ARENA PHARMACEUTICALS INC
Form 10-K
February 29, 2016

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

ý 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 000-31161

ARENA PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	23-2908305 (I.R.S. Employer Identification No.)
6154 Nancy Ridge Drive, San Diego, CA (Address of principal executive offices)	92121 (Zip Code)

858.453.7200
(Registrant's telephone number, including area code)
Securities registered pursuant to 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, $0.0001 par value	NASDAQ Global Select Market

Securities registered pursuant to 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 ¨ No ý
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ¨ No ý
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 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 ý No ¨
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 ý No ¨
Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) 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. ý

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.

Large accelerated filer x	Accelerated filer ¨
Non-accelerated filer ¨ (Do not check if a smaller reporting company)	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 ¨ No ý

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately $1.1 billion as of June 30, 2015, based on the last sale price of the registrant’s common stock as reported on the NASDAQ Global Select Market on such date. For purposes of this calculation, shares of the registrant’s common stock held by directors and executive officers have been excluded. This number is provided only for purposes of this Annual Report on Form 10-K and does not represent an admission that any particular person or entity is an affiliate of the registrant.

As of February 24, 2016, there were 242,871,179 shares of the registrant’s common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information required by Part III of this Annual Report on Form 10-K is incorporated by reference from the registrant’s definitive proxy statement for the annual meeting of stockholders to be held in June 2016, which will be filed with the Securities and Exchange Commission within 120 days after the close of the registrant’s fiscal year ended December 31, 2015.

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INFORMATION RELATING TO FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, or Annual Report, includes forward-looking statements, which involve a number of risks and uncertainties. These forward-looking statements can generally be identified as such because the context of the statement will include words such as “may,” “will,” “intend,” “plan,” “believe,” “anticipate,” “expect,” “estimate,” “predict “potential,” “continue,” “likely,” or “opportunity,” the negative of these words or other similar words. Similarly, statements that describe our future plans, strategies, intentions, expectations, objectives, goals or prospects and other statements that are not historical facts are also forward-looking statements. Discussions containing these forward-looking statements may be found, among other places, in “Business” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in this Annual Report. For such statements, we claim the protection of the Private Securities Litigation Reform Act of 1995. Readers of this Annual Report are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the time this Annual Report was filed with the Securities and Exchange Commission, or SEC. These forward-looking statements are based largely on our expectations and projections about future events and future trends affecting our business, and are subject to risks and uncertainties that could cause actual results to differ materially from those anticipated in the forward-looking statements. These risks and uncertainties include, without limitation, those discussed in “Risk Factors” and in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” of this Annual Report. In addition, past financial or operating performance is not necessarily a reliable indicator of future performance, and you should not use our historical performance to anticipate results or future period trends. We can give no assurances that any of the events anticipated by the forward-looking statements will occur or, if any of them do, what impact they will have on our results of operations and financial condition. Except as required by law, we undertake no obligation to update publicly or revise our forward-looking statements to reflect events or circumstances that arise after the filing of this Annual Report or documents incorporated by reference herein that include forward-looking statements.

TRADEMARKS AND CERTAIN TERMS

Arena Pharmaceuticals®, Arena® and our corporate logo are registered service marks of Arena. BELVIQ® and BELVIQ XR® are registered trademarks of Arena Pharmaceuticals GmbH. Any other brand names or trademarks appearing in this Annual Report are the property of their respective holders.

In this Annual Report, “Arena Pharmaceuticals,” “Arena,” “we,” “us” and “our” refer to Arena Pharmaceuticals, Inc., and our wholly owned subsidiaries on a consolidated basis, unless the context otherwise provides. “APD” is an abbreviation for Arena Pharmaceuticals Development.

PART I

Item 1. Business.

Overview

We are embracing the challenge of improving health by seeking to bring innovative medicines targeting G protein-coupled receptors, or GPCRs, to patients. Our focus is discovering, developing and commercializing drugs to address unmet medical needs, and we have an internally discovered drug, lorcaserin, that is being marketed and a pipeline of novel drug candidates that we intend to advance.

Lorcaserin, our first and only approved drug, is approved for marketing in the United States and South Korea for the indication of weight management, and is being commercialized under the brand name BELVIQ® (which is pronounced as "BEL-VEEK"). BELVIQ was made available by prescription in the United States in June 2013 and in South Korea in February 2015, and there are pending applications for the regulatory approval of BELVIQ for marketing in a number of additional territories. We also have a pending application with the US Food and Drug Administration, or FDA, for the regulatory approval of a once-daily formulation of BELVIQ, which is planned to be marketed under the brand name BELVIQ XR®.

We have collaborations with Eisai Inc. and Eisai Co., Ltd. (collectively, Eisai) and other pharmaceutical companies for the marketing of BELVIQ in most of the world, and our Swiss subsidiary, Arena Pharmaceuticals GmbH, or Arena GmbH, is responsible for manufacturing and supplying BELVIQ for these companies.

In addition to BELVIQ, we have a pipeline of drug candidates and other compounds at various stages of research and development, all of which have been internally discovered. Our drug candidates in clinical development include APD334 for autoimmune diseases, ralinepag for vascular diseases, and APD371 for pain. Our programs under collaboration include nelotanserin for dementia-associated psychosis, temanogrel for thrombotic diseases, and an undisclosed orphan GPCR for central nervous system, or CNS, indication(s). We also have numerous earlier-stage programs.

The key elements of our 2016 strategic focus are as follows:

- Advance our proprietary clinical programs:
  - APD334 - a modulator of the sphingosine 1-phosphate subtype 1, or $S1P_1$, receptor
  - Ralinepag - an agonist of the prostacyclin, or IP, receptor
  - APD371 - an agonist of the cannabinoid-2, or CB_2, receptor
- Pursue strategic collaborations for certain clinical and pre-clinical programs
- Discover and develop additional pre-clinical drug candidates
- Support Eisai and our other collaborators in their BELVIQ efforts, including their work to:
  - Complete the cardiovascular outcomes trial, or CVOT, to assess the effect of BELVIQ on major adverse cardiovascular events and a possible reduction in conversion to Type 2 diabetes compared to placebo
  - Obtain regulatory approval for BELVIQ XR
  - Obtain regulatory approval in additional territories

In October 2015, at the request of our Board of Directors, our former President, Chief Executive Officer and principal financial officer, retired from our company. On the same date, our Board appointed Harry F. Hixson, Jr., Ph.D., one of our directors since September 2004, to the position of interim Chief Executive Officer and interim principal financial officer. We have initiated a search for a new chief executive officer.

Arena Pharmaceuticals, Inc., incorporated in the state of Delaware in April 1997, and is located in San Diego, California. Our operations outside of the United States are primarily located at Arena GmbH in Zofingen, Switzerland. Activities conducted at Arena GmbH include manufacturing, quality control, quality assurance, development of manufacturing processes, qualifying suppliers and otherwise managing aspects of the supply chain, regulatory compliance, distribution of finished products, alliance management, and strategic planning and development. Arena GmbH and its wholly owned subsidiary, API Development LTD, also hold certain intellectual property rights for lorcaserin and nelotanserin.

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Product and Research and Development Programs

Below is a summary of our GPCR portfolio of clinical-stage drug candidates and partnered programs. Our portfolio also includes earlier-stage programs in various therapeutic areas, including cardiovascular, central nervous system and metabolic diseases.

Lorcaserin

Our internally discovered drug, lorcaserin, is available by prescription in the United States and South Korea for weight management under the brand name BELVIQ. There are pending applications for the regulatory approval of lorcaserin for marketing for weight management in a number of additional territories.

According to the Centers for Disease Control and Prevention, more than one-third of US adults (35.7%) were obese in 2009-2010. Studies have shown that a weight loss of 5% to 10% of body weight from baseline can result in meaningful improvements in cardiovascular risk factors (e.g., lipids, blood pressure and blood glucose), quality of life and functional capacity, and a significant reduction in the incidence of type 2 diabetes.

BELVIQ is believed to decrease food consumption and promote satiety by selectively activating serotonin 2C receptors in the brain. Activation of these receptors may help a person eat less and feel full after eating smaller amounts of food.

We have collaborations with pharmaceutical companies that provide them rights and responsibilities to seek regulatory approval and commercialize BELVIQ for weight management. These collaborations are with Eisai for all of the countries in the world, except for South Korea, Taiwan, Israel, Australia and New Zealand; Ildong Pharmaceutical Co., Ltd., or Ildong, for South Korea; CY Biotech Company Limited, or CYB, for Taiwan; and Teva Pharmaceutical Industries Ltd.’s local Israeli subsidiary, Abic Marketing Limited, or Teva, for Israel.

BELVIQ availability in the United States

In June 2013, Eisai made BELVIQ available in the United States to patients by prescription, following marketing approval by the FDA and scheduling by the US Drug Enforcement Administration, or DEA. BELVIQ is indicated in the United States as an adjunct to a reduced-calorie diet and increased physical activity for chronic weight management in adult patients with an initial body mass index, or BMI, of:

- 30 kg/m^2 or greater (obese), or
- 27 kg/m^2 or greater (overweight) in the presence of at least one weight-related comorbid condition (e.g., hypertension, dyslipidemia, type 2 diabetes).

Limitations of Use:

- The safety and efficacy of coadministration of BELVIQ with other products intended for weight loss, including prescription drugs (e.g., phentermine), over-the-counter drugs, and herbal preparations, have not been established.
- The effect of BELVIQ on cardiovascular morbidity and mortality has not been established.

The recommended daily dose of BELVIQ is 10 mg twice daily.

US postmarketing requirements

As part of the US approval of BELVIQ, the FDA is requiring the evaluation of the effect of long-term treatment with BELVIQ on the incidence of major adverse cardiovascular events, or MACE, in overweight and obese patients with cardiovascular disease or multiple cardiovascular risk factors (otherwise known as the CVOT), as well as to conduct postmarketing studies to assess the safety and efficacy of BELVIQ for weight management in obese pediatric patients. The CVOT reached its target enrollment of approximately 12,000 patients around December 2015. The CVOT, which is also referred to as CAMELLIA (Cardiovascular And Metabolic Effects of Lorcaserin In Overweight And Obese Patients), is a randomized, double-blind, placebo-controlled trial that is enrolling patients with cardiovascular disease or multiple cardiovascular risk factors. The trial is expected to run for several more years.

The FDA-required portion of CAMELLIA is designed to evaluate BELVIQ's effect on the incidence of MACE (non-fatal myocardial infarction, non-fatal stroke, and cardiovascular death) compared to placebo, with a non-inferiority margin for the hazard ratio of 1.4. In addition, as part of the non-FDA required portion of the trial, CAMELLIA will also evaluate whether BELVIQ reduces the incidence of conversion to type 2 diabetes in patients without type 2 diabetes at baseline and the incidence of MACE+ (MACE or hospitalization for unstable angina or heart failure, or any coronary revascularization), both as compared to placebo. CAMELLIA also includes echocardiograms in a subset of the patients.

As the first of four postmarketing commitments related to adolescent and pediatric patients, we have completed a pharmacokinetic study of BELVIQ in adolescents. Eight adolescent boys and girls, aged 12-17, with a BMI of greater than or equal to the 95^{th} percentile for age and sex, but less than or equal to 44 kg/m^2, were administered a single 10 mg dose of BELVIQ. Based on the results of the trial, the exposure in adolescents appears to be similar to the exposure in overweight and obese adults. We have also completed a single-dose pharmacokinetic study in eight children, aged 6-11, with a BMI of greater than or equal to the 99^{th} percentile for age and sex, but less than or equal to 44 kg/m^2, and results are pending.

BELVIQ availability in South Korea

In February 2015, Ildong made BELVIQ available in South Korea to patients by prescription, following marketing approval by Ministry of Food and Drug Safety, or MFDS. In South Korea, BELVIQ is indicated as an adjunct to a reduced-calorie diet and increased physical activity for weight management in adult patients with an initial BMI of:

- 30 kg/m^2 or greater (obese), or
- 27 kg/m^2 or greater (overweight) in the presence of at least one weight-related comorbid condition (e.g., hypertension, dyslipidemia, type 2 diabetes).

The recommended daily dose of BELVIQ is 10 mg twice daily.

Lorcaserin collaborations and regulatory activity

As described above, we have entered into collaborations for the potential regulatory approval and marketing of lorcaserin in most of the world, and below are more detailed descriptions of each of the collaborations. With respect to seeking regulatory approval of BELVIQ, Eisai has pending applications in Brazil and Mexico, Teva has a pending application in Israel, and CYB has a pending application in Taiwan. We or our collaborators have previously filed

applications for marketing approval of BELVIQ with the regulatory authorities for the European Union, Canada and Switzerland. We withdrew the

applications in the European Union and Canada, and the regulatory authority for Switzerland notified us that we had not yet satisfactorily addressed their concerns and that our application would not be approved. We expect to continue to work with our collaborators in pursuing regulatory approvals for BELVIQ in their respective territories.

Eisai collaboration

In November 2013, Arena GmbH and Eisai entered into a restated Marketing and Supply Agreement, or Eisai Agreement, which expanded Eisai's exclusive commercialization rights for lorcaserin to all of the countries in the world, except for South Korea, Taiwan, Australia, New Zealand and Israel. Eisai's commercialization rights are subject to applicable regulatory approval.

Upfront and milestone payments

In connection with entering into the restated Eisai Agreement, we received from Eisai an upfront payment of $60.0 million. This payment was in addition to the $50.0 million and $5.0 million in upfront payments we received in connection with our earlier agreements with Eisai. We are eligible to receive up to an aggregate of $176.0 million in additional regulatory and development milestone payments.

Product purchase price and purchase price adjustment payments

We manufacture lorcaserin at our facility in Switzerland, and sell lorcaserin to Eisai for a purchase price starting at 31.5% in the United States and 30.75% outside of the United States (other than Europe, China and Japan, where the purchase price starts at 27.5%) of Eisai's aggregate annual net product sales. The purchase price will increase on a tiered basis in the United States and the other territories (other than Europe, China and Japan) to as high as 36.5% and 35.75%, respectively, on the portion of Eisai's annual aggregate net product sales exceeding $750.0 million in all territories other than Europe, China and Japan. The purchase price will increase to 35% in Europe, China and Japan on the portion of Eisai's annual aggregate net product sales exceeding $500.0 million in such territories. The purchase price is subject to reduction (for sales in a particular country), including in the event of generic competition in the applicable country.

In addition to payments for purchases of lorcaserin, we are eligible to receive up to an aggregate of $1.56 billion in one-time purchase price adjustment payments and other payments. These payments include up to an aggregate of $1.19 billion that are based on Eisai's annual net product sales of lorcaserin in all of the territories under the Eisai Agreement on an aggregate basis, with the first and last amounts payable with annual net product sales of $250.0 million and $2.5 billion, respectively. Of these payments, Eisai will pay us a total of $330.0 million for annual net product sales of up to $1.0 billion. The $1.56 billion also includes $370.0 million in one-time purchase price adjustment payments we are eligible to receive based on annual net product sales in the non-US territories, comprised of $185.0 million based on Eisai's annual net product sales in the non-US territories in North and South America and $185.0 million based on Eisai's annual net product sales in the territories outside of North and South America. The first and last amounts are payable upon first achievement of annual net product sales of $100.0 million and $1.0 billion, respectively, with respect to each of the following areas: (i) the non-US territories in North and South America and (ii) the territories outside of North and South America. In addition, we are also eligible to receive certain payments from Eisai if certain annual minimum sales requirements in Mexico, Canada and Brazil are not met during the first ten years after initial commercial sale in such territories.

Development payments

The chart below summarizes the general agreement regarding cost sharing between Eisai and us for significant development activities under the Eisai Agreement. In addition, Eisai or we may from time to time conduct approved development of lorcaserin at such party's own expense. As set forth below, we are obligated to pay 10% of the cost of the FDA-required portion of the CVOT. The FDA-required portion of the CVOT is expected to continue during the next couple of years, and the remaining amount of our share of the cost for this portion is estimated to be approximately $14.0 million. This cost will be incurred over the remaining time that the FDA-required portion of the CVOT is conducted, and the actual amount of the cost will depend on how long it takes to complete this portion of the CVOT and other factors. In addition, if the CVOT is continued to conduct the non-FDA required portion (evaluating MACE+ and conversion to type 2 diabetes), we expect our share of the cost of such portion will be up to $40.0 million, most of which cost is contingent on the success of the FDA-required portion and will occur in years after the FDA-required portion is completed. We are also obligated to share the cost of two remaining FDA-required studies in obese pediatric patients and for additional clinical studies in other territories.

Cost Sharing for Development with Eisai

	United States	Rest of North and South America	Remai
BELVIQ - Pre-approval*	Not Applicable	General Eisai: 90%; Arena: 10% Certain stability work Eisai: 50%; Arena: 50%	Up to t Eisai: 5 Therea
BELVIQ - Post-approval*	General Eisai: 90%; Arena 10% Non-FDA required portion of CVOT Up to $80.0 million - Eisai: 50%; Arena: 50% Thereafter, Eisai: 100% Certain pediatric studies Eisai: 50%; Arena: 50%	General Eisai: 90%; Arena: 10% Certain stability work Eisai: 50%; Arena: 50%	Up to t Eisai: 5 Therea Arena:
Lorcaserin products other than BELVIQ - Pre-approval	Up to a total of $250.0 million (as reduced by up to $80.0 million for non-FDA required portion of CVOT) - Eisai: 50%; Arena: 50%		
Lorcaserin products other than BELVIQ - Post-approval	Up to a total of $100.0 million in the aggregate across all additional products - Eisai: 50%; Arena: 50% Thereafter, Eisai: 90%; Arena: 10%		

* Development required by a regulatory authority, with the exception of the non-FDA required portion of the CVOT.

** Under the collaborative agreement, the amount for BELVIQ pre-approval in the Remaining Territories was decreased and the amount for lorcaserin products other than BELVIQ pre-approval was increased by such amount.

Certain other terms

Eisai and we have agreed to limitations on the ability to commercialize outside of the Eisai Agreement any weight management product or addiction disorder product in the territories under the agreement. The agreement includes a stand-still provision limiting Eisai's ability to acquire our securities and assets.

Eisai will indemnify us for losses resulting from certain third-party claims, including for (a) Eisai's negligence, willful misconduct or violation of law, but excluding product liability claims, (b) Eisai's breach of the Eisai Agreement or related agreements, but excluding product liability claims, (c) certain uses or misuses of a lorcaserin product, (d) certain governmental investigations of Eisai related to a lorcaserin product, and (e) infringement relating to Eisai's use of certain trademarks, tag

lines and logos related to a lorcaserin product. Arena GmbH will indemnify Eisai for losses resulting from certain third-party claims, including for (i) Arena GmbH's negligence, willful misconduct, failure to comply with law, breach of any agreement with a third party with respect to product development prior to the effective date of the original agreement with Eisai, but excluding product liability claims, (ii) Arena GmbH's negligence or willful misconduct with respect to certain uses or misuses of a lorcaserin product outside of the agreement, (iii) certain uses or misuses of a lorcaserin product after the term of the agreement, in any territory no longer under the agreement or with respect to any product after the termination of the agreement with respect to such product, (iv) Arena GmbH's negligence, willful misconduct or violation of law, but excluding product liability claims, (v) Arena GmbH's breach of the Eisai Agreement or related agreements, but excluding product liability claims, (vi) certain infringement of intellectual rights of a third party, and (vii) infringement relating to Eisai's use of certain trademarks related to a lorcaserin product. In addition, Arena GmbH and Eisai will, in general, share equally in losses resulting from third-party product liability claims, except where one party's acts or omissions did not contribute to the events or circumstances leading to such product liability claim and the other party's actual willful misconduct, violation of law or breach of its obligations under the Eisai Agreement or certain other agreements between Arena GmbH and Eisai were the sole and direct cause of the product liability claim.

Eisai may terminate the Eisai Agreement with respect to any country in the territory following the later of the expiration of all issued lorcaserin patents in such country and 12 years after the first commercial sale of the first lorcaserin product in such country. Arena GmbH and Eisai each has the right to terminate the agreement early in certain circumstances in its entirety or with respect to the applicable country or product, including (a) if the other party is in material breach, (b) for commercialization concerns, and (c) for certain intellectual property infringement. Eisai also has the right to terminate the agreement early in its entirety or with respect to each country in certain circumstances, including (i) termination in a country if sales of generic equivalents of a lorcaserin product in such country exceed sales of the lorcaserin product in that country (based on volume), and (ii) if Eisai is acquired by a company that has a product that competes with a lorcaserin product. In addition, Arena GmbH can terminate the agreement early in its entirety or with respect to each country in the non-US territories in North and South America in certain circumstances, including termination in each country if Eisai does not satisfy certain regulatory filing and commercialization diligence requirements in such country.

Other collaborations for BELVIQ

In addition to the Eisai Agreement, Arena GmbH entered into the Marketing and Supply Agreement, or Ildong BELVIQ Agreement, with Ildong for South Korea in November 2012, into the Marketing and Supply Agreement, or CYB Agreement, with CYB for Taiwan in July 2013 and into the Marketing and Supply Agreement, or Teva Agreement, with Teva for Israel in July 2014. These agreements provide such collaborators with rights to lorcaserin for weight loss or weight management in obese and overweight patients, subject to applicable regulatory approval, as well as the possibility of us granting them rights to additional lorcaserin products or indications.

Ildong collaboration for South Korea

In connection with entering into the Ildong BELVIQ Agreement, we received from Ildong an upfront payment of $5.0 million, less withholding taxes. In addition to the upfront payment, we received a milestone payment of $3.0 million, less withholding taxes, in March 2015, which we earned upon the February 2015 approval of BELVIQ for marketing in South Korea for weight management.

We manufacture BELVIQ at our facility in Switzerland, and sell BELVIQ to Ildong for Ildong's commercialization in South Korea for a purchase price starting at the higher of the defined minimum amount or 35% of Ildong's annual net product sales. The purchase price will increase on a tiered basis up to the higher of the defined minimum amount or 45% on the portion of annual net product sales exceeding $15.0 million. If certain annual net product sales amounts are not met, we can convert Ildong's right to commercialize BELVIQ in South Korea to be non-exclusive.

Ildong will indemnify us for losses resulting from certain third-party claims, including for (a) Ildong's negligence, willful misconduct or violation of law, (b) Ildong's breach of the marketing and supply agreement or related agreements, (c)certain uses or misuses of lorcaserin (including any product liability claim and other claims relating to sales or development of lorcaserin in South Korea), (d) certain governmental investigations of Ildong related to lorcaserin, and (e) infringement relating to Ildong's use of trademarks related to lorcaserin. Arena GmbH will

indemnify Ildong for losses resulting from certain third-party claims, including for (i) Arena GmbH's negligence, willful misconduct or violation of law, and (ii) Arena GmbH's breach of the marketing and supply agreement or related agreements.

Unless terminated earlier, the agreement with Ildong will continue in effect until the later of the expiration of all issued patents relating to BELVIQ in South Korea and 12 years after the first commercial sale of lorcaserin in South Korea. Either party has the right to terminate the agreement early in certain circumstances, including (a) if the other party is in material breach, (b) for certain commercialization concerns, and (c) for certain intellectual property concerns. Ildong also has the right

to terminate the agreement early if we notify Ildong that Ildong's right to commercialize lorcaserin in South Korea will become non-exclusive.

Ildong has agreed not to conduct activities outside of our agreement related to the approval or commercialization of any other pharmaceutical product for weight loss, weight management or obesity in South Korea, with the exception of phentermine.

CYB collaboration for Taiwan

In connection with entering into the CYB Agreement, we received from CYB an upfront payment of $2.0 million, less withholding taxes. We will manufacture BELVIQ at our facility in Switzerland, and sell finished product to CYB for a purchase price starting at the higher of the defined minimum amount or 45% of CYB's annual net product sales. In addition, we are eligible to receive purchase price adjustment payments based on CYB's annual net product sales, as well as a milestone payment upon marketing approval of the first additional indication for lorcaserin in Taiwan.

CYB will indemnify us for losses resulting from certain third-party claims, including for (a) CYB's negligence, willful misconduct or violation of law, (b) CYB's breach of the marketing and supply agreement or related agreements, (c) certain uses or misuses of lorcaserin (including any product liability claim and other claims relating to sales or development of lorcaserin in Taiwan), (d) certain governmental investigations of CYB related to lorcaserin, and (e) infringement relating to CYB's use of trademarks related to lorcaserin. Arena GmbH will indemnify CYB for losses resulting from certain third-party claims, including for (i) Arena GmbH's negligence, willful misconduct or violation of law, and (ii) Arena GmbH's breach of the marketing and supply agreement or related agreements.

Unless terminated earlier, the agreement with CYB will continue in effect until the later of the expiration of all issued patents relating to lorcaserin in Taiwan and 12 years after the first commercial sale of lorcaserin in Taiwan. Either party has the right to terminate the agreement early in certain circumstances, including (a) if the other party is in material breach, (b) for certain commercialization concerns, and (c) for certain intellectual property concerns.

Teva collaboration for Israel

In connection with entering into the Teva Agreement, we received from Teva an upfront payment of $500,000. In addition, we received from Teva a milestone payment of $250,000 earned upon its application for regulatory approval of BELVIQ in Israel. We will manufacture finished drug product at our facility in Switzerland, which we will sell to Teva at a purchase price starting at the higher of the defined minimum amount or 35% of Teva's annual net sales of BELVIQ. In addition, we are eligible to receive milestone payments upon marketing approval in Israel of BELVIQ for weight management and upon marketing approval of the first additional indication for lorcaserin in Israel, as well as one-time purchase price adjustment payments based on Teva's annual net sales.

Teva will indemnify us for losses resulting from certain third-party claims, including for (a) Teva's negligence, willful misconduct or violation of law, (b) Teva's breach of the marketing and supply agreement or related agreements, (c) certain uses or misuses of lorcaserin (including claims relating to sales of lorcaserin in Israel), (d) certain governmental investigations of Teva related to lorcaserin, and (e) infringement relating to Teva's use of trademarks related to lorcaserin. Arena GmbH will indemnify Teva for losses resulting from certain third-party claims, including for (i) Arena GmbH's negligence, willful misconduct or violation of law, and (ii) Arena GmbH's breach of the marketing and supply agreement or related agreements. Each party will bear 50% of all losses from certain product liability claims relating to the use of lorcaserin in Israel.

Unless terminated earlier, the agreement with Teva will continue in effect until 15 years after the first commercial sale of lorcaserin in Israel. Either party has the right to terminate the agreement early in certain circumstances, including (a) if the other party is in material breach, (b) for certain development or commercialization disagreements or concerns, (c) if the other party is debarred or listed on the excluded list, (d) with respect to force majeure events, and (e) for certain intellectual property concerns.

