8 million for Cleviprex due to increased volume. Net revenue from sales of Orbactiv, Minocin IV and Cleviprex were $9.1 million, $5.4 million and $10.5 million, respectively, in 2015, compared to $0.8 million, $1.4 million and $6.8 million, respectively, in 2014. Net revenue from sales of ready-to-use Argatroban was $15.6 million in 2015, compared to $15.1 million in 2014. Net revenue from sales of Kengreal, which was launched in 2015, was $2.6 million in 2015.

Royalty Revenues:

In 2015, we recognized $53.9 million in royalty revenues related to the authorized generic sale of Angiomax to hospitals by Sandoz. Royalty revenues may decline in the future due to competition from generic versions of bivalirudin.

Cost of Product Revenue:

Cost of product revenue in 2015 was $119.9 million, or 47.0% of net product revenue, compared to $233.3 million, or 35.4% of net product revenue, in 2014.

Cost of product revenue during these periods consisted of:

- expenses in connection with the manufacture of our products sold, including expenses related to excess inventory;
- royalty expenses in 2014 under our agreements with Biogen and HRI related to Angiomax, in 2015 under our agreement with Eli Lilly and Company related to Orbactiv and in both 2014 and 2015 under our agreement with AstraZeneca related to Cleviprex and our agreement with Eagle Pharmaceuticals, Inc. related to ready-to-use Argatroban;
- amortization and impairment of the costs of license agreements, product rights, developed product rights and other identifiable intangible assets, which result from product and business acquisitions;
- logistics costs related to Angiomax, Cleviprex, Orbactiv, Minocin IV, ready-to-use Argatroban, Kengreal and Ionsys, including distribution, storage, and handling costs;

	Year Ended December 31,					
	2015	% of Total Cost		2014	% of Total Cost	
	(In thousands)			(In thousands)		
Manufacturing/Logistics	$51,255	42.7	%	$63,978	27.4	%
Royalty	10,163	8.5	%	135,087	57.9	%
Amortization and impairment of inventory, acquired product rights and intangible assets	58,513	48.8	%	34,265	14.7	%
Total cost of product revenue	$119,931	100	%	$233,330	100	%

Cost of product revenue decreased by $113.4 million in 2015 compared to 2014, primarily due to decreases in Angiomax product sales and decreases in Angiomax royalty expenses due to the termination on December 15, 2014 of

our royalty obligations to Biogen and HRI on sales of Angiomax in the United States. These decreases were offset by costs recorded in 2015 associated with the July 2015 loss of Angiomax exclusivity in the United States. In 2015, we recorded $37.2 million of potential inventory obsolescence costs and potential losses on future inventory commitments and $3.6 million of impairment charges on product licenses due to the loss of Angiomax exclusivity. Cost of product revenue for 2014 includes an impairment charge on product licenses of $21.5 million as a result of a reduction in estimated future cash flows expected to be generated by our acute care generic products.

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Research and Development Expenses:

	Year Ended December 31,					
	2015	% of Total R&D		2014	% of Total R&D	
	(In thousands)			(In thousands)		
Marketed products	$28,600	23.1	%	$34,394	24.7	%
Registration stage product candidates	5,457	4.4	%	26,684	19.1	%
Research and development product candidates	89,549	72.5	%	78,434	56.2	%
Total research and development expenses	$123,606	100.0	%	$139,512	100.0	%

For these periods, our marketed products consist of Angiomax, Cleviprex, Minocin IV, Orbactiv, ready-to-use Argatroban and certain of our acute care generic drugs. Registration stage product candidates included Kengreal, Ionsys, and RPX-602, until the second quarter of 2015, when each of them became marketed products. Research and development stage product candidates include ABP-700, ALN-PCSsc, Carbavance, MDCO-216, and other early stage compounds.

Research and development expenses decreased by $15.9 million in 2015 compared to 2014, primarily due to expenses associated with Ionsys, Angiomax, Orbactiv and Kengreal. These decreases were partially offset by increases in expenses associated with MDCO-216, which increased by $8.6 million to support manufacturing development scale up efforts, and APB-700, which increased by $8.2 million after being acquired in February 2015.

We expect research and development expenses in 2016 to include costs for global regulatory activities related to Cleviprex, Ionsys, Orbactiv, Kengreal and Minocin IV outside of the United States. In 2016, we expect manufacturing development activities for Carbavance, MDCO-216 and ALN-PCSsc as well as increased costs for clinical trials related to MDCO-216 and ALN-PCSsc. We also expect clinical trial costs for the ongoing Phase 3 clinical trials of Carbavance and additional clinical trials of Angiomax, Kengreal, Cleviprex, Ionsys, Minocin IV and Orbactiv for use in additional patient populations and lifecycle management activities.

Selling, General and Administrative Expenses:

	Year Ended December 31,		Change	Change	
	2015	2014	$	%	
	(In thousands)				
Selling, general and administrative expenses	$337,943	$314,954	$22,989	7.3	%

Selling, general and administrative expenses increased by $23.0 million in 2015 as compared to 2014, primarily due to a $43.3 million increase in selling, marketing and promotional expenses and a $20.3 million decrease in general corporate and administrative expenses.

Selling, marketing and promotional expenses increased by $43.3 million primarily to support our recent product launches of Orbactiv, Minocin IV and Ionsys.

General corporate and administrative expenses decreased by $20.3 million, primarily due to a reduction of $9.6 million in corporate infrastructure costs. General corporate and administrative expenses also decreased by $5.5 million of amortization expenses as certain Angiomax intangibles were fully amortized during 2014, by $4.0 million of restructuring costs and by $1.2 million in accretion costs associated with the fair value adjustments of the contingent consideration due to the former equityholders of Targanta, Incline, Rempex and Annovation.

We expect our selling, general and administrative expenses will increase in 2016 due to increased costs related to potential commercial launches of our product candidates.

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Legal Settlement:

	Year Ended December 31, 2015	2014	Change $	Change %
	(In thousands)			
Legal settlement	$5,000	$25,736	$(20,736)	(80.6)%

In 2015, we recorded $5.0 million of income relating to an Angiomax patent litigation settlement. In December 2014, we entered into a settlement and amendment to the merger agreement with Incline Therapeutics, Inc., which resulted in revisions to certain milestone triggers, a reduction in total milestone payments and the immediate release of the escrow fund to us. As a result, in December 2014, we recorded $25.7 million in one-time income in connection with the settlement with the former equityholders of Incline related to the representations and warranties included in the merger agreement.

Co-promotion and License Income:

	Year Ended December 31, 2015	2014	Change $	Change %
	(In thousands)			
Co-promotion and license income	$10,132	$24,236	$(14,104)	(58.2)%

Co-promotion and license income decreased by $14.1 million in 2015 to $10.1 million from $24.2 million in 2014 primarily due to the termination at the end of 2014 by AstraZeneca LP and BSX of their agreements with us to co-promote BRILINTA and Promus PREMIER Stent System, respectively. In addition, co-promotion income under our license agreement with Eagle related to ready-to-use Argatroban decreased from $3.3 million in 2014 to $1.3 million in 2015. These decreases were partially offset primarily by $8.2 million of license income recorded in 2015 under our collaboration agreement with SciClone.

Gain on Remeasurement of Equity Investment:

	Year Ended December 31, 2015	2014	Change $	Change %
	(In thousands)			
Gain on remeasurement of equity investment	$22,741	$—	$22,741	100.0 %

We completed the acquisition of Annovation in February 2015 and Annovation became our wholly owned subsidiary. We accounted for our acquisition of Annovation as a step acquisition which required that we remeasure the fair value of our existing 35.8% ownership interest (previously accounted for as an equity method investment). The fair value of our interest in Annovation was $25.9 million upon the closing of the acquisition, resulting in a non-cash pre-tax gain of $22.7 million.

Gain on Sale of Investment:

	Year Ended December 31, 2015	2014	Change $	Change %
	(In thousands)			
Gain on sale of investment	$19,773	$—	$19,773	100.0 %

In the second quarter of 2015, we sold an investment in a specialty pharmaceutical company that had a zero cost basis as the carrying amount was deemed impaired in 2009 and realized a net gain on sale of approximately $19.8 million. This amount is reflected in our consolidated statement of operations as a gain on sale of investment in 2015.

Loss in Equity Investment:

	Year Ended December 31, 2015	2014	Change $	Change %
	(In thousands)			
Loss in equity investment	$(144)	$(1,711)	$1,567	(91.6)%

We completed the acquisition of Annovation in February 2015 and Annovation became our wholly owned subsidiary. In 2015, we recorded a loss of $0.1 million for our proportionate share of Annovation's losses under the equity method of accounting prior to the completion of our acquisition of Annovation.

In September 2014, we acquired additional shares of preferred stock of Annovation resulting in us having significant influence over Annovation. In 2014, we recorded a loss of $1.7 million for our proportionate share of Annovation’s losses under the equity method of accounting.

Interest Expense:

	Year Ended December 31, 2015	2014	Change $	Change %
	(In thousands)			
Interest expense	$(37,092)	$(15,701)	$(21,391)	(136.2)%

During 2015, we recorded approximately $37.1 million in interest expense related to the 2017 notes and 2022 notes as compared to $15.7 million related to the 2017 notes in 2014. We issued the 2017 notes on June 11, 2012 and the 2022 notes on January 13, 2015 and have recorded interest with respect to the 2017 notes and 2022 notes from their respective dates of issuance.

Investment Impairment:

	Year Ended December 31, 2015	2014	Change $	Change %
	(In thousands)			
Investment impairment	$—	$(7,500)	$7,500	(100.0)%

During 2014, we recorded an investment impairment charge of $7.5 million representing an other than temporary decline in the value of our investment in the common stock of GeNO, LLC.

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Other Income:

	Year Ended December 31, 2015	2014	Change $	Change %
	(In thousands)			
Other income	$400	$918	$(518)	(56.4)%

Other income, which is comprised of interest income and gains and losses on sales of fixed assets and foreign currency transactions, decreased by $0.5 million to $0.4 million for 2015, from $0.9 million in 2014. This decrease was primarily due to losses on sales of fixed assets in 2015.

Benefit from Income Taxes:

	Year Ended December 31, 2015	2014	Change $	Change %
	(In thousands)			
Benefit from income taxes	$29,743	$2,309	$27,434	*

* Represents an increase in excess of 100%

Our income tax benefit, deferred tax assets and liabilities, and reserves for unrecognized tax benefits reflect management's best assessment of estimated future taxes to be paid. We are subject to income taxes in both the United States and numerous foreign jurisdictions. We recorded benefits of $29.7 million and $2.3 million for income taxes for 2015 and 2014, respectively, based on losses before taxes for such periods of $251.7 million and $2.1 million, respectively. Our effective income tax rates for 2015 and 2014 were approximately 11.8% and 116.0%, respectively. The 2015 and 2014 effective tax rates include the non-cash tax impact arising from changes in contingent consideration related to the Targanta, Incline, Rempex and Annovation acquisitions.

At December 31, 2015, we recorded a $67.9 million valuation allowance against $161.7 million of deferred tax assets compared to a $12.8 million valuation allowance against $133.7 million of deferred tax assets at December 31, 2014.

Deferred income taxes arise from temporary differences between the tax and financial statement recognition of revenue and expense. In evaluating our ability to realize our deferred tax assets within the jurisdiction from which they arise, we consider all available positive and negative evidence on a periodic basis in light of changing facts and circumstances. These include, without limitation, the status of litigation with respect to the Angiomax patents and the potential impact to projections of future taxable income, scheduled reversal of deferred tax liabilities, tax planning strategies, tax legislation, rulings by relevant tax authorities, the progress of ongoing tax audits, the regulatory approval of products currently under development and the ability to achieve future anticipated revenues. These assumptions require significant judgment about the forecasts of future taxable income and are consistent with the plans and estimates we are using to manage the underlying businesses.

Changes in tax laws and rates could also affect recorded deferred tax assets and liabilities in the future. Management is not aware of any such changes that would have a material effect on our results of operations, cash flows, or financial position.

The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in a multitude of jurisdictions across our global operations.

Loss from Discontinued Operations, net of tax:

	Year Ended December 31,		Change	Change
	2015	2014	$	%
	(In thousands)			
Loss from discontinued operations, net of tax	$(130,826)	$(32,529)	$(98,297)	*

* Represents a decrease in excess of 100%

For details on discontinued operations see Note 23 "Discontinued Operations," in the accompanying notes to consolidated financial statements included in this Annual Report on Form 10-K.

Years Ended December 31, 2014 and 2013

Net Revenue:

Net revenue increased 5.6% to $659.7 million for the year ended December 31, 2014 as compared to $624.6 million for the year ended December 31, 2013.

The following table reflects the components of net revenue for the years ended December 31, 2014 and 2013:

	Year Ended December 31,		Change	Change	
	2014	2013	$	%	
	(In thousands)				
Angiomax	$635,703	$608,572	$27,131	4.5	%
Other products	23,987	16,036	7,951	49.6	%
Total net revenue	$659,690	$624,608	$35,082	5.6	%

Net revenue increased by $35.1 million, or 5.6%, to $659.7 million in 2014 compared to $624.6 million in 2013, reflecting an increase of $56.9 million or 10.1% in the United States partially offset by a decrease of $21.8 million, or 37.4%, in international markets. The net revenue increase was comprised of price increases of $28.4 million, principally due to price increases for Angiomax in the United States, net volume increases of $6.6 million due to increased unit shipments to our customers and the favorable impact from foreign exchange rates of $0.1 million.

Net revenue from worldwide sales of Angiomax increased by $27.1 million in 2014 primarily due to increased sales in the United States. Angiomax sales in the United States increased by $49.3 million, reflecting an increase of $29.5 million associated with price increases and an increase of $19.8 million due to increased shipments to our customers. International sales of Angiomax decreased by $22.2 million, primarily as a result of decreased unit shipments to our customers. Other product revenue increases were primarily due to increases in revenue from ready-to-use Argatroban of $3.8 million and from Cleviprex of $2.1 million, primarily due to volume increases associated with increased shipments to our customers and the one-time increases of $1.6 million in net revenue from ready-to-use Argatroban and $0.7 million in net revenue from Cleviprex, as a result of a change in our revenue recognition policy to recognize product sales previously deferred as of December 31, 2013. Other product revenue also included an increase of $2.1 million due to the launch of Orbactiv in 2014 and the impact of a full year of revenue for Minocin IV, acquired from Rempex in December 2013.

Angiomax. Net revenue increased by $27.1 million, or 4.5%, to $635.7 million in 2014 compared to $608.6 million in 2013, primarily due to price increases in the United States and increased unit shipments to customers. Net revenue in the United States in both 2014 and 2013 reflect chargebacks related to the 340B Drug Pricing Program under the Public Health Services Act and rebates related to the PPACA. Under the 340B Drug Pricing Program, we offer qualifying entities a discount off the commercial price of Angiomax for patients undergoing percutaneous coronary intervention, or PCI, on an outpatient basis. Chargebacks related to the 340B Drug Pricing Program increased by $16.7 million to $73.6 million in 2014 compared to $56.9 million in 2013, primarily due to higher amounts ordered by eligible hospital customers. Rebates related to the PPACA increased by $0.8 million to $2.3 million in 2014 compared to $1.5 million in 2013.

Net revenue outside of the United States decreased by $22.2 million to $36.2 million in 2014 compared to $58.4 million in 2013, primarily due to a decline in sales in Europe where some hospitals chose to use heparin instead of Angiomax for primary

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PCI following the publication of data from the HEAT-PPCI trial in March 2014, as well as a diversion of primary PCI patients into a large scale, cross-Europe clinical trial and the ongoing cost-of-care pressures in Europe causing some physicians and medical decision-makers to choose to use heparin due to its cost.

Other Products. Net revenue from sales of Cleviprex, Orbactiv, Minocin IV, and ready-to-use Argatroban increased by $8.0 million, or 49.6%, to $24.0 million in 2014 compared to $16.0 million in 2013, primarily due to increases in revenue of $2.1 million for Cleviprex and of $3.8 million for ready-to-use Argatroban. The increase in revenue for these products reflects increased unit shipments to customers as well as the impact of a change in our revenue recognition method for Cleviprex and ready-to-use Argatroban in the first quarter of 2014. Under our revised revenue recognition policy, beginning in the first quarter of 2014, we recognize revenue for Cleviprex and ready-to-use Argatroban as product is sold to Integrated Commercialization Solutions, or ICS. For periods prior to 2014, we recognized revenue for Cleviprex and ready-to-use Argatroban using the deferred revenue model. During 2014, we recognized $0.7 million in net sales of Cleviprex and $1.6 million in net sales of ready-to-use Argatroban that had previously been deferred as of December 31, 2013, net of chargebacks and other discounts or accruals for product returns, rebates and fee-for-service charges. Net revenue from sales of Cleviprex was $6.8 million in 2014, compared to $4.7 million in 2013. Net revenue from sales of ready-to-use Argatroban was $15.1 million in 2014, compared to $11.2 million in 2013. Net revenue from sales of Orbactiv and Minocin IV was $2.2 million in 2014.

Cost of Product Revenue:

Cost of product revenue in 2014 was $233.3 million, or 35.4% of net revenue, compared to $216.6 million, or 34.7% of net revenue, in 2013.

Cost of product revenue during these periods consisted of:

- expenses in connection with the manufacture of our products sold;
- royalty expenses under our agreements with Biogen and HRI related to Angiomax, our agreement with AstraZeneca related to Cleviprex, our agreement with Lilly related to Orbactiv and our agreement with Eagle related to ready-to-use Argatroban;
- amortization of the costs of license agreements, product rights, developed product rights and other identifiable intangible assets, which result from product and business acquisitions and impairment charges related to product rights;
- logistics costs related to Angiomax, Cleviprex, Orbactiv, Minocin IV and ready-to-use Argatroban, including distribution, storage, and handling costs;

	Year Ended December 31,					
	2014	% of Total Cost		2013	% of Total Cost	
	(In thousands)			(In thousands)		
Manufacturing/Logistics	$63,978	27.4	%	$60,549	27.9	%
Royalty	135,087	57.9	%	146,659	67.7	%
Amortization and impairment of inventory, acquired product rights and intangible assets	34,265	14.7	%	9,428	4.4	%
Total cost of product revenue	$233,330	100	%	$216,636	100	%

Cost of product revenue increased by $16.7 million in 2014 compared to 2013, primarily due to 2014 impairment charges on product licenses of $21.5 million to cost of revenue as a result of a reduction in estimated future cash flows expected to be generated by our acute care generic products. This was partially offset by a decrease in royalty expenses associated with Angiomax, reflecting the termination of the royalty obligation to Biogen and HRI on the U.S. sales of Angiomax in connection with the '404 patent in the United States on December 15, 2014.

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Research and Development Expenses:

	Year Ended December 31,					
	2014	% of Total R&D		2013	% of Total R&D	
	(In thousands)			(In thousands)		
Marketed products	34,394	24.7	%	$56,581	40.9	%
Registration stage product candidates	26,684	19.1	%	35,749	25.9	%
Research and development product candidates	78,434	56.2	%	45,930	33.2	%
Total research and development expenses	$139,512	100.0	%	$138,260	100.0	%

For these periods, our marketed products consisted of Angiomax, Cleviprex, Minocin IV, Orbactiv, ready-to-use Argatroban and certain of our acute care generic drugs. Registration stage product candidates include Kengreal, Ionsys and RPX-602. Research and development stage product candidates include ALN-PCSsc, Carbavance, MDCO-216 and other early stage compounds.

Research and development expenses increased by $1.3 million in 2014 compared to 2013, primarily due to expenses associated with Carbavance, RPX-602 and MDCO-216. Research and development expenses associated with Carbavance and RPX-602 increased by $25.6 million and $2.3 million, respectively, reflecting full year clinical trial and manufacturing development expenses following our December 2013 acquisition of Rempex. Research and development expenses associated with MDCO-216 increased by $18.5 million to support manufacturing development scale up efforts. These increases were offset by decreased expenses associated with Orbactiv and Kengreal of $18.9 million and $10.2 million, respectively, due to higher clinical, manufacturing, regulatory and statistical activities in 2013 related to the preparation of the NDAs for Orbactiv and Kengreal which we submitted in the second half of 2013 and a decrease of $10.4 million in payments to Alnylam reflecting an initial license payment of $25.0 million to Alnylam under our license and collaboration agreement in the first quarter of 2013.

Selling, General and Administrative Expenses:

	Year Ended December 31,		Change	Change	
	2014	2013	$	%	
	(In thousands)				
Selling, general and administrative expenses	$314,954	$247,823	$67,131	27.1	%

Selling, general and administrative expenses increased by $67.1 million in 2014 as compared to 2013, primarily due to a $26.1 million increase in selling, marketing and promotional expenses and a $41.0 million increase in general corporate and administrative expenses.

Selling, marketing and promotional expenses increased by $26.1 million primarily to support our product launches of Orbactiv and Minocin IV.

General corporate and administrative expenses increased by $41.0 million, primarily due to increases of $25.4 million in corporate infrastructure costs to support our growing product portfolio resulting from our acquisitions during 2014 and 2013; increases of $13.5 million in accretion costs associated with the fair value adjustments of the contingent consideration due to the former equityholders of Targanta, Incline and Rempex; increases of $8.2 million in share-based compensation; and increases of $3.1 million in employee severance and other costs associated with the reorganization of our European operations as compared to charges incurred in the first quarter 2013 related to our 2013 reduction in force. These increases were partially offset by decreases of $9.2 million in deal-related costs in connection with our 2013 acquisitions and of $5.0 million reflecting the 2013 arbitration award to Eagle.

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Legal Settlement:

	Year Ended December 31, 2014	2013	Change $	Change %
	(In thousands)			
Legal settlement	$25,736	$—	$25,736	100.0 %

In December 2014, we entered into a settlement and amendment to the merger agreement with Incline Therapeutics, Inc., which resulted in revisions to certain milestone triggers, a reduction in total milestone payments and the immediate release of the escrow fund to us. As a result, in December 2014, we recorded $25.7 million in one-time income in connection with the settlement with the former equityholders of Incline related to the representations and warranties included in the merger agreement.

Co-promotion and License Income:

	Year Ended December 31, 2014	2013	Change $	Change %
	(In thousands)			
Co-promotion and license income	$24,236	$17,383	$6,853	39.4 %

Co-promotion and license income increased by $6.9 million in 2014 to $24.2 million from $17.4 million in 2013 primarily due to higher co-promotion income from our agreement with BSX to promote the Promus PREMIER Stent System and an increase in the profit share income under our license agreement with Eagle related to ready-to-use Argatroban during 2014. We recognized $5.0 million in revenue in 2014 as a result of our co-promotion agreement with BSX. Our co-promotion income related to our agreement with AstraZeneca LP to promote BRILINTA stayed generally consistent from 2013 to 2014. AstraZeneca LP and BSX terminated their agreement with us to co-promote BRILINTA and Promus PREMIER Stent System, respectively, at the end of 2014. As a result, we will not receive any further income under our agreements with the AstraZeneca LP and the BSX.

Loss in Equity Investment:

	Year Ended December 31, 2014	2013	Change $	Change %
	(In thousands)			
Loss in equity investment	$(1,711)	$—	$(1,711)	(100.0)%

In September 2014, we acquired additional shares of preferred stock of Annovation resulting in us having significant influence over Annovation. In 2014, we recorded a loss of $1.7 million for our proportionate share of Annovation's losses under the equity method of accounting.

Interest Expense:

	Year Ended December 31, 2014	2013	Change $	Change %
	(In thousands)			
Interest expense	$(15,701)	$(15,531)	$(170)	(1.1)%

During 2014, we recorded approximately $15.7 million in interest expense related to the 2017 notes as compared to $15.5 million in 2013. We issued the 2017 notes on June 11, 2012 and have recorded interest from that date. We expect interest income to increase in 2015 as a result of the interest expense due under the 2022 notes.

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Investment Impairment:

	Year Ended December 31, 2014	2013	Change $	Change %
	(In thousands)			
Investment impairment	$(7,500)	$—	$(7,500)	(100.0)%

During 2014, we recorded an investment impairment charge of $7.5 million representing an other than temporary decline in the value of our investment in the common stock of GeNO, LLC.

Other Income:

	Year Ended December 31, 2014	2013	Change $	Change %
	(In thousands)			
Other income	$918	$1,420	$(502)	(35.4)%

Other income, which is comprised of interest income, gains and losses on foreign currency transactions, decreased by $0.5 million to $0.9 million for 2014, from $1.4 million in 2013. This decrease was primarily due to lower gains on foreign currency transactions in 2014 than in 2013.

Benefit (Provision) for Income Tax:

	Year Ended December 31, 2014	2013	Change $	Change %
	(In thousands)			
Benefit (provision) for income tax	$2,309	$(2,273)	$4,582	*

*Represents an increase in excess of 100%

Our income tax expense, deferred tax assets and liabilities, and reserves for unrecognized tax benefits reflect management's best assessment of estimated future taxes to be paid. We are subject to income taxes in both the United States and numerous foreign jurisdictions. We recorded a $2.3 million benefit and a $2.3 million provision for income taxes for 2014 and 2013, respectively, based on a loss and income before taxes for such periods of $2.1 million and $25.2 million, respectively. Our effective income tax rates for 2014 and 2013 were approximately 116.0% and 8.9%, respectively. The 2014 effective tax rate includes the non-cash tax impact arising from changes in contingent consideration related to the Targanta, Incline and Rempex acquisitions. The 2013 effective income tax rate includes a non-cash benefit of $13.6 million related to a change in the estimate for California state taxes as a result of our business combinations and the effect of a one-time income tax benefit arising from the retroactive reinstatement of the research and development tax credit.

At December 31, 2014, we maintained a $12.8 million valuation allowance against $133.7 million of deferred tax assets compared to a $4.2 million valuation allowance against $124.6 million of deferred tax assets at December 31, 2013.

Deferred income taxes arise from temporary differences between the tax and financial statement recognition of revenue and expense. In evaluating our ability to realize our deferred tax assets within the jurisdiction from which they arise, we consider all available positive and negative evidence on a periodic basis in light of changing facts and circumstances. These include, without limitation, the status of litigation with respect to the Angiomax patents and the potential impact to projections of future taxable income, scheduled reversal of deferred tax liabilities, tax planning strategies, tax legislation, rulings by relevant tax authorities, the progress of ongoing tax audits, the regulatory approval of products currently under development and the ability to achieve future anticipated revenues. These

assumptions require significant judgment about the forecasts of future taxable income and are consistent with the plans and estimates we are using to manage the underlying businesses.

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Changes in tax laws and rates could also affect recorded deferred tax assets and liabilities in the future. Management is not aware of any such changes that would have a material effect on our results of operations, cash flows, or financial position.

The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in a multitude of jurisdictions across our global operations.

Loss from Discontinued Operations, net of tax:

	Year Ended December 31,		Change	Change
	2014	2013	$	%
	(In thousands)			
Loss from discontinued operations, net of tax	$(32,529)	$(7,628)	$(24,901)	*

*Represents an increase in excess of 100%

For details on discontinued operations see Note 23 "Discontinued Operations," in the accompanying notes to consolidated financial statements included in this Annual Report on Form 10-K.