Additional Development of Lorcaserin

BELVIQ XR

As described above, the recommended daily dose of BELVIQ is 10 mg twice daily, and we are developing a once-daily formulation of lorcaserin for potential use for weight management, which is planned to be marketed under the brand name BELVIQ XR. We completed an initial study to evaluate the safety, tolerability and pharmacokinetic properties of different formulations of lorcaserin 20 mg once-daily tablets, and selected a once-daily formulation for

further development. We then completed two additional Phase 1 clinical trials to determine the pharmacokinetic properties and bioequivalence of the selected once-daily formulation, which we believe demonstrate bioequivalence between the approved twice-daily and the BELVIQ XR

formulations and an absence of food effect on the latter formulation at steady state. A New Drug Application, or NDA, for BELVIQ XR has been accepted and is under review by the FDA.

Cardiovascular Outcomes/Type 2 Diabetes Conversion

As described above, as part of the non-FDA required portion of the trial, CAMELLIA will also evaluate whether BELVIQ reduces the incidence of conversion to type 2 diabetes in patients without type 2 diabetes at baseline and the incidence of MACE+, both as compared to placebo.

Other Development

We may investigate lorcaserin for other indications in the future, but we have no current plans to do so. Under our collaboration with Eisai, we previously studied lorcaserin for smoking cessation and in combination with phentermine.

Lorcaserin intellectual property

As of February 16, 2016, we owned issued patents that cover compositions of matter for the lorcaserin new chemical entity, or NCE, and related compounds, and methods of treatment utilizing lorcaserin and related compounds in 69 jurisdictions, including the United States, Japan, China, Germany, France, Italy, the United Kingdom, Spain, Canada, Russia, India, Australia and South Korea, and had applications pending in two other jurisdictions, of which the one with the largest pharmaceutical market was Brazil. Based on sales statistics provided by IMS Health, the jurisdictions where lorcaserin patents have been issued accounted for more than 92% of global pharmaceutical sales in 2013, while other jurisdictions where lorcaserin patents remain pending accounted for more than 3% of global pharmaceutical sales in that same year. The patents on lorcaserin issued by the US Patent and Trademark Office have serial numbers US 6,953,787; US 7,514,422; US 7,977,329; US 8,207,158; US 8,273,734; US 8,575,149; US 8,546,379; US 8,846,906 and US 8,993,750, while the corresponding patent granted by the European Patent Office has serial number EP 1 411 881 B1. Other of our lorcaserin issued patents and patent applications, including those directed to the HCl salt of lorcaserin (e.g., US 8,367,657 and US 8,946,207), the hemihydrate of the HCl salt of lorcaserin as well as its crystalline forms (e.g., US 8,168,624; US 8,697,686; US 8,980,881 and EP 1 838 677 B1) and modified-release dosage forms, are all present in a lesser number of commercially important jurisdictions. The earliest priority date for the patents on lorcaserin is 2002. The terms of the NCE patents are capable of continuing into 2023 in most jurisdictions without taking into account any patent term adjustment or extension regimes of any country or any additional term of exclusivity we might obtain by virtue of the later filed patent applications. With respect to the United States, we have filed applications for patent extension, which, if granted, will extend the patent term for one of our lorcaserin composition of matter patents into 2026 and potentially into 2027.

In April 2015, the US Patent and Trademark Office granted US Patent No. 8,999,970, which describes a method for selecting appropriate patients for lorcaserin based on renal function. We expect this patent to extend exclusivity until 2033. In October 2015, the US Patent and Trademark Office granted US Patent No. 9,169,213, based on the discovery that achieving 5% weight loss with lorcaserin by Week 12 is a strong predictor of responses in weight loss at Week 52 of treatment. We expect that this patent may provide additional support for exclusivity in the US until 2032.

As of February 16, 2016, we owned registered trademarks for the name BELVIQ in Class 5 for the sale and marketing of pharmaceutical preparations to treat or prevent obesity, for weight management, for weight loss and for the maintenance of weight loss in 143 jurisdictions, including the United States, Japan, China, Germany, France, Brazil, Italy, the United Kingdom, Spain, Russia, India, Australia and South Korea, and had trademark applications pending in nine other jurisdictions, of which the one with the largest pharmaceutical market was Canada. The trademark on the name BELVIQ registered by the US Patent and Trademark Office has registration number US 4,080,253, while the corresponding trademark registered by the European Union’s Office for Harmonization in the Internal Market has registration number CTM 010224905. Other of our BELVIQ registered trademarks and trademark applications, including those in classes 9, 16, 41 and 44 for downloadable publications, publications, educational services and medical services, respectively, directed to weight management, weight loss and the maintenance of weight loss are all present in a lesser number of commercially important jurisdictions. We also owned registered trademarks for one or more transliterations of the name BELVIQ in the local character set or alphabet in 22 jurisdictions, including Japan,

China, Russia and South Korea, and had trademark applications pending in three other jurisdictions. As of February 16, 2016, we also owned registered trademarks for the name BELVIQ XR in Class 5 for the sale and marketing of pharmaceutical preparations to treat or prevent obesity, for weight management, for weight loss and for the maintenance of weight loss in two jurisdictions, including the United States, and had trademark applications pending in three other jurisdictions, of which the one with the largest pharmaceutical market was Japan.

APD334 Program

APD334, an orally available modulator of the $S1P_1$ receptor, is our internally discovered investigational drug candidate intended for the potential treatment of a number of autoimmune diseases, such as multiple sclerosis, psoriasis, inflammatory bowel diseases and rheumatoid arthritis. $S1P_1$ receptors have been demonstrated to be involved in the modulation of several biological responses, including lymphocyte trafficking from lymph nodes to the peripheral blood. By isolating lymphocytes in lymph nodes, fewer immune cells are available in the circulating blood to effect tissue damage. Drugs in this class have been associated with certain side effects, including cardiovascular effects, respiratory effects, infection, macular edema and elevations in liver enzymes. We have optimized APD334 as a potent and selective small molecule S1P1 receptor modulator that reduces the severity of disease in preclinical autoimmune-disease models.

As set forth below, we are currently developing APD334 for ulcerative colitis. Important goals of pharmacotherapy for ulcerative colitis are to induce and maintain remission while improving the patient's quality of life. Currently available treatment options have limitations in terms of long-term efficacy and side effects, have complicated administration regimens, and often fail to induce or maintain remission. Therefore, a significant unmet need remains for differentiated agents that are efficacious for induction and maintenance therapy with a favorable side effect profile. We believe that the selectivity, mechanism of action, and current clinical profile of APD334 represents a significant opportunity to provide patients with an effective treatment for ulcerative colitis with an improved safety and dosing profile over current therapies.

APD334 development

In July 2015, we initiated patient dosing in a 12-week, randomized, double-blind and placebo-controlled Phase 2 clinical trial of APD334. The trial will seek to evaluate the effects of APD334 on clinical remission of ulcerative colitis, safety and tolerability in up to 240 patients.

In January 2015, we announced top-line results from a Phase 1b multiple-ascending dose clinical trial for APD334. In the trial, APD334 demonstrated a dose-dependent effect on lymphocyte count lowering in blood, with mean decreases from baseline of up to 69%. Lymphocyte counts, on average, recovered to baseline within one week of conclusion of dosing. There was a modest impact on heart rate, but none of the changes were classified by the investigator as clinically significant. There were also no findings with respect to pulmonary function or liver enzyme tests that were classified by the investigator as clinically significant. The most common treatment-emergent adverse events were mild or moderate contact dermatitis, headache, constipation and diarrhea, with none being clearly drug related. There were no discontinuations for adverse events, and no serious adverse events were observed.

The randomized, double-blind, placebo-controlled Phase 1b clinical trial evaluated the safety, tolerability, pharmacodynamics and pharmacokinetics of multiple-ascending doses of APD334. In five different dosing cohorts, 50 healthy volunteers received APD334 and 10 healthy volunteers received placebo for 21 days.

Prior to commencing the Phase 1b multiple-ascending dose clinical trial for APD334, we completed a Phase 1a single-ascending dose clinical trial of the compound. This randomized, double-blind and placebo-controlled trial evaluated the safety, tolerability and pharmacokinetics of single-ascending doses of APD334 in 40 healthy adult volunteers. In the trial, APD334 demonstrated favorable pharmacokinetic and pharmacodynamic effects, a dose-responsive reduction in blood lymphocyte count and a slowing of heart rate that appears comparable to other $S1P_1$ modulators. The terminal half-life was approximately 35 hours.

APD334 intellectual property

As of February 16, 2016, we owned issued patents that cover compositions of matter for APD334 and related compounds, methods of treatment utilizing APD334 and related compounds, and various salts of APD334 and crystalline forms thereof in 19 jurisdictions, including the United States, Japan, China, Australia and Russia, and had applications pending in six other jurisdictions, of which the largest pharmaceutical markets were Europe, Brazil, Canada, India and South Korea. Based on sales statistics provided by IMS Health, the jurisdictions where APD334 patents have been issued accounted for more than 59% of global pharmaceutical sales in 2013, while other jurisdictions where APD334 patents remain pending accounted for more than 33% of global pharmaceutical sales in that same year. The patents on APD334 issued by the US Patent and Trademark Office have serial numbers US 8,580,841 (covering compositions of matter for APD334 and related compounds) and US 9,126,932 (covering

methods of treatment utilizing APD334 and related compounds). Other of our APD334 pending patent applications, including those directed to dosage regimens for APD334 and synthetic routes and intermediates useful in the manufacturing of APD334, have all been filed in a lesser number of commercially important jurisdictions. The earliest priority date for the patents on APD334 is 2008. The terms of any patents that may issue from these patent applications should be capable of continuing into 2029 in most jurisdictions without taking into account any patent term adjustment or extension regimes of any country or any additional term of exclusivity we might obtain by virtue of the later filed patent applications.

Ralinepag Program

Ralinepag, an orally available agonist of the IP receptor, is our internally discovered investigational drug candidate intended for the treatment of pulmonary arterial hypertension, or PAH. In September 2014, ralinepag was granted orphan drug status for the treatment of PAH by the FDA.

PAH is a progressive, life-threatening disorder characterized by increased pressure in the arteries that carry blood from the heart to the lungs. The increased pressure strains the heart, which can limit physical activity, result in heart failure and reduce life expectancy. Based on data from the Registry to EValuate Early And Long-term PAH disease management (REVEAL) of patients in the United States, there is an estimated five-year survival rate of 57% from diagnosis.

Treatment with IP agonists, which can slow disease progression and improve exercise tolerance in PAH patients, is considered standard of care for advanced PAH. All but one available IP agonist belong to the prostanoid class of molecules, and the majority of these products need to be administered frequently or continuously through intravenous, subcutaneous or inhaled delivery methods. An orally available, non-prostanoid IP agonist was recently approved in the United States and recommended for approval in the European Union. We believe that an orally available, non-prostanoid IP agonist that provides clinical benefits similar to currently available, parenterally delivered (meaning intravenous, subcutaneous or inhaled) IP agonists has the potential to improve the standard of care for PAH. Ralinepag's oral bioavailability, strong receptor agonism, and approximately 20 to 26 hour half-life may provide advantages over other IP agonists, including improved receptor coverage given long half-life and the potential for once-daily oral dosing.

Ralinepag development

In January 2015, we initiated patient dosing in a 22-week, randomized, double-blind and placebo-controlled Phase 2 clinical trial of ralinepag. The trial will seek to evaluate the hemodynamic and exercise capacity effects, safety and tolerability of ralinepag in up to 60 patients with PAH.

In 2013, we announced top-line results from a multiple-dose, randomized, double-blind and placebo-controlled Phase 1 clinical trial evaluating multiple-ascending doses of ralinepag in healthy volunteers. In this trial, 40 healthy volunteers received ralinepag and 15 received placebo. The safety profile of ralinepag was characteristic of IP receptor agonists: the most frequent treatment-emergent adverse events were headache, nausea and jaw pain. One serious adverse event, transient atrial fibrillation, occurred in a single patient, and the study investigator considered it to be possibly treatment related.

In 2011, we announced top-line results of a Phase 1 clinical trial to evaluate the safety, tolerability and pharmacokinetics of single-ascending doses of ralinepag. The randomized, double-blind and placebo-controlled trial evaluated 32 healthy volunteers in four cohorts of eight participants each, with six randomized to ralinepag and two to placebo. Ralinepag was rapidly absorbed and demonstrated dose-proportional pharmacokinetic exposure over the tested dose range. Consistent with the expected pharmacology of ralinepag, the most common adverse events were headache, vomiting, nausea, jaw pain and flushing.

Ralinepag intellectual property

As of February 16, 2016, we owned issued patents covering compositions of matter for ralinepag and related compounds and methods of treatment utilizing ralinepag and related compounds, synthetic routes, and various solid state forms of ralinepag, in 59 jurisdictions, including the United States, Japan, China, Germany, France, Italy, the United Kingdom, Spain, Russia and Australia, and we had applications pending in five other jurisdictions, of which the ones with the largest pharmaceutical markets were Brazil, Canada, India and South Korea. Based on sales statistics provided by IMS Health, the jurisdictions where ralinepag patents have been issued accounted for more than 85% of global pharmaceutical sales in 2013, while other jurisdictions where ralinepag patents remain pending accounted for more than 8% of global pharmaceutical sales in that same year. The patent on ralinepag issued by the US Patent and Trademark Office has serial number US 8,895,776, while the corresponding patent granted by the European Patent Office has serial number EP 2 280 696 B2. Other of our ralinepag patent applications, including those directed to synthetic processes and dosage regimens of ralinepag, have been filed. The earliest priority date for the patents on ralinepag is 2008. The terms of these patents are capable of continuing into 2029 in most jurisdictions without taking into account any patent term adjustment or extension regimes of any country or any additional term of exclusivity we

might obtain by virtue of the later filed patent applications.

APD371 Program

APD371, an orally available agonist of the CB_2 receptor, is an internally discovered investigational drug candidate we are exploring for the treatment of pain. Currently available CB-receptor agonists have been limited in utility by the psychotropic effects associated with the activation of the CB1, but not CB_2, receptor subtype. APD371 is intended to retain the analgesic activity of the CB receptor agonists while avoiding the limiting psychotropic side effects. We believe selectively

targeting the CB_2 receptor may provide therapeutic benefit without the potential for dependence or abuse associated with opiates and without the gastrointestinal, or GI, and cardiovascular, or CV, side effects associated with nonsteroidal anti-inflammatory drugs, or NSAIDs, which are among the most common pain relievers.

APD371 development

In October 2015, we initiated a Phase 1 multiple-ascending dose trial of APD371. This randomized, double-blind, placebo-controlled Phase 1b clinical trial will enroll approximately 36 healthy adults to evaluate the safety, tolerability and pharmacokinetics of multiple-ascending doses of APD371.

In April 2015, we announced top-line results from a Phase 1 single-ascending dose clinical trial of APD371. The randomized, double-blind and placebo-controlled trial enrolled 56 healthy adults to evaluate the safety, tolerability and pharmacokinetics of single-ascending doses of APD371. Dose-responsive exposure was observed over the explored dose range of 10-400 mg with good tolerability at all doses administered.

APD371 intellectual property

As of February 16, 2016, we owned issued patents covering compositions of matter for APD371 and related compounds in eight jurisdictions, including the United States, Japan, China, and Australia, and we had applications pending in 16 other jurisdictions, of which the ones with the largest pharmaceutical markets were Europe, Brazil, Canada, Russia, India and South Korea. Based on sales statistics provided by IMS Health, the jurisdictions where APD371 patents have been issued accounted for more than 58% of global pharmaceutical sales in 2013, while other jurisdictions where APD371 patents remain pending accounted for more than 38% of global pharmaceutical sales in that same year. The patent on APD371 issued by the US Patent and Trademark Office has serial number US 8,778,950. Other of our APD371 patent applications, including those directed to various solid state forms of APD371, have all been filed in a similar number of commercially important jurisdictions. The earliest priority date for the patents on APD371 is 2009. The terms of these patents are capable of continuing into 2030 in most jurisdictions without taking into account any patent term adjustment or extension regimes of any country or any additional term of exclusivity we might obtain by virtue of the later filed patent applications.

Nelotanserin Program

Nelotanserin, an orally available inverse agonist of the serotonin 2A receptor, is an internally discovered investigational drug candidate that we originally studied for sleep maintenance. Prior to entering into the collaboration with Axovant Sciences Ltd., or Axovant, we studied nelotanserin in multiple Phase 1 and Phase 2 clinical trials involving over 900 subjects. Although the compound demonstrated significant pharmacology in objective sleep studies (increased deep sleep and decreased microawakenings in brain activity during sleep), this did not translate into a subjective improvement in sleep in patients with sleep maintenance insomnia.

Further nelotanserin development

Under our collaboration described below, Axovant recently announced that it has initiated a Phase 2 clinical trial for nelotanserin in patients with dementia with Lewy Bodies, which includes Lewy Body and Parkinson’s disease dementia, suffering from visual hallucinations. In addition, Axovant plans to initiate in the near term an additional Phase 2 clinical trial of nelotanserin in patients with dementia with Lewy bodies suffering from rapid eye movement, or REM, behavior disorder. In addition, Axovant may pursue the development of nelotanserin for other neuropsychiatric disorders. Axovant is responsible for funding the development and commercialization of nelotanserin.

Nelotanserin collaboration

In May 2015, we entered into a Development, Marketing and Supply Agreement with Roivant Sciences Ltd., or Roivant, for nelotanserin. Roivant subsequently assigned all of its rights to develop and commercialize nelotanserin to its subsidiary, Axovant. Under our collaboration, Axovant has exclusive worldwide rights to develop and commercialize nelotanserin, and Arena will manufacture clinical supply and commercial product to sell to Axovant. We received a $4.0 million upfront payment and are eligible to receive $41.5 million in regulatory and development milestone payments. We are also eligible to receive 15% of net sales of nelotanserin in exchange for the manufacture and supply of finished commercial drug product, and up to a total of $60.0 million in one-time purchase price adjustment payments tied to certain commercial sales milestones.

Axovant will indemnify us for losses resulting from certain third-party claims, including for (a) Axovant's negligence, willful misconduct or violation of law, (b) Axovant's breach of the development, marketing and supply agreement or related agreements, (c) any product liability claim, (d) certain uses or misuses of nelotanserin, (e) certain infringement of intellectual property rights, and (f) product manufactured according to the product warranty. Arena GmbH will indemnify Axovant for

losses resulting from certain third-party claims, including for (i) Arena GmbH's negligence, willful misconduct or violation of law, and (ii) Arena GmbH's breach of the development, marketing and supply agreement or related agreements.

Axovant has the right to terminate the agreement on a compound-by-compound basis or in its entirety upon 90 days' prior written notice to Arena GmbH. Arena GmbH has the right to terminate the agreement upon certain intellectual property concerns. Either party has the right to terminate the agreement early in certain circumstances, including if the other party is in material breach.

Nelotanserin intellectual property

As of February 16, 2016, we owned issued patents that cover compositions of matter for nelotanserin and related compounds and methods of treatment utilizing nelotanserin and related compounds in 76 jurisdictions, including the United States, Japan, China, Germany, France, Italy, the United Kingdom, Spain, Canada, Russia, India, Australia and South Korea, and had applications pending in five other jurisdictions, of which the ones with the largest pharmaceutical markets was Brazil. Based on sales statistics provided by IMS Health, the jurisdictions where nelotanserin patents have been issued accounted for more than 92% of global pharmaceutical sales in 2006, while jurisdictions where nelotanserin patents remain pending accounted for more than 5% of global pharmaceutical sales in that same year. The patent on nelotanserin issued by the US Patent and Trademark Office has serial number US 8,754,238, while the corresponding patent granted by the European Patent Office is serial number EP 1 558 582 B1. The earliest priority date for the patents on nelotanserin is 2003. The terms of these patents are capable of continuing into 2024 in most jurisdictions without taking into account any patent term extension regimes of any country.

Temanogrel Program

Temanogrel, an orally available inverse agonist of the serotonin 2A receptor, is an internally discovered investigational drug candidate intended for the treatment of thrombotic diseases. We believe temanogrel has the potential to inhibit serotonin-mediated platelet aggregation and vasoconstriction. We believe temanogrel's dual mechanism may be therapeutically useful for the treatment or prevention of thrombotic diseases.

Thrombosis is the formation of a clot, or thrombus, inside a blood vessel. Thrombus formation that occurs in the arteries leading to the heart or brain can lead to serious thrombotic diseases including myocardial infarction, acute coronary syndrome and stroke. One of the initial events in thrombus formation is the activation of platelets, which then aggregate and adhere to one another as they release certain factors, including high concentrations of serotonin. Serotonin promotes further platelet aggregation and also causes constriction, or narrowing, of blood vessels. Elevated serotonin levels have been associated with increased cardiovascular risk. The prothrombotic effects of serotonin on platelets and blood vessels are mediated by the serotonin 2A receptor, and inverse agonists of the serotonin 2A receptor have the potential to inhibit this activity.

Temanogrel development.

Under our collaboration described below, Ildong will be responsible for funding and conducting, under the direction of a joint steering committee, the ongoing Phase 1 clinical trial in healthy volunteers to investigate the safety of co-administration with clopidogrel and aspirin and a planned Phase 2a proof-of-concept trial in patients.

In 2008, we announced top-line results from a randomized, double-blind, placebo-controlled, multiple-ascending dose trial in 50 healthy male and female volunteers. This trial evaluated safety, tolerability, pharmacokinetics and pharmacodynamics of multiple-ascending doses of temanogrel over a period of one week. Total daily doses ranged from 15 mg to 80 mg. The most frequently reported adverse event was headache, which was more common in the placebo group than in any temanogrel dose group. None of the adverse events occurred in a dose-related fashion with the exception of epistaxis (nose bleed), which occurred in two of the volunteers who received the 80 mg dose, a dose above the anticipated therapeutic range. Dose-dependent inhibition of serotonin-mediated amplification of platelet aggregation was demonstrated in this trial starting at the 15 mg dose and may permit the identification of exposure ranges that produce minimal, moderate and near-complete inhibition of serotonin-amplified platelet aggregation.

Earlier in 2008, we announced top-line results from a randomized, double-blind, placebo-controlled, single-ascending dose Phase 1a clinical trial evaluating temanogrel in 90 healthy male and female volunteers. Doses originally intended for study ranged from 1 mg to 160 mg, but due to favorable tolerability the maximum dose was increased to 320 mg. In this trial, a maximum tolerated dose could not be defined despite achieving high concentrations in blood.

Dose-dependent inhibition of serotonin-mediated amplification of platelet aggregation was demonstrated in this trial.

Temanogrel collaboration.

In November 2012, we entered into a Co-Development and License Agreement with Ildong for temanogrel. Under the agreement, we granted Ildong exclusive rights to commercialize temanogrel in South Korea for myocardial infarction, acute coronary syndrome, stroke, peripheral artery disease and other cardiovascular diseases, subject to further development and regulatory approval of temanogrel. We will maintain ownership of temanogrel outside of South Korea, and have the rights to use data generated by Ildong for the development and potential commercialization of temanogrel outside of South Korea by us or other Arena licensees. In addition, Ildong has agreed to pay us a $2.0 million development milestone if the ongoing Phase 1 clinical trial and the planned Phase 2a clinical trial conducted by Ildong support continued development and we or another Arena licensee initiates a Phase 2b clinical trial of temanogrel. We are also eligible to receive a royalty on net product sales of temanogrel in South Korea, while Ildong is eligible to receive a share of future payments received by us related to licensing transactions and sales of temanogrel in other territories.

Ildong will indemnify us for losses resulting from certain third-party claims, including for (a) Ildong's negligence, willful misconduct or violation of law, (b) Ildong's breach of the agreement, (c) certain uses or misuses of temanogrel (including any product liability claim and other claims relating to sales or development of temanogrel in South Korea), and (d) certain governmental investigations of Ildong related to temanogrel. We will indemnify Ildong for losses resulting from certain third-party claims, including for (i) our negligence, willful misconduct or violation of law, and (ii) our breach of the agreement.

Unless terminated earlier or extended, the agreement will continue in effect until the later of the expiration of all issued patents relating to temanogrel in South Korea and 10 years after the first commercial sale of temanogrel in South Korea. Either party has the right to terminate the agreement early in certain circumstances, including (a) if the other party is in material breach, (b) for certain commercialization concerns, and (c) for certain intellectual property concerns.

Temanogrel intellectual property.

As of February 16, 2016, we owned issued patents that cover compositions of matter for temanogrel and related compounds and methods of treatment utilizing temanogrel and related compounds in 87 jurisdictions, including the United States, Japan, China, Germany, France, Italy, the United Kingdom, Spain, Canada, Russia, India, Australia and South Korea, and had applications pending in 12 other jurisdictions, of which the largest pharmaceutical market was Brazil. Based on sales statistics provided by IMS Health, the jurisdictions where temanogrel patents have been issued accounted for more than 93% of global pharmaceutical sales in 2013, while other jurisdictions where temanogrel patents remain pending accounted for more than 6% of global pharmaceutical sales in that same year. The patent on temanogrel issued by the US Patent and Trademark Office has serial number US 7,884,101, while the corresponding patent granted by the European Patent Office has serial number EP 1 833 799 B1. Other of our temanogrel issued patents and patent applications, including those directed to the temanogrel HCl salt as well as its crystalline forms, synthetic routes and intermediates useful in the manufacturing of temanogrel, and the active metabolites of temanogrel have all been filed in a lesser number of commercially important jurisdictions. The earliest priority date for the patents on temanogrel is 2004. The terms of these patents are capable of continuing into 2025 in most jurisdictions without taking into account any patent term adjustment or extension regimes of any country or any additional term of exclusivity we might obtain by virtue of the later filed patent applications.

Orphan GPCR Program

In December 2015, we entered into an exclusive agreement with Boehringer Ingelheim International GmbH, or Boehringer Ingelheim, to conduct joint research to identify drug candidates targeting a GPCR that belongs to the group of orphan CNS receptors. An "orphan receptor" is structurally related to a family of proteins that are known to act as functional cell-surface receptors but whose ligand has not yet been identified.

We will provide Boehringer Ingelheim exclusive rights to our internally discovered, novel compounds and intellectual property for the orphan CNS receptor. The companies will jointly conduct research to identify additional drug candidates that are suitable for continued research and development as therapeutic compounds for various disease indications, with the initial focus expected to be psychiatric diseases such as schizophrenia. The agreement grants Boehringer Ingelheim exclusive worldwide rights to develop, manufacture and commercialize products resulting from

the collaboration.

Under the terms of the agreement, in addition to the $7.5 million upfront payment, we are eligible to receive certain payments up to an aggregate of $254 million in research funding and success milestones in case of full commercial success of multiple drug products. In addition, we are eligible to receive tiered royalties on future sales of products that arise from the collaboration.

Boehringer Ingelheim will indemnify us for losses resulting from certain third-party claims, including for (a) Boehringer Ingelheim's default under the collaboration and license agreement, (b) Boehringer Ingelheim's gross negligence or willful misconduct, (c) Boehringer Ingelheim's conduct of the research program, or (d) the development, manufacture or

commercialization of any compound or product under the agreement. We will indemnify Boehringer Ingelheim for losses resulting from certain third-party claims, including for (i) our default under the agreement, (ii) our gross negligence or willful misconduct, or (iii) our conduct of the research program or use of any compound under the agreement.

Unless terminated earlier, the collaboration and license agreement will continue in effect until the later of the expiration of certain issued patents relating to a compound under the agreement and 10 years after the first commercial sale in all applicable countries. Either party has the right to terminate the agreement early in certain circumstances, including if the other party defaults under the collaboration and license agreement. In the case of our default, Boehringer Ingelheim has the option to terminate just a portion of agreement instead of the entire agreement. Boehringer Ingelheim has the right to terminate the agreement with 90 day's notice during the research term or with 30 days' notice thereafter. Boehringer Ingelheim also has the right after the research term to terminate development or commercialization with respect to any product under the agreement. We can terminate the agreement for certain development by Boehringer Ingelheim outside of the agreement.

Research Programs

We are continuing our efforts to discover and develop additional novel compounds that target GPCRs to address unmet medical needs, including programs that are in the early research stage. The extent to which we devote efforts to these programs will depend on our available resources.

Our GPCR Focus, Technologies and Programs

Our drug candidates have resulted from our GPCR-focused drug discovery and development approach, specialized expertise and technologies. GPCRs are categorized as "known" when their naturally occurring, or native, ligands have been identified. Scientists have used molecular cloning in combination with the sequencing of the human genome to identify both additional receptor subtypes of known GPCRs as well as hundreds of novel GPCRs. GPCRs are categorized as "orphan" GPCRs when their native ligands have not been identified. We believe both orphan and known GPCRs offer significant promise for the development of novel GPCR-based therapeutics.

Our drug discovery approach, specialized expertise and technologies allow us to identify drug leads that act as receptor activators, or agonists, which increase the detected biological response, or act as receptor inhibitors, which decrease the detected response. We can also identify inverse agonists, which inhibit ligand-independent, as well as ligand-dependent, receptor activity.

We believe that our drug discovery approach, specialized expertise and technologies offer several advantages for drug discovery, including: (a) eliminating the need to identify the native ligand for an orphan receptor; (b) enhancing the detection of, and allowing us to simultaneously identify, both receptor inhibitor and receptor activator drug leads; (c) allowing for the identification of drug leads that inhibit both ligand-independent and ligand-dependent activity; and (d) providing the ability to discover novel and improved therapeutics directed at known receptors.

Intellectual Property

Our success depends in large part on our ability to protect our proprietary technologies, compounds and information, and to operate without infringing the proprietary rights of third parties. We rely on a combination of patent, trade secret, copyright, and trademark laws, as well as confidentiality, licensing and other agreements, to establish and protect our proprietary rights. We seek patent protection for our key inventions, including drug candidates we identify, routes for chemical synthesis, pharmaceutical formulations and drug screening technologies.

There is no assurance that any of our patent applications will issue, or that any of the patents will be enforceable or will cover a drug or other commercially significant product or method. In addition, we regularly review our patent portfolio to identify patents and patent applications for potential abandonment that we deem to have relatively low value to our ongoing business operations. There is also no assurance that we will correctly identify which of our patents and patent applications should be maintained and which should be abandoned. The term of most of our other current patents commenced, and most of our future patents, if any, will commence, on the date of issuance and terminate 20 years from the earliest effective filing date of the patent application. Because any marketing and regulatory approval for a drug often occurs several years after the related patent application is filed, the resulting market exclusivity afforded by any patent on our drug candidates and technologies will likely be substantially less than 20 years.

In the United States, patent term adjustment is available for certain delays in patent office proceedings. In addition, under the Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, the term of a patent that covers an FDA-approved drug may be eligible for patent term extension, or PTE. PTE permits patent term restoration of a US patent as compensation for the patent term lost during product development and the FDA regulatory review process. The Hatch-Waxman Act permits a PTE of up to five years beyond the expiration of the patent. This period is generally one-half the

time between the effective date of an Investigational New Drug, or IND (falling after issuance of the patent), and the submission date of an NDA, plus the time between the submission date of an NDA and the approval of that application, provided the sponsor acted with diligence. The Improving Regulatory Transparency for New Medical Therapies Act was signed into law in 2015 to prevent the loss of PTE (and market exclusivity) for drugs for which the FDA recommends scheduling under the Controlled Substances Act. A PTE cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval and only one patent applicable to an approved drug may be extended. The application for PTE is subject to approval by the PTO in conjunction with the FDA.

Outside of the United States, similar provisions may be available in the European Union, Japan, South Korea and some other jurisdictions to extend the term of a patent that covers an approved drug. The length of any such extension would vary by country. Our European patents may be eligible for supplemental protection certificates of up to five years in one or more countries.

Due to the specific requirements for obtaining these extensions, there is no assurance that our patents will be afforded extensions even if we encounter significant delays in patent office proceedings or marketing and regulatory approval.

In addition to patent protection, we rely on trade secrets, proprietary know-how and continuing technological advances to develop and maintain our competitive position. To maintain the confidentiality of our trade secrets and proprietary information, all of our employees are required to enter into and adhere to an employee confidentiality and invention assignment agreement, laboratory notebook policy, and invention disclosure procedures as a condition of employment. Additionally, our employee confidentiality and invention assignment agreements require that our employees not bring to us, or use without proper authorization, any third-party proprietary technology. We also generally require our consultants and collaborators that have access to proprietary property and information to execute confidentiality and invention rights agreements in our favor before beginning their relationship with us. While such arrangements are intended to enable us to better control the use and disclosure of our proprietary property and provide for our ownership of proprietary technology developed on our behalf, they may not provide us with meaningful protection for such property and technology in the event of unauthorized use or disclosure.

Competition

The biotechnology and pharmaceutical industries are highly competitive and are subject to rapid and significant change. We face significant competition from organizations with drugs or drug candidates that do or may compete with BELVIQ or drug candidates we are developing. We may not be able to compete successfully against these organizations, which include many large, well-financed and experienced pharmaceutical and biotechnology companies, as well as academic and research institutions and government agencies.

The focus of our scientific and business strategy is on GPCRs. We believe that many pharmaceutical and biotechnology companies and other organizations also have internal drug discovery and development programs focused on GPCRs. In addition, other companies have attempted to overcome the problems associated with traditional drug screening by embarking on a variety of alternative strategies. Developments by others may render our drug candidates or technologies obsolete or noncompetitive.

Our present competitors with respect to BELVIQ include: Hoffmann-La Roche Inc., the US prescription drug unit of the Roche Group, which markets with Genentech USA, Inc., orlistat under the brand name Xenical; GlaxoSmithKline Consumer Healthcare which markets an over-the-counter low-dose version of orlistat in the United States under the brand name alli; VIVUS Inc., which markets a combination of phentermine and topiramate under the brand name Qsymia; Orexigen Therapeutics, Inc., which markets a combination of naltrexone and bupropion under the brand name Contrave; and Novo Nordisk, which markets a formulation of its diabetes drug, liraglutide, under the brand name Saxenda. Another competitor is phentermine, which is a generic drug sold by a number of companies. Prescribers may also prescribe other drugs, including in combination or off label, that would compete with BELVIQ. We also face competition from other approaches for weight loss, including behavior modification (such as diet and exercise), surgical approaches (such as gastric bypass surgery and gastric banding), and herbal or other supplements. In addition, with respect to South Korea, Orexigen announced in October 2015 that it has filed a new drug application with the MFDS for the regulatory approval of Contrave for weight management in overweight or obese adult patients. There are also potentially competing drug candidates and other approaches for weight loss being developed by various pharmaceutical and medical device companies and other entities. Some programs in discovery, preclinical or other

stages of development may include serotonin 2C programs.

Many of our existing and potential competitors have substantially greater drug development capabilities and financial, scientific and marketing resources than we do. Additional consolidation in the pharmaceutical industry may result in even more resources being concentrated with our competitors. As a result, our competitors may be able to devote greater resources than we can to the research, development, marketing and promotion of therapeutic products or drug discovery techniques, or to adapt

more readily to technological advances than we can. Accordingly, our competitors may succeed in obtaining patent protection, receiving regulatory approval or commercializing drugs before we do.

We expect to encounter significant competition in the therapeutic areas targeted by our principal drug candidates. Companies that complete clinical trials, obtain regulatory approvals and commence commercial sales of their drug candidates before us may achieve a significant competitive advantage. Furthermore, we may be competing against companies with substantially greater manufacturing, marketing, distribution and selling capabilities, and any drug candidate that we successfully develop may compete with existing therapies that have long histories of safe and effective use.

We may rely on collaborators for support of development programs and for the manufacturing and marketing of drug candidates. Such collaborators may be conducting multiple drug development efforts within the same disease areas that are the subject of their agreements with us, which may negatively impact the development of drugs that are subject to our agreements. In addition, we face and will continue to face intense competition from other companies for such collaborative arrangements, and technological and other developments by others may make it more difficult for us to establish such relationships.

Government Regulation

We and our collaborators are subject to significant governmental regulation. The FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries impose substantial requirements upon the preclinical and clinical development, pre-market approval, manufacture, import, export, marketing and distribution of pharmaceutical products. These agencies and other regulatory agencies regulate research and development activities and the testing, approval, manufacture, quality control, safety, effectiveness, labeling, storage, tracking, recordkeeping, advertising, pricing and promotion of drug candidates and commercialized drugs. Failure to comply with applicable FDA or other regulatory requirements may result in inspectional notices of violation, warning letters, civil or criminal penalties, suspension or delays in clinical development, recall or seizure of products, partial or total suspension of production, withdrawal of a product from the market or other negative consequences.

In the United States. In the United States, the FDA regulates drug products under the Federal Food, Drug, and Cosmetic Act, or FD&C Act, and its implementing regulations. The process required by the FDA before drug candidates may be marketed in the United States generally involves the following:

- completion of extensive preclinical laboratory tests and preclinical animal studies, many of which are required to be performed in accordance with the FDA's Good Laboratory Practice, or GLP, regulations;
- submission to the FDA of an IND, which must become effective before human clinical trials may begin and be updated annually;
- performance of adequate and well-controlled human clinical trials to establish the safety and efficacy of the drug candidate for each proposed indication;
- submission to the FDA of an NDA after completion of adequate and well-controlled human clinical trials, generally accompanied by payment of a substantial user fee to the FDA;
- a determination by the FDA within 60 days of its receipt of the NDA to file the NDA for review;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facilities at which the active pharmaceutical ingredient and finished drug product are produced and tested to assess compliance with Current Good Manufacturing Practices, or cGMP, regulations; and
- FDA review and approval of the NDA prior to any commercial marketing or sale of the drug in the United States.
- Prior to commercialization, centrally acting drugs may be subject to review and potential scheduling by the DEA.

The development and approval process requires substantial expertise, time, effort and financial resources, and we cannot be certain that any approvals for our drug candidates will be granted on a timely basis, if at all.

The results of preclinical tests (which include laboratory evaluation as well as GLP studies to evaluate toxicity in animals) for a particular drug candidate, together with related manufacturing information and analytical data, are submitted as part of an IND to the FDA. The IND automatically becomes effective 30 days after receipt by the FDA. During the 30-day time period the FDA may require additional information. The FDA may institute a clinical hold at the 30-day time period if any questions are not fully addressed or because of other concerns about the conduct of the

clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. The FDA may place an IND on partial or full clinical hold at any time during a product candidate's development. A separate submission to an existing IND must also be made for each successive

clinical trial conducted during product development. Further, an independent institutional review board, or IRB, for each medical center proposing to conduct the clinical trial must review and approve the plan for any clinical trial before it commences at that center and it must monitor the study until completed. The FDA, the IRB or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk. Clinical testing also must satisfy extensive Good Clinical Practice, or GCP, regulations and regulations for informed consent and privacy of individually identifiable information.

Clinical trials. For purposes of NDA submission and approval, clinical trials are typically conducted in the following sequential phases, which may overlap:

- Phase 1 clinical trials. Studies are initially conducted in a limited population to test the drug candidate for safety, dose tolerance, absorption, metabolism, distribution and excretion, typically in healthy volunteers, but in some cases in patients.
- Phase 2 clinical trials. Studies are generally conducted in a limited patient population to identify possible adverse effects and safety risks, explore the initial efficacy of the product for specific targeted indications and to determine dose range or pharmacodynamics. Multiple Phase 2 clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more expensive Phase 3 clinical trials.
- Phase 3 clinical trials. These are commonly referred to as pivotal studies or adequate and well-controlled studies. When Phase 2 evaluations demonstrate that a dose range of the product is effective and has an acceptable safety profile, Phase 3 clinical trials are undertaken in large patient populations to further evaluate dosage, provide substantial evidence of clinical efficacy and further test for safety in an expanded and diverse patient population at multiple, geographically dispersed clinical trial centers.
- Phase 4 clinical trials. The FDA may approve an NDA for a drug candidate, but require that the sponsor conduct additional clinical trials to further assess the drug after NDA approval under a post-approval commitment. In addition, a sponsor may decide to conduct additional clinical trials after the FDA has approved an NDA. Post-approval trials are typically referred to as Phase 4 clinical trials.

New drug applications. The results of drug development, preclinical studies and clinical trials are submitted to the FDA as part of an NDA. NDAs also must contain extensive chemistry, manufacturing and control, or CMC, information. An NDA is usually accompanied by a significant user fee. The FDA reviews all NDAs submitted to ensure that they are sufficiently complete for substantive review before it accepts them for filing, which occurs, if at all, 60 days after submission by the NDA sponsor. Once the submission has been accepted for filing, the FDA's goal is to review applications within 10 months from its acceptance of the filing or, if the application relates to an unmet medical need in a serious or life-threatening indication, six months from its acceptance of the filing. The review process can be significantly extended by FDA requests for additional information or clarification. The FDA may refer the application to an advisory committee for review, evaluation and recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee. The FDA may deny approval of an NDA by issuing a Complete Response Letter, or CRL, if the applicable regulatory criteria are not satisfied. A CRL may require additional clinical data and/or an additional pivotal Phase 3 clinical trial(s), and/or other significant, expensive and time-consuming requirements related to clinical trials, preclinical studies or manufacturing. Data are not always conclusive and the FDA may interpret data differently than we or our collaborators interpret data. Approval may occur with Risk Evaluation and Mitigation Strategies, or REMS, that may limit the labeling, distribution or promotion of a drug product. Once issued, the FDA may withdraw product approval if ongoing regulatory requirements are not met or if safety problems occur after the product reaches the market. In addition, the FDA may require testing, including Phase 4 clinical trials, and surveillance programs to monitor the safety effects of approved products which have been commercialized, and the FDA has the power to prevent or limit further marketing of a product based on the results of these postmarketing programs or other information.

Other US regulatory requirements. Products manufactured or distributed pursuant to FDA approvals are subject to continuing regulation by the FDA, including recordkeeping, annual product quality review and reporting requirements. Adverse event experience with the product must be reported to the FDA in a timely fashion and pharmacovigilance programs to proactively look for these adverse events are mandated by the FDA. Drug

manufacturers and their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic inspections (which may be unannounced) by the FDA and certain state agencies for compliance with ongoing regulatory requirements, including cGMP regulations, which impose certain procedural and documentation requirements upon us and our third-party manufacturers. Following such inspections, the FDA may issue notices on Form FDA 483 and warning letters that could cause us to modify certain activities. A Form FDA 483 notice, if issued at the conclusion of an FDA inspection or after the appropriate FDA office review of the Establishment Inspection Report prepared by the investigator, can list conditions the FDA believes may have violated cGMP or other FDA regulations. FDA guidelines specify that a warning letter be issued for violations of “regulatory

significance," also known as Official Action Indicated, or OAI. Failure to adequately and promptly correct the observation(s) can result in regulatory action. In addition to Form FDA 483 notices and warning letters, failure to comply with the statutory and regulatory requirements can subject a manufacturer to possible legal or regulatory action, such as suspension of manufacturing, recall of product, seizure of product, injunctive action or possible civil or criminal penalties.

The FDA closely regulates the post-approval marketing and promotion of drugs, including standards and regulations for healthcare professional marketing activities and materials, direct-to-consumer advertising, dissemination of off-label information, industry-sponsored scientific and educational activities and promotional activities involving the Internet. Drugs may be marketed only for their approved indications and in accordance with the provisions of the confines of the pivotal studies and the approved label. Further, we may be required to develop additional data or conduct additional preclinical studies and clinical trials, and we may be required to submit and obtain FDA approval of a new or supplemental NDA for changes to, among other things, the indications, labeling, or manufacturing processes or facilities of a drug. Failure to comply with these requirements can subject a manufacturer to possible legal or regulatory action, such as warning letters, corrective advertising, suspension of manufacturing, seizure of product, injunctive action or potential civil and criminal penalties.

Physicians may prescribe legally available drugs for uses that are not described in the product's labeling and that differ from those tested by us and approved by the FDA, if in their professional medical judgment the physicians deem such use to be appropriate. Such off-label uses are common across certain medical specialties. The FDA does not regulate the behavior of physicians in their choice of treatments. The FDA does, however, impose stringent restrictions on manufacturers' communications regarding off-label use.

To distribute products commercially, we or our collaborators, as applicable, must comply with state laws that require the registration of manufacturers and wholesale distributors of pharmaceutical products in a state, including, in certain states, manufacturers and distributors who ship products into the state even if such manufacturers or distributors have no place of business within the state. Some states also impose requirements on manufacturers and distributors to establish the pedigree of product in the chain of distribution.

Drug Enforcement Administration regulation. The DEA regulates drugs that are controlled substances. Controlled substances are those drugs that appear on one of the five schedules promulgated and administered by the DEA under the Controlled Substances Act, or CSA. The CSA governs, among other things, the inventory, distribution, recordkeeping, handling, security and disposal of controlled substances. Any drug that acts on the central nervous system has the potential to become a controlled substance based on an evaluation of its abuse potential, and scheduling by the DEA is a separate process that may delay the commercial launch of a drug even after FDA approval of the NDA. Companies with a scheduled drug are subject to periodic and ongoing inspections by the DEA and similar state drug enforcement authorities to assess ongoing compliance with the DEA's regulations. Any failure to comply with these regulations could lead to a variety of sanctions, including the revocation or a denial of renewal of any DEA registration, injunctions, or civil or criminal penalties.

Outside of the United States. Outside of the United States, the ability to market a product is contingent upon obtaining marketing authorization from the appropriate regulatory authorities. The requirements governing marketing authorization, pricing and reimbursement vary widely from country to country. Whether or not we obtain FDA approval for a product candidate, we must obtain the requisite approvals from regulatory authorities in foreign jurisdictions prior to the commencement of clinical studies or marketing and sale of the product in those countries. Approval in the United States does not guarantee approval in other countries and vice-versa.

Hatch-Waxman Exclusivity. Market exclusivity provisions of the Hatch-Waxman Act can delay the submission or approval of applications seeking to rely upon the FDA's findings of safety and effectiveness for a previously approved NDA. An NCE subject to an NDA is entitled to a five-year period of non-patent marketing exclusivity in the United States. A drug is an NCE if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an abbreviated new drug application, or ANDA, or a 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, such an application may be submitted after four years if it contains a

certification of patent invalidity or non-infringement of patents listed with the FDA by the NDA holder. The Hatch-Waxman Act also provides three years of marketing exclusivity for an NDA, or supplement to an existing NDA, if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application. This three-year exclusivity covers only the conditions of use associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active ingredient. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

Orphan drug designation and exclusivity. Under the Orphan Drug Act, the FDA may designate a drug product as an "orphan drug" if it is intended to treat a rare disease or condition (generally meaning that it affects fewer than 200,000 individuals in the United States, or more in cases in which there is no reasonable expectation that the cost of developing and making a drug product available in the United States for treatment of the disease or condition will be recovered from sales of the product). A company must request orphan product designation before submitting an NDA. If the request is granted, the FDA will disclose the identity of the therapeutic agent and its potential use. Orphan product designation does not convey any advantage in or shorten the duration of the regulatory review and approval process.

If a product with orphan status receives the first FDA approval for the disease or condition for which it has such designation or for a select indication or use within the rare disease or condition for which it was designated, the product generally will receive orphan product exclusivity. Orphan product exclusivity means that the FDA may not approve any other applications for the same product for the same indication for seven years, except in certain limited circumstances. Competitors may receive approval of different products for the indication for which the orphan product has exclusivity and may obtain approval for the same product but for a different indication or the same product for the same indication if demonstrated to be clinically superior. If a drug or drug product designated as an orphan product ultimately receives marketing approval for an indication broader than what was designated in its orphan product application, it may not be entitled to exclusivity.

Drug product manufacturing. Our Swiss subsidiary, Arena GmbH operates a drug product manufacturing facility in Zofingen, Switzerland. Swissmedic, a public service organization of the Swiss federal government, is the central Swiss agency for the authorization and supervision of therapeutic products. Our Swiss manufacturing facility has been inspected by the competent regional authorities (Regionales Heilmittelinspektorat der Nordostschweiz, Basel, Switzerland), acting on behalf of Swissmedic, which issued GMP and production licenses to Arena GmbH for the production of drugs. The FDA conducted a pre-approval inspection of this facility in July 2010 and a subsequent inspection in 2014, which resulted in No Actions Indicated, and classified this facility as acceptable. The FDA generally performs routine inspections about every two years, but the FDA may inspect a facility at any time.

Prescription drug reimbursement. In the United States and markets in other countries, sales of prescription drug products depend in part on the availability of reimbursement from third-party payers. Third-party payers include government health administrative authorities, managed care organizations, private health insurers and other 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. Third-party payers may limit coverage to specific drug products on an approved list, or formulary, which might not include all of the FDA-approved drug products for a particular indication. Third-party payers are increasingly challenging the price and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. We may need to conduct expensive pharmacoeconomic studies to demonstrate the cost-effectiveness of our products. A payer's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development. Patients who are prescribed medications for the treatment of their conditions, and their prescribing physicians, generally rely on third-party payers to reimburse all or part of the costs associated with their prescription drugs. Patients are less likely to use our products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our products. Therefore, coverage and adequate reimbursement are important to new product acceptance.

If a drug is reimbursed by Medicare or Medicaid, pricing and rebate programs must comply with, as applicable, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 as well as the Medicaid rebate requirements of the Omnibus Budget Reconciliation Act of 1990 and the Veterans Health Care Act of 1992, or VHCA, each as amended. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. Under the VHCA, drug companies are required to offer certain drugs at a reduced price to a number of federal agencies including US Department of Veterans Affairs and US Department of Defense, the Public Health Service and certain private Public Health Service designated entities in order to participate in other federal funding programs including Medicare and Medicaid.

Participation under the VHCA requires submission of pricing data and calculation of discounts and rebates pursuant to complex statutory formulas, as well as entry into government procurement contracts governed by the Federal Acquisition Regulations.

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. 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 Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively the ACA, was enacted in the United States in March 2010 and contains provisions that may reduce the profitability of drug products, including, for example, increased rebates for 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 healthcare programs. Even if favorable coverage and reimbursement status is attained for our products, less favorable coverage policies and reimbursement rates may be implemented in the future. In the case of BELVIQ, Medicare explicitly excludes coverage of drugs for weight loss.

In countries outside the United States, pricing of pharmaceutical products may be subject to governmental control. Evaluation criteria used by many government agencies for the purposes of pricing and reimbursement typically focus on a product's degree of innovation and its ability to meet a clinical need unfulfilled by currently available therapies. Some countries operate positive and negative list systems under which products may only be marketed once a reimbursement price has been agreed. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost-effectiveness of a particular drug candidate to currently available therapies. Other countries allow companies to fix their own prices for medicines, but monitor and control company profits. In addition, in some countries, cross-border imports from low-priced markets exert a commercial pressure on 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.

Healthcare fraud and abuse. Pharmaceutical companies are subject to various federal and state laws pertaining to healthcare fraud and abuse, including, but not limited to, anti-kickback and false claims laws. We have a commercial compliance program and have adopted the voluntary Code on Interactions with Healthcare Professionals, or PhRMA Code, promulgated by the Pharmaceutical Research and Manufacturers of America and revised in 2009. The PhRMA Code provides guidelines for interactions with respect to marketed products and related pre- and post-launch activities and reinforces the intention that industry interactions with healthcare professionals are professional exchanges designed to benefit patients and to enhance the practice of medicine.

The Federal Anti-Kickback Statute makes it illegal for any person or entity, including a prescription drug manufacturer, or a party acting on its behalf, to knowingly and willfully solicit, offer, receive or provide any remuneration, directly or indirectly, in exchange for, or to induce, the referral of business, including the purchase, order, lease of any good, facility, service or item, including the prescription of a particular drug, for which payment may be made under federal healthcare programs such as Medicare and Medicaid. Some of the state prohibitions are broader in scope and apply to referral of patients for healthcare services reimbursed by any source, not only the Medicare and Medicaid programs.

In the course of practicing medicine, physicians may legally prescribe FDA-approved drugs for an indication that has not been approved by the FDA and which, therefore, is not described in the product's approved labeling, so-called "off-label use" or "the practice of medicine," if deemed appropriate in the physicians' professional medical judgment. The FDA does not ordinarily regulate the behavior of physicians in their choice of treatments. The FDA and other government agencies do, however, restrict communications on the subject of off-label use by a manufacturer or those acting on behalf of a manufacturer. Companies may not promote FDA-approved drugs for off-label uses. The FDA and other governmental agencies do permit a manufacturer (and those acting on its behalf) to engage in some limited, non-misleading, non-promotional exchanges of scientific information regarding unapproved indications.

There are numerous federal false claims laws and civil monetary penalty laws that forbid, among other things, anyone from knowingly presenting, or causing to be presented for payment to third-party payers (including Medicare and Medicaid) claims for reimbursed drugs or services that are false or fraudulent, claims for items or services not provided as claimed or claims for medically unnecessary items or services.

Violations of fraud and abuse laws may be punishable by criminal, civil and/or administrative sanctions, including individual imprisonment, disgorgement, criminal fines and civil monetary penalties, as well as possible exclusion from federal healthcare programs (including Medicare and Medicaid). In addition, under certain healthcare fraud and abuse laws, there is an ability for private individuals to bring similar actions. Additionally, many states have analogous fraud and abuse laws, some of which may be broader in scope. Further, there are an increasing number of state laws that require pharmaceutical companies to establish marketing compliance programs, file periodic reports with the state, make periodic public disclosures on sales, marketing, pricing, clinical trials and other activities, or register their sales representatives, as well as prohibiting certain other sales and marketing practices. The federal

transparency requirements under the ACA require certain manufacturers of drugs, devices, biologics and medical supplies to annually report to the Department of Health and Human Services information related to payments and other transfers of value to physicians and teaching hospitals and physician ownership and investment interests. Additionally, recent federal legislation imposes additional obligations on certain pharmaceutical manufacturers, among others, regarding drug product tracking and tracing.