Liquidity and Capital Resources

Sources of Liquidity

Since our inception, we have financed our operations principally through revenues from sales of Angiomax, and our other products and the sale of common stock, convertible promissory notes and warrants. We expect revenue from sales of Angiomax will be significantly lower in future years due to generic competition. This reduced revenue is likely to significantly impact our cash and cash equivalents and how we finance our operations. We had $373.2 million in cash and cash equivalents as of December 31, 2015.

Cash Flows

As of December 31, 2015, we had $373.2 million in cash and cash equivalents, as compared to $370.7 million as of December 31, 2014. The increase in cash and cash equivalents was primarily due to $324.8 million in net cash provided by financing activities, partially offset by net cash used in operating activities of $198.0 million and investing activities of $123.5 million. Cash flows include cash flow from discontinued operations. For further details on cash flows related to discontinued operations, see Note 23 "Discontinued Operations," in the accompanying notes to consolidated financial statements included in this Annual Report on Form 10-K. At the completion of the sale of the hemostasis business on February 1, 2016, we received approximately $174.1 million in cash and we will avoid up to $160 million in future payments related to the achievement of certain regulatory and commercial milestones.

Net cash used in operating activities was $198.0 million in 2015, compared to net cash provided by operating activities of $67.3 million in 2014. The decrease as compared to 2014 was primarily due to our loss of patent protection on Angiomax and the introduction of generic bivalirudin competition as well as several large inventory purchases during 2015. The cash used in operating activities in 2015 primarily relates to a net loss of $352.7 million and a $64.6 million decrease from changes in working capital adjustments, offset by non-cash items of $219.4 million. Non-cash items consist of depreciation and amortization, asset impairment charges, share-based compensation expense and adjustments in contingent consideration. The changes in working capital items reflect a decrease in contingent purchase price of $78.9 million, primarily due to milestones paid to the former shareholders of Incline offset by an increase from accounts receivable of $103.1 million due to a decrease in receivables outstanding related to Angiomax.

Net cash provided by operating activities was $67.3 million in 2014, compared to net cash provided by operating activities of $91.4 million in 2013. The decrease was primarily due to our net loss, the effect of non-cash items and changes in working capital items. The cash provided by operating activities in 2014 primarily relates to non-cash

items of $126.5 million offset by a net loss of $32.3 million and $26.8 million decrease from changes in working capital adjustments. Non-cash items consist of depreciation and amortization, asset impairment charges, share-based compensation expense and adjustments in contingent consideration. The changes in working capital items reflect an increase in accounts receivable of $54.7 million, primarily due to an increase in our net revenue for Angiomax in the United States following our announcement on December 15, 2014 of a price increase for Angiomax effective on January 1, 2015.

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During 2015, $123.5 million in net cash was used in investing activities, primarily due to the payment of $88.1 million in connection with our acquisition of the remaining Recothrom assets in February 2015, $28.4 million in connection with our acquisition of Annovation in February 2015 and $24.5 million in milestone payments to third parties upon FDA approval and the commercial launch of Ionsys and Kengreal, partially offset by $19.8 million from the sale of an investment. Fixed asset purchases during 2015 were approximately $2.6 million.

During 2014, $84.8 million in net cash was used in investing activities, which reflected $58.9 million incurred in connection with our Tenaxis transaction and milestone payments related to the regulatory approval of Orbactiv. Fixed asset purchases during 2014 were approximately $7.3 million.

During 2013, $504.4 million in net cash was used in investing activities, which reflected $542.6 million incurred in connection with our Incline, ProFibrix, Rempex and Recothrom transactions and $13.6 million used for fixed asset purchases. These amounts were partially offset by $50.7 million in proceeds from the maturity and sale of available for sale securities.

Net cash provided by financing activities was $324.8 million in 2015, which reflected $387.2 million in net proceeds from the issuance of convertible notes in January 2015 and $95.2 million of proceeds from issuance of common stock and purchases of stock under our employee stock purchase plan, offset by $157.6 million in milestone payments.

Net cash provided by financing activities was $8.8 million in 2014, which primarily consists of $17.3 million in proceeds from option exercises and purchases of stock under our employee stock purchase plan and $1.4 million in excess tax benefits. These increases were partially offset by milestone payments of $10.0 million made to Rempex equityholders upon the achievement of certain milestones.

Net cash provided by financing activities was $271.5 million in 2013, which primarily reflected $189.6 million in net proceeds from the sale of common stock in our June 2013 offering and $74.2 million of proceeds from option exercises, excess tax benefits and purchases of stock under our employee stock purchase plan.

Funding Requirements

We expect to devote substantial financial resources to our research and development efforts, clinical trials, nonclinical and preclinical studies and regulatory approvals and to our commercialization and manufacturing programs associated with our products and our products in development. We also will require cash to pay interest on the $275.0 million aggregate principal amount of the 2017 notes and the $400.0 million aggregate principal amount of the 2022 notes, and to make principal payments on the 2017 notes and the 2022 notes at maturity or upon conversion. In addition, as part of our business development strategy, we generally structure our license agreements and acquisition agreements so that a significant portion of the total license or acquisition cost is contingent upon the successful achievement of specified development, regulatory or commercial milestones. As a result, we will require cash to make payments upon achievement of these milestones under the license agreements and acquisition agreements to which we are a party. As of February 26, 2016, we may have to make contingent cash payments upon the achievement of specified development, regulatory or commercial milestones of up to:

- $49.4 million due to the former equityholders of Targanta and up to $25.0 million in additional payments to other third parties related to the Targanta transaction;
- $60.0 million due to the former equityholders of Incline and up to $93.0 million in additional payments to other third parties related to the Incline transaction;
- $289.8 million for the Rempex transaction;
- $26.3 million for the Annovation transaction and up to $6.5 million in additional payments to other third parties related to the Annovation transaction;
- $170.0 million for the license and collaboration agreement with Alnylam;
- $422.0 million due to our licensing of MDCO-216 from Pfizer Inc., or Pfizer; and
- $50.0 million due to our licensing of Kengreal from AstraZeneca.

As of February 26, 2016, our total potential milestone payment obligations related to development, regulatory and commercial milestones for our products and products in development under our license agreements and acquisition agreements, assuming all milestones are achieved in accordance with the terms of these agreements, would be approximately $1,192.0 million. Of this amount, approximately $164.0 million relates to development milestones, $234.0 million relates to regulatory approval milestones and $794.0 million relates to commercial milestones.

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In addition, of the total potential milestone payment obligations, based on our anticipated timeline for the achievement of development, regulatory and commercial milestones, we expect that we would make total milestone payments under our license agreements and acquisition agreements of approximately $49.0 million during the remainder of 2016. The majority of these anticipated payments for 2016 relate to the achievement of development and commercial milestones. We may pay additional milestone payments under our license agreements and acquisition agreements during 2016 if we achieve additional development, regulatory and commercial milestones during the year.
Net revenue from sales of Angiomax were significantly lower in the year ended December 31, 2015, and we expect these revenues will decline further. These reduced revenues are likely to significantly impact our cash and cash equivalents and how we fund our future capital requirements.

We continually evaluate our liquidity requirements, capital needs and availability of resources in view of, among other things, alternative sources and uses of capital, debt service requirements, the cost of debt and equity capital and estimated future operating cash flow. We may raise additional capital; sell interests in subsidiaries or other assets, including asset sales of products or businesses that generate a material portion of our revenue; restructure or refinance outstanding debt; repurchase material amounts of outstanding debt or equity; or take a combination of such steps or other steps to increase or manage our liquidity and capital resources. Any such actions or steps could have a material effect on us.

Our future capital requirements will depend on many factors, including:

- the extent to which our products are commercially successful globally;
- the decline in Angiomax sales and the extent to which royalties on sales of the authorized generic of Angiomax offset the expected decrease in sales of Angiomax;
- whether we are successful in narrowing our operational focus by strategically separating non-core businesses and products, and the amount of consideration paid to us in connection with any related sales or divestitures;
- the extent to which our submissions and planned submissions for regulatory approval of products in development are approved on a timely basis, if at all;
- the consideration paid by us and to be paid by us in connection with acquisitions and licenses of development-stage compounds, clinical-stage product candidates, approved products, or businesses, and in connection with other strategic arrangements;
- the progress, level, timing and cost of our research and development activities related to our clinical trials and non-clinical studies with respect to our products and products in development;
- the cost and outcomes of regulatory submissions and reviews for approval of our approved products in additional countries and for additional indications, and of our products in development globally;
- whether we develop and commercialize our products in development on our own or through licenses and collaborations with third parties and the terms and timing of such arrangements, if any;
- the continuation or termination of third-party manufacturing, distribution and sales and marketing arrangements;
- the size, cost and effectiveness of our sales and marketing programs globally;

- the amounts of our payment obligations to third parties as to our products and products in development; and

- our ability to defend and enforce our intellectual property rights.

We believe that our cash on hand and the cash we generate from sales of our products will be sufficient to meet our anticipated funding requirements through the end of 2016, including our obligations with respect to interest payments under the 2017 notes and the 2022 notes and our short term obligations under the license agreements and acquisition agreements to which we are a party. The conditional conversion feature of the 2017 notes has been triggered and the holders are currently entitled to convert the notes into our common stock through March 31, 2016 pursuant to the terms of the 2017 notes indenture. If one or more holders elect to convert their notes, we would be required, with respect to each $1,000 principal amount of notes, to make cash payments equal to the lesser of $1,000 and the sum of the daily conversion values, which could adversely affect our liquidity.

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With respect to both our short-term and long-term cash requirements, if our existing cash resources, together with cash that we generate from sales of our products and other sources, are insufficient to satisfy our product launch, research and development and other funding requirements, we will need to sell additional equity or debt securities, engage in asset sales, including asset sales of products or businesses that generate a material portion of our revenue, engage in other strategic transactions, or seek additional financing through other arrangements, any of which could be material. In addition, we will need to sell additional equity or debt securities, seek additional financing through other arrangements or engage in other cash generating transactions in order to meet our obligations with respect to the principal under the 2017 notes and the 2022 notes, or we will need to restructure or refinance such notes. Any sale of additional equity or convertible debt securities may result in dilution to our stockholders. Public or private financing may not be available in amounts or on terms acceptable to us, if at all. If we seek to raise funds through collaboration or licensing arrangements with third parties, we may be required to relinquish rights to products, products in development or technologies that we would not otherwise relinquish or grant licenses on terms that may not be favorable to us. Moreover, our ability to obtain additional debt financing may be limited by the 2017 notes and the 2022 notes, market conditions or otherwise. If we are unable to obtain additional financing or otherwise increase our cash resources, we may be required to delay, reduce the scope of, or eliminate one or more of our planned research, development and commercialization activities, which could adversely affect our business, financial condition and operating results.

Certain Contingencies

We may be, from time to time, a party to various disputes and claims arising from normal business activities. We accrue for loss contingencies when available information indicates that it is probable that a liability has been incurred and the amount of such loss can be reasonably estimated. In the cases where we believe that a reasonably possible loss exists, we disclose the facts and circumstances of the litigation, including an estimable range, if possible.

Currently, we are party to the legal proceedings as described in Part I, Item 3. Legal Proceedings, of this Annual Report on Form 10-K, which include patent litigation matters, a class action litigation and litigation related to a license agreement. We have assessed such legal proceedings and do not believe that it is probable that a liability has been incurred and the amount of such liability can be reasonably estimated, other than the class action litigation. As a result, we have not recorded a loss contingency related to these legal proceedings other than the class action litigation. Particularly with respect to the litigation related to a Company license agreement, we are presently unable to predict the outcome of such lawsuit or to reasonably estimate the possible loss, or range of potential losses, if any, related to such lawsuit. While it is not possible to determine the outcome of the matters described in Part I, Item 3, Legal Proceedings, of this annual report on Form 10-K, we believe it is possible that the resolution of all such matters could have a material adverse effect on our business, financial condition or results of operations.

Contractual Obligations

Our long-term contractual obligations include commitments and estimated purchase obligations entered into in the normal course of business. These obligations include commitments related to purchases of inventory of our products, research and development service agreements, income tax contingencies, operating leases, selling, general and administrative obligations, leased office space for our principal office in Parsippany, New Jersey and our leased office space in San Diego, California, royalties, milestone payments and other contingent payments due under our license and acquisition agreements. These obligations also include our obligations under the 2017 notes and 2022 notes. Future estimated contractual obligations as of December 31, 2015 are:

Contractual Obligations (in thousands) [1] [2]	Total	Less Than 1 Year	1 - 3 Years	4 - 5 Years	More Than 5 Years
Inventory related commitments	$48,866	$48,866	$—	$—	$—
Long-term debt obligations, including interest	745,672	13,781	296,891	20,000	415,000
Research and development	49,902	43,934	5,253	715	—
Operating leases	79,019	7,645	15,548	14,648	41,178
Selling, general and administrative	6,869	4,067	2,348	454	—

Total contractual obligations	$930,328	118,293	$320,040	$35,817	$456,178

(1) This table does not include any milestone and royalty payments which may become payable to third parties for which the timing and likelihood of such payments are not known, as discussed below.

(2) Also excluded from the above table is a liability for uncertain tax positions totaling $8.9 million. This liability has been excluded because we cannot currently make a reliable estimate of the period in which the liability will be payable, if ever.

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All of the inventory related commitments included above are non-cancellable. Included within the inventory related commitments above are purchase commitments for 2016 totaling $17.2 million and $25.1 million for Angiomax and Orbactiv bulk drug substances, respectively. Of the total estimated contractual obligations for research and development and selling, general and administrative activities, $19.5 million are non-cancellable.

Our long-term debt obligations reflect our obligations under the 2017 notes and 2022 notes to pay interest on the $275.0 million and $400.0 million, respectively, aggregate principal amount of the 2017 notes and 2022 notes and to make principal payments on the 2017 notes and 2022 notes at maturity or upon conversion.

We lease our principal office in Parsippany, New Jersey. The lease covers 173,146 square feet and expires January 2024. On October 1, 2014, we entered into an agreement to lease 63,000 square feet of office space with ARE-SD Region No. 35, LLC for new office and laboratory space in San Diego, California. This lease has a term of 144 months from the first day of the first full month after the commencement date, which we currently expect to be on or about September 2016.The agreement is for the build out of the space with a targeted commencement date in September of 2016. The lease will qualify for operating lease treatment with recorded annual rent expense from commencement date to expiration of $2.9 million, with adjustments for customary triple-net lease operating expenses. We expect our total obligation for this space to be $35.3 million.

Approximately 92.3% of the total operating lease commitments above relate to our principal office building in Parsippany, New Jersey and our office space in San Diego, California. Also included in total property lease commitments are automobile leases, computer leases and other property leases that we entered into while expanding our global infrastructure.

Aggregate rent expense under our property leases was approximately $7.3 million in 2015, $7.6 million in 2014 and $6.5 million in 2013.

In addition to the amounts shown in the above table, we are contractually obligated to make potential future success-based development, regulatory and commercial milestone payments and royalty payments in conjunction with collaborative agreements or acquisitions we have entered into with third-parties. These contingent payments include royalty payments with respect to Angiomax (other than relating to sales of Angiomax in the United States) under our license agreements with Biogen and HRI, royalty and/or milestone payments with respect to Cleviprex, Kengreal, Orbactiv, MDCO-216, Ionsys and Carbavance and licensing agreement with Eagle with respect to our sales of ready-to-use Argatroban. Each of these payments is contingent upon the occurrence of certain future events and, given the nature of those events, it is unclear when, if ever, we may be required to make such payments and with respect to royalty payments, what the total amount of such payments will be. Further, the timing of any of the foregoing future payments is not reasonably estimable. For those reasons, these contingent payments have not been included in the table above. We may have to make these significant contingent cash payments in connection with our acquisition and licensing activities upon the achievement of specified regulatory, sales and other milestones as follows:

- In connection with our acquisition of Targanta, we are obligated to pay contingent cash payments up to $49.4 million to the former shareholders of Targanta and up to $25.0 million in additional payments to Eli Lilly and InterMune upon reaching specified milestones. As a result of the Targanta acquisition, we are a party to a license agreement with Eli Lilly through our Targanta subsidiary. We are required to make payments to Eli Lilly upon reaching specified regulatory and sales milestones. In addition, we are obligated to pay royalties to Eli Lilly based on net sales of products containing Orbactiv or the other compounds in any jurisdiction in which we hold license rights to a valid patent. We are required to make a cash payment to InterMune if and when we receive from the FDA all approvals necessary for the commercial launch of Orbactiv.
- Under our license agreement with AstraZeneca related to Kengreal, we are obligated to make additional payments of up to $50.0 million in the aggregate upon reaching agreed upon regulatory and commercial milestones. We are obligated to pay royalties on a country-by-country basis on annual sales of Kengreal, and on any sublicense income earned, until the later of the duration of the licensed patent rights which are necessary to manufacture, use or sell Kengreal in a country ten years from our first commercial sale of Kengreal in such country.
- Under our license agreement with Pfizer Inc. related to MDCO-216, we agreed to pay Pfizer up to an aggregate of $410.0 million upon achievement of specified clinical, regulatory and sales milestones. We also agreed to make

royalty payments to Pfizer on the sale of MDCO-216, which are payable on a product-by-product and country-by-country basis, until the latest of the expiration of the last patent or patent application covering MDCO-216, the expiration of any market exclusivity and a specified period of time after the first commercial sale of MDCO-216. In addition to these obligations to Pfizer, in connection with the license, we also agreed to make payments to third parties of up to $12.0 million in the aggregate upon the achievement of specified development milestones and continuing payments on sales of MDCO-216.

- Under the license agreement with Eagle related to the ready-to-use formulation of Argatroban, we are obligated to share equally with Eagle the gross profits, as defined in the license agreement, of our sales of ready-to-use Argatroban.

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- In connection with our acquisition of Incline, we agreed to pay contingent payments of up to $60.0 million, less certain expenses, upon achievement of specified regulatory and sales milestones with respect to Ionsys. We also agreed to make payments to third parties of up to $93.0 million upon achievement of specified development milestones.
- Under the license agreement with Alnylam, we agreed to pay contingent payments of up to $170.0 million upon achievement of specified regulatory and sales milestones for the PCSK-9 products. We have also agreed to pay to Alnylam specified royalties on net sales of the PCSK-9 products. In addition to these obligations to Alnylam, in connection with the license, we also agreed to make payments to third parties on sales of the PCSK-9 products.
- In connection with our acquisition of Rempex, we agreed to pay contingent payments of up to $289.8 million, less certain expenses and employer taxes owing because of such payments, upon achievement of specified development, regulatory and sales milestones.
- In connection with our acquisition of Annovation, we agreed to pay contingent payments of up to $26.3 million upon achievement of certain clinical and regulatory milestones and up to $6.5 million in additional payments to other third parties.

In 2015, 2014 and 2013, we incurred aggregate royalties to Biogen and HRI of $1.8 million, $129.4 million and $140.7 million, respectively, and royalties to AstraZeneca with respect to Cleviprex of $1.3 million, $0.8 million and $1.0 million. As of December 15, 2014, we no longer owe royalties to Biogen or HRI relating to sales of Angiomax in the United States.

Recent Accounting Pronouncements

For detailed information regarding recently issued accounting pronouncements and the expected impact on our financial statements, see Note 2 "Significant Accounting Policies," in the accompanying notes to consolidated financial statements included in this Annual Report on Form 10-K.

Application of Critical Accounting Estimates

The discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles, or GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect our reported assets and liabilities, revenues and expenses, and other financial information. Actual results may differ significantly from these estimates under different assumptions and conditions. In addition, our reported financial condition and results of operations could vary due to a change in the application of a particular accounting standard.

We regard an accounting estimate or assumption underlying our financial statements as a “critical accounting estimate” where:

- the nature of the estimate or assumption is material due to the level of subjectivity and judgment necessary to account for highly uncertain matters or the susceptibility of such matters to change; and
- the impact of the estimates and assumptions on financial condition or operating performance is material.

Our significant accounting policies are more fully described in note 2 to our consolidated financial statements included in this Annual Report on Form 10-K. Not all of these significant accounting policies, however, require that we make estimates and assumptions that we believe are “critical accounting estimates.” We have discussed our accounting policies with the audit committee of our board of directors, and we believe that our estimates relating to revenue recognition, inventory, share-based compensation, income taxes, in-process research and development, contingent purchase price from business combinations and impairment of long-lived assets described below are “critical accounting estimates.”

Revenue Recognition

Product Sales. We distribute Cleviprex, Orbactiv, Minocin IV, Kengreal, branded Angiomax, acute care generic products and our ready-to-use Argatroban in the United States through a sole source distribution model with ICS.

Under this model, we record revenue upon shipment of Cleviprex, Minocin IV and ready-to-use Argatroban to ICS. ICS then primarily sells these products to a limited number of national medical and pharmaceutical wholesalers with distribution centers located throughout the United States. Ionsys is sold through a sole source distribution model with Cardinal Health, Inc., or Cardinal. We recognize sales from Ionsys, Orbactiv, Kengreal and the acute care generic products it markets under a deferred revenue model. Under our deferred revenue model, we invoice ICS or Cardinal upon product shipment, record deferred revenue at gross invoice sales price, classify the cost basis of the product held by ICS or Cardinal as finished goods inventory held by others and include such cost basis amount

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within prepaid expenses and other current assets on our consolidated balance sheets. We currently recognize the deferred revenue when hospitals purchase product and will do so until such time that we have sufficient information to develop reasonable estimates of expected returns and other adjustments to gross revenue. We had deferred revenue of $4.1 million and $5.8 million as of December 31, 2015 and 2014, respectively, associated with sales of Orbactiv, Ionsys and Kengreal in the United States. We recognized $11.7 million and $0.8 million of revenue associated with Orbactiv, Kengreal and Ionsys during 2015 and Orbactiv in 2014, respectively, related to purchases by hospitals.

During the six months ended June 30, 2015, sales of Angiomax in the United States were recognized upon shipment to ICS. With the entrance of generic products and their impact on pricing in the marketplace, we are no longer able to reasonably estimate our chargebacks with respect to Angiomax. Accordingly, effective July 1, 2015, sales of Angiomax in the United States are recognized upon shipment by distributors to hospitals as the price of Angiomax is fixed and determinable at that time. Effective July 2, 2015, we entered into a supply and distribution agreement with Sandoz Inc., or Sandoz, under which we have granted Sandoz the exclusive right to sell in the United States an authorized generic of Angiomax (bivalirudin). In accordance with this agreement, we receive a royalty based on Sandoz' gross margin, as defined in the agreement, of the authorized generic product sold to hospitals. We recognize royalty revenue on an accrual basis in the period it is reported by Sandoz. During 2015, we recognized royalty revenue of $53.9 million.

Our agreement with ICS provides that ICS will be our exclusive distributor of Cleviprex, Orbactiv, Minocin IV, branded Angiomax, acute care generic products and ready-to-use Argatroban in the United States. Under the terms of this fee-for-service agreement, ICS places orders with us for sufficient quantities of Cleviprex, Minocin IV and ready-to-use Argatroban, to maintain an appropriate level of inventory based on our customers' historical purchase volumes. ICS assumes all credit and inventory risks, is subject to our standard return policy and has sole responsibility for determining the prices at which it sells these products, subject to specified limitations in the agreement. The agreement terminates on February 28, 2019 and will automatically renew for additional one-year periods unless either party gives notice at least 90 days prior to the automatic extension. Either party may terminate the agreement at any time and for any reason upon 180 days prior written notice to the other party.

In Europe, we market and sell Angiomax under the trade name Angiox. As of December 31, 2015, we market and sell Angiomax in India, Australia and New Zealand. We sell Cleviprex outside the United States in Australia and in certain European countries. We recognize revenue from such sales when hospitals purchase the product. We had deferred revenue of $1.0 million and $0.6 million as of December 31, 2015 and 2014, respectively, associated with sales of Angiomax and Cleviprex to wholesalers outside of the United States.

We do not recognize revenue from product sales until there is persuasive evidence of an arrangement, delivery has occurred, the price is fixed or determinable, the buyer is obligated to pay us, the obligation to pay is not contingent on resale of the product, the buyer has economic substance apart from us, we have no obligation to bring about the sale of the product, the amount of returns can be reasonably estimated and collectability is reasonably assured.

We record allowances for chargebacks and other discounts or accruals for product returns, rebates and fee-for-service charges at the time of sale, and report revenues net of such amounts. In determining the amounts of certain allowances and accruals, we must make significant judgments and estimates. For example, in determining these amounts, we estimate hospital demand, buying patterns by hospitals and group purchasing organizations from wholesalers and the levels of inventory held by wholesalers and by ICS. Making these determinations involves estimating whether trends in past wholesaler and hospital buying patterns will predict future product sales. We receive data periodically from ICS and wholesalers on inventory levels and levels of hospital purchases and we consider this data in determining the amounts of these allowances and accruals.

- Product returns. Our customers have the right to return any unopened product during the 18-month period beginning six months prior to the labeled expiration date and ending 12 months after the labeled expiration date. As a result, in

calculating the accrual for product returns, we must estimate the likelihood that product sold might not be used within six months of expiration and analyze the likelihood that such product will be returned within 12 months after expiration. We consider all of these factors and adjust the accrual periodically throughout each quarter to reflect actual experience. When customers return product, they are generally given credit against amounts owed. The amount credited is charged to our product returns accrual.

In estimating the likelihood of product being returned, we rely on information from ICS and wholesalers regarding inventory levels, measured hospital demand as reported by third-party sources and internal sales data. We also consider the past buying patterns of ICS and wholesalers, the estimated remaining shelf life of product previously shipped, the expiration dates of product currently being shipped, price changes of competitive products and introductions of generic products.

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At December 31, 2015 and 2014, our accrual for product returns was $8.7 million and $3.3 million, respectively. A 10% change in our accrual for product returns would have had an approximately $0.9 million effect on our reported net revenue for the year ended December 31, 2015.

- Chargebacks and rebates. Although we primarily sell products to ICS in the United States, we typically enter into agreements with hospitals, either directly or through group purchasing organizations acting on behalf of their hospital members, in connection with the hospitals' purchases of products.

Based on these agreements, most of our hospital customers have the right to receive a discounted price for products and volume-based rebates on product purchases. In the case of discounted pricing, we typically provide a credit to ICS, or a chargeback, representing the difference between ICS's acquisition list price and the discounted price. In the case of the volume-based rebates, we typically pay the rebate directly to the hospitals.

We also participate in the 340B Drug Pricing Program under the Public Health Services Act. Under the 340B Drug Pricing Program, we offer qualifying entities a discount off the commercial price of Angiomax for patients undergoing percutaneous coronary intervention, or PCI, on an outpatient basis.

As a result of these agreements, at the time of product shipment, we estimate the likelihood that product sold to ICS might be ultimately sold to a contracting hospital or group purchasing organization. We also estimate the contracting hospital's or group purchasing organization's volume of purchases.

We base our estimates on industry data, hospital purchases and the historic chargeback data we receive from ICS, most of which ICS receives from wholesalers, which detail historic buying patterns and sales mix for particular hospitals and group purchasing organizations, and the applicable customer chargeback rates and rebate thresholds. Our allowance for chargebacks was $15.7 million and $44.4 million at December 31, 2015 and 2014, respectively. A 10% change in our allowance for chargebacks would have had an approximate $1.6 million effect on our reported net revenue for the year ended December 31, 2015. We did not have any significant allowance for rebates at December 31, 2015 and at 2014.

- Fees-for-service. We offer discounts to certain wholesalers and ICS based on contractually determined rates for certain services. We estimate our fee-for-service accruals and allowances based on historical sales, wholesaler and distributor inventory levels and the applicable discount rate. Our discounts are accrued at the time of the sale and are typically settled with the wholesalers or ICS within 60 days after the end of each respective quarter. Our fee-for-service accruals and allowances were $2.7 million and $0.9 million at December 31, 2015 and 2014, respectively. A 10% change in our fee-for-service accruals and allowances would have had an approximately $0.3 million effect on our net revenue for the year ended December 31, 2015.

We have adjusted our allowances for chargebacks and accruals for product returns, rebates and fees-for-service in the past based on actual sales experience, and we will likely be required to make adjustments to these allowances and accruals in the future. We continually monitor our allowances and accruals and make adjustments when we believe actual experience may differ from our estimates.

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The following table provides a summary of activity with respect to our sales allowances and accruals during 2015, 2014 and 2013 (amounts in thousands):

	Cash Discounts	Returns	Chargebacks	Rebates	Fees-for-Service
Balance at January 1, 2013	$2,010	$1,113	$14,843	$—	$3,577
Allowances for sales during 2013	15,943	2,524	130,374	—	12,059
Actual credits issued for prior year's sales	(1,871)	(1,204)	(10,244)	—	(3,049)
Actual credits issued for sales during 2013	(13,420)	—	(109,933)	—	(9,460)
Balance at December 31, 2013	2,662	2,433	25,040	—	3,127
Allowances for sales during 2014	18,299	5,836	175,001	—	12,453
Actual credits issued for prior year's sales	(2,411)	(1,724)	(25,888)	—	(3,246)
Actual credits issued for sales during 2014	(14,408)	(3,196)	(129,754)	—	(11,410)
Balance at December 31, 2014	4,142	3,349	44,399	—	924
Allowances for sales during 2015	9,212	12,143	107,564	833	14,249
Actual credits issued for prior year's sales	(3,927)	(3,528)	(40,419)		(1,179)
Actual credits issued for sales during 2015	(8,540)	(3,221)	(95,828)	(733)	(11,314)
Balance at December 31, 2015	$887	$8,743	$15,716	$100	$2,680

International Distributors. Under our agreements with our primary international distributors, we sell Angiomax to these distributors at a fixed price. The established price is typically determined once per year, prior to the first shipment of Angiomax to the distributor each year. The minimum selling price used in determining the price is 50% of the average net unit selling price.

Revenue associated with sales to our international distributors during 2015, 2014 and 2013 was $1.1 million, $1.3 million and $5.1 million, respectively.

Inventory

We record inventory upon the transfer of title from our vendors. Inventory is stated at the lower of cost or market value and valued using first-in, first-out methodology. Angiomax, Cleviprex, Orbactiv and Minocin IV bulk substance is classified as raw materials and its costs are determined using acquisition costs from our contract manufacturers. We record work-in-progress costs of filling, finishing and packaging against specific product batches.

We review inventory, including inventory purchase commitments, for slow moving or obsolete amounts based on expected revenues. We review our projected market share as well as current buying patterns from our customers. We analyze our ability to sell the inventory on hand and committed to customers prior to the expiration period of the respective inventory. Significant judgment is employed in determining the appropriateness of our ability to sell inventory on hand and commitments based on our sales projections. If annual and expected volumes are less than expected, we may be required to make additional allowances for excess or obsolete inventory in the future.

In 2015, charges for inventory obsolescence and for potential losses on future inventory purchase commitments due primarily to the loss of market exclusivity for Angiomax in the United States total $29.5 million and $12.1 million, respectively. As of December 31, 2015, our inventory of Angiomax was $35.9 million and we had inventory-related purchase commitments totaling $17.2 million for 2016 for Angiomax bulk drug substance. If sales of Angiomax were to decline, we could be required to make additional allowance for excess or obsolete inventory, which could negatively impact our results of operations and our financial condition.

Share-Based Compensation

We have established equity compensation plans for our employees, directors and certain other individuals. All grants and terms are authorized by our Board of Directors or the Compensation Committee of our Board of Directors, as appropriate. We may grant non-qualified stock options, restricted stock awards, stock appreciation rights and other share-based awards under our 2013 Stock Incentive Plan. From April 2009 to May 2010, we granted non-qualified stock options under our 2009 Equity Inducement Plan to new employees as an inducement to their entering into employment with us.

We account for share-based compensation in accordance with Financial Accounting Standards Board, or FASB, Accounting Standards Codification 718-10, or ASC 718-10, and recognize expense using the accelerated expense attribution method.

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ASC 718-10 requires companies to recognize compensation expense in an amount equal to the fair value of all share-based awards granted to employees.

We estimate the fair value of each option on the date of grant using the Black-Scholes closed-form option-pricing model based on assumptions for the expected term of the stock options, expected volatility of our common stock, and prevailing interest rates. ASC 718-10 also requires us to estimate forfeitures in calculating the expense relating to share-based compensation as opposed to only recognizing forfeitures and the corresponding reduction in expense as they occur.

We have based our assumptions on the following:

Assumption	Method of Estimating
• Estimated expected term of options	• Employees' historical exercise experience
• Expected volatility	• Historical price of our common stock
• Risk-free interest rate	• Yields of U.S. Treasury securities corresponding with the expected life of option grants
• Forfeiture rates	• Historical forfeiture data

Of these assumptions, the expected term of the option and expected volatility of our common stock are the most difficult to estimate since they are based on the exercise behavior of the employees and expected performance of our common stock. Increases in the term and the volatility of our common stock will generally cause an increase in compensation expense.

Income Taxes

We account for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

We record net deferred tax assets to the extent we believe these assets will more likely than not be realized. In accordance with the newly issued ASU No. 2015-17, "Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes", we record all deferred tax assets and liabilities as long term. We early adopted this guidance on a retrospective basis and reclassed $33.1 million to noncurrent deferred tax assets. On a periodic basis, we evaluate the realizability of our deferred tax assets net of deferred tax liabilities and adjust such amounts in light of changing facts and circumstances, including but not limited to our level of past and future taxable income, the current and future expected utilization of tax benefit carryforwards, any regulatory or legislative actions by relevant authorities with respect to the Angiomax patents, and the status of litigation with respect to those patents. We consider all available evidence, both positive and negative, to determine whether, based on the weight of that evidence, a valuation allowance is required to reduce the net deferred tax assets to the amount that is more likely than not to be realized in future periods.

Our annual effective tax rate is based on pre-tax earnings (loss) adjusted for differences between GAAP and income tax accounting, existing statutory tax rates, limitations on the use of net operating loss and tax credit carryforwards and tax planning opportunities available in the jurisdictions in which we operate.

In accordance with FASB ASC 740, we record uncertain tax positions on the basis of a two-step process whereby (1) we determine whether it is more likely than not that a tax position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position; and (2) for tax positions that meets the more-likely-than-not recognition threshold, we recognize the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement with the relevant tax authority. Significant judgment is required in evaluating our tax position. Settlement of filing positions that may be challenged by tax

authorities could impact the income tax position in the year of resolution. Our liability for uncertain tax positions is reflected as a reduction to our deferred tax assets in our consolidated balance sheet.

In-Process Research and Development

The cost of in-process research and development, or IPR&D, acquired directly in a transaction other than a business combination is capitalized if the projects have an alternative future use; otherwise they are expensed. The fair values of IPR&D projects acquired in business combinations are capitalized. Several methods may be used to determine the estimated fair value of the IPR&D acquired in a business combination. The Company utilizes the "income method," which applies a probability weighting that considers the risk of development and commercialization to the estimated future net cash flows that are derived from projected sales revenues and estimated costs. These projections are based on factors such as relevant market size, patent protection, historical pricing of similar products and expected industry trends. The estimated future net cash flows are then

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discounted to the present value using an appropriate discount rate. This analysis is performed for each project independently. These assets are treated as indefinite-lived intangible assets until completion or abandonment of the projects, at which time the assets are amortized over the remaining useful life or written off, as appropriate. These are tested at least annually or when a triggering event occurs that could indicate a potential impairment.

Contingent Purchase Price from Business Combinations

We record contingent consideration resulting from a business combination at its fair value on the acquisition date. We estimate the fair value of the contingent consideration liabilities related to the achievement of future development and regulatory milestones using a probability-weighted discounted cash flow approach. Changes to contingent consideration obligations can result from adjustments to discount rates and periods, updates in the assumed achievement or timing of any development or commercial milestone or changes in the probability of certain clinical events, the passage of time and changes in the assumed probability associated with regulatory approval. Each reporting period thereafter, we revalue these obligations and record increases or decreases in their fair value as an adjustment to net change in operating expenses within the accompanying consolidated statement of income. Significant judgment is employed in determining the appropriateness of these assumptions as of the acquisition date and for each subsequent period. Accordingly, any change in the assumptions described above, could have a material impact on the amount of the net change in contingent consideration obligation that we record in any given period.

Impairment of Long-Lived Assets and Goodwill

Long-lived assets, such as property, plant and equipment and certain other long-term assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset or asset group to the estimated undiscounted future cash flows expected to be generated by the asset or asset group. If the carrying amount of the assets exceed their estimated future undiscounted net cash flows, an impairment charge is recognized for the amount by which the carrying amount of the assets exceed the fair value of the assets. Goodwill represents the excess consideration in a business combination over the fair value of identifiable net assets acquired. Goodwill is not amortized, but subject to impairment testing at least annually or when a triggering event occurs that could indicate a potential impairment. We determine whether goodwill may be impaired by comparing the carrying value of its reporting unit to the fair value of its reporting unit.

As a result of the sale of the hemostasis business, we are accounting for the assets and liabilities of the hemostasis business to be sold as held for sale. As a result of the classification as held for sale, we recorded impairment charges of $133.3 million, including $24.5 million related to goodwill, to reduce the hemostasis business disposal group’s carrying value to its estimated fair value, less costs to sell.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Market risk is the risk of change in fair value of a financial instrument due to changes in interest rates, equity prices, creditworthiness, financing, exchange rates or other factors. Our primary market risk exposure relates to changes in interest rates in our cash, cash equivalents and available for sale securities. We place our investments in high-quality financial instruments, primarily money market funds, corporate debt securities, asset backed securities and U.S. government agency notes with maturities of less than two years, which we believe are subject to limited interest rate and credit risk. We currently do not hedge interest rate exposure. At December 31, 2015, we held $373.2 million in cash and cash equivalents, which had an average interest rate of approximately 0.35%. A 10% change in such average interest rate would have had an approximate $0.1 million impact on our annual interest income. At December 31, 2015, all cash and cash equivalents were due on demand or within one year and 95.8% is held in the United States.

Most of our transactions are conducted in U.S. dollars. We do have certain agreements with parties located outside the United States. Transactions under certain of these agreements are conducted in U.S. dollars, subject to adjustment based on significant fluctuations in currency exchange rates. Transactions under certain other of these agreements are conducted in the local foreign currency. As of December 31, 2015, we had receivables denominated in currencies

other than the U.S. dollar. A 10% change in foreign exchange rates would have had an approximate $0.7 million impact on our other income and cash.

Item 8. Financial Statements and Supplementary Data.

All financial statements and schedules required to be filed hereunder are filed as Appendix A to this Annual Report on Form 10-K and incorporated herein by this reference.

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Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.
None.

Item 9A. Controls and Procedures.

Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2015. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of December 31, 2015, our chief executive officer and chief financial officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Annual Report on Internal Control Over Financial Reporting

The report required to be filed hereunder is included in Appendix A to this Annual Report on Form 10-K and incorporated herein by this reference.

Attestation Report of Independent Registered Public Accounting Firm

The report required to be filed hereunder is included in Appendix A to this Annual Report on Form 10-K and incorporated herein by this reference.

Changes in Internal Control Over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the fiscal quarter ended December 31, 2015 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

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PART III

Pursuant to Paragraph G(3) of the General Instructions to Form 10-K, the information required by Part III (Items 10, 11, 12, 13 and 14) is being incorporated by reference herein from our proxy statement to be filed with the Securities and Exchange Commission within 120 days of the end of the fiscal year ended December 31, 2015 in connection with our 2016 annual meeting of stockholders. We refer to such proxy statement herein as our 2016 Proxy Statement.

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this item will be contained in our 2016 Proxy Statement under the captions “Discussion of Proposals,” “Information About Corporate Governance,” “Information About Our Executive Officers” and “Section 16(a) Beneficial Ownership Reporting Compliance” and is incorporated herein by this reference.

We have adopted a code of business conduct and ethics applicable to all of our directors and employees, including our principal executive officer, principal financial officer and our controller. The global code of conduct and ethics, as amended, is available on the corporate governance section of “About” of our website, www.themedicinescompany.com. Any waiver of the code of business conduct and ethics for directors or executive officers, or any amendment to the code that applies to directors or executive officers, may only be made by the board of directors. We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, a provision of this code of ethics by filing a Form 8-K disclosing such waiver, or, to the extent permitted by applicable NASDAQ regulations, by posting such information on our website, at the address and location specified above. To date, no such waivers have been requested or granted.

Item 11. Executive Compensation.

The information required by this item will be contained in our 2016 Proxy Statement under the captions “Information About Corporate Governance” and “Information About Our Executive Officers” and is incorporated herein by this reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this item will be contained in our 2016 Proxy Statement under the captions “Principal Stockholders, “Information About Our Executive Officers” and “Equity Compensation Plan Information” and is incorporated herein by this reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this item will be contained in our 2016 Proxy Statement under the captions “Information About Corporate Governance” and “Information About Our Executive Officers” and is incorporated herein by this reference.

Item 14. Principal Accounting Fees and Services.

The information required by this item will be contained in our 2016 Proxy Statement under the captions “Independent Registered Public Accounting Firm Fees and Other Matters” and “Discussion of Proposals” and is incorporated herein by this reference.

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PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) Documents filed as part of this Annual Report on Form 10-K:

(1) Financial Statements. The Consolidated Financial Statements are included as Appendix A hereto and are filed as part of this Annual Report on Form 10-K. The Consolidated Financial Statements include:

(2) Exhibits. The exhibits set forth on the Exhibit Index following the signature page to this annual report are filed as part of this Annual Report on Form 10-K. This list of exhibits identifies each management contract or compensatory plan or arrangement required to be filed as an exhibit to this Annual Report on Form 10-K.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on February 29, 2016.

THE MEDICINES COMPANY

By: /s/ Clive A. Meanwell
Clive A. Meanwell
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

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Signature	Title(s)	Date
/s/ Clive A. Meanwell Clive A. Meanwell	Chief Executive Officer and Director (Principal Executive Officer)	February 29, 2016
/s/ William B. O'Connor William B. O'Connor	Chief Financial Officer (Principal Financial and Accounting Officer)	February 29, 2016
/s/ William W. Crouse William W. Crouse	Director	February 29, 2016
/s/ Alexander J. Denner Alexander J. Denner	Director	February 29, 2016
/s/ Fredric N. Eshelman Fredric N. Eshelman	Director (Chairman of the Board)	February 29, 2016
/s/ Robert J. Hugin Robert J. Hugin	Director	February 29, 2016
/s/ John C. Kelly John C. Kelly	Director	February 29, 2016
/s/ Armin M. Kessler Armin M. Kessler	Director	February 29, 2016
/s/ Robert G. Savage Robert G. Savage	Director	February 29, 2016
/s/ Hiroaki Shigeta Hiroaki Shigeta	Director	February 29, 2016
/s/ Melvin K. Spigelman Melvin K. Spigelman	Director	February 29, 2016
/s/ Elizabeth H.S. Wyatt Elizabeth H.S. Wyatt	Director	February 29, 2016

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APPENDIX A
INDEX TO THE CONSOLIDATED FINANCIAL STATEMENTS OF
THE MEDICINES COMPANY

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Management's Report on Consolidated Financial Statements and
Internal Control over Financial Reporting

The management of The Medicines Company has prepared, and is responsible for, The Medicines Company's consolidated financial statements and related footnotes. These consolidated financial statements have been prepared in conformity with U.S. generally accepted accounting principles.

The Medicines Company's management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) or 15d-15(f) promulgated under the Securities Exchange Act of 1934 as a process designed by, or under the supervision of the Company's principal executive and principal financial officers and effected by the Company's board of directors, management, and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of The Medicines Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of The Medicines Company are being made only in accordance with authorizations of management and directors of The Medicines Company; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of The Medicines Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The Medicines Company's management assessed the Company's internal control over financial reporting as of December 31, 2015. Management's assessment was based upon the criteria established in "Internal Control — Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework). Based on its assessment, management concluded that, as of December 31, 2015, The Medicines Company's internal control over financial reporting is effective based on those criteria.

The Company's independent auditors, Ernst & Young LLP, a registered public accounting firm, are appointed by the Audit Committee, subject to ratification by the Company's stockholders. Ernst & Young LLP have audited and reported on the consolidated financial statements of the Company and the effectiveness of the Company's internal control over financial reporting. The reports of the independent auditors are contained in this Annual Report on Form 10-K.

/s/ Clive A. Meanwell

Chief Executive Officer

/s/ William B. O'Connor

Chief Financial Officer

Dated February 29, 2016

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Report of Independent Registered Public Accounting Firm
The Board of Directors and Stockholders of The Medicines Company

We have audited the accompanying consolidated balance sheets of The Medicines Company as of December 31, 2015 and 2014, and the related consolidated statements of operations, comprehensive (loss) income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2015. Our audits also included the financial statement schedule listed in the Index at Item 15(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of The Medicines Company at December 31, 2015 and 2014, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2015, in conformity with US generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), The Medicines Company's internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 29, 2016 expressed an unqualified opinion thereon.
/s/ Ernst & Young LLP
MetroPark, New Jersey
February 29, 2016

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Report of Independent Registered Public Accounting Firm
on Internal Control over Financial Reporting
The Board of Directors and Stockholders of The Medicines Company

We have audited The Medicines Company's internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). The Medicines Company's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Consolidated Financial Statements and Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, The Medicines Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the 2015 consolidated financial statements of The Medicines Company and our report dated February 29, 2016 expressed an unqualified opinion thereon.
/s/ Ernst & Young LLP
MetroPark, New Jersey
February 29, 2016

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THE MEDICINES COMPANY
CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share amounts)

	December 31, 2015	2014
ASSETS		
Current assets:		
Cash and cash equivalents	$373,173	$370,741
Accounts receivable, net of allowances of approximately $17.6 million and $47.0 million at December 31, 2015 and 2014	52,328	155,691
Inventory, net	64,584	78,971
Prepaid expenses and other current assets	19,995	15,989
Current assets held for sale	322,837	2,502
Total current assets	832,917	623,894
Fixed assets, net	34,780	38,330
Intangible assets, net	636,220	563,718
Goodwill	289,441	262,032
Restricted cash	1,428	1,446
Deferred tax assets	—	33,080
Other assets	12,165	8,034
Noncurrent assets held for sale	—	355,171
Total assets	$1,806,951	$1,885,705
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$36,038	$19,799
Accrued expenses	128,558	159,252
Current portion of contingent purchase price	26,800	123,610
Convertible senior notes	257,911	—
Deferred revenue	19,863	14,350
Current liabilities held for sale	67,515	86,812
Total current liabilities	536,685	403,823
Contingent purchase price	96,957	98,224
Convertible senior notes	321,104	246,676
Deferred tax liability	89,996	105,172
Other liabilities	13,346	9,944
Noncurrent liabilities held for sale	—	101,775
Total liabilities	1,058,088	965,614
Equity component of currently redeemable convertible senior notes (Note 10)	17,089	—
Stockholders' equity:		
Preferred stock, $1.00 par value per share, 5,000,000 shares authorized; no shares issued and outstanding	—	—
Common stock, $.001 par value per share; 187,500,000 authorized, 71,767,371 issued, and 69,574,389 outstanding at December 31, 2015 and 125,000,000 authorized, 67,667,468 issued, and 65,474,486 outstanding at December 31, 2014	72	68
Additional paid-in capital	1,208,058	1,045,078
Treasury stock, at cost; 2,192,982 at December 31, 2015 and December 31, 2014	(50,000)	(50,000)
Accumulated deficit	(429,865)	(77,109)

Accumulated other comprehensive income	3,973	2,528
Total The Medicines Company stockholders' equity	732,238	920,565
Non-controlling interest in joint venture	(464)	(474)
Total stockholders' equity	731,774	920,091
Total liabilities and stockholders' equity	$1,806,951	$1,885,705

See accompanying notes to consolidated financial statements.

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THE MEDICINES COMPANY
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Year Ended December 31,		
	2015	2014	2013
Net product revenues	$255,148	$659,690	$624,608
Royalty revenues	53,859	—	—
Total net revenues	309,007	659,690	624,608
Operating expenses:			
Cost of product revenue	119,931	233,330	216,636
Research and development	123,606	139,512	138,260
Selling, general and administrative	337,943	314,954	247,823
Total operating expenses	581,480	687,796	602,719
(Loss) income from operations	(272,473)	(28,106)	21,889
Legal settlement	5,000	25,736	—
Co-promotion and license income	10,132	24,236	17,383
Gain on remeasurement of equity investment	22,741	—	—
Gain on sale of investment	19,773	—	—
Loss in equity investment	(144)	(1,711)	—
Interest expense	(37,092)	(15,701)	(15,531)
Investment impairment	—	(7,500)	—
Other income	400	918	1,420
(Loss) income from continuing operations before income taxes	(251,663)	(2,128)	25,161
Benefit (provision) for income taxes	29,743	2,309	(2,273)
Net (loss) income from continuing operations	(221,920)	181	22,888
Loss from discontinued operations, net of tax	(130,826)	(32,529)	(7,628)
Net (loss) income	(352,746)	(32,348)	15,260
Net (income) loss attributable to non-controlling interest	(10)	138	252
Net (loss) income attributable to The Medicines Company	$(352,756)	$(32,210)	$15,512
Basic (loss) earnings per common share attributable to The Medicines Company:			
(Loss) earnings from continuing operations	$(3.32)	$—	$0.40
Loss from discontinued operations	(1.96)	(0.50)	(0.13)
Basic (loss) earnings per share	$(5.28)	$(0.50)	$0.27
Diluted (loss) earnings per common share attributable to The Medicines Company:			
(Loss) earnings from continuing operations	$(3.32)	$—	$0.37
Loss from discontinued operations	(1.96)	(0.49)	(0.12)
Diluted (loss) earnings per share	$(5.28)	$(0.49)	$0.25
Weighted average number of common shares outstanding:			
Basic	66,809	64,473	58,096
Diluted	66,809	66,668	62,652

See accompanying notes to consolidated financial statements.

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THE MEDICINES COMPANY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME
(In thousands)

	Year Ended December 31,		
	2015	2014	2013
Net (loss) income	$(352,746)	$(32,348)	$15,260
Other comprehensive (loss) income:			
Unrealized (loss) gain on available for sale securities	—	—	(10)
Foreign currency translation adjustment	1,445	7,180	(3,876)
Comprehensive (loss) income	(351,301)	(25,168)	11,374
Less: comprehensive income (loss) attributable to noncontrolling interest	10	(138)	(252)
Comprehensive (loss) income attributable to The Medicines Company	$(351,311)	$(25,030)	$11,626

See accompanying notes to consolidated financial statements.

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THE MEDICINES COMPANY
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands)

	Common Stock		Treasury Stock		Additional Paid-in	Accumulated	Accumulated Comprehensive (Loss)	Non-controlling	Total Stockholders'
	Shares	Amount	Shares	Amount	Capital	Deficit	Income	Interest in JV	Equity
Balance at January 1, 2013	56,152	$ 56	(2,193)	$(50,000)	$697,427	$ (60,411)	$ (766)	$ (84)	$ 586,222
Employee stock purchases	3,547	4			74,209				74,213
Issuance of restricted stock awards	237	—			—				—
Issuance of common stock	6,653	6			189,593				189,599
Non-cash stock compensation					23,078				23,078
Excess tax benefit from share-based compensation arrangements					7,675				7,675
Net income (loss)						15,512		(252)	15,260
Currency translation adjustment							(3,876)		(3,876)
Unrealized loss on available for sale securities (net of tax)							(10)		(10)
Balance at December 31, 2013	66,589	$ 66	(2,193)	$(50,000)	$991,982	$ (44,899)	$ (4,652)	$ (336)	$ 892,161
Employee stock purchases	864	1			17,342				17,343
Issuance of restricted stock awards	214	1			—				1
Non-cash stock compensation					34,311				34,311
Excess tax benefit from share-based compensation arrangements					1,443				1,443
Net loss						(32,210)		(138)	(32,348)
Currency translation adjustment							7,180		7,180
Balance at December 31, 2014	67,667	$ 68	(2,193)	$(50,000)	$1,045,078	$ (77,109)	$ 2,528	$ (474)	$ 920,091
Employee stock purchases	2,989	3			65,235				65,238
Issuance of restricted stock awards	166	—							—

Issuance of common stock	945	1			29,963				29,964
Non-cash stock compensation					30,605				30,605
Equity component of the convertible notes, issuance, net					37,177				37,177
Net (loss) income						(352,756)		10	(352,746)
Currency translation adjustment							1,445		1,445
Balance at December 31, 2015	71,767	$ 72	(2,193)	$ (50,000)	$ 1,208,058	$ (429,865)	$ 3,973	$ (464)	$ 731,774

See accompanying notes to consolidated financial statements.