Our activities are also potentially subject to federal and state consumer protection and unfair competition laws. We are also subject to the US Foreign Corrupt Practices Act, or the FCPA, which prohibits companies and individuals from engaging

in specified activities to obtain or retain business or to influence a person working in an official capacity. Under the FCPA, it is illegal to pay, offer to pay, or authorize the payment of anything of value to any foreign government official, governmental staff members, political party or political candidate in an attempt to obtain or retain business or to otherwise influence a person working in an official capacity.

Healthcare privacy and security laws. The Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act and its implementing regulations, imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information. In addition, many state laws apply to the use and disclosure of health information. We may be subject to, or our collaborators' marketing activities may be limited by, HIPAA and its implementing regulations.

Manufacturing and Sources and Availability of Raw Materials, Intermediates and Clinical Supplies

In January 2008, we acquired from Siegfried AG (formerly Siegfried Ltd, and referred to collectively in this document as Siegfried) certain drug product facility assets, including manufacturing facility production licenses, fixtures, equipment, other personal property and real estate assets in Zofingen, Switzerland. We are using this facility to manufacture and package BELVIQ as well as for toll manufacturing of certain drug products for Siegfried. From time to time, we may also use this facility to manufacture and package tablets and capsules for other of our programs or for other entities.

Most of our toll manufacturing revenues are attributable to a single customer, Siegfried. Our revenues of $38.3 million for the year ended December 31, 2015, included $3.5 million, or 9.0% of our total revenues, from Siegfried. Our revenues of $37.0 million for the year ended December 31, 2014, included $1.5 million, or 4.0% of our total revenues, from Siegfried. Our revenues of $81.4 million for the year ended December 31, 2013, included $2.7 million, or 3.3% of our total revenues, from Siegfried.

We purchase raw materials, starting materials, intermediates, API, excipients and other materials from commercial sources. To decrease the risk of an interruption to our supply, when we believe it is reasonable for us to do so, we source these materials from multiple suppliers so that, in general, the loss of any one source of supply would not have a material adverse effect on commercial production, project timelines or inventory of supplies for our studies or clinical trials. However, currently we have only one or a limited number of suppliers for some of these materials for BELVIQ and for other of our programs. The loss of a primary source of supply would potentially delay our production of BELVIQ or our development projects and potentially those of current or future collaborators. We intend to maintain a safety stock of certain of these materials to help avoid delays in production, but we do not know whether such stock will be sufficient. Our facility in Zofingen is the only manufacturer of finished drug product for BELVIQ. We maintain a safety stock of BELVIQ to help mitigate risks related to having only one manufacturer of finished drug product. We may in the future have another source of supply for finished drug product of BELVIQ, but we believe that it would take longer than one year to secure another source.

Eisai was our only customer for commercial sales of BELVIQ until Ildong received marketing approval of BELVIQ in February 2015. Eisai and Ildong purchase BELVIQ from Arena GmbH, and are the exclusive distributors of BELVIQ in the United States and South Korea, respectively.

Our revenues of $38.3 million for the year ended December 31, 2015, included $23.7 million, or 61.9% of our total revenues, from Eisai, and $8.9 million, or 23.2% of our total revenues from Ildong. Our revenues of $37.0 million for the year ended December 31, 2014, included $34.6 million, or 93.6% of our total revenues, from Eisai. Our revenues of $81.4 million for the year ended December 31, 2013, included $78.1 million, or 96.0% of our total revenues, from Eisai.

Compliance with Environmental Regulations

Our research and development programs involve the controlled use of hazardous materials, chemicals, biological materials and various radioactive compounds. In the United States, we are subject to regulation under the Occupational Safety and Health Act, the Environmental Protection Act, the US Environmental Protection Agency, the California Environmental Protection Agency, the Toxic Substances Control Act, the Resource Conservation and Recovery Act, the CSA and other federal, state or local regulations.

With regard to Arena GmbH's drug product manufacturing facility, Arena GmbH has contracted with Siegfried to provide certain safety, health and environmental services. Arena GmbH is subject to regulation under the Environmental Protection Act (Umweltschutzgesetz, USG), the Chemicals Act (Chemikaliengesetz, ChemG), and the Federal Act on the Protection of Waters (Gewässerschutzgesetz, GSchG), which refer to several ordinances such as the Ordinance on Air Pollution Control (Luftreinhalte-Verordnung, LRV), the Ordinance on Incentive Taxes on Volatile Organic Compounds (Verordnung über die Lenkungsabgabe auf flüchtigen organischen Verbindungen, VOCV), the Water Protection Ordinance (Gewässerschutzverordnung, GSchV), the Ordinance of the Handling of Wastes (Verordnung über den Verkehr mit Abfällen,

VeVA), the Chemicals Ordinance (Chemikalienverordnung, ChemV), the Chemical Risk Reduction Ordinance (Chemikalien-Risikoreduktions-Verordnung, ChemRRV) and the Ordinance on Protection against Major Accidents (Störfallverordnung, StFV). The competent authorities in Switzerland for the implementation of environmental regulations are BAFU (Bundesamt für Umwelt / Federal Office for the Environment), which is the Swiss federal agency for the environment, and the respective authorities of the Canton of Aargau (Abteilung für Umwelt, AfU). Furthermore, the BAFU and the BAG (Bundesamt für Gesundheit / Federal Office of Public Health) share authorities with regard to the implementation and, together with the respective authority of the Canton of Aargau (Amt für Verbraucherschutz), the supervision of compliance with the laws and regulations related to chemicals. Occupational health and safety is regulated, in particular, by the EKAS (Eidgenössische Koordinationskommission für Arbeitssicherheit) guideline No. 6508 (ASA), governing the evaluation of worker safety and the reporting to the relevant authorities. The competent authority for the implementation of occupational health and safety regulations is the Canton of Aargau (Amt für Wirtschaft und Arbeit), whereby exposure limits are set by SUVA (Schweizerische Unfallversicherungsanstalt), which is the Swiss Accident Insurance Fund.

We may be subject to further such regulations in the future. Although we believe that our operations comply in all material respects with the applicable environmental laws and regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. In the event of such an accident, we could be held liable for any damages that result, and the extent of that liability could exceed our resources. Our compliance with these laws and regulations has not had, and is not expected to have, a material effect upon our capital expenditures, results of operations or competitive position.

Research and Development Expenses

Research and development activities are the primary source of our expenses. Our research and development expenses include personnel costs, research supplies, facility and equipment costs, clinical and preclinical study fees, and manufacturing costs for non-commercial products. Such expenses totaled $88.4 million for the year ended December 31, 2015, $100.3 million for the year ended December 31, 2014, and $66.5 million for the year ended December 31, 2013. For research and development sponsored by collaborators for which we initially incur the costs, we record the costs within research and development expenses and record the reimbursements we receive from the collaborators for these costs within revenues; these expenses and revenues totaled $2.1 million, $10.0 million and $2.0 million in 2015, 2014, and 2013, respectively.

Employees

As of February 24, 2016, we had a total of 228 employees, including 180 in research, development and manufacturing and 48 in administration, which includes finance, legal, facilities, information technology and other general support areas.

Available Information

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 filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, or the Exchange Act, are available free of charge on our website (www.arenapharm.com) as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC.

Item 1A. Risk Factors.

RISK FACTORS

Investment in our stock involves a high degree of risk. You should consider carefully the risks described below, together with other information in this Annual Report on Form 10-K and other public filings, before making investment decisions regarding our stock. If any of the following events actually occur, our business, operating results, prospects or financial condition could be materially and adversely affected. This could cause the trading price of our common stock to decline and you may lose all or part of your investment. Moreover, the risks described below are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also affect our business, operating results, prospects or financial condition. While we use BELVIQ in this document to refer to the marketed version of lorcaserin for weight management, many of the risks identified for BELVIQ, lorcaserin or the investigational once-daily formulation of BELVIQ (currently known as BELVIQ XR) also apply to the other.

Risks Relating to Our Business

We will need to further collaborate or obtain additional funds to conduct our planned research, development and commercialization efforts; we may not be able to further collaborate or obtain adequate funds; your ownership may be substantially diluted if we do obtain additional funds; you may not agree with the manner in which we allocate our available resources; and we may not be profitable.

We have accumulated a large deficit since inception that has primarily resulted from the significant research and development expenditures we have made with respect to lorcaserin and in seeking to identify and validate new drug targets and develop other compounds that could become marketed drugs. We expect that our losses and operating expenses will continue to be substantial for at least the short term.

Cash we have generated from sales of BELVIQ has been substantially lower than anticipated, and cash we may generate in the future from sales of BELVIQ or otherwise is uncertain and difficult to predict. All of our other programs are in the research or development stage, and we may not have adequate funds to develop our compounds into marketed drugs. We also intend to advance other of our drug candidates and preclinical compounds in our pipeline. It takes many years and potentially hundreds of millions of dollars to successfully develop a drug candidate or preclinical compound into a marketed drug, and our efforts may not result in any additional marketed drugs.

We cannot assure you that any additional amounts paid to us for BELVIQ or any of our other drug candidates or programs will be sufficient to fund our planned research and development and other activities. We may enter into collaborative agreements to research, develop and commercialize other drug candidates in our pipeline, and we may not be able to enter into any such agreement on terms that we or third parties, including investors or analysts, view as favorable, if at all.

Our ability to enter into new collaborations for any of our programs or drug candidates may depend on the outcomes of additional preclinical and clinical testing or regulatory applications for marketing approval. We do not control these outcomes.

Around the end of 2015, we committed to a workforce reduction, and we plan to continue implementing additional cost control measures designed to focus our resources on prioritized activities and reduce our cash expenditures. We cannot guarantee that we will be able to realize sufficient cost savings and other anticipated benefits from such efforts, that such efforts will not interfere with our ability to achieve our business objectives, or that we will not have to undertake future restructuring and cost control activities.

We may seek to obtain additional funding from the capital markets or otherwise or we may eliminate, scale back or delay some or all of our research or development programs. Any such additional funding may dilute or otherwise negatively impact your ownership interest, and any such reductions or failure to apply our resources effectively may narrow, slow or otherwise adversely impact the development and commercialization of our pipeline, which we believe may reduce our opportunities for success and have a material adverse effect on our business and prospects.

We may allocate our resources in ways that do not improve our results of operations or enhance the value of our assets, and our stockholders and others may also not agree with the manner in which we choose to allocate our resources or obtain additional funding. Any failure to apply our resources effectively, how we obtain additional funding and the related views of stockholders or others could have a material adverse effect on our business or the development of our drug candidates and cause the market price of our common stock to decline. In addition, we cannot assure you that we will be profitable or, if we are profitable for any particular time period, that we will be profitable in the future.

We believe that our revenues for at least the short term are substantially dependent on the success of BELVIQ, our first and only marketed drug. To the extent BELVIQ is not commercially successful, our business, financial condition and results of operations may be materially adversely affected and the price of our common stock may decline.

Our internally discovered drug, lorcaserin, is being marketed for weight management by our collaborators in United States and South Korea under the brand name BELVIQ. We believe our revenues for at least the short term are substantially dependent on (and a significant portion of the value of our company relates to) the success of BELVIQ, which is our first and only drug approved by any regulatory agency and has not been approved for marketing outside of the United States other than in South Korea. We have granted rights to commercialize BELVIQ to collaborators for most of the territories in the world, and are highly dependent on our collaborators for obtaining marketing approval and commercializing BELVIQ. In this regard, we are particularly dependent on Eisai Inc. and Eisai Co., Ltd. (collectively, Eisai) as Eisai has commercialization and other rights to BELVIQ for the United States and the vast majority of all other territories. We do not know whether or when BELVIQ will be approved for sale or commercialized in any additional territories, and BELVIQ may not receive marketing approval from any other regulatory agency or be commercialized in any other territories.

We expect that revenues generated by BELVIQ will constitute the majority of our revenues over the next several years, which will substantially depend on product sales of BELVIQ and the achievement of milestones under our collaborations. We cannot guarantee future product sales or achievement of any other milestones. In addition, any of our collaborations for lorcaserin may be terminated early in certain circumstances, which may result in us not receiving additional milestone or other payments under the terminated agreement.

The degree of market acceptance and commercial success of BELVIQ will depend on a number of factors, including the following, as well as risks identified in other risk factors:

- the number of patients eligible to receive BELVIQ, the number of patients treated with BELVIQ and the results achieved by such patients;
- market acceptance and use of BELVIQ, which may depend on the public's view of BELVIQ, economic changes, national and world events, potentially seasonal and other fluctuations in demand, the timing and impact of current or new competition, and BELVIQ's perceived advantages or disadvantages over alternative treatments (including relative convenience, ease of administration, and prevalence and severity of any adverse events, including any unexpected adverse events);
- the actual and perceived safety and efficacy of BELVIQ on both a short- and long-term basis among actual or potential patients, healthcare providers and others in the medical community, regulatory agencies and insurers and other payers, including related decisions by any such entity or individual;
- incidence and severity of any side effects, including as a result of off-label use or in combination with one or more drugs;
- new data relating to lorcaserin, including as a result of additional studies, trials or analyses of lorcaserin or related drugs or drug candidates;
- some physicians and patients may not use BELVIQ until at least results from our required postmarketing studies are available or other long-term efficacy and safety data exists;
- the claims, limitations, warnings and other information in BELVIQ's current or future labeling;
- the current or future scheduling designation for BELVIQ by the US Drug Enforcement Administration, or DEA, or any comparable foreign authorities;
- Our collaborator's maintenance of an effective sales force, marketing team, strategy and program and medical affairs group and related functions, as well as its sales, marketing and other representatives accurately describing BELVIQ consistent with its approved labeling;
- the price and perceived cost-effectiveness of BELVIQ, including as compared to possible alternatives;
- the ability of patients and physicians and other providers to obtain and maintain coverage and adequate reimbursement, if any, by third-party payers, including government payers;
- the ability and desire of group purchasing organizations, or GPOs, including distributors and other network providers, to sell BELVIQ to their constituencies;
- introduction of counterfeit or unauthorized versions of BELVIQ;
- the development of the market for weight-management medications;
- to the extent BELVIQ is approved and marketed in a jurisdiction with a significantly lower price than in another jurisdiction, the impact of the lower pricing in the higher-priced territory, including on the pricing of reimbursement, if available, and by the diversion of lower-priced BELVIQ into the higher-priced territory; and
- the maintenance of adequate commercial manufacturing capabilities ourselves or through third-party manufacturers, our ability to meet commercial demand for BELVIQ and supply-chain issues.

The sales of BELVIQ to date have been less than we and others anticipated. If BELVIQ does not achieve sufficient market acceptance in the United States and South Korea, and ultimately in other territories, the revenues we generate from sales of BELVIQ will be limited, our collaborators may negatively change marketing strategies or resources, our collaborations may be modified or terminated and we may not be profitable.

We have filed a regulatory submission with the US Food and Drug Administration, or FDA, for the approval of a once-daily formulation of BELVIQ, which we refer to as BELVIQ XR. We do not know whether or when BELVIQ XR will be approved for sale or commercialized in any territory, or, if BELVIQ XR is approved, whether the advantages of a once-daily formulation will result in increased sales. Many of the same risks described in these risk factors with respect to BELVIQ or lorcaserin would also apply to BELVIQ XR, if approved.

If the results or timing of regulatory filings, the regulatory process, regulatory developments, clinical trials or preclinical studies, or other activities, actions or decisions related to lorcaserin do not meet our, your, analysts' or others' expectations, the market price of our common stock could decline significantly.

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BELVIQ or any of our future drugs may not be commercially successful if not widely covered and adequately reimbursed by third-party payers, and we may depend on others to obtain and maintain third-party payer access; inadequate third-party coverage and reimbursement could make entering into agreements with pharmaceutical companies to collaborate or commercialize our drugs more difficult and diminish our revenues.

Our and our collaborators' ability to successfully commercialize any of our drugs that have been or may be approved will depend, in part, on government regulation and the availability of coverage and adequate reimbursement from third-party payers, including private health insurers and government payers, such as the Medicaid and Medicare programs, increases in government-run, single-payer health insurance plans and compulsory licenses of drugs. We expect government and third-party payers will continue their efforts to contain healthcare costs by limiting coverage and reimbursement levels for new drugs. In addition, many countries outside of the United States have nationalized healthcare systems in which the government pays for all such products and services and must approve product pricing. A government or third-party payer decision not to approve pricing, or provide adequate coverage and reimbursements, for our drugs, if any, could limit market acceptance of and demand for our drugs.

It is increasingly difficult to obtain coverage and adequate reimbursement levels from third-party payers, and significant uncertainty exists as to the coverage and reimbursement of newly approved prescription drug products. We or our collaborators also face competition in negotiating for coverage from pharmaceutical companies and others with competitive drugs or other treatment, and these competitors may have significantly more negotiating leverage or success with respect to individual payers than we or our collaborators may have.

In the United States, even if a third-party payer ultimately elects to cover and reimburse for BELVIQ, most payers will not reimburse 100% of the cost, but rather require patients to pay a portion of the cost through a co-payment. Thus, even if reimbursement is available, the percentage of drug cost required to be borne by the patients may make use of BELVIQ financially undesirable, difficult or impossible for certain patients, which would have a negative impact on sales of BELVIQ, including related revenues. For example, payers may approve coverage for BELVIQ in tiers requiring unacceptably high patient co-payments or only as a second- or later-line treatment. Several third-party payers have approved coverage for BELVIQ with limitations, including co-payments that may be unacceptably high for certain patients, regardless of the availability of any coupon, voucher or other discount program. In addition, even if a payer approves coverage for BELVIQ, individual employers or others may not opt to select a plan that provides such coverage. Failure to improve coverage or the reduction or loss of coverage could materially harm the ability to successfully market BELVIQ. Achieving coverage and acceptable reimbursement levels typically involves negotiating with individual payers and is a time-consuming and costly process. In addition, Medicare explicitly excludes coverage for drugs for weight loss.

We expect that the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the ACA, as well as other federal and state healthcare reform measures that have and may be implemented in the future, may result in more rigorous coverage criteria, more limited coverage and downward pressure on the price that we may receive for any approved product, which could seriously decrease our future revenues. Any reduction in reimbursement from Medicare, Medicaid or other government programs may result in a similar reduction in payments from private payers. The implementation of cost containment measures or other healthcare reforms may also limit our commercial opportunities by reducing the amount a potential collaborator is willing to pay to license our programs or drug candidates in the future, which may prevent us from being able to generate revenue, attain profitability, commercialize our products or establish and maintain collaborations.

Forecasting of BELVIQ sales will be difficult, and if BELVIQ projections are inaccurate, our business may be harmed and our stock price may be adversely affected.

Our business planning requires us to forecast demand and revenues for BELVIQ despite numerous uncertainties, which may be increased because we rely to a large extent on our collaborators, particularly Eisai, conducting commercial activities and providing us with accurate and timely information. Actual results may deviate materially from projected results for various reasons, including the following, as well as risks identified in other risk factors:

- the rate of adoption in the particular market, including fluctuations in demand for various reasons, such as fluctuations related to economic changes, national and world events, holidays and seasonal changes;
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pricing (including discounting or other promotions), reimbursement, product returns or recalls, competition, labeling, DEA scheduling, adverse events and others items that impact commercialization;
- lack of patient and physician familiarity with BELVIQ;
- lack of patient use and physician prescribing history;
- lack of commercialization experience with BELVIQ, in particular, and weight loss or management drugs, in general;

- actual sales to patients may significantly differ from expectations based on sales to wholesalers;
- our collaborators control the commercialization of BELVIQ in most of the world, including related strategy and their allocation of resources, and we expect that any future collaborators for BELVIQ will similarly control the commercialization in the applicable territory; and
- uncertainty relating to when BELVIQ may become commercially available to patients and rate of adoption in other territories.

We expect that our revenues from BELVIQ will continue to be based in part on estimates, judgment and accounting policies, and incorrect estimates or regulators' or others' disagreement regarding such estimates or accounting policies may result in changes to guidance, projections or previously reported results. For example, with respect to the commercialization of BELVIQ in the United States, our revenues are based on information we receive from Eisai, including their estimates of deductions for certain items, such as taxes, credits, allowances, discounts, rebates, chargebacks and returns, which are subject to significant judgment and may change from time to time. We expect to continue to recognize revenues upon Eisai's sales to wholesalers. As BELVIQ is sold through to patients, if the actual level of deductions differ materially from Eisai's estimates, this could have a material impact on our revenues. In addition, expected and actual product sales and quarterly and other results may greatly fluctuate, including in the near-term, and such fluctuations can adversely affect the market price of our common stock, perceptions of our ability to forecast demand and revenues, and our ability to maintain and fund our operations.

Data generated or analyzed with respect to product use in the market or required postmarketing or other studies or trials may result in decreased demand, lower sales, product recall or regulatory action.

A New Drug Application, or NDA, holder (or, with respect to South Korea, a marketing authorization holder) is responsible for assessing and monitoring the safety of a drug that has been approved for marketing. Eisai and Ildong Pharmaceutical Co., Ltd., or Ildong, hold the NDA and marketing authorization, respectively, for BELVIQ, and we expect that Eisai and other of our collaborators will hold the lorcaserin regulatory approvals, if any, in territories outside of the United States and South Korea. Eisai, Ildong, we and, potentially, our other collaborators will assess and monitor the safety of BELVIQ in the marketplace, and will receive reports of adverse safety events. In addition, we expect that, from time to time, we or others will conduct additional studies or trials or analyze new or previous data related to lorcaserin, including with respect to required postmarketing studies and in connection with seeking regulatory approval of lorcaserin outside of the United States. For example, as a condition to obtaining FDA approval of BELVIQ, the FDA required the conduct of postmarketing studies, including evaluation of the effect of long-term treatment with BELVIQ on the incidence of major adverse cardiovascular events in overweight and obese subjects with cardiovascular disease or multiple cardiovascular risk factors (otherwise known as the cardiovascular outcomes trial, or CVOT). The FDA-required portion of the trial is designed to evaluate BELVIQ's effect on the incidence of major adverse cardiovascular events, or MACE, (non-fatal myocardial infarction, non-fatal stroke and cardiovascular death) compared to placebo, with a non-inferiority margin for the hazard ratio of 1.4. The trial also includes FDA-required echocardiographic assessments. Along with the FDA-required portion of the trial, we expect that the trial may include the non-FDA required evaluation of whether lorcaserin reduces the incidence of conversion to type 2 diabetes in patients without type 2 diabetes at baseline and the incidence of MACE+ (MACE or hospitalization for unstable angina or heart failure, or any coronary revascularization), both as compared to placebo. We expect that the trial (including the non-FDA required portion) will run for several more years. The FDA is also requiring as a postmarketing commitment the assessment of the safety and efficacy of BELVIQ for weight management in obese pediatric and adolescent patients.

New data relating to lorcaserin, including from adverse event reports or required postmarketing, registration or other studies or trials, may result in label changes, may adversely affect sales or development, or result in withdrawal of BELVIQ from the market. In addition, analyses of previous data can have similar risks. Eisai and we expect to continue to generate data from new studies and trials, as well as to continue analyzing existing data from previously conducted studies and trials, including for potential use in applications for the marketing approval of lorcaserin. Foreign regulatory agencies may consider the new data or analyses in reviewing marketing applications for lorcaserin in their territories or impose post-approval requirements that require significant additional expenditures. Furthermore, the discovery of significant problems with a product or class of products similar to lorcaserin could have an adverse

effect on the lorcaserin program, including commercialization.

New data, analyses or other information, including information about product misuse, may lead government agencies, professional societies, practice management groups or organizations involved in various diseases to publish guidelines or recommendations related to the use of BELVIQ or place greater restrictions on sales. Such guidelines or recommendations may lead to lower sales of BELVIQ.

If lorcaserin is not approved for marketing in any additional territories, or if any such approval is significantly delayed or limited, our results of operations and business may be materially adversely affected and our stock price may decline; if lorcaserin is approved in any additional territories, commercializing lorcaserin in such territory will carry risks.

We and our collaborators have filed applications for regulatory approval for lorcaserin for weight management or control outside of the United States and South Korea, and we expect our collaborators will seek regulatory approval for lorcaserin in additional territories in the future. Marketing approval of a drug by the FDA or any other regulatory authority does not assure or predict with any certainty that any other regulatory authority will grant marketing approval for such drug. For example, as described below, we withdrew the MAA we previously submitted for the approval of lorcaserin for weight control in the European Union. We cannot assure or predict with any certainty that lorcaserin will be approved in any additional territories or the expected timeframe of any such approval. The review and potential approval of lorcaserin carries many risks and uncertainties, and our or others' lorcaserin regulatory submissions may not be satisfactory to the applicable regulatory authorities, including with regard to demonstrating adequate safety and efficacy for regulatory approval. We have made, and expect to make in the future, assumptions, estimations, calculations and decisions as part of our analyses of data and regulatory submissions, and the applicable regulatory authorities may not accept or agree with our assumptions, estimations, calculations, decisions or analyses, may interpret or weigh the importance of data differently or require additional information for approval.

Furthermore, as was the case with FDA approval, other regulatory approvals, even if obtained, may be limited to specific indications, limit the type of patients in which the drug may be used, or otherwise require specific warning or labeling language, any of which might reduce the commercial potential of lorcaserin. As with the FDA's approval of BELVIQ, regulatory authorities in other territories may condition marketing approval of lorcaserin on the conduct of specific postmarketing studies to further evaluate safety and efficacy, in either particular or general patient populations or both. The results of these studies, discovery of previously unknown issues involving safety or efficacy or failure to comply with post-approval regulatory requirements, including requirements with respect to manufacturing practices, reporting of adverse effects, advertising, promotion and marketing, may result in restrictions on the marketing of lorcaserin or the withdrawal of lorcaserin from the market.

With respect to the European Union, in 2013, the Committee for Medicinal Products for Human Use, or CHMP, of the European Medicines Agency, or EMA, identified major objections related to nonclinical and clinical issues, including tumors in rats, valvulopathy and psychiatric events, and the CHMP requested that we further justify lorcaserin's overall benefit-risk balance taking these issues into consideration with respect to the proposed indication of weight control. The major objections needed to be addressed before the CHMP could have recommended lorcaserin for marketing approval for weight control in the European Union. We did not believe we could resolve the major objections related to the results of nonclinical studies prior to the time we expected the CHMP to issue its final opinion, and, therefore, we withdrew the lorcaserin MAA for the European Union. We also previously received feedback with respect to regulatory applications in other territories that included major objections. We expect Eisai to submit for regulatory approval of lorcaserin in Europe and in other territories in the future, but such submissions may not occur when expected or ever. With respect to activities related to regulatory efforts and strategy, Eisai and we expect to continue to generate data from new studies and trials, as well as to continue analyzing existing data from previously conducted studies and trials, including for potential use in applications for the marketing approval of lorcaserin in Europe and other territories. As part of such efforts, Eisai and we may further analyze data from one of our long-term preclinical carcinogenicity studies for lorcaserin. While Eisai and we believe that such studies and analysis may be helpful with respect to regulatory applications, it is unknown whether any new data, or the results of such analysis, will be viewed favorably or if any data or results will positively or negatively impact any regulatory approvals, applications or strategy.

We cannot assure you that our collaborators' or our past or any future responses or submissions will be sufficient to the applicable regulatory authority or others, that the applicable regulatory authority or others will consider our lorcaserin program or data, including with regard to lorcaserin's efficacy or safety, as sufficient, or that any other regulatory authority will ever approve lorcaserin.

If lorcaserin is not approved or commercialized in additional territories, the potential revenues we will receive for lorcaserin will be limited and any related regulatory actions may negatively impact the approval or commercialization of lorcaserin in any territories in which it is approved.

If lorcaserin is approved in any additional territories, the degree of market acceptance and commercial success of lorcaserin in such territory, as well as our resulting revenues, will depend on similar factors as in the United States, as

well as territory-specific risks.

Our commercialization and continuing development of lorcaserin may be adversely impacted by cardiovascular side effects associated with drugs used for the treatment of obesity.

We developed lorcaserin to more selectively stimulate the serotonin 2C receptor than did fenfluramine or dexfenfluramine because we believe this may avoid the cardiovascular side effects associated with fenfluramine and dexfenfluramine (often used in combination with phentermine, the combination of which was commonly referred to as “fen-phen”). These two drugs were serotonin-releasing agents and non-selective serotonin receptor agonists, and were withdrawn

from the market in 1997 after reported incidences of heart valve disease and pulmonary hypertension associated with their usage. In in vitro studies examining affinity, activity and serotonin receptor subtype specificity, lorcaserin demonstrated affinity for, and activity at, serotonin 2A, 2B and 2C receptors, but demonstrated greater affinity, activity and selectivity for the serotonin 2C receptor than for the serotonin 2A and 2B receptors. Activation of the latter two receptors has been associated with undesirable effects. Activation of the 2A receptor has been associated with central nervous system, or CNS, effects, including altered perception, mood and abuse potential, and activation of the 2B receptor has been associated with cardiac valvulopathy.

We may not be correct in our belief that more selectively stimulating the serotonin 2C receptor will avoid these undesired side effects, or lorcaserin's selectivity profile may not be adequate to avoid these side effects. Lorcaserin's selectivity profile and the potential relationship between the activity of lorcaserin and the activity of fenfluramine and dexfenfluramine may result in increased FDA or other regulatory scrutiny of the safety of lorcaserin, may raise potential adverse publicity and may affect enrollment of any future clinical trials or product sales. In addition, we cannot guarantee that any other regulatory authority will find our safety data to be sufficient to approve lorcaserin for marketing.

We are dependent on marketing and supply agreements for lorcaserin and the failure to maintain such agreements, or poor performance under such agreements, could negatively impact our business.

Our collaborators have primary responsibility for the regulatory approval and, ultimately, marketing and distribution of lorcaserin in the territory or territories under the applicable collaboration. We have limited or no control over the amount and timing of resources that any of these collaborators will dedicate to such activities. In addition, they are responsible for compliance with certain regulatory requirements. Eisai has exclusive distribution and other rights for lorcaserin in its territories, and our other collaborators have exclusive distribution and other rights for lorcaserin for weight loss or weight management in obese and overweight patients.

We are subject to a number of other risks associated with our dependence on our collaborative agreements for lorcaserin, including:

- our collaborators may not comply with applicable regulatory guidelines with respect to lorcaserin, which could adversely impact the commercialization or development of lorcaserin;
- there could be disagreements regarding the agreements or the study or development of lorcaserin that delay or terminate the commercialization, research, study or development of lorcaserin, delay or eliminate potential payments under the agreements or increase our costs under or outside of the agreements;
- our collaborators may not effectively allocate adequate resources or otherwise support lorcaserin or may have limited experience in a particular territory; and
- our collaborators may not perform as expected, including with regard to making any required payments, and the agreements may not provide adequate protection or may not be effectively enforced.

We and our collaborators have the right to terminate our agreements in certain circumstances. We could also agree with a collaborator to amend the terms of our agreement, and we or others, including investors and analysts, may not view any amendments as favorable. If any of our marketing and supply agreements for lorcaserin is terminated early, we may not be able to find another company to further develop and commercialize lorcaserin in the covered territory on acceptable terms, if at all, and even if we elected to pursue further development or commercialization of lorcaserin on our own, we might not have the funds or otherwise be able to do so successfully.

We may enter into additional agreements for the commercialization of BELVIQ or one or more of our drug candidates, and may be similarly dependent on the performance of third parties with similar and potentially company-specific risks.

We are responsible for supplying lorcaserin and certain drug candidates under our marketing and supply agreements, including for commercial sale. We do or will rely on other companies, including third-party manufacturers and sole-source suppliers, and we or such other companies may encounter failures or difficulties or not receive or provide adequate supply, which could adversely affect the commercial production of BELVIQ or the clinical development or regulatory approval of our drug candidates.

Under each of our marketing and supply agreements for lorcaserin, we are the exclusive supplier of lorcaserin. Our drug product manufacturing facility in Switzerland is currently our only source for finished drug product of lorcaserin.

Without this facility, we would need to rely on third-party manufacturers for such production or develop or acquire such facilities, which, in either case, would require substantial time and funds. We estimate that it would take a year or longer and a substantial amount of financial and other resources to secure a second source for finished drug product of lorcaserin, and we may not be successful in securing a second source for such finished drug product.

In addition, we do not own or operate manufacturing facilities that can produce active pharmaceutical ingredient, or API, intermediates and other material required to make BELVIQ and our drug candidates, or finished drug product for all of our drug candidates. Instead, we currently contract with other companies to supply API, intermediates and other materials. Certain of these materials are available from only one or a small number of suppliers, and using a new supplier, if available, could result in substantial delay and greater cost. We expect Siegfried AG, or Siegfried, will be the only source of API for BELVIQ for at least the short term. Our dependence on one source of finished drug product and API, as well as our dependence on other third parties in the supply chain, may adversely affect our ability to develop and deliver drug products on a timely and competitive basis, or at all.

Any performance failure on the part of us or a third-party manufacturer could result in a product recall or seizure, delay or otherwise adversely affect the sales of BELVIQ or the clinical development or regulatory approval of lorcaserin or one or more of our other drug candidates. We or third-party manufacturers may encounter difficulties involving production yields, regulatory compliance, lot release, quality control and quality assurance, as well as shortages of qualified personnel. For example, in December 2014, Eisai and we discovered that a small number of bottles of BELVIQ in a limited number of lots had a missing or incomplete label, and, as a precautionary measure, Eisai voluntarily initiated a recall from wholesalers of the involved lots for inspection.

The ability to adequately and timely manufacture and supply drug product is dependent on the uninterrupted and efficient operation of the manufacturing facilities, which is impacted by many manufacturing variables, including:

- availability or contamination of raw materials and components used in the manufacturing process, particularly those for which we have no other source or supplier;
- capacity of our facilities or those of our contract manufacturers;
- having the ability to adjust to changes in actual or anticipated use of the facility, including with respect to having sufficient capacity and a sufficient number of qualified personnel;
- facility contamination by microorganisms or viruses or cross contamination;
- compliance with regulatory requirements, including inspectional notices of violation and warning letters;
- maintenance and renewal of any required licenses or certifications;
- changes in actual or forecasted demand;
- timing and number of production runs;
- production success rates and bulk drug yields; and
- timing and outcome of product quality testing.

In addition, we or our third-party manufacturers may encounter delays and problems in manufacturing our drug candidates or drugs for a variety of reasons, including accidents during operation, failure of equipment, delays in receiving materials, natural or other disasters, political or governmental unrest or changes, social unrest, intentional misconduct or other factors inherent in operating complex manufacturing facilities. Commercially available starting materials, reagents and excipients may be or become scarce or more expensive to procure, and we may not be able to obtain favorable terms in agreements with subcontractors. We or our third-party manufacturers may not be able to operate our respective manufacturing facilities in a cost-effective manner or in a time frame that is consistent with our expected future manufacturing needs. If we or our third-party manufacturers cease or interrupt production or if our third-party manufacturers and other service providers fail to supply materials, products or services to us for any reason, such interruption could delay progress on our programs, or interrupt the commercial supply, with the potential for additional costs and lost revenues. If this were to occur, we may also need to seek alternative means to fulfill our manufacturing needs.

We may not be able to enter into or maintain agreements for the manufacture of BELVIQ or one or more of our drug candidates with manufacturers whose facilities and procedures comply with applicable law. Manufacturers are subject to ongoing periodic inspection (which may be unannounced) by the FDA, the DEA, corresponding state and foreign authorities and other regulatory authorities to ensure strict compliance with Current Good Manufacturing Practices, or cGMPs, regulations and other applicable government regulations and corresponding foreign standards. We do not have control over a third-party manufacturer’s compliance with these regulations and standards. In addition, we have contracted with Siegfried to provide to us certain business and technical services, including safety, health and environmental services. We are, therefore, relying at least in part on Siegfried’s judgment, experience and expertise.

We intend to reduce or eliminate our dependence on Siegfried for such business and technical services, and any changes may result in increased cost, additional risk or otherwise negatively impact our operations. If we or one of our manufacturers fail to maintain compliance or otherwise experience setbacks, we or they could be subject to civil or criminal penalties, the production of BELVIQ or one or more of our drug candidates could be

interrupted or suspended, or our product could be recalled or withdrawn, resulting in delays, additional costs and potentially lost revenues.

Our business may be negatively impacted based on the clinical trials and preclinical studies of, and decisions affecting, BELVIQ or one or more of our drug candidates.

The results and timing of clinical trials and preclinical studies, as well as related decisions, can affect our stock price. Preclinical studies include experiments performed in test tubes, in animals, or in cells or tissues from humans or animals. These studies, which are sometimes referred to as nonclinical studies, include all drug studies except those conducted in human subjects, and may occur before or after initiation of clinical trials for a particular compound. Results of clinical trials and preclinical studies, including adverse effects, as well as related analyses of such results, of BELVIQ or one or more of our drug candidates (including development programs related to lorcaserin) may not be viewed favorably by us or third parties, including investors, analysts, current or potential collaborators, the academic and medical communities, and regulators. The same may be true of decisions regarding the focus and prioritization of our research and development efforts, how we design individual studies, trials and development programs of lorcaserin as well as for any of our drug candidates, and regulatory decisions (including by us or regulatory authorities) affecting our programs. Stock prices of companies in our industry have declined significantly when such results and decisions were unfavorable or perceived negatively or when a drug candidate or product did not otherwise meet expectations.

We regularly have drug programs in clinical trials. In addition to successfully completing clinical trials, to conduct long-term clinical trials and gain regulatory approval to commercialize drug candidates, regulatory authorities require that all drug candidates complete short- and long-term preclinical toxicity and carcinogenicity studies. These preclinical, animal studies are required to help us and regulatory authorities assess the potential risk that drug candidates may be toxic or cause cancer in humans. The results of clinical trials and preclinical studies are uncertain and subject to different interpretations, and the design of these trials and studies (which may change significantly and be more expensive than anticipated depending on results and regulatory decisions) may also be viewed negatively by us, regulatory authorities or other third parties and adversely impact the development and opportunities for regulatory approval and commercialization of our drug candidates and those under collaborative agreements.

Information on our drug candidates in clinical development is preliminary and incomplete, and for such drug candidates, particularly in the earlier stages of development, information on approved products in the same or related drug classes may be helpful in predicting potential risks. For example, APD334 is an orally available modulator of the $S1P_1$ receptor, and, in July 2015, we announced our initiation of patient screening in a Phase 2 proof-of-concept clinical trial of this drug candidate in ulcerative colitis. Information on this drug candidate is, therefore, limited and subject to ongoing preclinical and clinical studies, and experience with other drugs may be relevant. An approved drug that is also an orally available modulator of the $S1P_1$ receptor, Gilenya, is associated with risks such as adverse cardiovascular effects, including lowering of the heart rate and heart blocks, infection, macular edema, respiratory effects, fetal risk, and elevations in liver enzymes. These adverse reactions and risks may be associated with S1P receptor modulation and could be found to be associated with the use of APD334. Such adverse reactions and risks, either actual or perceived, could negatively impact its development, approval or commercialization, or our ability to enter into a collaboration on acceptable terms.

In addition, results of completed or new preclinical and clinical studies can be interpreted differently by regulatory agencies, us or others, and can negatively impact even approved products such as lorcaserin. Unfavorable results or delays with respect to studies, trials or analyses for lorcaserin could negatively impact market acceptance of lorcaserin, limit the revenues we generate from sales, negatively impact regulatory agencies' views or restrictions on lorcaserin, result in lorcaserin's withdrawal from the market and preclude us from being profitable.

We may not be successful in initiating or completing our studies or trials or advancing our programs on our projected timetable, if at all. Any failure to initiate or delays in our studies, trials or development programs, or unfavorable results or decisions or negative perceptions regarding any of our programs, could cause our stock price to decline significantly. This is particularly the case with respect to our clinical programs.

We may publicly disclose top-line data from time to time, which is based on a preliminary analysis of then-available efficacy and safety data, and the results and related findings and conclusions are subject to change following a more

comprehensive review of the data related to the particular study or trial. We also make assumptions, estimations, calculations and conclusions as part of our analyses of data, and others, including regulatory agencies, may not accept or agree with our assumptions, estimations, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular drug candidate or drug and our company in general. In addition, the information we may publicly disclose regarding a particular study or clinical trial is based on what is typically extensive information, and you or others may not agree with what we determine is the

material or otherwise appropriate information to include in our disclosure and any information we determine not to disclose may ultimately be deemed significant with respect to future decisions, conclusions, views, activities or otherwise regarding a particular drug, drug candidate or our business.

We depend on our collaborators for commercializing lorcaserin, and, without collaborators, our lack of corporate experience and resources may negatively impact our ability to commercialize lorcaserin independently.

We expect our collaborators to commercialize lorcaserin for at least weight management, subject to any applicable regulatory approval. We may not be able to maintain our marketing and supply agreements for lorcaserin or enter into new agreements for lorcaserin on acceptable terms, if at all. If we are unable to maintain or enter into agreements to commercialize lorcaserin and we develop or acquire our own capabilities to commercialize lorcaserin in any territory independently, we may require additional capital to develop such capabilities, and the marketing and sale of lorcaserin in such territory may be delayed or otherwise impeded by our lack of resources. We may not be successful in developing the requisite capabilities to commercialize lorcaserin without a collaborator. Even if we were able to do so, we have not previously commercialized a drug, and our limited experience may make us less effective at commercial planning, marketing and selling than a more experienced pharmaceutical company. Our lack of corporate experience and adequate resources may impede our efforts to successfully commercialize lorcaserin independently.

If our competitors have commercialization arrangements with companies who allocate substantially greater resources than we allocate (or, with respect to commercializing lorcaserin in a territory under one of our agreements, than our collaborator allocates) to the respective drugs, our competitors may be more successful in marketing and selling their drugs, and our ability to successfully commercialize lorcaserin will be limited.

Our drug candidates are subject to extensive regulation, and we may not receive required regulatory approvals, or timely approvals, for any of our drug candidates.

The preclinical and clinical development, manufacturing, labeling, packaging, storage, recordkeeping, advertising, promotion, export, marketing and distribution, and other possible activities relating to BELVIQ and our drug candidates are, and any other resulting drugs will be, subject to extensive regulation by the FDA and other regulatory agencies. We are subject to periodic inspections (which may be unannounced) by the FDA, the DEA and other regulatory agencies, including inspections at Arena Pharmaceuticals GmbH, or Arena GmbH, by the FDA and other regulatory agencies. Failure to comply with applicable regulatory requirements may, either before or after product approval, subject us to administrative or judicially imposed sanctions that may negatively impact the commercialization of BELVIQ or approval of one or more of our drug candidates or otherwise negatively impact our business. Regulatory agencies have in the past inspected certain aspects of our business in the United States and Switzerland, and we were provided with observations of objectionable conditions or practices with respect to our business in the United States. We believe we satisfactorily addressed such observations, but there is no assurance that regulatory agencies will not provide us with observations in future inspections or that we satisfactorily addressed observations provided to us in past inspections.

Neither collaborators nor we are permitted to market a drug candidate in the United States until the particular drug candidate is approved for marketing by the FDA. Specific preclinical data, chemistry, manufacturing and controls data, a proposed clinical trial protocol and other information must be submitted to the FDA as part of an investigational new drug, or IND, application, and clinical trials may commence only after the IND application becomes effective. To market a new drug in the United States, we must submit to the FDA and obtain FDA approval of an NDA. An NDA must be supported by extensive clinical and preclinical data, as well as extensive information regarding chemistry, manufacturing and controls to demonstrate the safety and effectiveness of the drug candidate. Following its review of an NDA or a response to a Complete Response Letter, or CRL, the FDA may approve the NDA or issue a CRL.

Obtaining approval of an NDA can be a lengthy, expensive and uncertain process. As part of the Prescription Drug User Fee Act, or PDUFA, the FDA has a goal to review and act on a percentage of all submissions in a given time frame. The FDA’s review goals are subject to change, and it is unknown whether any particular FDA review will be completed within the FDA’s review goals or will be delayed. Moreover, the duration of the FDA’s review may depend on the number and types of other submissions made to the FDA around the same time period.

As with BELVIQ, any drug that acts on the CNS has the potential to be scheduled as a controlled substance by the DEA. DEA scheduling is a separate process that can delay when a drug may become available to patients beyond the issuance of an NDA approval letter, and the timing and outcome of such DEA process is uncertain. For example, the FDA approved the NDA for BELVIQ in June 2012, subject to the final scheduling of BELVIQ by the DEA. The DEA's final rule placing BELVIQ into Schedule IV of the Controlled Substances Act was not effective until June 2013. Although the Improving Regulatory Transparency for New Medical Therapies Act was signed into law in November 2015 in part to reset the effective date of FDA approval to coincide with DEA scheduling for applicable drugs, it is not clear at this time whether this change in the law will

apply to benefit BELVIQ. The scheduling designation can also change after it has been finalized. DEA scheduling ranges from I to V, with I being the most tightly controlled category. If BELVIQ were to be rescheduled into a different category, such scheduling could negatively impact the ability or willingness to prescribe or dispense BELVIQ, the likelihood that patients will use it and other aspects of our and Eisai's ability to commercialize it.

Regulatory approval of an NDA is not guaranteed, and our business and reputation may be harmed by any failure or significant delay in receiving regulatory approval. The number and types of preclinical studies and clinical trials that will be required for FDA approval varies depending on the drug candidate, the disease or condition that the drug candidate is designed to target and the regulations applicable to any particular drug candidate. Despite the time and expense exerted in preclinical and clinical studies, failure can occur at any stage, and we could encounter problems that cause us to abandon clinical trials or to repeat or perform additional preclinical studies and clinical trials.

The FDA can delay, limit or deny approval of a drug candidate for many reasons, including:

- a drug candidate may not be deemed adequately safe and effective;
- FDA officials may not find the data from preclinical studies and clinical trials sufficient;
- the FDA's interpretation and our interpretation of data from preclinical studies and clinical trials may differ significantly;
- our or our contractors' or collaborators' failure to comply with applicable FDA and other regulatory requirements, including those identified in other risk factors;
- the FDA may not approve the manufacturing processes or facilities;
- the FDA may change its approval policies or adopt new regulations; or
- the FDA may not accept an NDA or other submission due to, among other reasons, the content or formatting of the submission.

We cannot predict when or whether, or assure you that, our collaborator's or our past or any future regulatory submissions or responses will be sufficient to the applicable regulatory authority or others, that the applicable regulatory authority or others will consider data or our analyses, interpretations or procedures related to any of our drug candidates as sufficient or persuasive, or that any regulatory authority will ever approve any of our drug candidates in the future. For example, the FDA has accepted for filing our NDA for the regulatory approval of BELVIQ XR. In one of the two Phase 1 clinical trials for such once-daily formulation, the analysis supporting our and Eisai's belief that the once-daily formulation and the twice-daily formulation (which is the approved formulation being marketed as BELVIQ) are bioequivalent excludes data from one participant whose observed drug levels and exposures during the twice-daily dosing portion of the trial were not consistent with taking the prescribed doses. In addition, our collaborators have conducted and are expected to continue to conduct pharmacokinetics and other clinical studies on the once-daily formulation in territories outside the United States, and data from these studies may be considered by the FDA during its review of the BELVIQ XR NDA. The FDA may conclude that bioequivalence has not been established, and may require additional testing, analysis or other activities before approving, if ever, the once-daily formulation.

To market any drugs outside of the United States, we and our current or future collaborators must comply with numerous and varying regulatory requirements of other countries. Approval procedures vary among countries and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from that required to obtain FDA approval. The regulatory approval process in other countries may include all of the risks associated with FDA approval as well as additional risks, some of which may be unanticipated.

For example, the EMA guidelines provide that clinical trials assessing drug candidates intended for weight control should subject patients to a weight reducing diet run-in period, and our Phase 3 clinical trials of BELVIQ did not include a run-in period. Such EMA guidelines also provide primary and alternative primary efficacy criteria for weight loss drug candidates. We believe BELVIQ will satisfy the EMA's alternative primary efficacy criterion, which is the proportion of responders achieving more than 10% weight loss at the end of a 12-month period. However, we do not believe BELVIQ meets the more stringent EMA primary efficacy criterion, which requires demonstrating weight loss of at least 10% of baseline weight that is also at least 5% greater than that associated with placebo. Also, with

respect to our previously filed MAA for lorcaserin for weight management in the European Union, the EMA raised questions regarding the dropout rate in our clinical trials and how this affects the analysis of efficacy in those trials. We also previously received feedback with respect to regulatory applications in other territories that included major objections.

Regulatory approval of a drug in one territory does not ensure additional regulatory approval in such territory (such as approval of the drug in combination with other drugs, for other indications or using different formulations) or regulatory

approval in another territory, but a failure or delay in obtaining regulatory approval may negatively impact other regulatory processes. Failure to obtain regulatory approval in a territory, any delay or setback in obtaining such approval, or our regulatory strategy or decisions could adversely affect the regulatory approval or commercialization of our drug candidates in other territories, including that our drug candidates may not be approved for all indications requested, that such approval may be subject to limitations on the indicated uses for which the drug may be marketed, and with regard to the pricing or reimbursement of any approved drugs.

Even if approved, drug candidates may not be approved for all indications requested and such approval may be subject to limitations on the indicated uses for which the drug may be marketed, restricted distribution methods or other limitations, such as those required by a Risk Evaluation and Mitigation Strategies, or REMS.

Our drugs will still be subject to extensive postmarketing regulation if approved.

Following regulatory approval of any of our drug candidates, we and our collaborators will be subject to ongoing obligations and continued regulatory review from the FDA and other applicable regulatory agencies, such as continued adverse event reporting requirements. As with BELVIQ, there may also be additional postmarketing obligations imposed by the FDA or other regulatory agencies. These obligations may result in significant expense and limit the ability to commercialize such drugs.

The FDA or other regulatory agencies may also require that the sponsor of the NDA or foreign equivalent, as applicable, conduct additional clinical trials to further assess approved drugs after approval under a post-approval commitment. Such additional studies may be costly and may impact the commercialization of the drug. For example, as part of the approval of BELVIQ, the FDA required the conduct of the CVOT described above as well as postmarketing studies to assess the safety and efficacy of BELVIQ for weight management in obese pediatric and adolescent patients. Along with being costly and time consuming, a delay or unfavorable results from these trials could negatively impact market acceptance of BELVIQ; limit the revenues we generate from sales; result in BELVIQ's withdrawal from the market; negatively impact the potential approval of lorcaserin in other territories for weight management, for other indications, in combination with other agents or using different formulations; and preclude us from being profitable.

The FDA or other regulatory agencies may also impose significant restrictions on the indicated uses for which a drug may be marketed. Additionally, the FDA may require a REMS, including in connection with a drug's approval, to help ensure that the benefits of the drug outweigh its risks. A REMS may be required to include various elements, such as a medication guide or patient package insert, a communication plan to educate healthcare providers of the drug's risks, limitations on who may prescribe or dispense the drug, requirements that patients enroll in a registry or undergo certain health evaluations or other measures that the FDA deems necessary to ensure the safe use of the drug.

With regard to BELVIQ and any of our drug candidates that receive regulatory approval, the labeling, packaging, adverse event reporting, storage, advertising and promotion for the drug will be subject to extensive regulatory requirements. We and the manufacturers of our products are also required to comply with cGMP regulations, which include requirements relating to quality control and quality assurance, as well as the corresponding maintenance of records and documentation. Further, regulatory agencies must approve these manufacturing facilities before they can be used to manufacture our products, and these facilities are subject to ongoing regulatory inspections. In addition, regulatory agencies subject a drug, its manufacturer and the manufacturer's facilities to continual review and inspections. The subsequent discovery of previously unknown problems with a drug, including adverse events of unanticipated severity or frequency, or problems with the facility where the drug is manufactured, may result in restrictions on the marketing of that drug, up to and including withdrawal of the drug from the market. In the United States, the DEA and comparable state-level agencies also heavily regulate the manufacturing, holding, processing, security, recordkeeping and distribution of drugs that are considered controlled substances, and the DEA periodically inspects facilities for compliance with its rules and regulations.

If our manufacturing facilities or those of our suppliers fail to comply with applicable regulatory requirements, such noncompliance could result in regulatory action and additional costs to us. Failure to comply with applicable FDA and other regulatory requirements may, either before or after product approval, if any, subject us to administrative or judicially imposed sanctions, including:

- issuance of inspectional notices of violation or warning letters by any regulatory agency;

- imposition of fines and other civil penalties;
- criminal prosecutions;
- injunctions, suspensions or revocations of regulatory approvals;
- suspension of any ongoing clinical trials;

- total or partial suspension of manufacturing;
- delays in commercialization;
- refusal by any regulatory agency to approve pending applications or supplements to approved applications filed by us or collaborators;
- refusals to permit drugs or related materials to be imported into or exported from the United States or other countries;
- restrictions on operations, including costly new manufacturing requirements; and
- product recalls or seizures.

The FDA's and other regulatory agencies' policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our drug candidates or further restrict or regulate post-approval activities. We cannot predict the likelihood, nature or extent of adverse government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are not able to maintain regulatory compliance, we or our collaborators might not be permitted to market our drugs and our business could suffer.

Our ability to generate revenues from BELVIQ or any of our drug candidates that receive regulatory approval will be subject to a variety of risks, many of which are out of our control.