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THE MEDICINES COMPANY
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,		
	2015	2014	2013
Cash flows from operating activities:			
Net (loss) income	$(352,746)	$(32,348)	$15,260
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	34,837	34,398	32,238
Impairment charges	29,413	31,133	—
Impairment on divestiture	133,273	—	—
Amortization of net premiums and discounts on available for sale securities	—	—	209
Amortization of long term debt financing costs	2,433	1,332	1,179
Amortization of debt discount	21,243	10,588	9,978
Unrealized foreign currency transaction (gains) losses, net	(173)	(833)	143
Non-cash stock compensation expense	30,605	34,311	23,078
Loss on disposal of fixed assets	543	35	39
Deferred tax benefit	(53,292)	(5,565)	(10,272)
Excess tax benefit from share-based compensation arrangements	—	(1,443)	(7,675)
Gain on sale of investment	(19,773)	—	—
Gain on remeasurement of equity investment	(22,741)	—	—
Reserve for excess or obsolete inventory	42,599	—	—
Change in contingent consideration obligation	20,278	20,823	16,942
Loss in equity method investment	144	1,711	—
Changes in operating assets and liabilities:			
Accrued interest receivable	—	1	347
Accounts receivable	103,100	(54,739)	(15,017)
Inventory, net	(69,318)	5,627	(10,130)
Prepaid expenses and other current assets	(5,286)	(3,560)	39
Accounts payable	16,362	(6,866)	(1,319)
Accrued expenses	(39,501)	24,058	31,192
Deferred revenue	8,386	5,257	3,854
Payments on contingent purchase price	(78,900)	—	—
Other liabilities	549	3,394	1,335
Net cash (used in) provided by operating activities	(197,965)	67,314	91,420
Cash flows from investing activities:			
Proceeds from sale of fixed assets	250	—	—
Proceeds from sale of investment	19,773	—	—
Proceeds from maturities and sales of available for sale securities	—	—	50,656
Purchases of fixed assets	(2,555)	(7,289)	(13,574)
Payments for intangible assets	(112,617)	(15,000)	—
Other investments	—	(3,625)	1,125
Cash used for acquisitions, net	(28,397)	(58,934)	(542,579)
Decrease in restricted cash	35	92	11
Net cash used in investing activities	(123,511)	(84,756)	(504,361)
Cash flows from financing activities:			
Proceeds from issuances of common stock	95,198	17,343	74,212

Proceeds from equity offering, net	—	—	189,600
Milestone payments	(157,601)	(9,953)	—
Proceeds from the issuance of convertible senior notes	400,000	—	—
Debt issuance costs	(12,769)	—	—
Excess tax benefit from share-based compensation arrangements	—	1,443	7,675
Net cash provided by financing activities	324,828	8,833	271,487
Effect of exchange rate changes on cash	(920)	2,623	(1,265)
(Decrease) increase in cash and cash equivalents	2,432	(5,986)	(142,719)
Cash and cash equivalents at beginning of period	370,741	376,727	519,446
Cash and cash equivalents at end of period	$373,173	$370,741	$376,727
Supplemental disclosure of cash flow information:			
Taxes paid	$114	$1,371	$9,137
Interest paid	$8,837	$3,782	$4,374

See accompanying notes to consolidated financial statements.

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THE MEDICINES COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Business

The Medicines Company (the Company) is 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. The Company markets Angiomax® (bivalirudin), Cleviprex® (clevidipine) injectable emulsion, Ionsys® (fentanyl iontophoretic transdermal system), Kengreal® (cangrelor), Minocin (minocycline) for injection and Orbactiv® (oritavancin). The Company also has a pipeline of acute and intensive care hospital products in development, including ABP-700, ALN-PCSsc, Carbavance® and MDCO-216. The Company has the right to develop, manufacture and commercialize ALN-PCSsc under its collaboration agreement with Alnylam Pharmaceuticals, Inc. (Alnylam). The Company believes that its 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 its products in development, have the potential to offer, improved performance to hospital businesses.

In addition to these products and products in development, the Company sells a ready-to-use formulation of Argatroban and has a portfolio of ten generic drugs, which it refers to as its acute care generic products, that the Company has the non-exclusive right to market in the United States. The Company is currently selling three of its acute care generic products, midazolam, ondansetron and rocuronium.

On July 2, 2015, the Company entered into a supply and distribution agreement with Sandoz Inc., or Sandoz, under which the Company granted Sandoz the exclusive right to sell in the United States an authorized generic of Angiomax (bivalirudin). The Company 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 the Company in its 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 ANDAs for its generic versions of bivalirudin were approved by the FDA and Hospira began selling its generic versions of bivalirudin. In November 2015, the Company's 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 the Company's petition for en banc review, due to the July 2, 2015 decision and the Company's 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.

On November 3, 2015, the Company announced that it was in the process of evaluating its operations with a goal of unlocking stockholder value. In particular, the Company stated its current intention was to explore strategies for optimizing its capital structure and liquidity position and to narrow the Company’s 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 hemostasis portfolio, consisting of PreveLeak™ (surgical sealant), Raplixa ™ (fibrin sealant) and Recothrom® Thrombin topical (Recombinant).

On February 1, 2016, the Company completed the sale of its hemostasis business, consisting of the Company’s PreveLeak™, Raplixa™ and Recothrom® products (the Hemostasis Business), to wholly owned subsidiaries of Mallinckrodt plc (collectively, Mallinckrodt) pursuant to the Purchase and Sale Agreement dated December 18, 2015 (the Purchase and Sale Agreement) between the Company and Mallinckrodt. At completion of the sale, the Company received $174.1 million in cash from Mallinckrodt, and may receive up to an additional $235.0 million in the aggregate following the achievement of certain specified calendar year net sales milestones with respect to net sales of PreveLeak™ and Raplixa™. As a result of the transaction, and in accordance with Financial Accounting Standards Board

("FASB") Accounting Standards Update ("ASU") No. 2014-08 "Presentation of Financial Statements (Topic 205) and Property, Plant and Equipment (Topic 360): Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity" (ASU No. 2014-08), the Company is accounting for the assets and liabilities of the Hemostasis Business to be sold as held for sale. As a result of the classification as held for sale, we recorded impairment charges of $133.3 million, including $24.5 million related to goodwill, to reduce the Hemostasis Business disposal group's carrying value to its estimated fair value, less costs to sell. Further, the financial results of the Hemostasis Business held for sale have been reclassified to discontinued operations for all periods presented in our consolidated financial statements. See Note 23 "Discontinued Operations" for further details.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

2. Significant Accounting Policies

Basis of Presentation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation. The Company records net income (loss) attributable to non-controlling interest in the Company's consolidated financial statements equal to percentage of ownership interest retained in the respective operations by the non-controlling parties. The Company has no unconsolidated subsidiaries.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs, expenses and accumulated other comprehensive income/(loss) that are reported in the consolidated financial statements and accompanying disclosures. Actual results may be different.

Loss Attributable to Noncontrolling Interest

In 2010, the Company and Windlas Healthcare Private Limited entered into a joint venture in India. Given the Company's majority ownership interest of approximately 74.0% as of December 31, 2015 of the joint venture company, the Medicines Company (India) Private Limited, the accounts of the Medicines Company (India) Private Limited have been consolidated with the Company's accounts, and a noncontrolling interest has been recorded for the noncontrolling investors' interests in the equity and operations of the Medicines Company (India) Private Limited. For the year ended December 31, 2015, the income attributable to the noncontrolling interest in the Medicines Company (India) Private Limited was de minimis.

Investments

The Company accounts for its investment in a minority interest of a company over which it does not exercise significant influence on the cost method in accordance with the FASB Accounting Standards Codification (ASC) 325-20, “Cost Method Investments” (ASC 325-20). Under the cost method, an investment is carried at cost until it is sold or there is evidence that changes in the business environment or other facts and circumstances suggest it may be other than temporarily impaired based on criteria outlined in ASC 325-20. Investments in which the Company has at least a 20%, but not more than a 50%, interest are generally accounted for under the equity method. These non-marketable securities have been classified as investments and included in other assets on the accompanying consolidated balance sheets. The Company's proportionate share of the operating results is recorded as loss in equity investment in the Company's consolidated statement of operations. On February 2, 2015, the Company completed the acquisition of Annovation, and Annovation became the Company's wholly owned subsidiary. See Note 7 "Acquisition" for further details.

Inventory

The Company records inventory upon the transfer of title from the Company’s vendors. Inventory is stated at the lower of cost or market value and valued using first-in, first-out methodology. Angiomax, Orbactiv, Minocin IV, Ionsys and Cleviprex bulk substance are classified as raw materials and their costs are determined using acquisition costs from the Company’s contract manufacturers. The Company records work-in-progress costs of filling, finishing and packaging against specific product batches.

Fixed Assets

Fixed assets are stated at cost. Depreciation is provided using the straight-line method based on estimated useful lives or, in the case of leasehold improvements, over the lesser of the useful lives or the lease terms. Repairs and maintenance costs are expensed as incurred.

Treasury Stock

Treasury stock is recognized at the cost to reacquire the shares. Shares issued from treasury are recognized utilizing the first-in first-out method.

Intangible Assets

Intangible assets with definite useful lives are amortized over their estimated useful lives and reviewed for impairment if certain events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

In-Process Research and Development

The cost of in-process research and development (IPR&D) acquired directly in a transaction other than a business combination is capitalized if the projects have an alternative future use; otherwise it is expensed. The fair values of IPR&D projects acquired in business combinations are capitalized. Several methods may be used to determine the estimated fair value of the IPR&D acquired in a business combination. The Company utilizes the "income method," which applies a probability weighting that considers the risk of development and commercialization to the estimated future net cash flows that are derived from projected sales revenues and estimated costs. These projections are based on factors such as relevant market size, patent protection, historical pricing of similar products and expected industry trends. The estimated future net cash flows are then discounted to the present value using an appropriate discount rate. This analysis is performed for each project independently. The Company also considers qualitative factors such as development of competing drugs, status in the development cycle of the product, regulatory developments and other qualitative factors.

These assets are treated as indefinite-lived intangible assets until completion or abandonment of the projects, at which time the assets are amortized over the remaining useful life or written off, as appropriate. These are tested at least annually or when a triggering event occurs that could indicate a potential impairment. As a result of the sale of the Hemostasis Business, the Company determined that a portion of the IPR&D was impaired as of December 31, 2015. As a result of the transaction, the Company is accounting for the assets and liabilities of the Hemostasis Business to be sold as held for sale. As a result of the classification as held for sale, the Company recorded impairment charges of $108.8 million to reduce the Hemostasis Business disposal group’s carrying value to its estimated fair value, less costs to sell. See Note 8 "Intangible Assets and Goodwill" and Note 23 "Discontinued Operations" for further details. Based on the Company’s analysis, there was no other impairment of indefinite lived intangible assets in connection with the annual impairment tests that were performed during 2015.

Goodwill

Goodwill represents the excess consideration in a business combination over the fair value of identifiable net assets acquired. Goodwill is not amortized, but subject to impairment testing at least annually or when a triggering event occurs that could indicate a potential impairment. The Company determines whether goodwill may be impaired by comparing the carrying value of its reporting unit to the fair value of its reporting unit. A reporting unit is defined as an operating segment or one level below an operating segment. As part of the sale of the Hemostasis Business, the Company determined that a portion of goodwill was impaired as of December 31, 2015. As a result of the transaction, the Company is accounting for the assets and liabilities of the Hemostasis Business to be sold as held for sale. As a result of the classification as held for sale, the Company recorded impairment charges of $24.5 million to reduce the carrying value of goodwill to its estimated fair value. See Note 8 "Intangible Assets and Goodwill" and Note 23 "Discontinued Operations" for further details. Based on the Company’s analysis, there was no other impairment of goodwill in connection with the annual impairment tests that were performed during 2015.

Deferred Financing Costs

The Company incurs costs to obtain long-term financing such as bank and legal fees. These costs are capitalized and included in other assets on the accompanying consolidated balance sheets and are being amortized using the effective interest method over the term of the related debt. Other assets at December 31, 2015 and 2014, include deferred financing costs of $11.4 million and $3.9 million, respectively, net of accumulated amortization of $5.5 million and $3.1 million, respectively. See Note 10 "Convertible Senior Notes" for further information on the Company's long-term financing.

Impairment of Long-Lived Assets

Long-lived assets, such as property, plant and equipment and certain other long-term assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be

recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset or asset group to the estimated undiscounted future cash flows expected to be generated by the asset or asset group. If the carrying amount of the assets exceed their estimated future undiscounted net cash flows, an impairment charge is recognized for the amount by which the carrying amount of the assets exceed the fair value of the assets.

Contingent Purchase Price from Business Combinations

Subsequent to the acquisition date, the Company measures the fair value of the acquisition-related contingent consideration at each reporting period, with changes in fair value recorded in selling, general and administrative in the accompanying consolidated statements of operations. Changes to contingent consideration obligations can result from adjustments to discount rates and periods, updates in the assumed achievement or timing of any development or commercial milestone or changes in the probability of certain

clinical events, the passage of time and changes in the assumed probability associated with regulatory approval. The fair value measurement is based on significant inputs not observable in the market and thus represents a Level 3 measurement as defined in fair value measurement accounting.

Risks and Uncertainties

The Company is subject to risks common to companies in the pharmaceutical industry including, but not limited to, uncertainties related to commercialization of products, regulatory approvals, dependence on key products, dependence on key customers and suppliers, and protection of intellectual property rights.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentration of credit risk include cash, cash equivalents and accounts receivable. The Company believes it minimizes its exposure to potential concentrations of credit risk by placing investments with high quality institutions. At December 31, 2015 and 2014, approximately $6.0 million, respectively, of the Company's cash and cash equivalents was invested in a single fund, the Dreyfus Cash Management Money Market Fund, a no-load money market fund with Capital Advisors Group.

The Company currently sells Cleviprex, Minocin IV, Orbactiv, Kengreal, the acute care generic products, ready-to-use Argatroban and up until July 1, 2015, Angiomax, in the United States to a sole source distributor, Integrated Commercialization Solutions, Inc. (ICS). ICS accounted for 88%, 94% and 91% of the Company's net product revenues for 2015, 2014 and 2013, respectively. At December 31, 2015 and 2014, amounts due from ICS represented approximately $33.2 million and $193.4 million, or 47% and 95%, of gross accounts receivable, respectively. At December 31, 2015, amounts due from Sandoz represented approximately $32.3 million or 46% of gross accounts receivable.

Contingencies

The Company may be, from time to time, a party to various disputes and claims arising from normal business activities. The Company continually assesses litigation to determine if an unfavorable outcome would lead to a probable loss or reasonably possible loss which could be estimated. In accordance with the guidance of the FASB on accounting for contingencies, the Company accrues for all contingencies at the earliest date at which the Company deems it probable that a liability has been incurred and the amount of such liability can be reasonably estimated. If the estimate of a probable loss is a range and no amount within the range is more likely than another, the Company accrues the minimum of the range. In the cases where the Company believes that a reasonably possible loss exists, the Company discloses the facts and circumstances of the litigation, including an estimable range, if possible.

Revenue Recognition

Product Sales. The Company distributes Cleviprex, Orbactiv, Minocin IV, Kengreal, branded Angiomax, acute care generic products and its ready-to-use Argatroban in the United States through a sole source distribution model with Integrated Commercialization Solutions (ICS). Under this model, the Company records revenue upon shipment of Cleviprex, Minocin IV and ready-to-use Argatroban to ICS. ICS then primarily sells these products to a limited number of national medical and pharmaceutical wholesalers with distribution centers located throughout the United States. Ionsys is sold through a sole source distribution model with Cardinal Health, Inc. (Cardinal). The Company recognizes sales from Orbactiv, Ionsys, Kengreal and the acute care generic products it markets under a deferred revenue model. Under its deferred revenue model, the Company invoices ICS or Cardinal upon product shipment, records deferred revenue at gross invoice sales price, classifies the cost basis of the product held by ICS or Cardinal as finished goods inventory held by others and includes such cost basis amount within prepaid expenses and other current assets on its consolidated balance sheets. The Company currently recognizes the deferred revenue when hospitals purchase product and will do so until such time that the Company has sufficient information to develop reasonable estimates of expected returns and other adjustments to gross revenue. The Company had deferred revenue of $4.1 million and $5.8 million associated with sales in the United States of Orbactiv, Ionsys and Kengreal as of December 31, 2015 and Orbactiv as of December 31, 2014, respectively. The Company recognized $11.7 million and

$0.8 million of revenue associated with Orbactiv, Kengreal and Ionsys during 2015 and Orbactiv in 2014, respectively, related to purchases by hospitals.

During the six months ended June 30, 2015, sales of Angiomax in the United States were recognized upon shipment to ICS. With the entrance of generic products and their impact on pricing in the marketplace, the Company is no longer able to reasonably estimate its chargebacks with respect to Angiomax. Accordingly, effective July 1, 2015, sales of Angiomax in the United States are recognized upon shipment by distributors to hospitals as the price of Angiomax is fixed and determinable at that time. Effective

July 2, 2015, the Company entered into a supply and distribution agreement with Sandoz Inc., or Sandoz, under which it has granted Sandoz the exclusive right to sell in the United States an authorized generic of Angiomax (bivalirudin). In accordance with this agreement, the Company receives a royalty based on Sandoz' gross margin, as defined in the agreement, of the authorized generic product sold to hospitals. The Company recognizes royalty revenue on an accrual basis in the period it is reported by Sandoz. During 2015, the Company recognized royalty revenue of $53.9 million.

The Company’s agreement with ICS provides that ICS will be the Company’s exclusive distributor of Cleviprex, Orbactiv, Minocin IV, branded Angiomax, acute care generic products and ready-to-use Argatroban in the United States. Under the terms of this fee-for-service agreement, ICS places orders with the Company for sufficient quantities of Cleviprex, Minocin IV and ready-to-use Argatroban, to maintain an appropriate level of inventory based on the Company's customers’ historical purchase volumes. ICS assumes all credit and inventory risks, is subject to the Company's standard return policy and has sole responsibility for determining the prices at which it sells these products, subject to specified limitations in the agreement. The agreement terminates on February 28, 2019 and will automatically renew for additional one-year periods unless either party gives notice at least 90 days prior to the automatic extension. Either party may terminate the agreement at any time and for any reason upon 180 days prior written notice to the other party.

In Europe, the Company markets and sells Angiomax, which the Company markets under the trade name Angiox. As of December 31, 2015, the Company markets and sells Angiomax in India, Australia and New Zealand. The Company sells Cleviprex outside the United States in Australia and in certain European countries. The Company recognizes revenue from such sales when hospitals purchase the product. The Company had deferred revenue of $1.0 million and $0.6 million as of December 31, 2015 and 2014, respectively, associated with sales of Angiomax and Cleviprex to wholesalers outside of the United States.

The Company does not recognize revenue from product sales until there is persuasive evidence of an arrangement, delivery has occurred, the price is fixed or determinable, the buyer is obligated to pay the Company, the obligation to pay is not contingent on resale of the product, the buyer has economic substance apart from the Company, the Company has no obligation to bring about the sale of the product, the amount of returns can be reasonably estimated and collectability is reasonably assured.

The Company records allowances for chargebacks and other discounts or accruals for product returns, rebates and fee-for-service charges at the time of sale, and reports revenue net of such amounts. In determining the amounts of certain allowances and accruals, the Company must make significant judgments and estimates. For example, in determining these amounts, the Company estimates hospital demand, buying patterns by hospitals and group purchasing organizations from wholesalers and the levels of inventory held by wholesalers and by ICS. Making these determinations involves estimating whether trends in past wholesaler and hospital buying patterns will predict future product sales. The Company receives data periodically from ICS and wholesalers on inventory levels and levels of hospital purchases and the Company considers this data in determining the amounts of these allowances and accruals. The specific considerations the Company uses in estimating these amounts are as follows:

- Product returns. The Company’s customers have the right to return any unopened product during the 18-month period beginning six months prior to the labeled expiration date and ending 12 months after the labeled expiration date. As a result, in calculating the accrual for product returns, the Company must estimate the likelihood that product sold might not be used within six months of expiration and analyze the likelihood that such product will be returned within 12 months after expiration. The Company considers all of these factors and adjusts the accrual periodically throughout each quarter to reflect actual experience. When customers return product, they are generally given credit against

amounts owed. The amount credited is charged to the Company's product returns accrual.

In estimating the likelihood of product being returned, the Company relies on information from ICS and wholesalers regarding inventory levels, measured hospital demand as reported by third-party sources and internal sales data. The Company also considers the past buying patterns of ICS and wholesalers, the estimated remaining shelf life of product previously shipped, the expiration dates of product currently being shipped, price changes of competitive products and introductions of generic products.

At December 31, 2015 and 2014, the Company's accrual for product returns was $8.7 million and $3.3 million, respectively.

- Chargebacks and rebates. Although the Company primarily sells products to ICS in the United States, the Company typically enters into agreements with hospitals, either directly or through group purchasing organizations acting on behalf of their hospital members, in connection with the hospitals' purchases of products.

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Based on these agreements, most of the Company's hospital customers have the right to receive a discounted price for products and volume-based rebates on product purchases. In the case of discounted pricing, the Company typically provides a credit to ICS, or a chargeback, representing the difference between ICS's acquisition list price and the discounted price. In the case of the volume-based rebates, the Company typically pays the rebate directly to the hospitals.

The Company also participates in the 340B Drug Pricing Program under the Public Health Services Act. Under the 340B Drug Pricing Program, the Company offers qualifying entities a discount off the commercial price of Angiomax for patients undergoing percutaneous coronary intervention, or PCI, on an outpatient basis.

As a result of these agreements, at the time of product shipment, the Company estimates the likelihood that product sold to ICS might be ultimately sold to a contracting hospital or group purchasing organization. The Company also estimates the contracting hospital's or group purchasing organization's volume of purchases.

The Company bases its estimates on industry data, hospital purchases and the historic chargeback data it receives from ICS, most of which ICS receives from wholesalers, which details historic buying patterns and sales mix for particular hospitals and group purchasing organizations, and the applicable customer chargeback rates and rebate thresholds. With the entrance of generic products and their impact on pricing in the marketplace, the Company is no longer able to reasonably estimate these chargebacks with respect to Angiomax.

The Company's allowance for chargebacks was $15.7 million and $44.4 million at December 31, 2015 and 2014, respectively. The Company's allowance for rebates was not material at December 31, 2015 and 2014.

- Fees-for-service. The Company offers discounts to certain wholesalers, Cardinal and ICS based on contractually determined rates for certain services. The Company estimates its fee-for-service accruals and allowances based on historical sales, wholesaler and distributor inventory levels and the applicable discount rate. The Company's discounts are accrued at the time of the sale and are typically settled within 60 days after the end of each respective quarter. The Company's fee-for-service accruals and allowances were $2.7 million and $0.9 million at December 31, 2015 and 2014, respectively.

The Company has adjusted its allowances for chargebacks and accruals for product returns, rebates and fees-for-service in the past based on actual sales experience, and the Company will likely be required to make adjustments to these allowances and accruals in the future. The Company continually monitors its allowances and accruals and makes adjustments when it believes actual experience may differ from its estimates.

The following table provides a summary of activity with respect to the Company's sales allowances and accruals during 2015, 2014 and 2013 (amounts in thousands):

	Cash Discounts	Returns	Chargebacks	Rebates	Fees-for-Service
Balance at January 1, 2013	$2,010	$1,113	$14,843	$—	$3,577
Allowances for sales during 2013	15,943	2,524	130,374	—	12,059
Actual credits issued for prior year's sales	(1,871)	(1,204)	(10,244)	—	(3,049)
Actual credits issued for sales during 2013	(13,420)	—	(109,933)	—	(9,460)
Balance at December 31, 2013	2,662	2,433	25,040	—	3,127
Allowances for sales during 2014	18,299	5,836	175,001	—	12,453
Actual credits issued for prior year's sales	(2,411)	(1,724)	(25,888)	—	(3,246)
Actual credits issued for sales during 2014	(14,408)	(3,196)	(129,754)	—	(11,410)
Balance at December 31, 2014	4,142	3,349	44,399	—	924
Allowances for sales during 2015	9,212	12,143	107,564	833	14,249
Actual credits issued for prior year's sales	(3,927)	(3,528)	(40,419)		(1,179)
Actual credits issued for sales during 2015	(8,540)	(3,221)	(95,828)	(733)	(11,314)
Balance at December 31, 2015	$887	$8,743	$15,716	$100	$2,680

International Distributors. Under the Company's agreements with its primary international distributors, the Company sells Angiomax to these distributors at a fixed price. The established price is typically determined once per year, prior to the first

shipment of Angiomax to the distributor each year. The minimum selling price used in determining the price is 50% of the average net unit selling price.

Revenue associated with sales to the Company's international distributors during 2015, 2014 and 2013 was $1.1 million, $1.3 million and $5.1 million, respectively.

Cost of Product Revenue

Cost of revenue consists of expenses in connection with the manufacture of Angiomax, Cleviprex, ready-to-use Argatroban, Orbactiv, Kengreal, Ionsys and Minocin IV, royalty expenses under the Company's agreements with Biogen (Biogen) and Health Research Inc. (HRI) related to Angiomax, with AstraZeneca AB (AstraZeneca) related to Cleviprex, with Eli Lilly (Lilly) related to Orbactiv and with Eagle related to ready-to-use Argatroban and the logistics costs related to Angiomax, Cleviprex, ready-to-use Argatroban, Orbactiv, Kengreal, Ionsys and Minocin IV including distribution, storage and handling costs. Amounts billed for shipping and handling are recorded as revenue. Shipping and handling expenses are recorded as a component of cost of product revenue.

Advertising Costs

The Company expenses advertising costs as incurred. Advertising costs were approximately $1.2 million, $1.1 million and $0.4 million for the years ended December 31, 2015, 2014, and 2013, respectively.

Research and Development

Research and development costs are expensed as incurred. Clinical study costs are accrued over the service periods specified in the contracts and adjusted as necessary based upon an ongoing review of the level of effort and costs actually incurred. Payments for a product license prior to regulatory approval of the product and payments for milestones achieved prior to regulatory approval of the product are expensed in the period incurred as research and development. Milestone payments made in connection with regulatory approvals are capitalized and amortized to cost of revenue over the remaining useful life of the asset.

The Company performs research and development for US government agencies under a cost-reimbursable contract in which the Company is reimbursed for direct costs incurred plus allowable indirect costs. The Company recognizes the reimbursements under research contracts when a contract has been executed, the contract price is fixed and determinable, delivery of services or products has occurred and collection of the contract price is reasonably assured. The reimbursements are classified as an offset to research and development expenses. Payments received in advance of work performed are deferred. The Company recorded approximately $22.5 million and $9.5 million of reimbursements by the government as a reduction of research and development expenses for the years ended December 31, 2015 and December 31, 2014, respectively.

Share-Based Compensation

The Company accounts for share-based compensation in accordance with ASC 718-10, “Stock Compensation - Overall" (ASC 718-10), and recognizes expense using the accelerated expense attribution method. ASC 718-10 requires companies to recognize compensation expense in an amount equal to the fair value of all share-based awards granted to employees. The Company estimates the fair value of its options on the date of grant using the Black-Scholes closed-form option-pricing model.

Expected volatilities are based principally on historic volatility of the Company’s common stock. The Company uses historical data to estimate forfeiture rate. The expected term of options represents the period of time that options granted are expected to be outstanding. The Company has made a determination of expected term by analyzing employees’ historical exercise experience. The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant corresponding with the expected life of the options.

Foreign Currencies

The functional currencies of the Company’s foreign subsidiaries primarily are the local currencies: Euro, Swiss franc, and British pound sterling. The Company’s assets and liabilities are translated using the current exchange rate as of the balance sheet date. Stockholders’ equity is translated using historical rates at the balance sheet date. Revenues and expenses and other items of income are translated using a weighted average exchange rate over the period ended on

the balance sheet date. Adjustments resulting from the translation of the financial statements of the Company's foreign subsidiaries into U.S. dollars are excluded from the determination of net earnings (loss) and are accumulated in a separate component of stockholders' equity. Foreign exchange transaction gains and losses are included in other income (loss) in the Company's results of operations.