BELVIQ or any of our drug candidates that may be approved for marketing may not gain market acceptance among patients, healthcare providers, healthcare payers or the medical community. We believe that the degree of market acceptance and our ability to generate revenues from such products will depend on a number of factors, including:

- timing of market introduction of our drugs and competitive drugs and alternative treatments;
- actual and perceived efficacy and safety of our drugs;
- incidence and severity of any side effects;
- potential or perceived advantages or disadvantages as compared to alternative treatments;
- effectiveness of sales, marketing and distribution support;
- price of our future products, both in absolute terms and relative to alternative treatments;
- the general marketplace for the particular drug;
- the effect of current and future healthcare laws on our drug candidates;
- availability of coverage and adequate reimbursement from government and other third-party payers; and
- product labeling or product insert requirements of the FDA or other regulatory authorities.

If our approved drugs fail to achieve market acceptance, we may not be able to generate significant revenues to be profitable.

Drug development programs are expensive, time consuming, uncertain and susceptible to change, interruption, delay or termination.

Drug development programs are very expensive, time consuming and difficult to design and implement. Our drug candidates are in various stages of research and development and are prone to the risks of failure inherent in drug development. In addition, the FDA or other regulatory authority may require us to, or we or others may decide to, conduct additional research and development of any of our approved drugs. Clinical trials and preclinical studies are needed to demonstrate that drug candidates are safe and effective to the satisfaction of the FDA and similar non-US regulatory authorities. These trials and studies are expensive and uncertain processes that may take years to complete. Failure can occur at any stage of the process, and successful early preclinical studies or clinical trials do not ensure that later studies or trials will be successful. In addition, the commencement or completion of our planned preclinical studies or clinical trials could be substantially delayed or prevented by several factors, including the following:

- limited number of, and competition for, suitable patients required for enrollment in our clinical trials or animals to conduct our preclinical studies;
- limited number of, and competition for, suitable sites to conduct our clinical trials or preclinical studies;

- delay or failure to obtain approval or agreement from the applicable regulatory authority to commence a clinical trial or approval of a study protocol;
- delay or failure to obtain sufficient supplies of drug candidates, drugs or other materials for the trial or study;
- delay or failure to reach agreement on acceptable agreement terms or protocols; and
- delay or failure to obtain institutional review board, or IRB, approval to conduct a clinical trial at a prospective site.

For example, recruitment for ulcerative colitis and pulmonary arterial hypertension studies is competitive and challenging. As such, it is difficult to predict when our ongoing Phase 2 clinical trials (or any future clinical trials in these therapeutic areas) will be fully enrolled or data will be available.

Even if the results of our development programs are favorable, the development programs of our most advanced drug candidates, including those being developed by collaborators, may take significantly longer and cost more than expected to complete. In addition, the FDA, other regulatory authorities, collaborators, or we may suspend, delay or terminate our development programs at any time for various reasons, including:

- lack of effectiveness of any drug candidate during clinical trials;
- side effects experienced by study participants or other safety issues;
- slower than expected rates of patient recruitment and enrollment or lower than expected patient retention rates;
- delays or inability to manufacture or obtain sufficient quantities of materials for use in clinical trials;
- inadequacy of or changes in our manufacturing process or compound formulation;
- delays in obtaining regulatory approvals to commence a study, or “clinical holds,” or delays requiring suspension or termination of a study by a regulatory authority, such as the FDA, after a study is commenced;
- changes in applicable regulatory policies and regulations;
- delays in identifying and reaching agreement on acceptable terms with prospective clinical trial sites;
- uncertainty regarding proper dosing;
- unfavorable results from ongoing clinical trials or preclinical studies;
- failure of our clinical research organizations to comply with all regulatory and contractual requirements or otherwise perform their services in a timely or acceptable manner;
- scheduling conflicts with participating clinicians and clinical institutions;
- failure to design appropriate clinical trial protocols;
- insufficient data to support regulatory approval;
- termination of clinical trials at one or more clinical trial sites;
- inability or unwillingness of medical investigators to follow our clinical protocols;
- difficulty in maintaining contact with subjects during or after treatment, which may result in incomplete data;
- lack of sufficient funding to continue clinical trials or preclinical studies; or
- changes in business priorities or perceptions of the value of the program.

There is typically a high rate of attrition from the failure of drug candidates proceeding through clinical trials, and many companies have experienced significant setbacks in advanced development programs even after promising results in earlier studies or trials. We have experienced setbacks in our internal and partnered development programs and expect to experience additional setbacks from time to time in the future. If we or our collaborators abandon or are delayed in our development efforts related to lorcaserin or any drug candidate, we may not be able to generate sufficient revenues to continue our operations at the current level or be profitable, our reputation in the industry and in the investment community would likely be significantly damaged, additional funding may not be available to us or may not be available on terms we or others believe are favorable, and our stock price may decrease significantly.

The results of preclinical studies and completed clinical trials are not necessarily predictive of future results, and our current drug candidates or any approved drugs may not be further developed or have favorable results in later studies or trials.

Preclinical studies and Phase 1 and Phase 2 clinical trials are not primarily designed to test the efficacy of a drug candidate, but rather to test safety, to study pharmacokinetics and pharmacodynamics, and to understand the drug candidate's side effects at various doses and schedules. Favorable results in early studies or trials may not be repeated in later studies or trials, including continuing preclinical studies and large-scale clinical trials, and our drug candidates or drugs in later-stage trials may fail to show desired safety and efficacy despite having progressed through earlier-stage trials. Unfavorable results from ongoing preclinical studies or clinical trials could result in delays, modifications or abandonment of ongoing or future clinical trials, or abandonment of a program. Preclinical and clinical results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals or commercialization. Negative or inconclusive results or adverse medical events during a clinical trial could cause a clinical trial to be delayed, repeated or terminated; a program to be abandoned; or negatively impact a related marketed drug.

Many of our research and development programs are in the discovery or preclinical stage of development. The process of discovering compounds with therapeutic potential is expensive, time consuming and unpredictable. Similarly, the process of conducting preclinical studies of compounds that we discover requires the commitment of a substantial amount of our technical and financial resources and personnel. We may not discover additional compounds with sufficient therapeutic potential, and any of our preclinical compounds may not result in the commencement of clinical trials. We cannot be certain that results sufficiently favorable to justify commencement of Phase 1 clinical trials will be obtained in these preclinical investigations or that we will further develop a drug candidate at any stage of development. Even if favorable results are obtained from preclinical studies or trials, our financial resources may not allow us to advance a compound or drug candidate. If we are unable to identify and develop new drug candidates, we may not be able to maintain a clinical development pipeline or generate additional revenues.

Drug discovery and development is intensely competitive in the therapeutic areas on which we focus. If our competitors increase or they develop treatments that are approved faster, marketed better, less expensive or demonstrated to be more effective or safer than our drugs or drug candidates, our commercial opportunities will be reduced or eliminated.

Many of the drugs we or our collaborators are attempting or may attempt to discover and develop may compete with existing therapies in the United States and other territories. In addition, many companies are pursuing the development of new drugs that target the same diseases and conditions that we target.

For example, with regard to BELVIQ's competition, VIVUS, Inc., Orexigen Therapeutics, Inc., and Novo Nordisk have weight-loss drugs being marketed in the United States, and Orexigen has filed for regulatory approval of its drug candidate in South Korea. We also face competition from other drugs that may be indicated or used off label or otherwise for weight loss and from other approaches for weight loss, including behavior modification (such as diet and exercise), surgical approaches (such as gastric bypass surgery and gastric banding), and herbal or other supplements. With respect to future weight-loss treatments, we expect that companies and others may allocate resources to discover and develop additional drugs, additional drug candidates may be approved and competition may increase.

Our competitors, particularly large pharmaceutical companies, may have substantially greater research, development and marketing capabilities and greater financial, scientific and human resources than we do. Companies that complete clinical trials, obtain required regulatory agency approvals and commence commercial sale of their drugs before we do for the same indication may achieve a significant competitive advantage, including certain patent and marketing exclusivity rights. In addition, our competitors' drugs may have fewer side effects, more desirable characteristics (such as efficacy, route of administration or frequency of dosing), or be viewed more favorably by patients, healthcare providers, healthcare payers, the medical community, the media or others than our drug candidates or drugs, if any, for the same indication. Our competitors may also market generic or other drugs that compete with our drugs at a lower price than our drugs, which may negatively impact our drug sales, if any. Any results from our research and development efforts, or from our joint efforts with our existing or any future collaborators, may not compete successfully with existing or newly discovered products or therapies.

Collaborative relationships may lead to disputes and delays in drug development and commercialization, and we may not realize the full commercial potential of our drug candidates or drugs.

We may have conflicts with our prospective, current or past collaborators, such as conflicts concerning rights and obligations under our agreements, the interpretation of preclinical or clinical data, the achievement of milestone or other payments, the ownership of intellectual property, or research and development, regulatory, commercialization or other strategy. Collaborators may stop supporting our drug candidates or drugs, including if they no longer view the program as in their best financial or other interests or they develop or obtain rights to competing drug candidates or drugs. In addition, collaborators may fail to effectively develop, obtain approval for or commercialize our drugs, which may result in us not realizing their full commercial potential. If any conflicts arise with any of our current, past or prospective collaborators, the other party may act in a manner that is adverse to our interests. Any such disagreement could result in one or more of the following, each of which

could delay, or lead to termination of, development or commercialization of our drug candidates or drugs, and in turn prevent us from generating revenues:

- unwillingness on the part of a collaborator to pay for studies or other research, milestones, royalties or other payments that we believe are due to us under a collaboration;
- uncertainty regarding ownership of intellectual property rights arising from our collaborative activities, which could prevent us from entering into additional collaborations;
- unwillingness on the part of a collaborator to keep us informed regarding the progress of its development, regulatory, commercialization, pharmacovigilance or other activities or to permit public disclosure of the results of those activities;
- slowing or cessation of a collaborator's research, development, regulatory or commercialization efforts with respect to our drug candidates or drugs; or
- litigation or arbitration.

We have obtained orphan drug designation from the FDA for ralinepag for the treatment of pulmonary arterial hypertension, or PAH, but we may be unable to maintain the benefits associated with orphan drug designation, including the potential for market exclusivity.

Under the Orphan Drug Act, the FDA may grant orphan drug designation to a drug intended to treat a rare disease or condition, which is defined as one occurring in a patient population of fewer than 200,000 in the United States, or a patient population greater than 200,000 in the United States where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the United States. In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers. In addition, if a drug that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the drug is entitled to orphan drug exclusivity, which means that the FDA may not approve any other applications to market the same drug for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the drug with orphan drug exclusivity or where the manufacturer is unable to assure sufficient drug quantity.

Even though ralinepag has been granted orphan drug status for the treatment of PAH, exclusive marketing rights in the United States may be limited if we seek approval for an indication broader than the orphan-designated indication or may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantities of the drug to meet the needs of patients with the rare disease or condition. Further, even if we obtain orphan drug exclusivity for a drug, that exclusivity may not effectively protect the drug from competition because different drugs with different active moieties (which is the molecule or ion responsible for the action of the drug substance) can be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve the same drug with the same active moiety for the same condition if the FDA concludes that the later drug is safer, more effective, or makes a major contribution to patient care. Orphan drug designation neither shortens the development time or regulatory review time of a drug nor gives the drug any advantage in the regulatory review or approval process.

Setbacks and consolidation in the pharmaceutical and biotechnology industries could make entering into agreements with pharmaceutical companies to collaborate or commercialize our drugs more difficult and diminish our revenues.

Setbacks in the pharmaceutical and biotechnology industries, such as those caused by safety concerns relating to drugs or drug candidates, as well as competition from generic drugs, litigation and industry consolidation, may have an adverse effect on us, including by making it more difficult to enter into agreements with pharmaceutical companies to collaborate or commercialize our drugs and diminishing our revenues. For example, the FDA may be more cautious in approving our drug candidates based on safety concerns relating to these or other drugs or drug candidates, or pharmaceutical companies may be less willing to enter into new collaborations or continue existing collaborations if they are integrating a new operation as a result of a merger or acquisition or if their therapeutic areas of focus change following a merger.

We and our collaborators may from time to time rely on third parties to conduct clinical trials and preclinical studies. If those parties do not comply with regulatory and contractual requirements, successfully carry out their contractual obligations or meet expected deadlines, our drug candidates may not advance in a timely manner or at all.

In the course of our discovery, preclinical testing and clinical trials, we and our collaborators may from time to time rely on third parties, including laboratories, investigators, clinical research organizations and manufacturers, to perform critical services. For example, we rely on third parties to conduct our clinical trials and many of our preclinical studies. Clinical research organizations are responsible for many aspects of the trials, including finding and enrolling subjects for testing and administering the trials. Although we rely on these third parties to conduct our clinical trials, we are responsible for ensuring that each of our clinical trials is conducted in accordance with its investigational plan and protocol. Moreover, the FDA and foreign regulatory authorities require us to comply with regulations and standards, commonly referred to as Good Clinical

Practices, or GCPs, for conducting, monitoring, recording and reporting the results of clinical trials to ensure that the data and results are scientifically credible and accurate and that the trial subjects are adequately informed of the potential risks of participating in clinical trials. Our reliance on third parties does not relieve us of these responsibilities and requirements. These third parties may not be available when we need them or, if they are available, may not comply with all regulatory and contractual requirements or may not otherwise perform their services in a timely or acceptable manner, and we may need to enter into new arrangements with alternative third parties and our preclinical studies or clinical trials may be extended, delayed or terminated. These independent third parties may also have relationships with other commercial entities, some of which may compete with us. In addition, if such third parties fail to perform their obligations in compliance with regulatory requirements and our protocols, our preclinical studies or clinical trials may not meet regulatory requirements or may need to be repeated. As a result of our dependence on third parties, we may face delays or failures outside of our direct control. These risks also apply to the development activities of collaborators, and we do not control their research and development, clinical trial or regulatory activities.

We may participate in new strategic transactions that could impact our liquidity, increase our expenses, present significant distractions to our management and be viewed as unfavorable.

From time to time we consider strategic transactions, such as out-licensing or in-licensing of compounds or technologies, acquisitions of companies and asset purchases. Additional potential transactions we may consider include a variety of different business arrangements, such as strategic collaborations, joint ventures, spin-offs, restructurings, divestitures, business combinations and investments. In addition, another entity may pursue us as an acquisition target. Any such transaction may be viewed as unfavorable by our stockholders or others and may require us to incur non-recurring or other charges, may create potential liabilities, may increase our near- and long-term expenditures and may pose significant integration challenges, require additional expertise or disrupt our management or business, which could harm our operations and financial results.

As part of an effort to enter into significant transactions, we conduct business, legal and financial due diligence with the goal of identifying and evaluating material risks involved in the transaction. Despite our efforts, we ultimately may be unsuccessful in ascertaining or evaluating all such risks and, as a result, might not realize the intended advantages of the transaction. If we fail to realize the expected benefits from any transaction we may consummate, whether as a result of unidentified risks, integration difficulties, regulatory setbacks or other events, our business, results of operations and financial condition could be adversely affected.

Our efforts will be seriously jeopardized if we are unable to retain and attract key and other employees.

Our success depends on the continued contributions of our principal management, development and scientific personnel, and the ability to hire and retain key and other personnel. We face competition for such personnel, and we believe that risks and uncertainties related to our business may impact our ability to hire and retain key and other personnel, including with respect to the timing and risks associated with research, development and commercialization, the regulatory process, our available and anticipated cash resources, the reduction of our workforce initiated in October 2015, subsequent departures of additional employees, threatened or actual litigation involving us and the volatility of our stock price. If we do not hire a permanent Chief Executive Officer or Chief Financial Officer in the near future, or we lose the services of any principal member of our management or scientific staff or other personnel, particularly our executive officers, or a combination of different key employees, our operations, ability to generate or raise additional capital, and our business in general may be adversely impacted.

We may incur substantial liabilities for any product liability claims or otherwise as a drug product manufacturer.

We develop, test, manufacture and expect to commercialize drugs for use by humans. We face an inherent risk of product liability exposure related to the testing of our drug candidates in clinical trials, and face an even greater risk with the commercialization of BELVIQ as well as any other drug that may be approved for marketing. In addition, under the marketing and supply agreement with Eisai, Arena GmbH and Eisai will, in general, share equally in losses resulting from third-party product liability claims, with certain limited exceptions.

Whether or not we are ultimately successful in any product liability or related litigation, such litigation would consume substantial amounts of our financial and managerial resources, and might result in adverse publicity, all of which would impair our business. In addition, damages awarded in a product liability action could be substantial and

could have a negative impact on our financial condition.

An individual may bring a liability claim against us if one of our drugs or drug candidates causes, or merely appears to have caused, an injury. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for our drug;

- injury to our reputation;
- increased difficulty to attract, or withdrawal of, clinical trial subjects;
- costs of related litigation;
- substantial monetary awards to subjects or other claimants;
- loss of revenues; and
- the inability to commercialize our drug candidates.

We will have limited product liability insurance that covers our clinical trials and products. We may not be able to maintain or obtain insurance coverage at a reasonable cost, and we may not have insurance coverage that will be adequate to satisfy any liability that may arise, which could have an adverse effect on our results of operations and financial condition.

We expect that Arena GmbH will, from time to time, manufacture BELVIQ for commercialization and lorcaserin and other drug candidates for clinical trials or other studies and potentially commercialization. Arena GmbH will also, from time to time, manufacture certain drug products for other companies. Arena GmbH is subject to liability for non-performance, product recalls and breaches of the agreements with our collaborators and other third parties.

We have significant contractual obligations, which may adversely affect our cash flow, cash position and stock price.

We have long-term leases on real properties and other contractual obligations. In addition, under our marketing and supply agreement with Eisai, we are obligated to pay 10% of the required portion of the ongoing CVOT, and to share costs for the non-required portion of the CVOT and any future clinical studies in territories outside the United States. If we are unable to generate cash from operations sufficient to meet our financial obligations, we will need to obtain additional funds from other sources, which may include one or more financings. However, we may be unable to obtain sufficient additional funds when we need them on favorable terms or at all. The sale of equity or convertible debt securities or other financing transaction in the future may be dilutive to our stockholders, and some financing arrangements may require us to enter into covenants that would further restrict certain business activities or our ability to incur additional indebtedness or conduct other financing transactions, and may contain other terms that are not favorable to our stockholders or us.

Also, if we are unable to generate cash from operations or obtain additional funds from other sources sufficient to meet our contractual obligations, or we need to use existing cash to fund our contractual obligations, we may have to delay or curtail some or all of our research, development and commercialization programs, sell or license some or all of our assets on terms that you or others may view as unfavorable, or default under our agreements. Our contractual obligations could have significant additional negative consequences, including, without limitation:

- increasing our vulnerability to general adverse economic conditions;
- limiting our ability to obtain additional funds;
- placing us at a possible competitive disadvantage to less leveraged competitors and competitors that have better access to capital resources; and
- litigation or other disagreements.

We may be subject, directly or indirectly, to federal and state healthcare laws, including but not limited to fraud and abuse and false claims laws. If we are unable to comply, or have not fully complied, with such laws, we could face substantial penalties and prosecution.

In the United States, drug manufacturers and marketers are subject to various state and federal fraud and abuse laws, including, without limitation, the Federal Anti-Kickback Statute and Federal False Claims Act. There are similar laws in other countries. These laws may impact, among other things, the research, manufacturing, sales, marketing and education programs for our drugs.

The Federal Anti-Kickback Statute prohibits persons and entities from knowingly and willingly soliciting, offering, receiving or providing any remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual, or the purchase, lease, order or the furnishing or arranging for, a good, item, facility or service, for which payment may be made, in whole or in part, under a federal healthcare program such as the Medicare and Medicaid programs. Several courts have interpreted the statute’s intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the statute has been violated. The Federal Anti-Kickback Statute is broad and, despite a series of narrow statutory exceptions and

regulatory safe harbors, prohibits many arrangements and practices that are lawful in businesses outside of the healthcare industry. Moreover, the ACA, among other things, amended the

intent requirement of the Federal Anti-Kickback Statute and certain criminal healthcare fraud statutes. A person or entity no longer needs to have actual knowledge of these statutes or specific intent to violate them. The ACA also provides that the government may assert that a claim including items or services resulting from a violation of the Federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the Federal Civil False Claims Act. Many states have also adopted laws similar to the Federal Anti-Kickback Statute, some of which apply to the referral of patients for healthcare items or services reimbursed by any source, not only the Medicare and Medicaid programs.

The Federal Civil False Claims Act prohibits, among other things, persons or entities from knowingly presenting, or causing to be presented, a false claim to, or the knowing use of false statements to obtain payment from the federal government. Suits filed under the Federal Civil False Claims Act can be brought by any individual on behalf of the government, known as "qui tam" actions, and such individuals, commonly known as "whistleblowers," may share in any amounts paid by the entity to the government in fines or settlement. The filing of qui tam actions has caused a number of pharmaceutical, medical device and other healthcare companies to have to defend a Federal Civil False Claims Act action. When an entity is determined to have violated the Federal Civil False Claims Act, it may be required to pay up to three times the actual damages sustained by the government, plus civil penalties for each separate false claim, in addition to other penalties that may apply. Various states have also enacted laws modeled after the Federal Civil False Claims Act, some of which are broader in scope and may apply regardless of payer.

The Federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created federal criminal statutes that prohibit, among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payers, knowingly and willfully embezzling or stealing from a healthcare benefit program, willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Additionally, the civil monetary penalties statute imposes penalties against any person or entity that, among other things, is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent.

The Federal Physician Payment Sunshine Act, created under the ACA, and its implementing regulations requires certain manufacturers of drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the US Department of Health and Human Services, or HHS, information related to payments or other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members.

We may be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and their respective implementing regulations, impose specified requirements relating to the privacy, security and transmission of individually identifiable health information.

Additionally, the Drug Supply Chain Security Act imposes new obligations on manufacturers of pharmaceutical products, among others, related to product tracking and tracing. Among the requirements, manufacturers will be required to provide certain information regarding the drug product to individuals and entities to which product ownership is transferred, label drug product with a product identifier, and keep certain records regarding the drug product. The transfer of information to subsequent product owners by manufacturers will eventually be required to be done electronically. Manufacturers will also be required to verify that purchasers of the manufacturers' products are appropriately licensed. Further, manufacturers will have drug product investigation, quarantine, disposition, and notification responsibilities related to counterfeit, diverted, stolen, and intentionally adulterated products, as well as products that are the subject of fraudulent transactions or which are otherwise unfit for distribution such that they would be reasonably likely to result in serious health consequences or death.

We are unable to predict whether we could be subject to actions under any of these fraud and abuse or other laws, or the impact of such actions. If we are found to be in violation of any of the laws described above and other applicable state and federal fraud and abuse laws, we may be subject to penalties, including civil, criminal and/or administrative

penalties, damages, fines, individual imprisonment, disgorgement, possible exclusion from government healthcare reimbursement programs and the curtailment or restructuring of our operations, all of which could have a material adverse effect on our business and results of operations.

We may not be able to effectively integrate, manage or maintain our international operations, and such difficulty could adversely affect our business operations, financial condition, results of operations and stock price.

The headquarters of our operations outside of the United States is in Switzerland. Activities conducted at this location include manufacturing, quality control, quality assurance, development of manufacturing processes, qualifying suppliers and otherwise managing aspects of the supply chain, regulatory compliance, distribution of finished products, alliance management, and strategic planning and development. From time to time, we also have drug candidates in clinical trials outside of the United States. There are significant risks associated with foreign operations, including, but not limited to, compliance with local laws and regulations, the protection of our intellectual property, the ability to integrate our corporate culture with local customs and cultures, the distraction to our management, foreign currency exchange rates and the impact of shifts in the United States and local economies on those rates, and integration of our policies and procedures, including disclosure controls and procedures and internal control over financial reporting, with our international operations.

With respect to local laws and regulations, the European Union, Switzerland and certain other foreign territories have restrictions on the transfer, use and maintenance of certain personal data, including providing that transfers of personal data outside of their territories may only take place if the country to which the personal data is transferred ensures an "adequate" level of privacy protection. The European Commission has previously found that the United States did not provide adequate levels of protection. To help facilitate the proper transfer of such personal data to the United States (and other countries that are deemed to not provide adequate data protections), the United States and the European Union and Switzerland established safe harbors that allowed US companies to self-certify compliance with the European data protection law standards. We joined both of these safe harbors. In October 2015, the European Court of Justice invalidated the United States - European Union safe harbor, and Switzerland followed suit shortly thereafter. The United States and the European Union are said to be working to establish a new safe harbor, but, in the meantime, we are evaluating alternative means to comply with European data protection laws. There is no assurance that a new, workable safe harbor will be established or we will be successful in our efforts to establish alternative means to comply with European data protection requirements. Any restrictions on our data transfers may negatively impact our ability and increase our costs to maintain international operations, including our Swiss manufacturing facility and clinical trials and other studies.

In October 2015, we initiated cost control measures to reduce our expenditures, including reductions at our Swiss manufacturing facility. Such reductions may increase risks related to our international operations.

We use biological materials, hazardous materials, chemicals and radioactive compounds.

Our research, development and manufacturing activities involve the use of potentially harmful biological materials, as well as materials, chemicals and various radioactive compounds that could be hazardous to human health and safety or the environment. These materials and various wastes resulting from their use are stored at our facility pending ultimate use and disposal. We cannot completely eliminate the risk of contamination, which could cause:

- interruption of our research, development or manufacturing efforts;
- injury to our employees and others;
- environmental damage resulting in costly clean up; and
- liabilities under domestic or foreign laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products.

In such an event, we may be held liable for any resulting damages, and any such liability could exceed our resources. Although we carry insurance in amounts and type that we consider commercially reasonable, we cannot be certain that the coverage or coverage limits of our insurance policies will be adequate, and we do not have insurance coverage for losses relating to an interruption of our research and development efforts caused by contamination.

Our business and operations might be adversely affected by business disruptions and security breaches, including any cybersecurity incidents.

Our US operations, including laboratories, offices and a chemical development facility, are located in the same business park in San Diego. We also have a drug product manufacturing facility in Zofingen, Switzerland, and we expect that, at least for the near-term, this facility will be the sole location for the manufacturing of BELVIQ finished drug product. We depend on our facilities and on collaborators, contractors and vendors for the continued operation of

our business, some of whom are located in Europe and Asia. Natural disasters or other catastrophic events, including interruptions in the supply of natural resources, political and governmental changes, disruption in transportation networks or delivery services, severe weather conditions, wildfires and other fires, explosions, actions of animal rights activists, terrorist attacks, earthquakes and wars could disrupt our operations or those of our collaborators, contractors and vendors.

We depend on the efficient and uninterrupted operation of our computer and communications systems, which we use for, among other things, sensitive company data, including our financial data, intellectual property and other proprietary business information. We maintain the information technology, or IT, infrastructure for our San Diego campus and our manufacturing facility in Switzerland.

While certain of our operations have business continuity and disaster recovery plans and other security measures intended to prevent and minimize the impact of IT-related interruptions, our IT infrastructure and the IT infrastructure of our current and any future collaborators, contractors and vendors are vulnerable to damage from cyberattacks, computer viruses, unauthorized access, electrical failures and natural disasters or other catastrophic events. We could experience failures in our information systems and computer servers, which could result in an interruption of our normal business operations and require substantial expenditure of financial and administrative resources to remedy. System failures, accidents or security breaches can cause interruptions in our operations and can result in a material disruption of our research and development programs, manufacturing or commercialization activities and other business operations. The loss of data from completed or future studies or clinical trials could result in delays in our research, development or regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Similarly, we rely on third parties to supply materials for the manufacture of BELVIQ and our drug candidates, conduct studies and clinical trials of our drug candidates and warehouse, market and distribute BELVIQ, and similar events relating to their computer systems could also have a material adverse effect on our business. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liabilities and the development of any of our other drug candidates and the commercialization of BELVIQ could be delayed or otherwise adversely affected.

Even though we believe we carry commercially reasonable business interruption and liability insurance, and our contractors may carry liability insurance that protect us in certain events, we might suffer losses as a result of business interruptions that exceed the coverage available under our and our contractors' insurance policies or for which we or our contractors do not have coverage. For example, we are not insured against a terrorist attack. Any natural disaster or catastrophic event could have a significant negative impact on our operations and financial results. Moreover, any such event could delay our research and development programs and adversely affect, which may include stopping, our commercial production.

We and certain of our current and former employees and directors have been named as defendants in litigation that could result in substantial costs and divert management's attention.

Beginning in September 2010, a number of lawsuits were filed against us and certain of our employees and directors on behalf of certain purchasers of our common stock. The lawsuits in general include allegations that we and certain of our employees and directors violated laws by making materially false and misleading statements regarding our BELVIQ trials, thereby artificially inflating the price of our common stock. The plaintiffs are seeking unspecified monetary damages and other relief.

There is no guarantee that we will be successful in defending these lawsuits. Also, our insurance coverage may be insufficient, our assets may be insufficient to cover any amounts that exceed our insurance coverage, and we may have to pay damage awards or otherwise may enter into settlement arrangements in connection with such claims. A settlement of any of these lawsuits could involve the issuance of common stock or other equity, which may dilute your ownership interest. Any payments or settlement arrangements could have material adverse effects on our business, operating results, financial condition or your ownership interest. Even if the plaintiffs' claims are not successful, this litigation could result in substantial costs and significantly and adversely impact our reputation and divert management's attention and resources, which could have a material adverse effect on our business, operating results or financial condition. In addition, such lawsuits may make it more difficult to finance our operations, obtain certain types of insurance (including directors' and officers' liability insurance), and attract and retain qualified executive officers, other employees and directors.

Our executive officers and directors may sell shares of their stock, and these sales could adversely affect our stock price.

Sales of our stock by our executive officers and directors, or the perception that such sales may occur, could adversely affect the market price of our stock. Our executive officers and directors may sell stock in the future, either as part, or

outside, of trading plans under Rule 10b5-1 of the US Securities and Exchange Commission, or SEC.

Negative US and global economic conditions may pose challenges to our business strategy, which relies on funding from collaborators or the financial markets, and creates other financial risks for us.

Negative conditions in the US or global economy, including financial markets, may adversely affect our business and the business of our current and prospective collaborators, distributors and licensees, which we sometimes refer to generally as our collaborators, and others with which we do or may conduct business. The duration and severity of these conditions is uncertain. If negative economic conditions persist or worsen, we may be unable to secure funding to sustain our operations or to find

suitable collaborators to advance our internal programs, even if we achieve positive results from our research and development or business development efforts. Such negative conditions could also impact commercialization of BELVIQ or any other drugs we develop as well as our financial condition.

From time to time, we may maintain a portfolio of investments in marketable debt securities, which are recorded at fair value. Although we have established investment guidelines relative to diversification and maturity with the objectives of maintaining safety of principal and liquidity, we rely on credit rating agencies to help evaluate the riskiness of investments, and such agencies may not accurately predict such risk. In addition, such agencies may reduce the credit quality of our individual holdings, which could adversely affect their value. Lower credit quality and other market events, such as changes in interest rates and further deterioration in the credit markets, may have an adverse effect on the fair value of our investment holdings and cash position.

Currency fluctuations may negatively affect our financial condition.

We primarily spend and generate cash in US dollars, and present our consolidated financial statements in US dollars. However, a portion of our expected and potential payments and receipts under our agreements are in foreign currencies, including Swiss francs. For example, payments and receipts under our agreements with Siegfried are required to be paid in Swiss francs. A fluctuation of the exchange rates of foreign currencies versus the US dollar may, thus, adversely affect our financial results, including cash balances, expenses and revenues. We may in the future enter into hedging transactions to try to reduce our foreign currency exposure, but there is no assurance that such transactions will occur or be successful.

Laws, rules and regulations relating to public companies may be costly and impact our ability to attract and retain directors and executive officers; our disclosure controls and procedures and our internal control over financial reporting may not prevent potential errors and fraud

Laws and regulations affecting public companies, including rules adopted by the SEC and by NASDAQ, as well as the laws and regulations of foreign governments, may result in increased costs to us, particularly as we continue to develop the required capabilities in the United States and abroad to commercialize our products. These laws, rules and regulations could make it more difficult or costly for us to obtain certain types of insurance, including directors' and officers' liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, on our board committees or as executive officers. We cannot estimate accurately the amount or timing of additional costs we may incur to respond to these laws, rules and regulations.

Our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all potential errors and fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. There are inherent limitations in all control systems, and no system of controls can provide absolute assurance that all control issues and instances of fraud, if any, or misstatements due to error, if any, within the company have been detected. While we believe that our disclosure controls and procedures and internal control over financial reporting are and have been effective at the reasonable assurance level, we intend to continue to examine and refine our disclosure controls and procedures and internal control over financial reporting and to monitor ongoing developments in these areas.

Risks Relating to Our Intellectual Property

Our success is dependent on intellectual property rights held by us and third parties and our interest in these rights is complex and uncertain.

Our success will depend on our own and on current or future collaborators' abilities to obtain, secure and defend patents. In particular, the patents directed to BELVIQ and our drug candidates are important to commercializing drugs. We have numerous US and foreign patent applications pending for our technologies. There is no assurance that any of our patent applications will issue, or that any of the patents will be enforceable or will cover a drug or other commercially significant technology or method, or that the patents will be held to be valid for their expected terms. The procedures for obtaining a patent in the United States and in most foreign countries are complex. These procedures require an analysis of the scientific technology related to the invention and many sophisticated legal issues. Obtaining patent rights outside the United States often requires the translation of highly technical documents and an

improper translation may lead to the loss of, or otherwise jeopardize, the patent protection of our inventions. Ensuring adequate quality of translators and foreign patent attorneys is often very challenging. Consequently, the process for having our pending patent applications issue as patents will be difficult, complex and time consuming. Our patent position is very uncertain and we do not know when, or if, we will obtain additional patents for our technologies, or if the scope of the patents obtained will be sufficient to protect our

drugs, or be considered sufficient by parties reviewing our patent positions pursuant to a potential marketing, licensing or financing transaction.

In addition, other entities may challenge the validity or enforceability of our patents and patent applications in litigation or administrative proceedings. Even the issuance of a patent is not conclusive as to its validity or enforceability. We cannot make assurances as to how much protection, if any, will be given to our patents if we attempt to enforce them or they are challenged. It is possible that a competitor or a generic pharmaceutical provider may successfully challenge our patents and those challenges may result in reduction or elimination of our patents' coverage.

We also rely on confidentiality agreements and trade secrets to protect our technologies. However, such information is difficult to protect. We require our employees to contractually agree not to improperly use our confidential information or disclose it to others, but we may be unable to determine if our employees have conformed or will conform to their legal obligations under these agreements. We also enter into confidentiality agreements with prospective collaborators, collaborators, service providers and consultants, but we may not be able to adequately protect our trade secrets or other proprietary information in the event of any unauthorized use or disclosure or the lawful development by others of this information. Many of our employees and consultants were, and many of them may currently be, parties to confidentiality agreements with other pharmaceutical and biotechnology companies, and the use of our technologies could violate these agreements. In addition, third parties may independently discover our trade secrets or proprietary information.

Some of our academic institution licensors, research collaborators and scientific advisors have rights to publish data and information to which we have rights. We generally seek to prevent our collaborators from disclosing scientific discoveries before we have the opportunity to file patent applications on such discoveries. In some of our collaborations, we do not control our collaborators' ability to disclose their own discoveries under the collaboration and in some of our academic collaborations we are limited to relatively short periods to review a proposed publication and file a patent application. If we cannot maintain the confidentiality of our technologies and other confidential information in connection with our collaborations, our ability to receive patent protection or protect our proprietary information will be impaired.

We believe that the United States is by far the largest single market for pharmaceuticals in the world. Because of the critical nature of patent rights to our industry, changes in US patent laws could have a profound effect on our future profits, if any. It is unknown which, if any, patent laws will change, how changes to the patent laws will ultimately be enforced by the courts and the impact on our business. For example, in September 2011, the America Invents Act was signed into US law, which changes include, among others, the awarding of a patent to the first inventor to file a patent as opposed to the first inventor to make an invention and the creation of new administrative procedures for challenging US patents. It may be several years before the impact of the America Invents Act on patent law is understood, and we cannot predict with certainty whether or to what extent the changes may impair our business.

A dispute regarding the infringement or misappropriation of our proprietary rights or the proprietary rights of others could be costly and result in delays or termination of our future research, development, manufacturing and sales activities.

Our commercial success depends upon our ability to develop and manufacture our drugs and drug candidates, market and sell drugs, and conduct our research and development activities without infringing or misappropriating the proprietary rights of others. There are many patents and patent applications filed, and that may be filed, by others relating to drug discovery and development programs that could be determined to be similar, identical or superior to ours or our licensors or collaborators. We may be exposed to future litigation by others based on claims that our drugs, drug candidates, technologies or activities infringe the intellectual property rights of others. Numerous US and foreign issued patents and pending patent applications owned by others exist in the area of G protein-coupled receptors, or GPCRs, including some which purport to allow the patent holder to control the use of all drugs that modulate a particular drug target or GPCR, regardless of whether the infringing drug bears any structural resemblance to a chemical compound known to the patent holder at the time of patent filing. Numerous US and foreign issued patents and pending patent applications owned by others also exist in the therapeutic areas in, and for the therapeutic targets for, which we are developing drugs. There are also numerous issued patents and patent applications to chemical

compounds or synthetic processes that may be necessary or useful to use in our research, development, manufacturing or commercialization activities. These could materially affect our ability to develop our drug candidates or manufacture, import or sell drugs, and our activities, or those of our licensors or collaborators, could be determined to infringe these patents. Because patent applications can take many years to issue, there may be currently pending applications, unknown to us, which may later result in issued patents that our drugs, drug candidates or technologies may infringe. There also may be existing patents, of which we are not aware, that our drug candidates or technologies may infringe. Further, there may be issued patents or pending patent applications in fields relevant to our business, of which we are or may become aware, that we believe (i) are invalid, unenforceable, or we do not infringe; (ii) relate to immaterial portions of our overall drug discovery, development, manufacturing and commercialization efforts; or (iii) in the case of pending patent applications, the resulting patent would not

be granted or, if granted, would not likely be enforced in a manner that would materially impact such efforts. We cannot assure you that others holding any of these patents or patent applications will not assert infringement claims against us for damages or seek to enjoin our activities. We also cannot assure you that, in the event of litigation, we will be able to successfully assert any belief we may have as to non-infringement, unenforceability, invalidity or immateriality, or that any infringement claims will be resolved in our favor.

In addition, others may infringe or misappropriate our proprietary rights, and we may have to institute costly legal action to protect our intellectual property rights. We may not be able to afford the costs of enforcing or defending our intellectual property rights against others.

There could be significant litigation and other administrative proceedings in our industry that affect us regarding patent and other intellectual property rights. Any legal action or administrative action against us, or our collaborators, claiming damages or seeking to enjoin commercial activities relating to our drug discovery, development, manufacturing and commercialization activities could:

- require us, or our collaborators, to obtain a license to continue to use, manufacture or market the affected drugs, methods or processes, which may not be available on commercially reasonable terms, if at all;
- prevent us from importing, making, using, selling or offering to sell the subject matter claimed in patents held by others and subject us to potential liability for damages;
- consume a substantial portion of our managerial, scientific and financial resources; or
- be costly, regardless of the outcome.

Furthermore, because of the substantial amount of pre-trial document and witness discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the trading price of our common stock.

We are aware of third-party patents, as well as third-party patent applications, that could adversely affect the potential commercialization of APD334. For example, we are aware of a third-party patent, as well as third-party patent applications, with broad claims to administering an $S1P_1$ receptor agonist by starting with a lower dose and then increasing to a higher, standard daily dose. While we do not believe that any such claims that would cover the potential commercialization of APD334 are valid and enforceable, we may be incorrect in this belief. In addition, other patents may issue from third-party patent applications with respect to certain dosing regimens, which could also adversely affect the potential commercialization of APD334, if APD334 is approved with a specific dosing regimen. We are also aware of third-party patent applications with claims to broad generic structural formulas, which claims if issued in their broadest form could adversely affect the potential commercialization of APD334.

We have been contacted from time to time by third parties regarding their intellectual property rights, sometimes asserting that we may need a license to use their technologies. For example, a third party has communicated that it believes its issued US patents include patent claims that cover BELVIQ or its use. We do not believe such patent claims are valid or, even if they were held valid, that they cover BELVIQ or its use. If we fail to obtain any required licenses or make any necessary changes to our technologies, we may become involved in expensive and time-consuming litigation or we may be unable to develop or commercialize some or all of our drugs or drug candidates.

We cannot protect our intellectual property rights throughout the world.

Filing, prosecuting, defending and enforcing patents on all of our drug discovery technologies and all of our potential drug candidates throughout the world would be prohibitively expensive. Competitors may use our technologies to develop their own drugs in jurisdictions where we have not obtained patent protection. These drugs may compete with our drugs, if any, and may not be covered by any of our patent claims or other intellectual property rights. The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. Many countries, including certain countries in Europe, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties (for example, the patent owner has failed to “work” the

invention in that country or the third party has patented improvements). In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of the patent. Compulsory licensing of life-saving drugs is also becoming increasingly popular in developing countries either through direct legislation or international initiatives. Such compulsory licenses could be extended to include some of our drug

candidates, which could limit our potential revenue opportunities. Moreover, the legal systems of certain countries, particularly certain developing countries, do not favor the aggressive enforcement of patents and other intellectual property protection, particularly those relating to biotechnology and/or pharmaceuticals, which makes it difficult for us to stop the infringement of our patents. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business.

Risks Relating to Our Securities

Our stock price will likely be volatile, and your investment in our stock could decline in value.

Our stock price has fluctuated historically. From January 1, 2014, to February 24, 2016, the market price of our stock was as low as $1.30 per share and as high as $7.97 per share.

Very few drug candidates being tested will ultimately receive regulatory approval, and companies in our industry sometimes experience significant volatility in their stock price. Our stock price may fluctuate significantly depending on a variety of factors, including:

- regulatory actions or decisions or legislation affecting lorcaserin, including decisions of regulatory authorities relating to lorcaserin, or other drugs or drug candidates, including those of our competitors;
- the commercial availability and success or failure of BELVIQ (including perceptions of prescription trends or other information) or any of our drug candidates;
- the entrance into, or failure to enter into, a new collaboration or the modification or termination of an existing collaboration or other material transaction;
- the timing and receipt by us of milestone and other payments or failing to achieve and receive the same;
- fluctuation in prescriptions, sales or financial results (including with respect to revenue recognition) or inaccurate sales or cash forecasting;
- accounting restatements and changes;
- supply chain or manufacturing issues;
- discussions or recommendations affecting our drugs or drug candidates by FDA advisory committees or other reviewers of preclinical or clinical data or other information related to lorcaserin, drug candidates or other drugs;
- results or decisions affecting the development or commercialization of BELVIQ or any of our drug candidates, including the results of studies, trials and other analyses;
- the development and implementation of our continuing development and research plans, including outcome studies and other research and development for lorcaserin (including related development programs);
- the timing of the discovery of drug leads and the development of our drug candidates;
- changes in our research and development budget or the research and development budgets of our existing or potential collaborators;
- the introduction, development or withdrawal of drug candidates or drugs by others that target the same diseases and conditions that we or our collaborators target or the introduction of new drug discovery techniques;
- the success, failure or setbacks of our or a perceived competitor’s drugs or drug candidates;
- expenses related to, and the results of, litigation, other disputes and other proceedings;
- financing strategy or decisions;
- developments in intellectual property rights or related announcements; and
- capital market conditions.

We are not able to control many of these factors. If our financial or scientific results in a particular period do not meet stockholders’ or analysts’ expectations, our stock price may decline and such decline could be significant.

Any future equity or debt issuances or other financing transactions may have dilutive or adverse effects on our existing stockholders.

We have been opportunistic in our efforts to obtain cash, and we expect to continue to evaluate various funding alternatives from time to time. We have primarily financed our operations, and we may continue to finance our operations, by issuing and selling our common stock or securities convertible into or exercisable for shares of our common stock. We may issue additional shares of common stock or convertible securities that could dilute your ownership in our company and may include terms that give new investors rights that are superior to yours. Moreover, any issuances by us of equity securities may be at or below the prevailing market price of our common stock and in any event may have a dilutive impact on your ownership interest, which could cause the market price of our common stock to decline. In addition, we may also raise additional funds through the incurrence of debt or other financing transaction, and the investors may have rights superior to your rights in the event we are not successful and are forced to seek the protection of bankruptcy laws or the transaction may otherwise adversely affect our business prospects and existing stockholders.

There are a substantial number of shares of our common stock that may become eligible for future sale in the public market, and the sale of our common stock could cause the market price of our common stock to fall.

As of February 24, 2016, there were outstanding (i) options to purchase 16,121,264 shares of our common stock outstanding under our equity incentive plans at a weighted-average exercise price of $4.80 per share, (ii) 809,799 restricted stock unit awards outstanding under our equity incentive plans, (iii) performance restricted stock unit awards outstanding under our equity incentive plans targeted at 1,660,834 shares (however, the actual number of shares that may be awarded ranges from 0% to 200% of such amount), (iv) 19,253,930 additional shares of common stock remaining issuable under our 2013 Long-Term Incentive Plan, (v) 1,256,585 shares of common stock remaining issuable under our 2009 Employee Stock Purchase Plan, as amended, and (vi) 79,169 shares of common stock remaining issuable under our Deferred Compensation Plan.

Once issued, the shares described above will be available for immediate resale in the public market. The market price of our common stock could decline as a result of such resales due to the increased number of shares available for sale in the market. As of February 24, 2016, there were 242,871,179 shares of our common stock outstanding.

The holders of our common stock and other securities may take actions that are contrary to your interests, including selling their stock.

A small number of stockholders may hold or acquire a significant amount of our outstanding stock. From time to time, there is a large short interest in our stock. These holders of such stock or positions may seek control of us, support transactions that we or you do not believe are favorable, and have interests that are different from yours. In addition, sales of a large number of shares of our stock by these large stockholders or other stockholders within a short period of time could adversely affect our stock price.

We may also be involved in disagreements with the holders of our stock, warrants or other securities in the future. Such disagreements may lead to proxy contests or litigation, which may be expensive and consume management’s time, involve settlements, the terms of which may not be favorable to us, or result in other negative consequences to our business.

Certain of our agreements, provisions in our charter documents, possible future agreements and Delaware law could delay or prevent a change in management or a takeover attempt that you may consider to be in your best interests.

There is a standstill provision in our marketing and supply agreement with Eisai, and we may enter into agreements with similar provisions. In addition, we may in the future adopt a stockholders’ rights agreement, which would cause substantial dilution to any person who attempts to acquire us in a manner or on terms not approved by our board of directors. These provisions or agreements, as well as other provisions in our certificate of incorporation and bylaws and under Delaware law, could delay or prevent the removal of directors and other management and could make more difficult a merger, tender offer or proxy contest involving us that you may consider to be in your best interests. For example, our charter provisions:

- allow our board of directors to issue preferred stock without stockholder approval;
- limit who can call a special meeting of stockholders;
- eliminate stockholder action by written consent; and
- establish advance notice requirements for nomination for election to the board of directors or for proposing matters to be acted upon at stockholders’ meetings.

Item 1B. Unresolved Staff Comments.
None.

Item 2. Properties.

As set forth in the table below, we lease approximately 336,000 square feet of research, development, warehouse and office space located at various addresses in the same business park in San Diego, California and own or lease approximately 153,000 square feet of laboratory, manufacturing, warehouse and office space located in the same business park in Zofingen, Switzerland.

Location	Own/ Lease	Description
6114 Nancy Ridge Drive	Lease with option to purchase	This chemical development facility consists of approximately 40,000 square feet (which includes approximately 18,000 of internal square feet and approximately 22,000 square feet of integrated external space), of which approximately 5,000 square feet is office space. The remaining approximately 35,000 square feet of space is dedicated to process research and scale-up chemistry, the production of intermediates and other compounds for research and development purposes, and the production of active pharmaceutical ingredients to support our clinical trials.
6118 Nancy Ridge Drive	Lease with option to purchase	This facility of approximately 30,000 square feet consists of approximately 50% laboratory space and 50% office space, which is substantially unoccupied.
6122-6124-6126 Nancy Ridge Drive	Lease with option to purchase	This facility of approximately 68,000 square feet consists of approximately 28,500 square feet of laboratory space, 28,500 square feet of office space, 9,000 square feet of unoccupied space and 2,000 square feet of warehouse space.
6138-6150 Nancy Ridge Drive	Lease with option to purchase	This facility of approximately 55,000 square feet consists of approximately 33,000 square feet of laboratory space and 22,000 square feet of office space.
6154 Nancy Ridge Drive	Lease with option to purchase	This facility of approximately 143,000 square feet consists of approximately 131,000 square feet of office space and 12,000 square feet of warehouse space, which is substantially unoccupied.
Zofingen, Switzerland	Own	This facility of approximately 134,000 square feet includes approximately 76,000 square feet we occupy of which 39,000 square feet is manufacturing space, 30,000 square feet is warehouse space and 7,000 square feet is office space. We lease the remaining 58,000 square feet of warehouse space to Siegfried AG, or Siegfried.
Zofingen, Switzerland	Lease	We lease from Siegfried a total of approximately 19,000 square feet, consisting of approximately 11,000 square feet of office space, 5,000 square feet of warehouse space and 3,000 square feet of laboratory space, in various facilities.

We expect these facilities to be sufficient for our needs for at least the near term. We have significantly more space in San Diego than we expect to need for the foreseeable future, and are exploring subleasing some of our space and other options to reduce our expenses.

Item 3. Legal Proceedings.

Beginning on September 20, 2010, a number of complaints were filed in the US District Court for the Southern District of California against us and certain of our current and former employees and directors on behalf of certain purchasers of our common stock. The complaints were brought as purported stockholder class actions, and, in general, include allegations that we and certain of our current and former employees and directors violated federal securities laws by making materially false and misleading statements regarding our BELVIQ program, thereby artificially inflating the price of our common stock. The plaintiffs sought unspecified monetary damages and other relief. On August 8, 2011, the Court consolidated the actions and appointed a lead plaintiff and lead counsel. On November 1, 2011, the lead plaintiff filed a consolidated amended complaint. On March 28, 2013, the Court dismissed the

consolidated amended complaint without prejudice. On May 13, 2013, the lead plaintiff filed a second consolidated amended complaint. On November 5, 2013, the Court dismissed the second consolidated amended complaint without prejudice as to all parties except for Robert E. Hoffman, who was dismissed from the action with prejudice. On November 27, 2013, the lead plaintiff filed a motion for leave to amend the second consolidated amended complaint. On March 20, 2014, the Court denied plaintiff's motion and dismissed the second consolidated amended complaint with prejudice. On April 18, 2014, the lead plaintiff filed a notice of appeal, and on August 27, 2014, the lead plaintiff filed his appellate brief in the US Court of Appeals for the Ninth Circuit. On October 24, 2014, we filed our answering brief in response

to the lead plaintiff's appeal. On December 5, 2014, the lead plaintiff filed his reply brief. Due to the stage of these proceedings, we are not able to predict or reasonably estimate the ultimate outcome or possible losses relating to these claims.

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.

Market information

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

	High	Low
Year ended December 31, 2014		
First Quarter	$7.97	$5.72
Second Quarter	$7.22	$5.76
Third Quarter	$5.95	$3.82
Fourth Quarter	$4.91	$3.26

	High	Low
Year ended December 31, 2015		
First Quarter	$6.28	$3.30
Second Quarter	$4.79	$3.90
Third Quarter	$5.12	$1.86
Fourth Quarter	$2.68	$1.60

Holders

As of February 24, 2016, there were approximately 107 stockholders of record of our common stock, one of which is Cede & Co., a nominee for Depository Trust Company, or DTC. Shares of common stock that are held by financial institutions as nominees for beneficial owners are deposited into participant accounts at DTC, and are considered to be held of record by Cede & Co. as one stockholder.

Dividends

We have never paid cash dividends on our capital stock. We anticipate that we will retain earnings, if any, to support operations and finance the growth and development of our business and, therefore, do not expect to pay cash dividends in the foreseeable future.

Securities authorized for issuance under equity compensation plans

Information on securities authorized for issuance under our equity compensation plans is set forth in Item 12 of Part III of this Annual Report on Form 10-K.

Performance graph

The graph below compares the cumulative five-year total return on our common stock from December 31, 2010, through December 31, 2015, to the cumulative total return over such period for (i) the NASDAQ Composite Index and (ii) the NASDAQ Biotechnology Index. The graph assumes the investment of $100 on December 31, 2010, with the reinvestment of dividends, although dividends have not been declared on our common stock, and is calculated according to the Securities and Exchange Commission's methodology. We caution that the stock price performance shown in the graph may not be indicative of future stock price performance. The graph, including each of the graph lines, was provided by Research Data Group, Inc.

This information, including the graph below, is not deemed to be “soliciting material” or to be “filed” with the Securities and Exchange Commission, or subject to the Securities and Exchange Commission’s proxy rules, other than as provided in such rules, or to the liabilities of Section 18 of the Securities Exchange Act of 1934, and shall not be deemed incorporated by reference into any prior or subsequent filing by us under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent that we specifically incorporate it by reference into any such filing.

Item 6. Selected Financial Data.

The following Selected Financial Data should be read in conjunction with "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Item 8. Financial Statements and Supplementary Data" included below in this Annual Report on Form 10-K.