Income Taxes

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The Company records net deferred tax assets to the extent it believes these assets will more likely than not be realized. On a periodic basis, the Company evaluates the realizability of its deferred tax assets net of deferred tax liabilities and adjusts such amounts in light of changing facts and circumstances, including but not limited to its level of past and future taxable income, the current and future expected utilization of tax benefit carryforwards, any regulatory or legislative actions by relevant authorities with respect to the Angiomax patents, and the status of litigation with respect to those patents. The Company considers all available evidence, both positive and negative, to determine whether, based on the weight of that evidence, a valuation allowance is required to reduce the net deferred tax assets to the amount that is more likely than not to be realized in future periods.

The Company's annual effective tax rate is based on pre-tax earnings adjusted for differences between GAAP and income tax accounting, existing statutory tax rates, limitations on the use of net operating loss and tax credit carryforwards and tax planning opportunities available in the jurisdictions in which it operates.

In accordance with ASC 740, “Income Taxes," the Company records uncertain tax positions on the basis of a two-step process whereby (1) it determines whether it is more likely than not that a tax position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position; and (2) for tax positions that meets the more-likely-than-not recognition threshold, the Company recognizes the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement with the relevant tax authority. Significant judgment is required in evaluating the Company's tax position. Settlement of filing positions that may be challenged by tax authorities could impact the income tax position in the year of resolution. The Company's liability for uncertain tax positions is reflected as a reduction to its deferred tax assets on its consolidated balance sheet.

Comprehensive Income (Loss)

The Company's accumulated comprehensive income (loss) is comprised of unrealized gains and losses on available for sale securities (if any), which are recorded and presented net of income tax, and foreign currency translation.

Subsequent Events

The Company evaluated subsequent events through the issuance date with respect to the consolidated financial statements as of and for the year ended December 31, 2015.

Recent Accounting Pronouncements

In May 2014, the FASB issued a comprehensive new revenue recognition Accounting Standards Update “Revenue from Contracts with Customers (Topic 606)” (ASU No. 2014-09). ASU No. 2014-09 provides guidance to clarify the principles for recognizing revenue. This guidance includes the required steps to achieve the core principle that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. With the issuance of ASU No. 2015-14 in August 2015, the FASB deferred the effective date of the revenue recognition guidance to reporting periods beginning after December 15, 2017. The FASB also approved early adoption of the standard, but not before the original effective date which was for reporting periods beginning after December 15, 2016. The Company expects to adopt this guidance when effective and is currently evaluating the effect that the updated standard, as well as any additional amendments, will have on its consolidated financial statements and related

disclosures.

In April 2015, the FASB issued ASU No. 2015-03, “Interest - Interpretation of Interest (Subtopic 835-35)” which simplifies the presentation of debt issuance costs by requiring debt issuance costs to be presented as a deduction from the corresponding debt liability. This will make the presentation of debt issuance costs consistent with the presentation of debt discounts or premiums. The guidance is effective for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years. Early adoption is permitted. The Company expects to adopt this guidance when effective and is currently evaluating the effect that the updated standard will have on its consolidated financial statements and related disclosures.

In June 2015, the FASB issued ASU No. 2015-10, “Technical Corrections and Improvements” (ASU No. 2015-10). With regard to fair value measurement disclosures, ASU No. 2015-10 clarified that, for nonrecurring measurements estimated at a date during the reporting period other than the end of the reporting period, an entity should clearly indicate that the fair value information presented is not as of the period’s end as well as the date or period that the measurement was taken. This change was effective immediately upon issuance of ASU No. 2015-10. The adoption of ASU No. 2015-10 did not have a significant impact on the Company's consolidated financial statements and related disclosures.

In July 2015, the FASB issued ASU No. 2015-11, “Inventory 9 (Topic 330) - Simplifying the Measurement of Inventory” (ASU No. 2015-11). ASU No. 2015-11 requires an entity to measure inventory at the lower of cost and net realizable value, except for inventory that is measured using the last-in, first-out method or the retail inventory method. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. ASU No. 2015-11 is effective for fiscal years beginning after December 15, 2016 and is to be applied prospectively with early adoption permitted. The Company is currently evaluating the impact of adopting ASU 2015-11 on its consolidated financial statements and related disclosures.

In September 2015, the FASB issued ASU No. 2015-16, “Business Combinations (Topic 805) - Simplifying the Accounting for Measurement-Period Adjustments” (ASU No. 2015-16). ASU No. 2015-16 aims to simplify measurement period adjustments resulting from business combinations by requiring that an acquirer recognize adjustments to provisional amounts that are identified during the measurement period in the reporting period in which the adjustment amounts are determined. The effect on earnings of changes in depreciation, amortization, or other income effects, if any, as a result of changes to the provisional amounts, calculated as if the accounting had been completed at the acquisition date, will be recorded in the same period’s financial statements as the measurement period adjustment. ASU No. 2015-15 is effective for fiscal years beginning after December 15, 2015, and is to be applied prospectively to adjustments to provisional amounts that occur after the effective date of ASU No. 2015-16. The Company does not believe the adoption of ASU No. 2015-16 will have a significant impact on the Company's consolidated financial statements and related disclosures.

In November 2015, the FASB issued ASU No. 2015-17, “Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes” (ASU No. 2015-17). ASU No. 2015-17 amends the accounting for income taxes and will require all deferred tax assets and liabilities to be classified as non-current on the accompanying consolidated balance sheet instead of separating deferred taxes into current and non-current amounts. Additionally, valuation allowances will also be classified as non-current and will no longer need to be allocated between current and non-current deferred taxes. The ASU is effective for reporting periods beginning after December 15, 2016, with early adoption permitted, and may be adopted either prospectively or retrospectively. The Company early adopted this guidance on a retrospective basis and reclassed $33.1 million to noncurrent deferred tax assets.

In January 2016, the FASB issued ASU No. 2016-01, “Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities” (ASU No. 2016-01). ASU No. 2016-01 enhances the reporting model for financial instruments, which includes amendments to address aspects of recognition, measurement, presentation and disclosure. The new guidance affects all reporting organizations (whether public or private) that hold financial assets or owe financial liabilities. The ASU is effective for years beginning after December 15, 2017, including interim periods within those fiscal years. The Company expects to adopt this guidance when effective and is currently evaluating the effect that the updated standard will have on its consolidated balance sheets and related disclosures.

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)" (ASU No. 2016-02). ASU 2016-02 will require organizations that lease assets with lease terms of more than 12 months to recognize assets and liabilities for the rights and obligations created by those leases on their balance sheets. The ASU will also require new qualitative and quantitative disclosures to help investors and other financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. ASU No. 2016-02 will be effective for public companies for fiscal

years, and interim periods within those fiscal years, beginning after Dec. 15, 2018, with early adoption permitted. The Company expects to adopt this guidance when effective and is currently evaluating the effect that the updated standard will have on its consolidated balance sheets and related disclosures.

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3. Inventory
The major classes of inventory were as follows:

	2015	2014
	(In thousands)	
Raw materials	$31,354	$40,237
Work-in-progress	21,487	34,095
Finished goods	11,743	4,639
Total	$64,584	$78,971

The Company reviews inventory, including inventory purchase commitments, for slow moving or obsolete amounts based on expected volume and provides reserves against the carrying amount of inventory as appropriate. If annual volume is less than expected, the Company may be required to make additional allowances for excess or obsolete inventory in the future.
For the year ended December 31, 2015, the Company recorded a $29.5 million inventory obsolescence charge and a charge of $12.1 million for potential losses on future inventory purchase commitments due primarily to the loss of market exclusivity for Angiomax in the United States.

4. Fixed Assets
Fixed assets consist of the following:

	Estimated Life (Years)	December 31, 2015	2014
		(In thousands)	
Furniture, fixtures and equipment	2-15	$25,442	$25,182
Computer software	2-5	4,078	3,751
Computer hardware	2-5	3,427	4,327
Leasehold improvements	2-15	30,178	31,320
		63,125	64,580
Less: Accumulated depreciation		(28,345)	(26,250)
		$34,780	$38,330

Depreciation expense, excluding the portion of depreciation expense attributable to the Hemostasis Business, was approximately $4.7 million, $5.6 million and $3.9 million for the years ended December 31, 2015, 2014 and 2013, respectively.

5. Cash, Cash Equivalents and Restricted Cash
The Company considers all highly liquid investments purchased with original maturities at the date of purchase of three months or less to be cash equivalents. Cash and cash equivalents included cash of $367.2 million and $364.7 million at December 31, 2015 and 2014, respectively. Cash and cash equivalents at both December 31, 2015 and 2014 included investments of $6.0 million in money market funds with original maturities of less than three months. These investments are carried at cost, which approximates fair value. The Company measures all original maturities from the date the investment was originally purchased by the Company.
Restricted Cash
The Company had restricted cash of $1.4 million at both December 31, 2015 and 2014. Restricted cash of $1.0 million at both December 31, 2015 and 2014 collateralizes outstanding letters of credit associated with the lease of its corporate office space in Parsippany, New Jersey. The funds are invested in certificates of deposit. The letter of credit permits draws by the landlord to cure defaults by the Company. In addition, as a result of the acquisition of Targanta Therapeutics Corporation (Targanta) in 2009, the Company had at December 31, 2015 and 2014 restricted cash of

$0.1 million, respectively, in the form of a guaranteed investment certificate collateralizing an available credit facility. The Company also had at both December 31, 2015 and 2014 restricted cash of $0.3 million related to certain foreign tender requirements.

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6. Non Marketable Investments

In December 2012, the Company made a non-controlling equity investment in GeNO, LLC (GeNO), an advanced, development-stage privately held technology company that has created unique nitric oxide generation and delivery technology. The Company classified the investment as a cost method investment and included it in other assets on the Company's consolidated balance sheets. The Company held less than 10% of the issued and outstanding shares of GeNO and does not have significant influence over the company. During the three month period ended September 30, 2014, the Company's investment in the common stock of GeNO, LLC became diluted, resulting in the determination by the Company that the investment's fair value was zero. As a result, the Company recorded an investment impairment charge of $7.5 million, representing an other-than-temporary decline in the value of the Company's investment in common stock of GeNO, LLC in 2014.

In the third quarter 2014, the Company acquired additional ownership interests in Annovation, increasing the Company's equity ownership interest in Annovation to 35.8%. The Company has determined this ownership provided it with the ability to exercise significant influence, but not control, over Annovation's operating activities and, as a result, accounted for its investment under the equity method. The investment is included in other assets on the accompanying consolidated balance sheet at December 31, 2014. The Company's proportionate share of the operating results of its equity investment is recorded as a Loss in equity investment in the Company's consolidated statement of operations in 2014. On February 2, 2015, the Company completed the acquisition of Annovation, and Annovation became the Company's wholly owned subsidiary. The Company's previously recorded equity method investment in Annovation was derecognized from the Company's consolidated balance sheets and the operating results of Annovation from the date of acquisition are included in the Company's consolidated statement of operations in 2015. See Note 7 "Acquisitions" for further details.

7. Acquisition

Annovation

On February 2, 2015, the Company completed the acquisition of Annovation BioPharma, Inc. (Annovation), and Annovation became the Company's wholly owned subsidiary. As a result of the acquisition of Annovation, the Company acquired ABP-700, a novel intravenous anesthetic.

Under the terms of the terms of the acquisition agreement, the Company paid to the holders of Annovation’s capital stock and the holders of options to purchase shares of Annovation’s capital stock, which the Company refers to collectively as the Annovation equityholders, an aggregate of approximately $28.4 million in cash. In addition, the Company may be obligated to pay Annovation's equityholders up to an additional $26.3 million in milestone payments subsequent to the closing if the Company achieves certain development and regulatory approval milestones at the times and on the conditions set forth in the acquisition agreement. The Company has also agreed to pay Annovation equityholders a low single digit percentage of worldwide net sales, if any, of certain Annovation products, including ABP-700, during a specified earnout period.

In accordance with ASC 805, "Business Combinations," the Company accounted for this transaction as a step acquisition which required that the Company remeasure its then existing 35.8% ownership interest (previously accounted for as an equity method investment) to fair value at the acquisition date based upon the total enterprise value, adjusting for a control premium. The fair value of the Company's interest in Annovation was $25.9 million at closing, resulting in a non-cash pre-tax gain of $22.7 million, recorded as gain on remeasurement of equity investment in the Company's accompanying consolidated statements of operations. The Company's previously recorded equity method investment in Annovation was derecognized from the Company's consolidated balance sheets. Since the date of the step acquisition, the financial results of Annovation were included within the Company's consolidated financial statements. In accordance with the acquisition method of accounting, the Company allocated the acquisition cost for the Annovation transaction to the underlying assets acquired and liabilities assumed by the Company, based upon

estimated fair values of those assets and liabilities at the date of acquisition and classified the fair value of acquired IPR&D as indefinite-lived assets until the successful completion or abandonment of the associated research and development efforts.

The goodwill recorded as part of the acquisition is primarily related to establishing a deferred tax liability for the IPR&D intangible asset which has no tax basis and, therefore, will not result in a future tax deduction. The Company does not expect any portion of this goodwill to be deductible for tax purposes. The Company did not incur any significant acquisition related costs in connection with the Annovation acquisition during in 2015.

In addition, as a result of the Company's acquisition of Annovation, it, through its subsidiary Annovation, is a party to a license agreement with The General Hospital Corporation. Under the agreement, the Company will be obligated to pay General Hospital Corporation up to an aggregate of $6.5 million upon achievement of specified development, regulatory and sales milestones. The Company will also be obligated to pay General Hospital Corporation low single-digit percentage royalties on a product-by-product

and country-by-country basis based on net sales of ABP-700 products until the later of the duration of the licensed patent rights which are necessary to manufacture, use or sell ABP-700 products in a country and the date ten years from the Company's first commercial sale of ABP-700 products in such country.

Total purchase price is summarized as follows:

	(In thousands)
Upfront cash consideration	$28,397
Fair value of existing equity interest in Annovation	25,886
Total cash consideration and fair value of existing equity interest	54,283
Fair value of contingent cash payment	18,000
Total purchase price	$72,283

Below is a summary which details the allocation of assets acquired and liabilities assumed as a result of this acquisition:

Assets acquired:	(In thousands)
Cash and cash equivalents	$1,482
Other current assets	692
IPR&D	65,000
Goodwill	24,530
Total assets	$91,704
Liabilities assumed:	
Accrued expenses	$398
Contingent purchase price	18,000
Deferred tax liability	19,023
Total liabilities	$37,421
Total cash price paid upon acquisition and fair value of existing equity interest	$54,283

Pro forma results of operations for the acquisition of Annovation have not been presented because this acquisition is not material to the Company's consolidated results of operations.

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8. Intangible Assets and Goodwill

The following information details the carrying amounts and accumulated amortization of the Company's intangible assets subject to amortization:

		As of December 31, 2015			As of December 31, 2014		
	Weighted Average Useful Life (Years)	Gross Carrying Amount	Accumulated Amortization and other charges	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
	(In thousands)						
Amortizable intangible assets							
Selling rights agreements[1]	—	$9,126	$ (9,126)	$—	$9,125	$ (8,961)	$164
Product licenses[2]	15.4	31,500	(7,869)	23,631	39,000	(34,936)	4,064
Developed product rights [3]	16.3	373,090	(14,121)	358,969	87,030	(2,220)	84,810
Total	16.2	$413,716	$ (31,116)	$382,600	$135,155	$ (46,117)	$89,038

(1) The Company amortizes intangible assets related to Angiox through the end of its patent life.
(2) The Company amortizes intangible assets related to the product licenses over their expected useful lives.
(3) The Company amortizes intangible assets related to developed product rights over the remaining life of the patents. In the second quarter of 2015, the Company reclassified $250.0 million and $36.1 million of IPR&D assets to developed product rights due to the approval of Ionsys and Minocin IV, respectively, in the United States and commenced amortization over their respective useful lives.

Amortization expense was $17.0 million, $32.2 million and $13.8 million for the years ended December 31, 2015, 2014 and 2013, respectively. The Company expects annual amortization expense related to these intangible assets to be $25.1 million, $25.2 million, $24.8 million, $24.5 million and $24.4 million for the years ending December 31, 2016, 2017, 2018, 2019 and 2020, respectively, with the balance of $258.6 million being amortized thereafter. Amortization of customer relationships, distribution agreements and trademarks are recorded in selling, general and administrative expense in the accompanying consolidated statements of operations. Amortization of developed product and product licenses are recorded in cost of revenue in the accompanying consolidated statements of operations.

The following information details the carrying amounts of the Company's intangible assets not subject to amortization:

	As of December 31, 2015			As of December 31, 2014		
	Gross Carrying Amount	Adjustments	Net Carrying Amount	Gross Carrying Amount	Adjustments	Net Carrying Amount
	(In thousands)					
Intangible assets not subject to amortization:						
In-process research and development	$253,620	$—	$253,620	$474,680	$—	$474,680
Total	$253,620	$—	$253,620	$474,680	$—	$474,680

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The changes in the carrying amount of goodwill for the years ended December 31, 2015 and 2014 are as follows:

	December 31, 2015	December 31, 2014
	(In thousands)	
Balance at beginning of period	$286,532	$257,694
Goodwill resulting from the acquisition of Tenaxis	—	25,063
Goodwill resulting from the acquisition of Annovation	24,530	—
Allocation of goodwill to Hemostasis business	(24,500)	—
Translation adjustments	2,879	3,775
Balance at end of period	$289,441	$286,532

Included in the rollforward above as of December 31, 2015 is an impairment on goodwill of $24.5 million related to the Hemostasis Business. Due to the sale of the Hemostasis Business, the Company has reclassed $24.5 million of goodwill on the accompanying consolidated balance sheet as of December 31, 2014 to noncurrent assets held for sale. See Note 23 “Discontinued Operations” for further details.

9. Accrued Expenses

Accrued expenses consisted of the following at December 31, 2015 and 2014:

	2015	2014
	(In thousands)	
Royalties	$3,790	$26,821
Research and development services	36,267	29,726
Compensation related	31,011	43,992
Product returns, rebates and other fees	11,202	6,495
Legal, accounting and other	17,930	14,045
Manufacturing, logistics and related fees	18,821	30,919
Sales and marketing	4,639	6,939
Interest	4,898	315
	$128,558	$159,252

10. Convertible Senior Notes

Convertible Senior Notes Due 2022

In January 2015, the Company issued, at par value, $400.0 million aggregate principal amount of 2.5% convertible senior notes due 2022 (2022 Notes). The 2022 Notes bear cash interest at a rate of 2.5% per year, payable semi-annually on January 15 and July 15 of each year, beginning on July 15, 2015. The 2022 Notes will mature on January 15, 2022. The net proceeds to the Company from the offering were $387.2 million after deducting the initial purchasers' discounts and commissions and the offering expenses payable by the Company.

The 2022 Notes are governed by an indenture (the 2022 Notes Indenture) with Wells Fargo Bank, National Association, a national banking association, as trustee (the 2022 Notes Trustee).

The 2022 Notes are senior unsecured obligations of the Company and will rank senior in right of payment to the Company’s future indebtedness that is expressly subordinated in right of payment to the 2022 Notes; equal in right of payment to the Company’s existing and future unsecured indebtedness that is not so subordinated; effectively junior in right of payment to any of the Company’s secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally junior to all existing and future indebtedness and other liabilities (including trade payables) incurred by the Company’s subsidiaries.

Holders may convert their 2022 Notes at their option at any time prior to the close of business on the business day immediately preceding October 15, 2021 only under the following circumstances:

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- during any calendar quarter commencing on or after March 31, 2015 (and only during such calendar quarter), if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;
- during the five business day period after any five consecutive trading day period (the measurement period) in which the trading price (as defined in the 2022 Notes Indenture) per $1,000 principal amount of 2022 Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate on each such trading day;
- during any period after the Company has issued notice of redemption until the close of business on the scheduled trading day immediately preceding the relevant redemption date; or
- upon the occurrence of specified corporate events.

On or after October 15, 2021, until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their 2022 Notes at any time, regardless of the foregoing circumstances. Upon conversion, the Company will pay cash up to the aggregate principal amount of the 2022 Notes to be converted and deliver shares of its common stock in respect of the remainder, if any, of its conversion obligation in excess of the aggregate principal amount of 2022 Notes being converted, subject to a daily share cap.

The conversion rate for the 2022 Notes is 29.8806 shares of the Company's common stock per $1,000 principal amount of the 2022 Notes, which is equivalent to an initial conversion price of approximately $33.47 per share of the Company's common stock.

The Company may not redeem the 2022 Notes prior to January 15, 2019. The Company may redeem for cash all or any portion of the 2022 Notes, at its option, on or after January 15, 2019 if the last reported sale price of its common stock has been at least 130% of the conversion price then in effect on the last trading day of, and for at least 19 other trading days (whether or not consecutive) during, any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which the Company provides notice of redemption, at a redemption price equal to 100% of the principal amount of the 2022 Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. No sinking fund is provided for the 2022 Notes, which means that the Company is not required to redeem or retire the 2022 Notes periodically.

If the Company undergoes a "fundamental change" (as defined in the Indenture governing the 2022 Notes Indenture), subject to certain conditions, holders of the 2022 Notes may require the Company to repurchase for cash all or part of their 2022 Notes at a repurchase price equal to 100% of the principal amount of the 2022 Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

The 2022 Notes Indenture contains customary events of default with respect to the 2022 Notes, including that upon certain events of default (including the Company's failure to make any payment of principal or interest on the 2022 Notes when due and payable) occurring and continuing, the 2022 Notes Trustee by notice to the Company, or the holders of at least 25% in principal amount of the outstanding 2022 Notes by notice to the Company and the 2022 Notes Trustee, may, and the 2022 Notes Trustee at the request of such holders (subject to the provisions of the 2022 Notes Indenture) shall, declare 100% of the principal of and accrued and unpaid interest, if any, on all the 2022 Notes to be due and payable. In case of certain events of bankruptcy, insolvency or reorganization, involving the Company or a significant subsidiary, 100% of the principal of and accrued and unpaid interest on the 2022 Notes will automatically become due and payable. Upon such a declaration of acceleration, such principal and accrued and unpaid interest, if any, will be due and payable immediately.

In accounting for the issuance of the 2022 Notes, the Company separated the 2022 Notes into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value of a similar liability that does not have an associated convertible feature. The carrying amount of the equity component representing the conversion option was determined by deducting the fair value of the liability component from the par value of the 2022 Notes as a whole. The excess of the principal amount of the liability component over its carrying

amount, referred to as the debt discount, is amortized to interest expense over the seven-year term of the 2022 Notes. The equity component is not re-measured as long as it continues to meet the conditions for equity classification. The equity component related to the 2022 Notes is $54.3 million and is recorded in additional paid-in capital on the accompanying consolidated balance sheets.

In accounting for the transaction costs related to the issuance of the 2022 Notes, the Company allocated the total costs incurred to the liability and equity components of the 2022 Notes based on their relative values. Transaction costs attributable to the liability component are amortized to interest expense over the seven-year term of the 2022 Notes, and transaction costs attributable to the

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equity component are netted with the equity components in stockholders' equity. Additionally, the Company initially recorded a net deferred tax liability of $31.8 million in connection with the Notes.

The 2022 Notes consist of the following:

Liability component	December 31, 2015	December 31, 2014
	(In thousands)	
Principal	$400,000	$—
Less: Debt discount, net[1]	(78,896)	—
Net carrying amount	$321,104	$—

(1) Included on the accompanying consolidated balance sheets within convertible senior notes (due 2022) and amortized to interest expense over the remaining life of the 2022 Notes using the effective interest rate method.

The fair value of the 2022 Notes was approximately $322.0 million as of December 31, 2015. The Company estimates the fair value of its 2022 Notes utilizing market quotations for debt that have quoted prices in active markets. Since the 2022 Notes do not trade on a daily basis in an active market, the fair value estimates are based on market observable inputs based on borrowing rates currently available for debt with similar terms and average maturities (Level 2). As of December 31, 2015, the remaining contractual life of the 2022 Notes is approximately 6.0 years.

The following table sets forth total interest expense recognized related to the 2022 Notes:

	Years Ended December 31,		
	2015	2014	2013
	(In thousands)		
Contractual interest expense	$9,639	$—	$—
Amortization of debt issuance costs	934	—	—
Amortization of debt discount	10,008	—	—
Total	$20,581	$—	$—
Effective interest rate of the liability component	6.50%	—%	—%

Convertible Senior Notes Due 2017

In June 2012, the Company issued, at par value, $275.0 million aggregate principal amount of 1.375% convertible senior notes due June 1, 2017 (2017 Notes). The 2017 Notes bear cash interest at a rate of 1.375% per year, payable semi-annually on June 1 and December 1 of each year, beginning on December 1, 2012. The 2017 Notes will mature on June 1, 2017. The net proceeds to the Company from the offering were $266.2 million after deducting the initial purchasers' discounts and commissions and the offering expenses payable by the Company.

The 2017 Notes are governed by an indenture dated as of June 11, 2012 (the 2017 Notes Indenture), between the Company, as issuer, and Wells Fargo Bank, National Association, a national banking association, as trustee (the 2017 Notes Trustee). The 2017 Notes do not contain any financial or operating covenants or any restrictions on the payment of dividends, the incurrence of other indebtedness, or the issuance or repurchase of securities by the Company.

The 2017 Notes are senior unsecured obligations of the Company and will rank senior in right of payment to the Company's future indebtedness, if any, that is expressly subordinated in right of payment to the 2017 Notes and equal in right of payment to the Company's existing and future unsecured indebtedness that is not so subordinated. The 2017 Notes are effectively junior in right of payment to any secured indebtedness of the Company to the extent of the value of the assets securing such indebtedness and are structurally junior to all existing and future indebtedness and other liabilities (including trade payables) incurred by the Company's subsidiaries.

Holders may convert their 2017 Notes at their option at any time prior to the close of business on the business day immediately preceding March 1, 2017 only under the following circumstances:

- during any calendar quarter commencing on or after September 1, 2012 (and only during such calendar quarter), if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive)

during

a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price (described below) on each applicable trading day;
- during the five business day period after any five consecutive trading day period (the Measurement Period) in which the trading price (as defined in the 2017 Notes Indenture) per $1,000 principal amount of 2017 Notes for each trading day of the Measurement Period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate on each such trading day; or
- upon the occurrence of specified corporate events, including a merger or a sale of all or substantially all of the Company's assets.

During the third and fourth quarters of 2015, the conditional conversion feature of the 2017 Notes was triggered and the holders are currently entitled to convert the notes into the Company's common stock through March 31, 2016. In any period when holders of the 2017 Notes are eligible to exercise their conversion option, the liability component related to these instruments is classified as current and the equity component related to these instruments is classified as mezzanine (temporary) equity, as the Company is required to settle the aggregate principal amount of the notes in cash. If in any future period the conversion threshold requirements of the 2017 Notes are not met, then the liability component of the instrument is classified as non-current and the difference between (1) the amount of cash deliverable upon conversion (i.e., par value of debt) and (2) the carrying value of the debt component will be reclassified from mezzanine equity to permanent equity, and will continue to be reported as permanent equity for any period in which the debt is not currently convertible. No holders of the 2017 Notes exercised their conversion option in 2015.

On or after March 1, 2017, until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their 2017 notes at any time, regardless of the foregoing circumstances. Upon conversion, the Company will pay cash up to the aggregate principal amount of the 2017 Notes to be converted and deliver shares of the Company's common stock in respect of the remainder, if any, of the Company's conversion obligation in excess of the aggregate principal amount of the 2017 Notes being converted, subject to a daily share cap, as described in the 2017 Notes Indenture. Holders of 2017 notes will not receive any additional cash payment or additional shares representing accrued and unpaid interest, if any, upon conversion of a 2017 note, except in limited circumstances. Instead, accrued but unpaid interest will be deemed to be paid by the cash and shares, if any, of the Company's common stock, together with any cash payment for any fractional share, paid or delivered, as the case may be, upon conversion of a 2017 note.

The conversion rate for the 2017 notes is 35.8038 shares of the Company's common stock per $1,000 principal amount of the 2017 Notes, which is equivalent to an initial conversion price of $27.93 per share of the Company's common stock. The conversion rate and the conversion price are subject to customary adjustments for certain events, including, but not limited to, the issuance of certain stock dividends on the Company's common stock, the issuance of certain rights or warrants, subdivisions, combinations, distributions of capital stock, indebtedness, or assets, cash dividends and certain issuer tender or exchange offers, as described in the 2017 Notes Indenture.

The Company may not redeem the 2017 Notes prior to maturity and is not required to redeem or retire the 2017 Notes periodically. However, upon the occurrence of a "fundamental change" (as defined in the 2017 Notes Indenture), subject to certain conditions, in lieu of converting their 2017 Notes, holders may require the Company to repurchase for cash all or part of their 2017 Notes at a repurchase price equal to 100% of the principal amount of the 2017 Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date. Following certain corporate transactions that constitute a change of control, the Company will increase the conversion rate for a holder who elects to convert the 2017 Notes in connection with such change of control in certain circumstances.

The 2017 Notes Indenture contains customary events of default with respect to the 2017 Notes, including that upon certain events of default (including the Company's failure to make any payment of principal or interest on the 2017 Notes when due and payable) occurring and continuing, the 2017 Notes Trustee by notice to the Company, or the holders of at least 25% in principal amount of the outstanding 2017 Notes by notice to the Company and the 2017

Notes Trustee, may, and the 2017 Notes Trustee at the request of such holders (subject to the provisions of the 2017 Notes Indenture) shall, declare 100% of the principal of and accrued and unpaid interest, if any, on all the 2017 Notes to be due and payable. In case of an event of default involving certain events of bankruptcy, insolvency or reorganization, involving the Company or a significant subsidiary, 100% of the principal of and accrued and unpaid interest on the 2017 Notes will automatically become due and payable. Upon a declaration of acceleration, such principal and accrued and unpaid interest, if any, will be due and payable immediately.

In accounting for the issuance of the 2017 Notes, the Company separated the 2017 Notes into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value of a similar liability that does not have an associated convertible feature. The carrying amount of the equity component representing the conversion option was determined by deducting the fair value of the liability component from the par value of the 2017 Notes as a whole. The excess of the principal

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amount of the liability component over its carrying amount, referred to as the debt discount, is amortized to interest expense over the five-year term of the 2017 Notes. The equity component is not re-measured as long as it continues to meet the conditions for equity classification. The equity component recorded at issuance related to the 2017 Notes is $55.7 million and was recorded in additional paid-in capital on the accompanying consolidated balance sheets.
In accounting for the transaction costs related to the issuance of the 2017 Notes, the Company allocated the total costs incurred to the liability and equity components of the 2017 Notes based on their relative values. Transaction costs attributable to the liability component are amortized to interest expense over the five-year term of the 2017 Notes, and transaction costs attributable to the equity component are netted with the equity components in stockholders' equity. Additionally, the Company initially recorded a deferred tax asset of $1.5 million in connection with the 2017 Notes.
The 2017 Notes consisted of the following:

Liability component	December 31, 2015	December 31, 2014
	(In thousands)	
Principal	$275,000	$275,000
Less: Debt discount, net[1]	(17,089)	(28,324)
Net carrying amount	$257,911	$246,676

(1) Included on the accompanying consolidated balance sheets within convertible senior notes (due 2017) and amortized to interest expense over the remaining life of the 2017 Notes using the effective interest rate method.

The fair value of the 2017 Notes was approximately $267.6 million as of December 31, 2015. The Company estimates the fair value of its 2017 Notes utilizing market quotations for debt that have quoted prices in active markets. Since the 2017 Notes do not trade on a daily basis in an active market, the fair value estimates are based on market observable inputs based on borrowing rates currently available for debt with similar terms and average maturities (Level 2). As of December 31, 2015, the remaining contractual life of the 2017 Notes is approximately 1.4 years.
The following table sets forth total interest expense recognized related to the 2017 Notes:

	Years Ended December 31,					
	2015		2014		2013	
	(In thousands)					
Contractual interest expense	$3,781		$3,781		$3,781	
Amortization of debt issuance costs	1,499		1,332		1,179	
Amortization of debt discount	11,235		10,588		9,978	
Total	$16,515		$15,701		$14,938	
Effective interest rate of the liability component	6.02	%	6.02	%	6.02	%

Note Hedges. In June 2012, the Company paid an aggregate amount of $58.2 million for the 2017 Note Hedges, which was recorded as a reduction of additional paid-in-capital in stockholders' equity. The 2017 Note Hedges cover approximately 9.8 million shares of the Company's common stock, subject to anti-dilution adjustments substantially similar to those applicable to the 2017 Notes, have a strike price that corresponds to the initial conversion price of the 2017 Notes and are exercisable upon conversion of the 2017 Notes. The 2017 Note Hedges will expire upon the maturity of the 2017 Notes. The 2017 Note Hedges are expected generally to reduce the potential dilution with respect to shares of the Company's common stock upon conversion of the 2017 Notes in the event that the market price per share of the Company's common stock, as measured under the terms of the 2017 Note Hedges, at the time of exercise is greater than the strike price of the 2017 Note Hedges. The 2017 Note Hedges are separate transactions entered into by the Company with the 2017 Hedge Counterparties and are not part of the terms of the 2017 Notes or the 2017 Warrants. Holders of the 2017 Notes and 2017 Warrants will not have any rights with respect to the 2017 Note Hedges. As of December 31, 2015, the fair value of the 2017 Note Hedges was $123.4 million. The Company estimates the fair value of its 2017 Note Hedges using Monte Carlo simulation models of its stock price (Level 2).

Warrants. The Company received aggregate proceeds of $38.4 million from the sale to the 2017 Hedge Counterparties of the 2017 Warrants to purchase up to 9.8 million shares of the Company's common stock, subject to customary anti-dilution adjustments, at a strike price of $34.20 per share, which the Company recorded as additional paid-in-capital in stockholders' equity. The 2017

Warrants will have a dilutive effect with respect to the Company's common stock to the extent that the market price per share of the Company's common stock, as measured under the terms of the 2017 Warrants, exceeds the applicable strike price of the 2017 Warrants. However, subject to certain conditions, the Company may elect to settle all of the 2017 Warrants in cash. The 2017 Warrants are separate transactions entered into by the Company with the 2017 Hedge Counterparties and are not part of the terms of the 2017 Notes or 2017 Note Hedges. Holders of the 2017 Notes and 2017 Note Hedges will not have any rights with respect to the 2017 Warrants. The 2017 Warrants also meet the definition of a derivative under current accounting principles. Because the 2017 Warrants are indexed to the Company's common stock and are recorded in equity in the Company's consolidated balance sheets, the 2017 Warrants are exempt from the scope and fair value provisions of accounting principles related to accounting for derivative instruments.

11. Stockholders' Equity

Preferred Stock

The Company has 5,000,000 shares of preferred stock (Preferred Stock) authorized, none of which are issued.

Common Stock

Common stockholders are entitled to one vote per share and dividends when declared by the Company's Board of Directors, subject to the preferential rights of any outstanding shares of Preferred Stock.

Employees and directors of the Company purchased 2,989,324 shares, 864,457 shares, and 3,547,431 shares of common stock during the years ended December 31, 2015, 2014 and 2013, respectively, pursuant to option exercises and the Company's employee stock purchase plan. The aggregate net proceeds to the Company resulting from these purchases were approximately $65.2 million, $17.3 million, and $74.2 million during the years ended December 31, 2015, 2014 and 2013, respectively, and are included within the financing activities section of the accompanying consolidated statements of cash flows. The Company issued 166,042 shares, 212,136 shares and 237,413 shares under restricted stock awards during the years ended December 31, 2015, 2014 and 2013, respectively.

On May 29, 2015, the Company filed a certificate of amendment to its Third Amended and Restated Certificate of Incorporation with the Secretary of State of the state of Delaware that increased the number of authorized shares of common stock from 125,000,000 shares to 187,500,000 shares.

In August 2015, the Company issued 944,537 shares of its common stock in a private placement. Cash received from the August 2015 private placement totaled $30.0 million and is included within the financing activities section of the accompanying consolidated statements of cash flows. These shares are included in the Company's weighted average number of common stock outstanding.

Treasury Stock

On June 5, 2012, the Company's Board of Directors authorized the Company to use a portion of the net proceeds of the 2017 notes offering to repurchase up to an aggregate of $50.0 million of its common stock. The Company repurchased 2,192,982 shares of its common stock in the second quarter of 2013 for an aggregate cost of $50.0 million. As of December 31, 2015, there were 2,192,982 shares of the Company's common stock held in treasury.

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12. Share-Based Compensation

Stock Plans

The Company has adopted the following stock incentive plans:

- the 2013 Stock Incentive Plan (the 2013 Plan),
- the 2009 Equity Inducement Plan (the 2009 Plan),
- the 2007 Equity Inducement Plan (the 2007 Plan),
- the 2004 Stock Incentive Plan (the 2004 Plan),
- the 2001 Non-Officer, Non-Director Stock Incentive Plan (the 2001 Plan),
- the 2000 Outside Director Stock Option Plan (the 2000 Director Plan), and
- the 1998 Stock Incentive Plan (the 1998 Plan).

These plans provide for the grant of stock options, other stock-based awards (including restricted stock awards, restricted stock units and stock appreciation rights) and cash-based awards to employees, officers, directors, consultants and advisors of the Company and its subsidiaries, including any individuals who have accepted an offer of employment. Stock option grants have an exercise price equal to the fair market value of the Company's common stock on the date of grant and generally, for employee grants, have a 10-year term and vest 25% one year after grant and thereafter in equal monthly installments over a three-year period. The fair value of stock option grants is recognized, net of an estimated forfeiture rate, using an accelerated method over the vesting period of the options, which is generally four years for employee grants and one year for director grants.

As of December 31, 2015, the Company had granted an aggregate of 25,266,395 shares as restricted stock or subject to issuance upon exercise of stock options under all of the plans, of which 7,284,918 shares remained subject to outstanding options. The Company currently only grants stock options and restricted stock awards from the 2013 Plan. In accordance with ASC 718-10, the Company recorded approximately $30.6 million, $34.3 million and $23.0 million of share-based compensation expense related to the options, restricted stock and ESPP for the years ended December 31, 2015, 2014 and 2013, respectively. As of December 31, 2015, there was approximately $26.5 million of total unrecognized compensation costs related to non-vested share-based employee compensation arrangements granted under the Company's equity compensation plans. This cost is expected to be recognized over a weighted average period of 1.30 years.

Stock Option and Restricted Stock Award Activity

The following table presents a summary of option activity and data under the Company's stock incentive plans as of December 31, 2015:

	Number of Shares	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding, January 1, 2015	8,985,338	$ 24.05		
Granted	2,106,929	$ 29.59		
Exercised	(2,804,892)	$ 21.72		
Forfeited and expired	(1,002,457)	$ 30.28		
Outstanding, December 31, 2015	7,284,918	$ 25.69	6.88	$85,296,678
Vested and expected to vest, December 31, 2015	7,013,884	$ 25.56	6.81	$83,026,065
Exercisable, December 31, 2015	3,827,073	$ 22.71	5.41	$56,014,081
Available for future grant at December 31, 2015	4,314,906			

Aggregate intrinsic value is the sum of the amounts by which the quoted market price of the Company's common stock exceeded the exercise price of the options at December 31, 2015, for those options for which the quoted market price

was in excess of the exercise price. The weighted-average grant date fair value of options granted during the years ended December 31, 2015, 2014 and 2013 were $11.18, $12.34, and $13.76, respectively. The total intrinsic value of options exercised during the years ended December 31, 2015, 2014 and 2013 were $40.0 million, $8.2 million, and $43.5 million, respectively.

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The Company recorded approximately $23.0 million, $25.5 million, and $15.9 million in compensation expense related to options in the years ended December 31, 2015, 2014 and 2013.

For purposes of performing the valuation, employees were separated into two groups according to patterns of historical exercise behavior; the weighted average assumptions below include assumptions from the two groups of employees exhibiting different behavior.

The Company estimated the fair value of each option on the date of grant using the Black-Scholes closed-form option-pricing model applying the weighted average assumptions in the following table.

	Years Ended December 31,		
	2015	2014	2013
Expected dividend yield	— %	— %	— %
Expected stock price volatility	41.49 %	50.25 %	48.3 %
Risk-free interest rate	1.436 %	1.543 %	1.079 %
Expected option term (years)	5.01	4.96	5.07

The following table presents a summary of the Company's outstanding shares of restricted stock awards granted as of December 31, 2015:

	Number of Shares	Weighted Average Grant-Date Fair Value
Outstanding, January 1, 2015	576,687	$27.50
Awarded	206,237	28.37
Vested	(246,178)	25.71
Forfeited	(40,195)	27.21
Outstanding, December 31, 2015	496,551	$28.77

The restricted stock granted to employees generally vests in equal increments of 25% per year on an annual basis commencing twelve months after grant date. The restricted stock granted to non-employee directors generally vests on the first anniversary date after the grant date. Expense of approximately $6.1 million, $7.6 million and $6.1 million was recognized related to restricted stock awards in the years ended December 31, 2015, 2014 and 2013, respectively. The remaining expense of approximately $5.0 million will be recognized over a period of 1.07 years. The weighted average grant date fair value of restricted stock awarded during the years ended December 31, 2015, 2014 and 2013 were $28.37, $29.84, and $31.80, respectively. The total fair value of the restricted stock that vested during the years ended December 31, 2015, 2014 and 2013 were $7.1 million, $7.1 million and $7.5 million, respectively.

2010 ESPP

In June 2010, the Board of Directors and the Company's stockholders approved the 2010 ESPP, which provides for the issuance of up to 1,000,000 shares of common stock. The 2010 ESPP permits eligible employees to purchase shares of common stock at the lower of 85% of the fair market value of the common stock at the beginning or at the end of each offering period. Employees who own 5% or more of the common stock are not eligible to participate in the 2010 ESPP. Participation in the 2010 ESPP is voluntary.

The Company issued 184,432, 155,867, and 121,845 shares under the 2010 ESPP during the years ended December 31, 2015, 2014 and 2013, respectively. The Company recorded approximately $1.5 million, $1.2 million and $1.0 million in compensation expense related to the 2010 ESPP in the years ended December 31, 2015, 2014 and 2013, respectively.

The fair value of each option element of the Company's 2010 Employee Stock Purchase Plan (the 2010 ESPP) is estimated on the date of grant using the Black-Scholes closed-form option-pricing model applying the weighted average assumptions in the following table. Expected volatilities are based on historical volatility of the Company's

common stock. Expected term represents the six-month offering period for the 2010 ESPP. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant.

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	Years Ended December 31,		
	2015	2014	2013
Expected dividend yield	— %	— %	— %
Expected stock price volatility	44.91 %	38.97 %	32.46 %
Risk-free interest rate	0.15 %	0.07 %	0.09 %
Expected option term (years)	0.5	0.5	0.5

Common Stock Reserved for Future Issuance

At December 31, 2015, there were 203,908 shares of common stock available for grant under the 2010 ESPP and 4,314,906 shares of common stock available for grant under the 2013 Plan.

13. Earnings per Share

The following table sets forth the computation of basic and diluted earnings per share for the years ended December 31, 2015, 2014 and 2013.

	Year Ended December 31,		
	2015	2014	2013
	(In thousands, except per share amounts)		
Basic and diluted			
Net (loss) income from continuing operations attributable to The Medicines Company	$(221,930)	$319	$23,140
Loss from discontinued operations, net of tax attributable to The Medicines Company	(130,826)	(32,529)	(7,628)
Net (loss) income attributable to The Medicines Company	$(352,756)	$(32,210)	$15,512
Weighted average common shares outstanding, basic	66,809	64,473	58,096
Plus: net effect of dilutive stock options, warrants, restricted common shares and shares issuable upon conversion of Notes	—	2,195	4,556
Weighted average common shares outstanding, diluted	66,809	66,668	62,652
Basic (loss) earnings per common share attributable to The Medicines Company:			
(Loss) earnings from continuing operations	$(3.32)	$—	$0.40
Loss from discontinued operations	(1.96)	(0.50)	(0.13)
Basic (loss) earnings per share	$(5.28)	$(0.50)	$0.27
Diluted (loss) earnings per common share attributable to The Medicines Company:			
(Loss) earnings from continuing operations	$(3.32)	$—	$0.37
Loss from discontinued operations	(1.96)	(0.49)	(0.12)
Diluted (loss) earnings per share	$(5.28)	$(0.49)	$0.25

Basic earnings (loss) per share is computed by dividing consolidated net loss by the weighted average number of shares of common stock outstanding during the period, excluding unvested restricted common shares. The number of potentially dilutive common shares equivalents is calculated using the treasury stock method.

For periods of net income when the effects are not anti-dilutive, diluted earnings per share is computed by dividing the Company's net income by the weighted average number of shares outstanding and the impact of all potential dilutive

common shares, consisting

primarily of stock options, unvested restricted common stock, shares issuable upon conversion of convertible senior notes due 2017 and 2022 and stock purchase warrants. The number of potentially dilutive common share equivalents is calculated using the treasury stock method.

For periods of net loss, diluted loss per share is calculated similar to basic loss per share as the effect of including all potentially dilutive common share equivalents is anti-dilutive. Due to the period of net loss from continuing operations, the calculation of diluted loss per share for the year ended December 31, 2015 excluded 3,724,272 potentially dilutive stock options, warrants, restricted common shares and shares issuable upon conversion of the Notes as their inclusions would have an anti-dilutive effect.

For the years ended December 31, 2014 and 2013, options to purchase 3,910,115 and 1,335,570 shares, respectively, of common stock that could potentially dilute basic earnings per share were excluded from the calculation of diluted earnings per share as their effect would have been anti-dilutive.

For the year ended December 31, 2014, there were shares 5,791 of unvested restricted stock excluded from the calculation of diluted earnings per share as their effect would have been anti-dilutive. For the year ended December 31, 2013, there were no shares of unvested restricted stock excluded from the calculation of diluted earnings per share

In January 2015, the Company issued the 2022 Notes (see note 10, Convertible Senior Notes). The conversion rate for the 2022 Notes was initially, and remains 29.8806 shares of the Company’s common stock per $1,000 principal amount of the 2022 Notes, which is equivalent to an initial conversion price of approximately $33.47 per share of the Company’s common stock. For the year ended December 31, 2015, the number of shares of common stock issuable upon conversion of the 2022 Notes were excluded from the calculation of diluted loss per share as their inclusion would have been anti-dilutive.

In June 2012, the Company issued the 2017 Notes (see note 10, Convertible Senior Notes). In connection with the issuance of the 2017 Notes, the Company entered into convertible note hedge transactions with respect to its common stock (the 2017 Note Hedges) with several of the initial purchasers of the 2017 Notes, their affiliates and other financial institutions (the 2017 Hedge Counterparties). The options that are part of the 2017 Note Hedges are not considered for purposes of calculating the total shares outstanding under the basic and diluted net income per share, as their effect would be anti-dilutive. The 2017 Note Hedges are expected generally to reduce the potential dilution with respect to shares of the Company's common stock upon any conversion of the 2017 Notes in the event that the market price per share of the Company's common stock, as measured under the terms of the 2017 Note Hedges, is greater than the strike price of the 2017 Note Hedges, which initially corresponded to the conversion price of the 2017 Notes and is subject to anti-dilution adjustments substantially similar to those applicable to the conversion rate of the 2017 Notes. For the year ended December 31, 2015, the number of shares of common stock issuable upon conversion of the 2017 Notes were excluded from the calculation of diluted loss per share as their inclusion would have been anti-dilutive.

In addition, in connection with the 2017 Note Hedges, the Company entered into warrant transactions with the 2017 Hedge Counterparties, pursuant to which the Company sold warrants (the 2017 Warrants) to the Hedge Counterparties to purchase, subject to customary anti-dilution adjustments, up to 9.8 million shares of the Company's common stock at a strike price of $34.20 per share. The 2017 Warrants will have a dilutive effect with respect to the Company's common stock to the extent that the market price per share of the Company's common stock, as measured under the terms of the 2017 Warrants, exceeds the applicable strike price of the 2017 Warrants. However, subject to certain conditions, the Company may elect to settle all of the 2017 Warrants in cash. For the year ended December 31, 2015, the number of shares of common stock issuable upon conversion of the 2017 Warrants were excluded from the calculation of diluted loss per share as their inclusion would have been anti-dilutive. For the year ended December 31, 2014, the 2017 Warrants did not have a dilutive effect on earnings per share because the average market price during the periods presented was below the strike price. The shares of common stock issuable upon the exercise of the 2017 Warrants included in diluted shares for the year ended December 31, 2013 was 107,263 shares.

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14. Income Taxes

The benefit from (provision for) income taxes in 2015, 2014 and 2013 consists of current and deferred federal, state and foreign taxes based on income as follows:

	2015	2014	2013
	(In thousands)		
Current:			
Federal	$(5)	$1,494	$(7,216)
State	(187)	(151)	(238)
Foreign	(216)	44	(2,456)
	(408)	1,387	(9,910)
Deferred:			
Federal	$28,011	$780	$(13,316)
State	2,140	142	20,954
Foreign	—	—	(1)
	30,151	922	7,637
Total benefit from (provision for) income taxes	$29,743	$2,309	$(2,273)

The components of (loss) income from continuing operations attributable to The Medicines Company before income taxes consisted of:

	2015	2014	2013
	(In thousands)		
Domestic	$(250,915)	$(1,115)	$21,583
International	(758)	(875)	3,830
Total	$(251,673)	$(1,990)	$25,413

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The difference between tax expense and the amount computed by applying the statutory federal income tax rate of 35% in 2015, 2014, and 2013 to income before income taxes is as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In thousands)		
Statutory rate applied to pre-tax (loss) income	$(88,086)	$(697)	$8,895
Add (deduct):			
State income taxes, net of federal benefit	(1,269)	(1,287)	(13,466)
Foreign	287	491	518
Revaluation of contingent purchase price	9,740	1,153	5,192
Tax credits	(305)	(2,598)	(6,052)
Lobbying costs	35	60	—
Acquisition costs	—	198	3,024
Meals and entertainment	824	501	468
Uncertain tax positions	61	(101)	2,574
Bargain purchase	(7,310)	—	—
Other	1,223	2,680	1,120
Deferred tax asset adjustment	—	(2,709)	—
Valuation allowances	55,057	—	—
Income tax (benefit) provision	$(29,743)	$(2,309)	$2,273

The significant components of the Company's deferred tax assets are as follows:

	December 31,	
	2015	2014
	(In thousands)	
Deferred tax assets:		
Net operating loss carryforwards	$115,370	$41,614
Tax credits	17,853	16,830
Intangible assets	—	32,752
Stock based compensation	23,768	22,427
Other	4,721	20,080
Total deferred tax assets	161,712	133,703
Valuation allowance	(67,890)	(12,842)
Total deferred tax assets, net of valuation allowance	93,822	120,861
Deferred tax liabilities:		
Fixed assets	$(5,011)	$(5,136)
Intangible assets	(89,106)	—
Indefinite lived intangible assets	(89,701)	(187,817)
Total deferred tax liabilities	(183,818)	(192,953)
Net deferred tax liabilities	$(89,996)	$(72,092)

In November 2015, the FASB issued ASU No. 2015-17 to simplify the presentation of deferred income taxes. The amendments in this update require that deferred tax liabilities and assets be classified as noncurrent in a classified balance sheet. We adopted this ASU during the year ended December 31, 2015 and, as a result, have presented prior-period amounts for deferred income taxes in a manner that conforms to the current-period presentation.

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During 2015, the Company recorded a net increase to its valuation allowance of $55.1 million. At December 31, 2015 and 2014, the Company recorded a valuation allowance of $67.9 million and $12.8 million respectively, principally against net operating loss carryforwards in domestic and foreign jurisdictions. The Company considered positive and negative evidence including its level of past and future operating income, the utilization of carryforwards, the status of litigation with respect to the Angiomax patents and other factors in arriving at its decision to recognize its deferred tax assets. The Company continues to evaluate the realizability of its deferred tax assets and liabilities on a periodic basis and will adjust such amounts in light of changing facts and circumstances including, but not limited to, future projections of taxable income, tax legislation, rulings by relevant tax authorities, the progress of ongoing tax audits, the regulatory approval of products currently under development and the extension of patent rights relating to Angiomax. Any changes to the valuation allowance or deferred tax assets in the future would impact the Company's effective tax rate.

In 1998 and 2002, the Company experienced a change in ownership as defined in Section 382 of the Internal Revenue Code. However, based on the market value of the Company at such dates, the Company believes that these ownership changes will not significantly impact its ability to use net operating losses or tax credits in the future to offset taxable income. On February 26, 2009 the Company acquired 100% of the stock of Targanta and became a successor to certain of its net operating loss and tax credit carryforwards. During 2013 the Company acquired the stock of Incline and Rempex and became the successor of certain net operating losses and tax credit carryforwards. These tax attributes are also subject to a limitation under Internal Revenue Code Section 382 and these amounts, combined with those of the Company in the table below, have been reduced appropriately for such utilization limitations. In addition, utilization of these net operating loss and tax credit carryforwards is dependent upon the Company achieving profitable results. To the extent the Company's use of net operating loss and tax credit carryforwards is further limited by Section 382 as a result of any future ownership changes, the Company's income would be subject to cash payments of income tax earlier than it would if the Company was able to fully use its net operating loss and tax credit carryforwards in the U.S. The Company is also subject to US alternative minimum tax.

At December 31, 2015, the Company has federal net operating loss carryforwards available to reduce taxable income and federal research and development tax credit carryforwards available to reduce future tax liabilities. They expire approximately as follows:

Year of Expiration	Federal Net Operating Loss Carryforwards	Federal Research and Development Tax Credit Carryforwards
	(In thousands)	
2018-2026	$—	$—
2027	6,256	840
2028	38,954	2,108
2029	4,755	1,148
2030	1,030	1,162
2031	605	3,097
2032	1,533	3,622
2033	37,209	3,178
2034	4,353	1,861
2035	203,286	1,500
	$297,981	$18,516

At December 31, 2015 the Company has the following additional carryforwards: Alternative Minimum Tax Credits of $4.9 million with no expiration date and foreign net operating losses of approximately $46.4 million expiring between 2016 and 2032.

ASC 740 clarifies the accounting for income taxes by prescribing the minimum threshold a tax position is required to meet before being recognized in the financial statements and provides guidance on de-recognition, measurement, classification and disclosure of tax positions. The recognition of these tax benefits will impact the Company’s effective income tax rate when recognized. The Company does not anticipate a significant change in its unrecognized tax benefits in the next twelve months. The Company is no longer subject to federal, state or foreign income tax audits for tax years prior to 2011. However applicable taxing authorities can review and adjust net operating loss or tax credit carryforwards originating in a closed tax year if utilized in an open tax year. The Company's 2011 corporate return is currently under examination by the Italian Agency of Revenue. While tax examinations are often complex, as tax authorities may disagree with the treatment of items reported requiring several years to

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resolve, the Company believes that it has adequately provided for all uncertain tax provisions for open tax years by tax jurisdiction. The Company classifies interest and penalties related to unrecognized tax benefits in income tax expense. The Company has not accrued any interest or penalties as of December 31, 2015. The Company has increased its ASC 740-10, "Income Taxes - Overall," liability for prior year tax positions due to the acquisitions of Incline, ProFibrix, Rempex and Tenaxis. The total amount of unrecognized tax benefits that, if recognized, would affect the Company's effective tax rate was $8.8 million and $8.9 million as of December 31, 2014 and December 31, 2015, respectively.
A reconciliation of the beginning and ending amount of gross unrecognized tax benefits is as follows:

	Gross Unrecognized Tax Benefits
	(In thousands)
Balance at January 1, 2014	$8,123
Additions related to current year tax positions	519
Additions for prior year tax positions	818
Reductions for prior year tax positions	(621)
Balance at December 31, 2014	8,839
Additions related to current year tax positions	61
Balance at December 31, 2015	$8,900

The Company provides income taxes on the earnings of foreign subsidiaries to the extent those earnings are taxable or are expected to be remitted. As of December 31, 2015, the Company's accumulated foreign unremitted earnings have been immaterial. The Company's policy is to invest indefinitely its unremitted foreign earnings outside the United States.
On September 13, 2013, Treasury and the Internal Revenue Service issued final regulations regarding the deduction and capitalization of expenditures related to tangible property. The final regulations under Internal Revenue Code Sections 162, 167 and 263(a) apply to amounts paid to acquire, produce, or improve tangible property as well as dispositions of such property and are generally effective for tax years beginning on or after January 1, 2014. The Company has adopted these regulations and determined they do not have a material impact on its consolidated results of operations, cash flows or financial position.

15. Fair Value Measurements

The Company applies a fair value framework in order to measure and disclose its financial assets and liabilities which include money market funds and contingent purchase prices related to acquisitions. The Company determines fair value based on quoted prices when available or through the use of alternative approaches when market quotes are not readily accessible or available.
The standard describes three levels of inputs that may be used to measure fair value:

Level 1	Quoted prices in active markets for identical assets or liabilities. The Company’s Level 1 assets and liabilities consist of money market investments.
Level 2	Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Fair values are determined by utilizing quoted prices for similar assets and liabilities in active markets or other market observable inputs such as interest rates and yield curves.
Level 3	Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. The Company’s Level 3 assets and liabilities consist of the contingent purchase prices associated with the Company's business combinations and convertible debt. The fair value

of certain development or regulatory milestone based contingent assets and contingent purchase prices were determined in a discounted cash flow framework by probability weighting the future contractual receivable or payment with management's assessment of the likelihood of achieving these milestones and present valuing them using a risk-adjusted discount rate. Certain sales milestone based payments were determined in a discounted cash flow framework where risk-adjusted revenue scenarios were estimated using Monte Carlo simulation models to compute contractual payments which were present valued using a risk- adjusted discount rate.

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The following table sets forth the Company's assets and liabilities that were measured at fair value on a recurring basis at December 31, 2015 and 2014 by level within the fair value hierarchy. As required by ASC 820-10, "Fair Value Measurement - Overall," assets and liabilities measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the asset or liability:

	As of December 31, 2015				As of December 31, 2014			
Assets and Liabilities	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance at December 31, 2015	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance at December 31, 2014
	(In thousands)							
Assets:								
Money market	$6,033	$—	$—	$ 6,033	$6,030	$—	$—	$ 6,030
Total assets at fair value	$6,033	$—	$—	$ 6,033	$6,030	$—	$—	$ 6,030
Liabilities:								
Contingent purchase price	$—	$—	$ 123,757	$ 123,757	$—	$—	$ 221,834	$ 221,834
Total liabilities at fair value	$—	$—	$ 123,757	$ 123,757	$—	$—	$ 221,834	$ 221,834

Level 3 Disclosures

The Company measures its contingent purchase price at fair value based on significant inputs not observable in the market, which causes it to be classified as a Level 3 measurement within the fair value hierarchy. The valuation of the contingent purchase price uses assumptions and estimates the Company believes would be made by a market participant in making the same valuation. The Company assesses these assumptions and estimates on an on-going basis as additional data impacting the assumptions and estimates are obtained. Changes in the fair value related to updated assumptions and estimates are recognized within the accompanying consolidated statements of operations. The contingent purchase price may change significantly as additional data is obtained, impacting the Company's assumptions regarding probabilities of successful achievement of related milestones used to estimate the fair value of the asset and liability. In evaluating this information, considerable judgment is required to interpret the market data used to develop the assumptions and estimates. The estimates of fair value may not be indicative of the amounts that could be realized in a current market exchange. Accordingly, the use of different market assumptions and/or different valuation techniques may have a material effect on the estimated fair value amounts, and such changes could materially impact the Company's results of operations in future periods.

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The following table provides quantitative information associated with the fair value measurement of the Company's Level 3 inputs:

	Fair Value as of December 31, 2015 (In thousands)	Valuation Technique	Unobservable Input	Range (Weighted Average)
Targanta:				
Contingent purchase price	$5,857	Probability-adjusted discounted cash flow	Probability of success	20%
			Periods in which milestone is expected to be achieved	2020
			Discount rate	11%
Incline:				
Contingent purchase price	$28,600	Probability-adjusted discounted cash flow	Probabilities of success	64% - 72% (67%)
			Periods in which milestones are expected to be achieved	2017-2018
			Discount Rate	18%
Rempex:				
Contingent purchase price: commercial milestone	$63,000	Probability-adjusted discounted cash flow	Probabilities of success	11% - 95% (56%)
			Period in which milestones are expected to be achieved	2016 - 2020
			Discount rate	3.6% - 6.0%
Contingent purchase price: sales milestone	$10,300	Risk adjusted revenue simulation	Probabilities of success	11% - 63% (30%)
			Period in which milestones are expected to be achieved	2018 - 2022
			Discount rate	5.5% - 6.7%
Annovation:				
Contingent purchase price	$16,000	Probability-adjusted discounted cash flow	Probabilities of success	8% - 50% (31%)
			Periods in which milestones are expected to be achieved	2016 - 2030
			Discount rate	4.1% - 8.2%

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	Fair Value as of December 31, 2014 (In thousands)	Valuation Technique	Unobservable Input	Range (Weighted Average)
Targanta:				
Contingent purchase price	$6,334	Probability-adjusted discounted cash flow	Probabilities of success	20%
			Periods in which milestones are expected to be achieved	2019
			Discount rate	11%
Incline:				
Contingent purchase price	$123,800	Probability-adjusted discounted cash flow	Probabilities of success	64% - 100% (83%)
			Periods in which milestones are expected to be achieved	2015-2018
			Discount Rate	18%
Rempex:				
Contingent purchase price: commercial milestone	$80,800	Probability-adjusted discounted cash flow	Probabilities of success	11% - 95% (63%)
			Period in which milestones are expected to be achieved	2015 - 2019
			Discount rate	1.5% - 3.7%
Contingent purchase price: sales milestone	$10,900	Risk adjusted revenue simulation	Probabilities of success	9% - 49% (17%)
			Period in which milestones are expected to be achieved	2016 - 2022
			Discount rate	1.5% - 4.5%

The fair value of the contingent purchase price represents the fair value of the Company's liability for all potential payments under the Company's agreement with Targanta, Incline, Rempex, and Annovation. The significant unobservable inputs used in the fair value measurement of these assets and liabilities are the probabilities of successful achievement of development, regulatory and sales milestones, which would trigger payments to be made under the Targanta, Incline, Rempex, and Annovation agreements, probabilities as to the periods in which the milestones are expected to be achieved and a discount rate. Significant changes in any of the probabilities of success or periods in which milestones will be achieved would result in a significantly higher or lower fair value measurement.
The changes in fair value of the Company’s Level 3 contingent purchase price during the year ended December 31, 2015 and 2014 were as follows:

	December 31, 2015	2014
	(In thousands)	
Balance at beginning of period	$351,134	$302,363

Fair value of contingent purchase price with respect to Tenaxis as of May 1, 2014	—	37,900
Fair value of contingent purchase price with respect to Annovation as of February 2, 2015	18,000	—
Settlements	(236,418)	(25,600)
Allocation to Hemostasis Business	(28,600)	—
Fair value adjustment to contingent purchase price included in net loss	19,641	36,471
Balance at end of period	$123,757	$351,134

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Included in the rollforward above as of December 31, 2014 are certain contingent purchase price obligations related to the Hemostasis Business, specifically, Profibrix and Tenaxis. Due to the sale of the Hemostasis Business, the Company has reclassed $86.8 million and $42.5 million of contingent purchase price obligations related to the Hemostasis Business as of December 31, 2014 into current liabilities held for sale and noncurrent liabilities held for sale, respectively, on the accompanying consolidated balance sheet. See Note 23 “Discontinued Operations” for further details.

For the year ended December 31, 2015, the changes in the carrying value of the contingent purchase price obligations resulted from the initial estimate of the fair value of the contingent consideration related to the Company's purchase of Annovation and subsequent changes in the fair value of the contingent consideration due to either the passage of time, changes in discount rates, changes in probabilities of success, or milestones payments.

No other changes in valuation techniques or inputs occurred during the year ended December 31, 2015.

No transfers of assets between Level 1 and Level 2 of the fair value measurement hierarchy occurred during the year ended December 31, 2015.

16. Restructuring Costs and Other, Net

On October 22, 2014, the Company commenced implementation of a reorganization of its European operations intended to improve efficiency and better align the Company's costs and employment structure with its strategic plans. The reorganization includes a workforce reduction and the consolidation of European sites into a single location in Zurich, Switzerland. As a result of the workforce reduction, the Company reduced its personnel by 46 employees. Upon signing release agreements, impacted employees were eligible to receive severance payments in specified amounts, and general benefits and outplacement services for specified periods in accordance with our policies and local requirements. The Company completed its reorganization of its European operations in December 2014.

In the year ended December 31, 2014, the Company recorded, in the aggregate, a one-time charge of approximately $9.0 million associated with the reorganization of its European operations, including $0.5 million of non-cash charges. Lease charges were recorded in selling, general and administrative expenses. The Company recorded $8.7 million associated with the workforce reduction. The Company recorded these charges in research and development expense and selling general and administrative expense based on responsibilities of the impacted employees. Of the charges related to the 2014 workforce reduction, $0.3 million were non-cash charges. The Company paid $0.6 million during the 2014 fourth quarter and $7.1 million in workforce reduction charges and $0.1 million in lease payments during 2015. The Company expects to pay the remainder in 2016.

The following table sets forth details regarding the activities described above during the years ended December 31, 2015 and 2014 are as follows:

	Balance as of January 1, 2015	Expenses, Net	Cash	Noncash	Balance as of December 31, 2015
	(In thousands)				
Employee severance and other personnel benefits:					
2014 European workforce reduction	$7,694	$(114)	$(7,057)	$—	$ 523
2014 European leases and equipment write-off	200	—	(130)	(12)	58
Total	$7,894	$(114)	$(7,187)	$(12)	$ 581

	Balance as of January 1, 2014	Expenses, Net	Cash	Noncash	Balance as of December 31, 2014
	(In thousands)				
Employee severance and other personnel benefits:					

2014 European workforce reduction	$—	$8,660	$(632)	$(334)	$ 7,694
2013 workforce reduction	370	—	—	(370)	—
2014 European leases and equipment write-off	—	347	—	(147)	200
Total	$370	$9,007	$(632)	$(851)	$ 7,894

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17. Commitments and Contingencies

The Company's long-term contractual obligations include commitments and estimated purchase obligations entered into in the normal course of business. These obligations include commitments related to purchases of inventory of our products, research and development service agreements, income tax contingencies, operating leases, selling, general and administrative obligations, leased office space for our principal office in Parsippany, New Jersey and additional leased office space in San Diego, California, royalties, milestone payments and other contingent payments due under the Company's license and acquisition agreements.

Future estimated contractual obligations as of December 31, 2015 are:

Contractual Obligations [1]	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years	Total
	(In thousands)				
Inventory related commitments	$48,866	$—	$—	$—	$48,866
Research and development	43,934	5,253	715	—	49,902
Operating leases	7,645	15,548	14,648	41,178	79,019
Selling, general and administrative	4,067	2,348	454	—	6,869
Total contractual obligations	$104,512	$23,149	$15,817	$41,178	$184,656

(1) This table does not include any milestone and royalty payments which may become payable to third parties for which the timing and likelihood of such payments are not known, as discussed below. It also does not include the long-term debt obligations. See Note 10 "Convertible Senior Notes" for further details.

All of the inventory related commitments included above are non-cancellable. Included within the inventory related commitments above are purchase commitments for 2016 totaling $17.2 million and $25.1 million for Angiomax and Orbactiv bulk drug substances, respectively. Of the total estimated contractual obligations for research and development and selling, general and administrative activities, $19.5 million are non-cancellable.

The Company leases its principal offices in Parsippany, New Jersey. The lease covers 173,146 square feet and expires January 2024. On October 1, 2014, the Company entered into an agreement to lease 63,000 square feet of office space with ARE-SD Region No. 35, LLC for new office and laboratory space in San Diego. This lease has a term of 144 months from the first day of the first full month after the commencement date, which is currently expected to be on or about September 2016. The agreement is for the build out of the space with a targeted commencement date in September of 2016. The lease will qualify for operating lease treatment with recorded annual rent expense from commencement date to expiration of $2.9 million, with adjustments for customary triple-net lease operating expenses. The Company's expected total obligation for this space is $35.3 million.

Approximately 92.3% of the total operating lease commitments above relate to the Company’s principal office building in Parsippany, New Jersey and the Company's office in San Diego, California. Also included in total property lease commitments are automobile leases, computer leases and other property leases that the Company entered into while expanding its global infrastructure.

Aggregate rent expense under the Company’s property leases was approximately $7.3 million in 2015, $7.6 million in 2014 and $6.5 million in 2013.

In addition to the amounts shown in the above table, the Company is contractually obligated to make potential future success-based development, regulatory and commercial milestone payments and royalty payments in conjunction with collaborative agreements or acquisitions it has entered into with third-parties. These contingent payments include royalty payments with respect to Angiomax under the Company’s license agreements with Biogen and HRI, royalty and/or milestone payments with respect to Cleviprex, Kengreal, Orbactiv, MDCO-216, Ionsys and Carbavance and license income with respect to the Company's sales of ready-to-use Argatroban. In 2015, 2014 and 2013, the Company incurred aggregate royalties to Biogen and HRI of $1.8 million, $129.4 million and $140.7 million, respectively, and royalties to AstraZeneca with respect to Cleviprex of $1.3 million, $0.8 million and $1.0 million. As of December 15,

2014, the Company no longer owes royalties to Biogen or HRI relating to sales of Angiomax in the United States. The Company may have to make these significant contingent cash payments in connection with its acquisition and licensing activities upon the achievement of specified regulatory, sales and other milestones as follows:

- $49.4 million due to the former equityholders of Targanta and up to $25.0 million in additional payments to other third parties related to the Targanta transaction;

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- up to $60.0 million due to the former equityholders of Incline and up to $93.0 million in additional payments to other third parties related to the Incline transaction;
- up to $289.8 million for the Rempex transaction;
- $26.3 million for the Annovation transaction and up to $6.5 million in additional payments to other third parties related to the Annovation transaction;
- up to $170.0 million for the Alnylam license and collaboration agreement with Alnylam;
- up to $422.0 million due to the Company's license agreement with Pfizer Inc. related to MDCO-216; and
- up to $50.0 million due to the Company's license agreement with AstraZeneca related to Kengreal.

Given the nature of these events, it is unclear when, if ever, the Company may be required to pay such amounts. Accordingly, these contingent payments have not been included in the table above as the timing of any future payment is not reasonable estimable.

Contingencies

The Company may be, from time to time, a party to various disputes and claims arising from normal business activities. The Company accrues for loss contingencies when information available indicates that it is probable that a liability has been incurred and the amount of such loss can be reasonably estimated.

The Company is currently party to the other legal proceedings described in Part I, Item 3. Legal Proceedings of this Annual Report on Form 10-K, which are principally patent litigation matters. The Company has assessed such legal proceedings and does not believe that it is probable that a liability has been incurred or that the amount of any potential liability can be reasonably estimated, other than the class action litigation. As a result, the Company did not record any loss contingencies for any of these matters other than the class action litigation. While it is not possible to determine the outcome of the matters described in Part I, Item 3. Legal Proceedings, of this Annual Report on Form 10-K, the Company believes that the resolution of all such matters will not have a material adverse effect on its consolidated financial position or liquidity, but could possibly be material to its consolidated results of operations in any one accounting period.

18. Employee Benefit Plan

The Company has an employee savings and retirement plan which is qualified under Section 401(k) of the Internal Revenue Code. The Company made matching contributions in December 31, 2015, 2014 and 2013 of $2.5 million, $1.9 million and $1.6 million, respectively.

19. Segment and Geographic Information

The Company manages its business and operations as one segment and is focused on advancing the treatment of acute and intensive care patients through the delivery of innovative, cost-effective medicines to the worldwide hospital marketplace. The Company allocates resources and assesses financial performance on a consolidated basis. Revenues reported to date are derived primarily from the sales of Angiomax in the United States.

The geographic segment information provided below is classified based on the major geographic regions in which the Company operates. Long-lived assets are comprised of the Company's noncurrent assets, excluding noncurrent assets held for sale.

	Years Ended December 31,								
	2015			2014			2013		
	(In thousands)								
Net revenue:									
United States	$289,578	93.7	%	$623,112	94.4	%	$566,202	90.6	%
Europe	16,745	5.4	%	32,860	5.0	%	50,420	8.1	%
Other	2,684	0.9	%	3,718	0.6	%	7,986	1.3	%
Total net revenue	$309,007			$659,690			$624,608		

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	Years Ended December 31,					
	2015			2014		
	(In thousands)					
Long-lived assets:						
United States	$967,733	99.4	%	$898,971	99.2	%
Europe	6,301	0.6	%	7,439	0.8	%
Other	—	—	%	230	—	%
Total long-lived assets	$974,034			$906,640		

20. Collaboration Agreements

AstraZeneca LP

In April 2012, the Company entered into an agreement with AstraZeneca LP pursuant to which the Company and AstraZeneca LP agreed to collaborate globally to develop and commercialize certain acute ischemic heart disease compounds. Under the terms of the collaboration agreement, a joint development and research committee and a joint commercialization committee have been established to prepare and deliver a global development plan and a country-by-country collaboration and commercialization plan, respectively, related to BRILINTA and Angiomax and Kengreal. Since inception, the Company has recognized $41.0 million in co-promotion income. The agreement was terminated effective December 31, 2014.

Alnylam Pharmaceuticals, Inc.

In February 2013, the Company entered into a license and collaboration agreement with Alnylam Pharmaceuticals, Inc. (Alnylam) to develop, manufacture and commercialize therapeutic products targeting the proprotein convertase subtilisin/kexin type 9 (PCSK9) gene, based on certain of Alnylam's RNA interference (RNAi) technology. Under the terms of the agreement, the Company obtained the exclusive, worldwide right under Alnylam's technology to develop, manufacture and commercialize PCSK-9 products for the treatment, palliation and/or prevention of all human diseases. Alnylam is responsible for the development costs of the products, subject to an agreed upon limit, until the completion of Phase 1 clinical studies. The Company is responsible for completing and funding the development costs of the products through commercialization, if successful. The Company paid Alnylam $25 million in an initial license payment and an additional $10 million upon the achievement of a milestone, which payments the Company recorded as research and development expenses in the accompanying statements of operations. The Company has also agreed to pay up to an aggregate of $180 million in success-based development and commercialization milestones. In addition, the Company has agreed to pay specified royalties on net sales of these products. Royalties to Alnylam are payable by the Company on a product-by-product and country-by-country basis until the last to occur of the expiration of patent rights in the applicable country that cover the applicable product, the expiration of non-patent regulatory exclusivities for such product in such country, and the twelfth anniversary of the first commercial sale of the product in such country, subject to reduction in specified circumstances. The Company is also responsible for paying royalties, and in some cases, milestone payments, owed by Alnylam to its licensors with respect to intellectual property covering these products. In December 2014, under the terms of the license and collaboration agreement with Alnylam, Alnylam initiated a Phase 1 clinical trial of ALN-PCSsc in the UK. Upon initiation of the Phase I clinical trial, the Company incurred a $10.0 million milestone.

SciClone Pharmaceuticals

On December 16, 2014, the Company entered into strategic collaboration with SciClone Pharmaceuticals (SciClone) under which the Company granted SciClone a license and the exclusive rights to promote, market and sell Angiomax and Cleviprex in China. Under the terms of the collaboration, SciClone will be responsible for all aspects of commercialization, including pre- and post-launch activities, for both products in the China market (excluding Hong Kong and Macau) and will assist the Company in the registration process for both products in China. The Company has filed in China for marketing approval of Angiomax and to conduct clinical trials of Cleviprex. SciClone have

agreed to pay the Company an upfront payment of $10.0 million, a product support services fee and regulatory/commercial success milestone payments of up to an aggregate of $50.5 million and royalties based on net sales of Angiomax and Cleviprex in China.

Activities under the SciClone agreement were evaluated under ASC 605-25, "Revenue Recognition-Multiple Element Arrangements" (ASC 605-25) (as amended by ASU 2009-13, "Revenue Recognition"), to determine if they represented a multiple element revenue arrangement. The SciClone agreement includes the following deliverables: (1) an exclusive license to commercialize Angiomax and Cleviprex in China, excluding Hong Kong and Macau; (2) the Company's obligation to conduct research and development activities related to the approvals of Angiomax and Cleviprex; and (3) the Company’s obligation to

participate on the joint operating committee established under the terms of the SciClone agreement and related subcommittees. All of these deliverables were deemed to have stand-alone value and to meet the criteria to be accounted for as separate units of accounting under ASC 605-25. Factors considered in this determination included, among other things, the subject of the licenses and the research and development and commercial capabilities of SciClone. Accordingly, each unit will be accounted for separately. Since inception and for the year ended December 31, 2015, the Company recorded $8.2 million of revenue associated with the SciClone agreement as co-promotion and license income.

The Company believes the regulatory approval milestones that may be achieved under the SciClone agreement are consistent with the definition of a milestone included in ASU 2010-17, Revenue Recognition-Milestone Method, and accordingly, the Company will recognize payment related to the achievement of such milestone, if any, when the applicable milestone is achieved. Factors considered in this determination included scientific and regulatory risks that must be overcome to achieve each milestone, the level of effort and investment required to achieve each milestone, and the monetary value attributed to each milestone.

Symbio Pharmaceuticals Limited

On October 2, 2015, the Company entered into strategic collaboration with Symbio Pharmaceuticals Limited (Symbio) under which the Company granted Symbio a license and the exclusive rights to promote, market and sell Ionsys in Japan. Under the terms of the collaboration, Symbio will be responsible for all aspects of commercialization, including pre- and post-launch activities, for both products in the Japan market and will assist the Company in the registration process for Ionsys. Symbio has agreed to pay the Company an upfront payment of $10.0 million, regulatory/commercial success milestone payments of up to an aggregate of $20.9 million, and royalties based on net sales of Ionsys in Japan.

Activities under the Symbio agreement was accounted for under ASC 605-25. Factors considered in the determination of deliverables included, among other things, the subject of the licenses and the research and development and commercial capabilities of Symbio. Since inception and for the year ended December 31, 2015, the Company recorded $0.6 million of revenue associated with the Symbio agreement as co-promotion and license income. The Company believes the regulatory approval milestones that may be achieved under the Symbio agreement are consistent with the definition of a milestone included in ASU 2010-17, Revenue Recognition-Milestone Method, and accordingly, the Company will recognize payment related to the achievement of such milestone, if any, when the applicable milestone is achieved.

Boston Scientific Corporation

In December 2013, the Company entered into a co-promotion agreement with BSX for the Promus PREMIER Stent System, where the Company and BSX agreed to collaborate to provide promotional support for the Promus PREMIER Stent System in hospitals in the United States. Under the terms of the co-promotion agreement, the Company's sales force began collaborating with the BSX Interventional Cardiology sales force in January 2014. Since inception, the Company has recognized $5.0 million in co-promotion income. The agreement was terminated effective December 31, 2014.

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21. Accumulated Other Comprehensive (Loss) Income

The changes in accumulated other comprehensive (loss) income are as follows:

	Foreign currency translation adjustment	Unrealized (gain) loss on available for sale securities	Total
	(In thousands)		
Balance at January 1, 2013	$(825)	$59	$(766)
Other comprehensive loss before reclassifications	(3,876)	(10)	(3,886)
Amounts reclassified from accumulated other comprehensive income*	—	—	—
Total other comprehensive loss	(3,876)	(10)	(3,886)
Balance at December 31, 2013	$(4,701)	$49	$(4,652)
Other comprehensive income before reclassifications	7,180	—	7,180
Amounts reclassified from accumulated other comprehensive income*	—	—	—
Total other comprehensive income	7,180	—	7,180
Balance at December 31, 2014	$2,479	$49	$2,528
Other comprehensive income before reclassifications	1,445	—	1,445
Amounts reclassified from accumulated other comprehensive income*	—	—	—
Total other comprehensive income	1,445	—	1,445
Balance at December 31, 2015	$3,924	$49	$3,973

* Amounts reclassified affect other income in the accompanying consolidated statements of operations.

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22. Selected Quarterly Financial Data (Unaudited)
The following table presents selected quarterly financial data for the years ended December 31, 2015 and 2014.

	Three Months Ended							
	Mar. 31, 2015 (1)	June 30, 2015 (2)	Sept. 30, 2015 (3)	Dec. 31, 2015 (4)	Mar. 31, 2014	June 30, 2014 (5)	Sept. 30, 2014	Dec. 31, 2014 (5) (6)
	(In thousands, except per share data)							
Net revenue	$110,115	$74,519	$57,206	$67,167	$163,741	$167,363	$155,534	$173,052
Cost of revenue	20,538	24,756	49,188	25,449	55,624	71,990	53,794	51,922
Total operating expenses	124,606	151,099	163,181	142,594	139,806	188,590	160,487	198,913
(Loss) income from continuing operations	(14,491)	(76,580)	(105,975)	(75,427)	23,935	(21,227)	(4,953)	(25,861)
Net income (loss) from continuing operations attributable to The Medicines Company	$4,373	$(67,445)	$(90,617)	$(68,241)	$6,702	$2,929	$(15,092)	$5,780
Net income (loss) from discontinued operations, net of tax attributable to The Medicines Company	661	20,853	(14,515)	(137,825)	(11,698)	(8,085)	(1,643)	(11,103)
Net income (loss) attributable to The Medicines Company	$5,034	$(46,592)	$(105,132)	$(206,066)	$(4,996)	$(5,156)	$(16,735)	$(5,323)
Diluted earnings (loss) per common share attributable to The Medicines Company:								
Earnings (loss) from continuing operations	$0.07	$(1.02)	$(1.35)	$(0.99)	$0.10	$0.04	$(0.23)	$0.09
Earnings (loss) from discontinued operations	0.01	0.31	(0.22)	(2.00)	(0.17)	(0.12)	(0.03)	(0.17)
Diluted earnings (loss) per share	$0.08	$(0.71)	$(1.57)	$(2.99)	$(0.07)	$(0.08)	$(0.26)	$(0.08)

(1) In February 2015, the Company completed the acquisition of Annovation and Annovation became our wholly owned subsidiary. The acquisition of Annovation was accounted for as a step acquisition which required that the

fair value of our existing 35.8% ownership interest (previously accounted for as an equity method investment) be remeasured. The fair value of our interest in Annovation was $25.9 million upon the closing of the acquisition, resulting in a non-cash pre-tax gain of $22.7 million.

(2) In the second quarter of 2015, the Company sold an investment in a specialty pharmaceutical company that had a zero cost basis as the carrying amount was deemed impaired in 2009 and realized a net gain on sale of approximately $19.8 million. This amount is reflected in the consolidated statement of operations as a gain on sale of investment in 2015.

(3) Net loss for the third quarter of 2015 includes an inventory obsolescence charge of $16.7 million and a charge of $15.7 million for potential losses on future inventory purchase commitments due primarily to the loss of market exclusivity for Angiomax in the United States.

(4) On February 1, 2016, the Company completed the sale of its Hemostasis Business. As a result of the transaction, the Company is accounting for the assets and liabilities of the Hemostasis Business to be sold as held for sale. As a result of the classification as held for sale, we recorded impairment charges of $133.3 million, including $24.5 million related to goodwill, in the fourth quarter of 2015 to reduce the Hemostasis Business disposal group's carrying value to its estimated fair value, less costs to sell. See Note 23 "Discontinued Operations" for further details.

(5) Net loss for the second and fourth quarters of 2014 includes impairment charges on product licenses in the amount of $15.1 million and $6.4 million, respectively, to cost of sales, as a result of reductions in estimated future cash flows expected to be generated by the acute care generic products as determined by an updated discounted cash flow analysis (Level 3)

(6) In December 2014, the Company entered into a settlement and amendment to the merger agreement with Incline Therapeutics, Inc., which resulted in revisions to certain milestone triggers, a reduction in total milestone payments and the release of the escrow funds to the Company. As a result, net loss for the fourth quarter of 2014 includes $25.7 million in one-time income in connection with the settlement with the former equityholders of Incline related to the representations and warranties included in the merger agreement.

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THE MEDICINES COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

23. Discontinued Operations

Acquisitions prior to Sale of Hemostasis Business

Recothrom

In February 2013, pursuant to a master transaction agreement with Bristol-Myers Squibb Company (BMS), the Company acquired the right to sell, distribute and market Recothrom on a global basis for the collaboration term and BMS transferred to the Company certain limited assets exclusively related to Recothrom, primarily the biologics license application for Recothrom and certain related regulatory assets. BMS also granted to the Company, under the master transaction agreement, an option to purchase from BMS and its affiliates, following the expiration or earlier termination of the collaboration term, certain other assets, including certain patent and trademark rights, contracts, inventory, equipment and related books and records, held by BMS which are exclusively related to Recothrom. On February 6, 2015, the Company completed the acquisition of the remaining assets held by BMS which were exclusively related to Recothrom. Upon closing the exercise of the option in February 2015, the Company paid BMS approximately $132.4 million in the aggregate, including approximately $44.0 million for inventory and reclassified the value of the purchase option and additional amounts paid to BMS to Developed Product Rights and commenced amortizing.

Tenaxis Medical, Inc.

On May 1, 2014, the Company completed its acquisition of Tenaxis Medical, Inc. (Tenaxis) and Tenaxis became a wholly owned subsidiary of the Company. Through the acquisition of Tenaxis, the Company acquired PreveLeak, which is a vascular and surgical sealant that mechanically seals both human tissue and artificial grafts. The Company paid to equityholders of Tenaxis an aggregate of $58.9 million in cash, subject to customary adjustments at and after the closing. In addition, the Company has agreed to pay to the equityholders of Tenaxis milestone payments subsequent to the closing, if the Company achieves certain regulatory approval milestones and commercial net sales milestones with respect to the Company's sole product, PreveLeak, at the times and on the conditions set forth in the merger agreement. In 2015, the Company paid $2.0 million relating to these milestones.

The Company accounted for the transaction as a business combination. The results of Tenaxis operations have been included in the accompanying consolidated statements of operations from the date of acquisition. The goodwill recorded as part of the acquisition was primarily related to establishing a deferred tax liability for the developed product intangible asset which has no tax basis and, therefore, will not result in a future tax deduction. Goodwill is not deductible for tax purposes. Acquisition related costs during 2014 of approximately $0.6 million for advisory, legal and regulatory costs incurred in connection with the Tenaxis acquisition have been expensed in selling, general and administrative expenses.

Total purchase price is summarized as follows:

	(In thousands)
Upfront cash consideration	$58,871
Fair value of contingent purchase price	37,900
Total purchase price	$96,771

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THE MEDICINES COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Below is a summary which details the allocation of assets acquired and liabilities assumed as a result of this acquisition:

Assets Acquired:	(In thousands)
Cash and cash equivalents	$914
Inventory	307
Developed product rights	93,900
Goodwill	25,063
Other assets	131
Total assets	$120,315
Liabilities assumed:	
Accounts payable	161
Contingent purchase price	37,900
Deferred tax liability	23,160
Other liabilities	223
Total liabilities	$61,444
Total cash price paid upon acquisition	$58,871

In the third quarter of 2015, the Company recorded a charge of $25.8 million to reduce the carrying value of the product rights associated with PreveLeak to their estimated fair value as a result of a reduction in expected future cash flows. Fair value was based on expected future cash flows using Level 3 inputs under ASC 820. The cash flows are those expected to be generated by the market participants, discounted using a risk adjusted rate.

Sale of Hemostasis Business

On February 1, 2016, the Company completed the sale of its Hemostasis Business, consisting of the Company's PreveLeak, Raplixa and Recothrom products, to Mallinckrodt pursuant to the Purchase and Sale Agreement dated December 18, 2015 between the Company and Mallinckrodt. At the completion of the sale, the Company received approximately $174.1 million in cash from Mallinckrodt, and may receive up to an additional $235.0 million in the aggregate following the achievement of certain specified calendar year net sales milestones with respect to net sales of PreveLeak™ and Raplixa™. As a result of the transaction, the Company is accounting for the assets and liabilities of the Hemostasis Business to be sold as held for sale. As a result of the classification as held for sale, the Company recorded impairment charges of $133.3 million, including $24.5 million related to goodwill, to reduce the Hemostasis Business disposal group's carrying value to its estimated fair value, less costs to sell. The determination of fair value for these assets is based on the best information available that resides within Level 3 of the fair value hierarchy, including internal cash flow estimates discounted at an appropriate interest rate.

Financial results of the Hemostasis Business are presented as "Loss from discontinued operations, net of tax" on the accompanying consolidated statements of operations for the years ended 2015, 2014 and 2013. Assets and liabilities of the Hemostasis Business to be disposed of are presented as "Current assets held for sale," "Noncurrent assets held for sale," "Current liabilities held for sale" and "Noncurrent liabilities held for sale" on the accompanying consolidated balance sheets as of December 31, 2015 and 2014.

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THE MEDICINES COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The following table presents key financial results of the Hemostasis business included in "Loss from discontinued operations, net of tax" for years ended 2015, 2014 and 2013:

	Year Ended December 31,		
	2015	2014	2013
	(In thousands)		
Net product revenues	$65,754	$64,718	$63,256
Operating expenses:			
Cost of product revenue	75,889	54,300	46,149
Research and development	7,568	19,669	8,670
Selling, general and administrative	560	27,210	17,135
Impairment	133,266	—	—
Total operating expenses	217,283	101,179	71,954
Loss from operations	(151,529)	(36,461)	(8,698)
Other (expense) income, net	(745)	(596)	157
Loss from discontinuing operations before income taxes	(152,274)	(37,057)	(8,541)
Benefit for income taxes	(21,448)	(4,528)	(913)
Loss from discontinued operations, net of tax	$(130,826)	$(32,529)	$(7,628)

The following table presents the major classes of assets and liabilities at December 31, 2015 and 2014 related to the Hemostasis Business which were reclassified as held for sale:

	December 31,	
	2015	2014
	(In thousands)	
Assets:		
Inventory	$53,765	$2,479
Prepaid expenses and other current assets	1,153	23
Fixed assets, net	1,913	—
Intangibles, net	374,779	—
Allowance for reduction of assets of business held for sale	(108,773)	—
Total current assets held for sale	322,837	2,502
Fixed assets, net	—	1,730
Intangibles, net	—	328,941
Goodwill	—	24,500
Total assets held for sale	$322,837	$357,673
Liabilities:		
Contingent purchase price - current	$28,600	$86,812
Deferred tax liability	38,915	—
Current liabilities held for sale	67,515	86,812
Contingent purchase price - long term	—	42,488
Deferred tax liability - long term	—	59,287
Total liabilities held for sale	$67,515	$188,587

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THE MEDICINES COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Depreciation and amortization was ceased upon determination that the held for sale criteria were met in the fourth quarter of 2015. The significant cash flow items from discontinued operations for years ended 2015, 2014 and 2013 were as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In thousands)		
Depreciation from discontinued operations	$371	$142	$34
Amortization from discontinued operations	42,278	20,293	14,667
Impairment charges	25,800	—	—
Reserve for excess or obsolete inventory	876	—	—
Change in contingent consideration obligation	8,743	7,400	1,000
Capital expenditures	738	1,178	721

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INDEX TO EXHIBITS

Number	Description
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 registrant, 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 for the quarter ended June 30, 2015).
3.2	Second Amended and Restated Bylaws of the registrant (filed as Exhibit 3.1 to the registrant's current report on Form 8-K, filed December 23, 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).
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).
10.1†	License Agreement, dated as of June 6, 1990, by and between Biogen, Inc. and Health Research, Inc., as assigned to the registrant (incorporated by reference to Exhibit 10.6 to the registration statement on Form S-1 filed on May 19, 2000 (registration no. 333-37404)).
10.2†	License Agreement dated March 21, 1997, by and between the registrant and Biogen, Inc. (incorporated by reference to Exhibit 10.7 to the registration statement on Form S-1 filed on May 19, 2000 (registration no. 333-37404)).

10.3†	License Agreement effective as of March 28, 2003 by and between AstraZeneca AB and the registrant (incorporated by reference to Exhibit 10.17 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2003).
10.4†	Amendment No. 1 to License Agreement dated April 25, 2006 by and between AstraZeneca AB and the registrant (incorporated by reference to Exhibit 10.1 to the registrant's quarterly report on Form 10-Q for the quarter ended June 30, 2006).
10.5	Amendment No. 2 to License Agreement, dated October 22, 2008 by and between AstraZeneca AB and the registrant (incorporated by reference to Exhibit 10.38 to the registrant’s Annual Report on Form 10-K for the year ended December 31, 2008).

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Number	Description
10.6†	License Agreement dated as of December 18, 2003 by and between AstraZeneca AB and the registrant (incorporated by reference to Exhibit 10.18 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2003).
10.7†	Amendment to License Agreement dated July 6, 2007 between AstraZeneca AB and the registrant (incorporated by reference to Exhibit 10.4 to the registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2007).
10.8	Second Amendment to License Agreement dated as of June 1, 2010 between AstraZeneca AB and the registrant (incorporated by reference to Exhibit 10.1 to the registrant's quarterly report on Form 10-Q for the quarter ended June 30, 2010).
10.9†	Second Amended and Restated Distribution Agreement effective as of October 1, 2010 between the registrant and Integrated Commercialization Solutions, Inc. (incorporated by reference to Exhibit 10.54 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2010).
10.10†	First Amendment to the Second Amended and Restated Distribution Agreement, dated July 1, 2011, between registrant and Integrated Commercialization Solutions, Inc. (incorporated by reference to Exhibit 10.5 to the registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2011).
10.11†	Second Amendment to the Second Amended and Restated Distribution Agreement, dated July 1, 2011, between registrant and Integrated Commercialization Solutions, Inc. (incorporated by reference to Exhibit 10.6 to the registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2011).
10.12†	Third Amendment to Second Amended and Restated Distribution Agreement, dated April 23, 2012, between registrant and Integrated Commercialization Solutions, Inc. (incorporated by reference to Exhibit 10.1 to the registrant's quarterly report on Form 10-Q for the quarter ended June 30, 2012).
10.13†	Fourth Amendment to Second Amended and Restated Distribution Agreement, dated April 29, 2013, by and between registrant and Integrated Commercialization Solutions, Inc. (incorporated by reference to Exhibit 10.2 to the registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2013).
10.14	Fifth Amendment to Second Amended and Restated Distribution Agreement, dated September 12, 2013, by and between registrant and Integrated Commercialization Solutions, Inc. (incorporated by reference to Exhibit 10.3 to the registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2013).
10.15†	Sixth Amendment to Second Amended and Restated Distribution Agreement, effective as of March 1, 2014, by and between registrant and Integrated Commercialization Solutions, Inc. (incorporated by reference to Exhibit 10.2 to the registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2014).
10.16†	Seventh Amendment to Second Amended and Restated Distribution Agreement, effective March 5, 2015, by and between registrant and Integrated Commercialization Solutions, Inc. (incorporated by reference to Exhibit 10.1 to the registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2015).
10.17	License Agreement, dated December 23, 2005 by and between Targanta Therapeutics Corporation (as successor to InterMune, Inc.) and Eli Lilly and Company (incorporated by reference to Exhibit 10.11 to Targanta's registration statement on Form S-1 (registration no. 333-142842), as amended, originally filed with the SEC on May 11, 2007).
10.18†	License Agreement dated as of December 18, 2009 between the registrant and Pfizer Inc. (incorporated by reference to Exhibit 10.41 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2009).
10.19†	License Agreement, dated January 22, 2012, between registrant and APP Pharmaceuticals, LLC (incorporated by reference to Exhibit 10.2 to the registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2012).
10.20†	

Contract Manufacturing Agreement, dated January 22, 2012, between registrant and APP Pharmaceuticals, LLC (incorporated by reference to Exhibit 10.3 to the registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2012).

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Number	Description
10.21†	Amendment to Contract Manufacturing Agreement, dated February 20, 2013, between registrant and Fresenius Kabi USA, LLC (successor in interest to APP Pharmaceuticals, LLC) (filed herewith)
10.22†	License and Supply Agreement, dated January 22, 2012, between registrant and APP Pharmaceuticals, LLC (incorporated by reference to Exhibit 10.4 to the registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2012).
10.23†	AG Supply Agreement, dated January 22, 2012, between registrant and APP Pharmaceuticals, LLC (incorporated by reference to Exhibit 10.5 to the registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2012).
10.24†	License Agreement, dated September 30, 2011, between registrant and Teva Pharmaceuticals USA, Inc. (incorporated by reference to Exhibit 10.3 to the registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2011).
10.25†	Supply Agreement, dated September 30, 2011, between registrant and Plantex USA Inc. (incorporated by reference to Exhibit 10.4 to the registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2011).
10.26†	Amendment 1 to the Supply Agreement, dated February 13, 2012, between registrant and Teva API, Inc. (formerly known as Plantex USA Inc.) (incorporated by reference to Exhibit 10.6 to the registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2012).
10.27†	Amendment 2 to the Supply Agreement, dated July 1, 2015, between registrant and Teva API, Inc. (formerly known as Plantex USA Inc.) (incorporated by reference to Exhibit 10.2 to the registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2015).
10.28†	Supply and Distribution Agreement, dated July 2, 2015, by and between registrant and Sandoz Inc., as amended by Amendment No. 1 dated July 16, 2015 (incorporated by reference to Exhibit 10.1 to the registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2015).
10.29†	License and Asset Transfer Agreement, dated June 21, 2010, between ALZA Corporation and Incline Therapeutics Inc. (incorporated by reference to Exhibit 10.1 to the registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2013).
10.30†	License and Collaboration Agreement, dated February 3, 2013, between Alnylam Pharmaceuticals, Inc. and the registrant (incorporated by reference to Exhibit 10.2 to Amendment No. 1 to the registrant's quarterly report on Form 10-Q/A for the quarter ended March 31, 2013).
10.31†	Patent Licensing Agreement, dated October 25, 2004, by and between Quadrant Drug Delivery Limited and ProFibrix B.V., as amended by Amendment Deed No. 1, dated February 14, 2007, Amendment Deed No. 2, dated June 12, 2007, and Amendment Deed No. 3, dated July 2, 2012. (incorporated by reference to Exhibit 10.1 of the registrant's quarterly report on Form 10-Q for the period ended September 30, 2013).
10.32†	Chemilog Development and Supply Agreement, dated as of December 20, 1999, by and between the registrant and UCB Bioproducts S.A. (incorporated by reference to Exhibit 10.5 to the registration statement on Form S-1 filed on May 19, 2000 (registration no. 333-37404)).
10.33	First Amendment to Chemilog Development and Supply Agreement, dated August 1, 2005, between registrant and UCB S.A. (filed herewith)
10.34†	Second Amendment to Chemilog Development and Supply Agreement, dated June 11, 2015, between registrant and Lonza Sales Ltd. (filed herewith)
10.35†	Manufacturing Services Agreement, dated March 30, 2011, between registrant and Patheon International A.G. (incorporated by reference to Exhibit 10.1 to the registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2011).

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Number	Description
10.36†	Agreement dated January 15, 2014 with effect from February 4, 2014 between Rempex Pharmaceuticals, Inc. and the Biomedical Advanced Research and Development Authority of the U.S. Department of Health and Human Services (incorporated by reference to Exhibit 10.1 to the registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2014).
10.37	Lease for 8 Sylvan Way, Parsippany, NJ dated October 11, 2007 by and between 8 Sylvan Way, LLC and the registrant (incorporated by reference to Exhibit 10.32 to the registrant’s Annual Report on Form 10-K for the year ended December 31, 2007).
10.38	Amendment to Lease for 8 Sylvan Way, Parsippany, NJ dated October 11, 2007 by and between 8 Sylvan Way, LLC and the registrant (incorporated by reference to Exhibit 10.40 to the registrant’s Annual Report on Form 10-K for the year ended December 31, 2008).
10.39†	Consent and Release Agreement dated as of December 18, 2009 between the registrant and Washington Cardiovascular Associates, LLC, HDLT LLC, H. Bryan Brewer, Silvia Santamarina-Fojo and Michael Matin (incorporated by reference to Exhibit 10.42 to the registrant’s Annual Report on Form 10-K for the year ended December 31, 2009).
10.40†	Settlement Agreement, dated September 30, 2011, between registrant and Teva Pharmaceuticals USA, Inc. (incorporated by reference to Exhibit 10.2 to the registrant’s quarterly report on Form 10-Q for the quarter ended September 30, 2011).
10.41†	Settlement Agreement, dated January 22, 2012, between registrant and APP Pharmaceuticals, LLC (incorporated by reference to Exhibit 10.1 to the registrant’s quarterly report on Form 10-Q for the quarter ended March 31, 2012).
10.42*	Employment agreement dated September 5, 1996 by and between the registrant and Clive Meanwell (incorporated by reference to Exhibit 10.12 to the registration statement on Form S-1 filed on May 19, 2000 (registration no. 333-37404)).
10.43*	Restricted stock agreement of Clive Meanwell under the registrant’s Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.53 to the registrant’s Annual Report on Form 10-K for the year ended December 31, 2010).
10.44*	Form of Amended and Restated Management Severance Agreement (2 year vesting) (incorporated by reference to Exhibit 10.2 to the registrant’s quarterly report on Form 10-Q for the quarter ended June 30, 2015).
10.45*	Form of Amended and Restated Management Severance Agreement (1 year vesting) (incorporated by reference to Exhibit 10.3 to the registrant’s quarterly report on Form 10-Q for the quarter ended June 30, 2015).
10.46*	Form of Amendment to Amended and Restated Management Severance Agreement (filed herewith)
10.47*	Director Compensation Summary. (incorporated by reference to Exhibit 10.10 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2013).
10.48*	Summary of Performance Measures under the registrant’s Annual Cash Bonus Plan (incorporated by reference to Item 5.02 of the registrant's current report on Form 8-K, filed on February 27, 2012).
10.49*	The Medicines Company’s 2004 Amended and Restated Stock Incentive Plan, as amended (incorporated by reference to Appendix II to the registrant’s definitive proxy statement, dated and filed with the Securities and Exchange Commission on April 30, 2010, for the registrant’s 2010 Annual Meeting of Stockholders).
10.50*	Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 99.1 to the registrant’s registration statement on Form S-8, dated June 30, 2010).
10.51*	Form of stock option agreement under 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.22 to the registrant’s Annual Report on Form 10-K for the year ended December 31, 2004).

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Number	Description
10.52*	Form of restricted stock agreement under 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to the registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2006).
10.53*	Form of restricted stock agreement under the registrant's Amended and Restated 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.2 to the registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2010).
10.54*	2007 Equity Inducement Plan (incorporated by reference to Exhibit 10.1 to the registration statement on Form S-8 filed January 11, 2008 (registration no. 333-148602)).
10.55*	Form of stock option agreement under 2007 Equity Inducement Plan (incorporated by reference to Exhibit 10.34 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2007).
10.56*	Form of restricted stock agreement under 2007 Equity Inducement Plan (incorporated by reference to Exhibit 10.35 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2007).
10.57*	2009 Equity Inducement Plan (incorporated by reference to Exhibit 10.1 to the registration statement on Form S-8 filed February 24, 2009 (registration number 333-157499)).
10.58*	Form of stock option agreement under 2009 Equity Inducement Plan (incorporated by reference to Exhibit 10.2 to the registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2009).
10.59*	Form of stock option agreement for employees in Italy under 2009 Equity Inducement Plan (incorporated by reference to Exhibit 10.3 to the registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2009).
10.60*	Form of restricted stock agreement under 2009 Equity Inducement Plan (incorporated by reference to Exhibit 10.4 to the registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2009).
10.61*	The Medicines Company's 2010 Employee Stock Purchase Plan (incorporated by reference to Appendix I to the registrant's definitive proxy statement, dated and filed with the Securities and Exchange Commission on April 30, 2010, for the registrant's 2010 Annual Meeting of Stockholders).
10.62*	The Medicines Company 2013 Stock Incentive Plan (incorporated by reference as Exhibit 10.1 to the registrant's quarterly report on Form 10-Q for the quarter ended June 30, 2013).
10.63*	Amendment No. 1 to The Medicines Company 2013 Stock Incentive Plan (incorporated by reference as Exhibit 10.1 to the registrant's quarterly report on Form 10-Q for the quarter ended June 30, 2014).
10.64*	Amendment No. 2 to The Medicines Company 2013 Stock Incentive Plan (incorporated by reference as Exhibit 10.1 to the registrant's current report on Form 8-K, filed June 2, 2015).
10.65*	Form of employee stock option agreement under the registrant's 2013 Stock Incentive Plan (incorporated by reference as Exhibit 10.2 to the registrant's quarterly report on Form 10-Q for the quarter ended June 30, 2013).
10.66*	Form of non-employee director stock option agreement under the registrant's 2013 Stock Incentive Plan (incorporated by reference as Exhibit 10.3 to the registrant's quarterly report on Form 10-Q for the quarter ended June 30, 2013).
10.67*	Form of employee restricted stock option agreement under the registrant's 2013 Stock Incentive Plan (incorporated by reference as Exhibit 10.4 to the registrant's quarterly report on Form 10-Q for the quarter ended June 30, 2013).
10.68*	Form of non-employee director restricted stock option agreement under the registrant's 2013 Stock Incentive Plan (incorporated by reference as Exhibit 10.5 to the registrant's quarterly report on Form 10-Q for the quarter ended June 30, 2013).
10.69	Contingent Payment Rights Agreement dated February 25, 2009 between the registrant and American Stock Transfer & Trust Company (incorporated by reference to Exhibit 99.1 of the registrant's current report on Form 8-K, filed on March 2, 2009).
10.70	Investment Agreement, dated as of August 25, 2015, by and among the registrant, Eshelman Ventures, LLC, and, solely for purposes of Article IV and Article V of the Investment Agreement, Fredric N. Eshelman, Pharm.D. (incorporated by reference to Exhibit 10.1 of the registrant's current report on Form

	8-K, filed August 31, 2015).
10.71	Form of Indemnity Agreement for Directors and Executive Officers of the registrant, as approved and adopted on December 18, 2015 (incorporated by reference to Exhibit 10.1 to the registrant's current report on Form 8-K, filed December 23, 2015).
21	Subsidiaries of the registrant. (filed herewith)

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Number	Description
23	Consent of Ernst & Young LLP, Independent Registered Accounting Firm. (filed herewith)
31.1	Chief Executive Officer — Certification pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (filed herewith)
31.2	Chief Financial Officer — Certification pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (filed herewith)
32.1	Chief Executive Officer — Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (furnished herewith)
32.2	Chief Financial Officer — Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (furnished herewith)
101	The following materials from The Medicines Company Annual Report on Form 10-K for the year ended December 31, 2015, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Consolidated Statements of Comprehensive (Loss) Income, (iv) the Consolidated Statements of Stockholders' Equity, (v) the Consolidated Statements of Cash Flows, and (vi) Notes to Consolidated Financial Statements.

\# 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.

* Management contract or compensatory plan or arrangement filed as an exhibit to this form pursuant to Items 15(a) and 15(c) of Form 10-K

† 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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Schedule II - Valuation and Qualifying Accounts

	Beginning Balance	Charged to cost and expense	Deductions	Ending Balance
	(In thousands)			
Year ended December 31, 2015				
Allowance for excess slow-moving and obsolete inventory	$4,691	$30,547	$(5,295)	$29,943
Year ended December 31, 2014				
Allowance for excess slow-moving and obsolete inventory	$675	$7,981	$(3,965)	$4,691
Year ended December 31, 2013				
Allowance for excess slow-moving and obsolete inventory	$877	$125	$(327)	$675