	Years ended December 31,				
	2015	2014	2013	2012	2011
	(In thousands, except share and per share data)				
Revenues					
Net product sales	$19,726	$15,983	$5,702	$0	$0
Other Eisai collaborative revenue	9,505	18,611	72,416	23,617	6,770
Toll manufacturing	4,250	1,497	2,690	3,817	5,338
Other collaborative revenue	4,845	879	586	153	611
Total revenues	38,326	36,970	81,394	27,587	12,719
Operating Costs and Expenses					
Cost of product sales	8,590	6,369	1,803	0	0
Cost of toll manufacturing	4,585	1,390	4,377	3,671	8,100
Research and development	88,411	100,347	66,468	54,112	58,706
General and administrative	35,966	34,137	31,681	26,226	24,248
Restructuring charges	3,972	0	0	0	3,467
Amortization of intangibles	0	0	0	691	997
Total operating costs and expenses	141,524	142,243	104,329	84,700	95,518
Interest and other income (expense), net	(4,781)	44,765	3,500	(28,364)	(26,425)
Net loss	(107,979)	(60,508)	(19,435)	(85,477)	(109,224)
Deemed dividends related to beneficial conversion feature of convertible preferred stock	0	0	0	(2,824)	(2,260)
Net loss allocable to common stockholders	$(107,979)	$(60,508)	$(19,435)	$(88,301)	$(111,484)
Net loss per share allocable to common stockholders, basic and diluted	$(0.45)	$(0.28)	$(0.09)	$(0.45)	$(0.80)
Shares used in calculating net loss per share allocable to common stockholders, basic and diluted	240,671,335	219,733,539	218,104,323	196,523,708	139,170,725

	As of December 31,				
	2015	2014	2013	2012	2011
	(In thousands)				
Balance Sheet Data:					
Cash and cash equivalents	$156,184	$163,209	$221,878	$156,091	$57,632
Total assets	256,792	276,385	339,807	261,206	157,129
Total deferred revenues	109,042	108,302	139,190	62,735	44,682
Total lease financing obligations	68,245	70,737	72,794	74,458	75,771
Total derivative liabilities	0	474	4,892	15,042	1,617
Total notes payable	0	0	0	0	14,698
Accumulated deficit	(1,376,220)	(1,268,241)	(1,207,733)	(1,188,298)	(1,079,751)
Total stockholders' equity	53,542	47,345	91,857	98,639	10,562

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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 in conjunction with "Item 8. Financial Statements and Supplementary Data" included below in this Annual Report on Form 10-K, or Annual Report. Operating results are not necessarily indicative of results that may occur in future periods.

This discussion and analysis contains forward-looking statements that involve a number of risks, uncertainties and assumptions. Actual events or results may differ materially from our expectations. Important factors that could cause actual results to differ materially from those stated or implied by our forward-looking statements include, but are not limited to, those set forth in "Item 1A. Risk Factors" in this Annual Report. All forward-looking statements included in this Annual Report are based on information available to us as of the time we file this Annual Report and, except as required by law, we undertake no obligation to update publicly or revise any forward-looking statements.

OVERVIEW

We are a biopharmaceutical company focused on discovering, developing and commercializing novel, small molecule drugs that target G protein-coupled receptors, or GPCRs. To date, our efforts have resulted in one approved drug, lorcaserin (which is marketed for weight management under the brand name "BELVIQ"), and a pipeline of compounds in various stages of research, development and clinical trials, all of which were internally discovered by our scientists. Our US operations are located in San Diego, California, and our operations outside of the United States, including our commercial manufacturing facility, are located in Zofingen, Switzerland.

We intend to focus our near-term activities and resources primarily to:

- Advance our proprietary clinical programs:
  - APD334 - a modulator of the sphingosine 1-phosphate subtype 1, or $S1P_1$, receptor - including our ongoing Phase 2 clinical trial for ulcerative colitis, and potentially exploring additional indications beyond inflammatory bowel disease
  - Ralinepag - an agonist of the prostacyclin receptor - including our ongoing Phase 2 clinical trial for pulmonary arterial hypertension, or PAH
  - APD371 - an agonist of the cannabinoid-2, or CB_2, receptor - through our ongoing Phase 1 multiple-ascending dose clinical trial
- Pursue strategic collaborations for certain clinical and pre-clinical programs
- Discover and develop additional pre-clinical drug candidates
- Support Eisai Inc. and Eisai Co., Ltd. (collectively, Eisai) and our other collaborators in their BELVIQ efforts, including their work to:
  - Advance the major adverse cardiovascular events, or MACE, diabetes conversion, MACE plus and other endpoints of the ongoing BELVIQ cardiovascular outcomes trial, or CVOT (also known as the CAMELLIA study)
  - Obtain regulatory approval (initially in the United States) for BELVIQ XR, a once-daily formulation of BELVIQ
  - Obtain regulatory approval in additional territories

In general, developing drugs and obtaining marketing approval is a long, uncertain and expensive process, and our ability to achieve our goals, including supporting our collaborators' efforts, depends on numerous factors, many of which we do not control. To date, we have generated limited revenues from sales of BELVIQ and other sources. We expect to continue to incur substantial net losses for at least the short term as we advance our clinical development programs, support Eisai and our other collaborators in their efforts with respect to BELVIQ, continue our research efforts to discover and develop additional drug candidates, and manufacture BELVIQ for commercial sale and studies.

In October 2015, we committed to a reduction in our US workforce of approximately 35%, or a total of approximately 80 employees, which we substantially completed by December 31, 2015. In November 2015, we committed to a reduction in our Swiss workforce of approximately 17%, or a total of approximately 14 employees, which we plan to substantially complete by the end of the second quarter of 2016. As a result of these workforce reductions, we recorded a charge in the fourth quarter of 2015 for termination costs, including severance and other benefits, of $4.0 million. We estimate that the reduction will decrease annualized cash expenditures for personnel by approximately $13.0 million. We plan to continue implementing additional cost

control measures to further reduce our expenditures. We will continue working with Eisai on the CAMELLIA study and seeking regulatory approval of BELVIQ XR, but we do not intend to currently advance the evaluation of BELVIQ in combination with phentermine or for smoking cessation.

We expect our cash used in operations to be slightly lower in 2016 compared to 2015 due to cost savings from the workforce reduction and by continuing to implement additional cost control measures. Even with these initiatives, we will need to receive additional funds under our existing collaborative agreements, under any new collaborative agreements we may enter into in the future (including for one or more of our drug candidates or programs), or by raising additional funds through equity, debt or other financings. We will continue to monitor and evaluate the level of our expenditures, and may further adjust our expenditures based upon a variety of factors, such as our available cash, ability to obtain additional cash through collaborations and other sources, the results of our development and research programs, the timing and costs related to our clinical trials, nonclinical studies and regulatory decisions, as well as the economic environment.

We have obtained cash and funded our operations to date primarily through the sale of common and preferred stock, the issuance of debt and related financial instruments, payments from collaborators and customers and sale leaseback transactions. From our inception through December 31, 2015, we have generated $2.0 billion in cash from these sources, of which $1.3 billion was through sales of equity, $475.8 million was through payments from collaborators and customers, $96.9 million was through the issuance of debt and related financial instruments and $77.1 million was from sale and leaseback transactions. At December 31, 2015, we had $156.2 million in cash and cash equivalents.

See the above “Business” section for a more complete discussion of our business.

RESULTS OF OPERATIONS

We are providing the following summary of our revenues, research and development expenses and general and administrative expenses to supplement the more detailed discussion below. The dollar values in the following tables are in millions.

Revenues

	Years ended December 31,			% change from	% change from
Source of revenue	2015	2014	2013	2014 to 2015	2013 to 2014
Arena's portion of Eisai net product sales	$14.2	$16.0	$5.7	(10.9)%	180.3 %
Amortization of upfront payments from Eisai	7.5	7.6	4.0	(1.2)%	89.1 %
Arena's portion of Ildong's net product sales	5.5	0.0	0.0	— %	— %
Toll manufacturing agreements	4.3	1.5	2.7	184.1 %	(44.4)%
Milestone payment from Ildong	3.0	0.0	0.0	— %	— %
Reimbursement of development expenses and patent and trademark expenses from Eisai	2.0	10.5	2.4	(81.3)%	340.2 %
Other collaborative agreements	1.4	0.5	0.2	183.3 %	126.2 %
Amortization of upfront payment from Ildong	0.4	0.4	0.4	— %	— %
Milestone payments from Eisai	0.0	0.5	66.0	(100.0)%	(99.2)%
Total revenues	$38.3	$37.0	$81.4	3.7 %	(54.6)%

Research and development expenses

	Years ended December 31,			% change from	% change from
Type of expense	2015	2014	2013	2014 to 2015	2013 to 2014
External clinical and preclinical study fees and internal non-commercial manufacturing costs	$34.1	$44.6	$16.4	(23.6)%	172.2 %
Salary and other personnel costs (excluding non-cash share-based compensation)	29.1	30.6	27.7	(4.9)%	10.2 %
Facility and equipment costs	10.0	10.0	10.0	0.1 %	— %
Non-cash share-based compensation	7.6	7.1	4.3	6.5 %	64.8 %
Research supply costs	6.2	5.5	5.6	13.7 %	(1.3)%
Other	1.4	2.5	2.5	(45.3)%	4.5 %
Total research and development expenses	$88.4	$100.3	$66.5	(11.9)%	51.0 %

General and administrative expenses

	Years ended December 31,			% change from	% change from
Type of expense	2015	2014	2013	2014 to 2015	2013 to 2014
Salary and other personnel costs (excluding non-cash share-based compensation)	$14.5	$13.0	$11.4	10.9 %	13.9 %
Legal, accounting and other professional fees	8.0	8.4	7.3	(5.3)%	15.4 %
Non-cash share-based compensation	6.7	6.4	4.7	5.0 %	36.3 %
Facility and equipment costs	5.3	4.2	5.1	25.9 %	(16.5)%
Other	1.5	2.1	3.2	(27.3)%	(34.9)%
Total general and administrative expenses	$36.0	$34.1	$31.7	5.4 %	7.8 %

YEAR ENDED DECEMBER 31, 2015, COMPARED TO YEAR ENDED DECEMBER 31, 2014

Revenues. We recognized revenues of $38.3 million for the year ended December 31, 2015, compared to $37.0 million for the year ended December 31, 2014. This increase was primarily due to (i) an increase of $3.7 million in net product sales of BELVIQ primarily due to sales of BELVIQ in South Korea commencing in February 2015, partially offset by a decrease in net product sales of BELVIQ in the United States, (ii) the $3.0 million milestone payment from Ildong Pharmaceutical Co., Ltd., or Ildong, that we earned in February 2015 for the approval of BELVIQ in South Korea and (iii) an increase of $2.8 million in toll manufacturing revenue. These increases were partially offset by a decrease in revenues of $8.5 million from Eisai for reimbursements of our development expenses and patent and trademark expenses primarily due to the completion of our Phase 2 smoking cessation trial in early 2015 and lower costs related to our once-daily formulation studies which were substantially completed in 2014.

When collaborators pay us before revenues are earned, we record such payments as deferred revenues. At December 31, 2015, we had a total of $109.0 million in deferred revenues. Of such amount, $86.9 million is attributable to upfront payments we received under our collaboration with Eisai, $12.5 million is attributable to product supply of BELVIQ and the remaining amount is primarily attributable to the upfront payments we received under our other collaborative agreements for lorcaserin.

Absent any new collaborations, we expect our 2016 revenues will primarily consist of (i) net product sales of BELVIQ, (ii) amortization of the upfront payments we have received from our collaborators, (iii) toll manufacturing, (iv) milestone payments from our collaborators, and (v) reimbursements from collaborators for development expenses, patent and trademark expenses and research funding.

Revenues from sales of BELVIQ and for milestones that may be achieved in the future are difficult to predict, and our revenues will likely vary from quarter to quarter and year to year. In the short term, we do not expect the amount of BELVIQ sales to increase significantly or to receive the majority (or potentially any) of such milestone payments. We believe that future sales of BELVIQ will depend on, among other factors, the availability and use of BELVIQ, the effectiveness of our collaborators' marketing program and other efforts, competition and reimbursement coverage. We also believe that demand for BELVIQ may fluctuate based on various other outside forces, such as economic changes, national and world events, holidays and seasonal changes. We believe that demand for weight-management products may be lower around certain holidays and in the second half of any particular calendar year, and it is unknown whether, or to the extent by which, marketing programs or other efforts will offset favorably any such outside forces that are negative.

Revenues we generate from sales of BELVIQ depend on net product sales of BELVIQ, which are the gross invoiced sales less certain deductions described in the applicable collaborative agreements. Deductions from gross sales to net product sales may vary from period to period, particularly in the near term, depending on the amount and extent of such deductions, which may include deductions for vouchers, savings cards or other promotions for free or discounted product. In the United States, the majority of all BELVIQ prescriptions utilized vouchers or savings cards.

In addition to revenues from commercialization of BELVIQ in the United States and South Korea, we expect that our revenues in the longer term will be impacted by, among other things, whether and when BELVIQ receives regulatory approval and is commercialized in new territories, reimbursement coverage for BELVIQ, marketing efforts, and the results of the CVOT.

Cost of product sales. Cost of product sales consists primarily of direct and indirect costs related to manufacturing BELVIQ, including, among other costs, salaries, share-based compensation and other personnel costs, machinery depreciation costs and amortization expense related to our manufacturing facility production licenses. We recognized cost of product sales of $8.6 million for the year ended December 31, 2015, compared to $6.4 million for the year ended December 31, 2014.

Cost of toll manufacturing. Cost of toll manufacturing consists of direct and indirect costs associated with manufacturing drug products, primarily for Siegfried AG, or Siegfried, under toll manufacturing agreements, including related salaries, other personnel costs, machinery depreciation costs, amortization expense related to our manufacturing facility production licenses, and material costs. Cost of toll manufacturing increased by $3.2 million to $4.6 million for the year ended December 31, 2015, from $1.4 million for the year ended December 31, 2014, primarily due to including costs of materials for drug products in both the sales price and cost of toll manufacturing

for products manufactured for Siegfried (in previous years materials for drug products were supplied by Siegfried at no cost to us), and to a lesser extent, from a new toll manufacturing agreement that we entered into with a third party in April 2015. We may consider entering into additional toll manufacturing agreements in the future to increase revenues and increase utilization of our drug-product manufacturing facility.

Research and development expenses. Research and development expenses, which account for the majority of our expenses, consist primarily of salaries and other personnel costs, clinical trial costs (including payments to contract research organizations, or CROs), preclinical study fees, manufacturing costs for non-commercial products, costs for the development of

our earlier-stage programs and technologies, research supply costs and facility and equipment costs. We expense research and development costs as they are incurred when these expenditures have no alternative future uses. We generally do not track our earlier-stage, internal research and development expenses by project; rather, we track such expenses by the type of cost incurred.

Research and development expenses decreased by $11.9 million to $88.4 million for the year ended December 31, 2015, from $100.3 million for the year ended December 31, 2014. This decrease was primarily due to a decrease of $10.5 million in external clinical and preclinical study fees and internal non-commercial manufacturing costs, primarily a result of completing the Phase 2 clinical trial evaluating lorcaserin for smoking cessation in 2014 and lower internal, non-commercial manufacturing costs related to BELVIQ XR. This decrease was partially offset by increases related to our Phase 2 programs for APD334 and ralinepag. We expect to incur substantial research and development expenses in 2016, and for the aggregate amount in 2016 to be higher than the amount incurred in 2015, primarily due to our external clinical trial costs. We expect our external clinical costs will be higher in 2016 than in 2015 primarily due to our continuing Phase 2 clinical trials for APD334 and ralinepag, and salaries and other internal expenses will be lower primarily due to our recent workforce reductions.

Included in the $34.1 million of total external clinical and preclinical study fees and internal non-commercial manufacturing costs noted in the table above in this section for the year ended December 31, 2015, were the following:

- $16.2 million related to lorcaserin and non-commercial manufacturing costs,
- $8.7 million related to APD334 and
- $5.1 million related to ralinepag.

Included in the $44.6 million of total external clinical and preclinical study fees and internal non-commercial manufacturing costs noted in the table above in this section for the year ended December 31, 2014, were the following:

- $35.3 million related to lorcaserin and non-commercial manufacturing costs,
- $4.2 million related to APD334 and
- $2.8 million related to ralinepag.

Cumulatively through December 31, 2015, we have recognized (i) external clinical and preclinical study fees of $303.5 million for lorcaserin, $43.8 million for nelotanserin, $16.5 million for ralinepag, $7.3 million for temanogrel, $15.9 million for APD334 and $6.4 million for APD371 and (ii) $48.6 million for non-commercial manufacturing and other development costs for lorcaserin and, to a lesser extent, nelotanserin.

While expenditures on current and future clinical development programs are expected to be substantial, they are subject to many uncertainties, including whether we have adequate funds and develop our drug candidates with one or more collaborators or independently. As a result of such uncertainties, we cannot predict with any significant degree of certainty the duration and completion costs of our research and development projects or whether, when and to what extent we will generate revenues from the commercialization and sale of BELVIQ or any of our drug candidates. The duration and cost of clinical trials may vary significantly over the life of a project as a result of unanticipated events arising during clinical development and a variety of factors, including:

- the nature and number of trials and studies in a clinical program;
- the potential therapeutic indication;
- the number of patients who participate in the trials;
- the number and location of sites included in the trials;
- the rates of patient recruitment, enrollment and withdrawal;
- the duration of patient treatment and follow-up;
- the costs of manufacturing drug candidates; and
- the costs, requirements, timing of, and the ability to secure regulatory approvals.

General and administrative expenses. General and administrative expenses increased by $1.9 million to $36.0 million for the year ended December 31, 2015, from $34.1 million for the year ended December 31, 2014. This increase was primarily due to an increase of $1.5 million in salary and other personnel costs, primarily as a result of accrued

severance costs following the retirement of our Chief Executive Officer in October 2015, and an increase of $1.1 million in facility and equipment costs primarily resulting from increased depreciation costs following our 2014 purchase of the remaining portion of our building in

Switzerland and increased costs for our enterprise resource planning, or ERP, system. These increases were partially offset by a decreases of $0.4 million in legal, accounting and other professional fees and $0.6 million in product liability insurance expense primarily related to a refund we received for a prior year's premium. We expect that our 2016 general and administrative expenses will be lower than in 2015, primarily due to the recent workforce reductions and other cost control initiatives.

Restructuring charges. We recognized $4.0 million of restructuring charges for the year ended December 31, 2015, in connection with employee termination costs, including severance and other benefits, related to the workforce reductions to which we committed in the fourth quarter of 2015, compared to no restructuring charges for the year ended December 31, 2014.

Interest and other income (expense), net. Interest and other income (expense), net, was an expense of $4.8 million for the year ended December 31, 2015, compared to income of $44.8 million for the year ended December 31, 2014. This change of $49.6 million was primarily due to a gain on sale of available-for-sale securities of $49.6 million realized in the year ended December 31, 2014, related to our sale of shares we held in TaiGen Biopharmaceuticals Holding Limited, or TaiGen, and a $3.9 million decrease in non-cash gain on valuation of derivative liabilities, partially offset by $2.0 million in foreign currency transaction gains, net for the year ended December 31, 2015, compared to $2.2 million in foreign currency transaction losses, net for the year ended December 31, 2014.

YEAR ENDED DECEMBER 31, 2014, COMPARED TO YEAR ENDED DECEMBER 31, 2013

Revenues. We recognized revenues of $37.0 million for the year ended December 31, 2014, compared to $81.4 million for the year ended December 31, 2013. This decrease was primarily due to $65.0 million of non-refundable milestone payments from Eisai that we earned in the year ended December 31, 2013, in connection with the final scheduling designation for BELVIQ by the US Drug Enforcement Administration, partially offset by (i) an increase of $10.3 million in net product sales of BELVIQ, (ii) an increase of $8.1 million of reimbursements from Eisai for our development expense and patent and trademark expenses and (iii) an increase of $3.6 million in amortization of upfront payments from Eisai resulting from the $60.0 million upfront payment we received in connection with expanding our collaboration with Eisai in November 2013.

Cost of product sales. We recognized cost of product sales of $6.4 million for the year ended December 31, 2014, compared to $1.8 million for the year ended December 31, 2013.

Cost of toll manufacturing. Cost of toll manufacturing decreased by $3.0 million to $1.4 million for the year ended December 31, 2014, from $4.4 million for the year ended December 31, 2013. This decrease was primarily due to the reduced volume of toll manufacturing performed and a loss provision recorded for this activity for the year ended December 31, 2013.

Research and development expenses. Research and development expenses increased by $33.8 million to $100.3 million for the year ended December 31, 2014, from $66.5 million for the year ended December 31, 2013. This increase was primarily due to increases of (i) $28.2 million in external clinical and preclinical study fees and internal non-commercial manufacturing costs, primarily related to manufacturing costs for non-commercial products, CAMELLIA and the Phase 2 clinical trial evaluating lorcaserin for smoking cessation (ii) $2.9 million in salary and other personnel costs, primarily due to an increase in headcount and (iii) $2.8 million in non-cash share-based compensation expense.

Included in the $44.6 million of total external clinical and preclinical study fees and internal non-commercial manufacturing costs noted in the table above in this section for the year ended December 31, 2014, were the following:

- $35.3 million related to lorcaserin and non-commercial manufacturing costs,
- $4.2 million related to APD334 and
- $2.8 million related to ralinepag.

Included in the $16.4 million of total external clinical and preclinical study fees and internal non-commercial manufacturing costs noted in the table above in this section for the year ended December 31, 2013, were the following:

- $11.7 million related to lorcaserin and non-commercial manufacturing costs,
- $1.9 million related to ralinepag,

- $1.2 million related to APD334 and
- $1.0 million related to APD371.

General and administrative expenses. General and administrative expenses increased by $2.4 million to $34.1 million for the year ended December 31, 2014, from $31.7 million for the year ended December 31, 2013. This increase was primarily

due to increases of $1.7 million in non-cash share-based compensation and $1.6 million in salary and other personnel costs, primarily due to an increase in headcount, partially offset by a $0.9 million decrease in patent and trademark fees.

Interest and other income (expense), net. Interest and other income (expense), net, was income of $44.8 million for the year ended December 31, 2014, compared to income of $3.5 million for the year ended December 31, 2013. This increase of $41.3 million was primarily due to a gain on sale of available-for-sale securities of $49.6 million realized in the year ended December 31, 2014, related to our sale of shares we held in TaiGen, partially offset by a $5.7 million decrease in non-cash gain on valuation of derivative liabilities and $2.2 million in foreign currency transaction losses, net for the year ended December 31, 2014, compared to $0.3 million in foreign currency transaction gains, net for the year ended December 31, 2013.

LIQUIDITY AND CAPITAL RESOURCES

We have accumulated a large deficit since inception that has primarily resulted from the significant research and development expenditures we have made in seeking to identify and develop compounds that could become marketed drugs. As described above, our internally discovered drug, lorcaserin, has been approved for marketing for weight management in the United States and South Korea, under the brand name BELVIQ. To date, we have received lower than anticipated revenues from sales of BELVIQ, and it is difficult to predict the future payments we will receive from commercialization of BELVIQ in the United States, South Korea or in any other territory in which BELVIQ may be approved for marketing. We expect to continue to incur substantial losses for at least the short term.

Short term

At December 31, 2015, we had $156.2 million in cash and cash equivalents, which does not reflect the $7.5 million upfront payment, less withholding taxes that are refundable to us, that we received in January 2016 under our recently established collaboration with Boehringer Ingelheim International GmbH, or Boehringer Ingelheim. We believe our cash and cash equivalents will be sufficient to fund our operations for at least the next 12 months. We expect that our short-term operating expenses will be substantial as we continue to advance certain of our research and development programs, conduct studies of lorcaserin and operate our manufacturing facility.

In addition to payments expected from Eisai and Ildong for purchases of product supply of BELVIQ, other potential sources of liquidity in the short term include (i) milestone and other payments from collaborators, (ii) entering into new collaborative, licensing or commercial agreements for one or more of our drug candidates or programs, (iii) the sale or lease of our facilities or other assets and (iv) sale of equity, issuance of debt or other transactions.

Eisai is commercializing BELVIQ in the United States, and, subject to applicable regulatory approval, we expect Eisai to commercialize lorcaserin in additional territories under our collaboration. In addition, Ildong is commercializing BELVIQ in South Korea. Our collaborators have filed regulatory applications for approval of lorcaserin in a number of territories outside of the United States and South Korea, but there is no assurance of whether, where or when lorcaserin will be approved for marketing in any of such territories or with respect to filing any additional applications. Therefore, we expect that all or most of the revenues for sales of BELVIQ in the short term will be from commercialization of BELVIQ in the United States and South Korea.

We manufacture BELVIQ at our facility in Switzerland, and sell BELVIQ to Eisai for Eisai’s commercialization for a purchase price that increases with increasing sales. We are also eligible to receive regulatory and development milestone payments and purchase price adjustment payments. In the short term, we do not expect to receive the majority (or potentially any) of such milestone payments or purchase price adjustment payments, the amount of BELVIQ sales to increase significantly or the purchase price percentages to increase beyond the starting percentage in any territory.

The amount that Eisai pays us for lorcaserin product supply is based on Eisai’s estimated price at the time the order is shipped, which is Eisai’s estimate of the purchase price, and is subject to change on April 1 and October 1 of each year. The estimated purchase price paid to us for product that Eisai sold to their distributors is compared to the actual purchase price of such product, and the difference is either refunded back to Eisai (for overpayments) or paid to us (for underpayments). The actual purchase price for BELVIQ that Eisai has sold has generally been lower than the estimated purchase price that Eisai has paid us for such product. Subsequent to the end of Eisai’s fiscal year that ends March 31, we refund to Eisai the portion of these excess payments related to sales made during such fiscal year.

We also manufacture BELVIQ and sell the drug product to Ildong for Ildong's commercialization for a purchase price that increases with increasing sales. For the year ended December 31, 2015, the purchase price to Ildong equaled the required minimum, which exceeded the amounts calculated using the applicable percentages for the applicable tiers of Ildong's annual net product sales. In the short term, we do not expect the purchase price to increase beyond the required minimum.

As part of the US approval of BELVIQ, the US Food and Drug Administration, or FDA, is requiring the evaluation of the effect of long-term treatment with BELVIQ on the incidence of MACE in overweight and obese patients with cardiovascular disease or multiple cardiovascular risk factors (which is the FDA-required portion of CAMELLIA), as well as the conduct of postmarketing studies to assess the safety and efficacy of BELVIQ for weight management in obese pediatric and adolescent patients. With respect to such studies, which we expect will take several years to complete, Eisai and we are responsible for 90% and 10%, respectively, of the cost for the FDA-required portion of the cardiovascular outcomes trial. The FDA-required portion of the CVOT is expected to continue during the next couple of years, and the remaining amount of our share of the cost for this portion is estimated to be approximately $14.0 million. This cost will be incurred over the remaining time that the FDA-required portion of the CVOT is conducted, and the actual amount of the cost will depend on how long it takes to complete this portion of the CVOT and other factors. As part of CAMELLIA and as described further below in “long term,” we also expect to evaluate BELVIQ’s effect on conversion to type 2 diabetes and improvements in cardiovascular outcomes. We are also obligated to share the cost of two remaining FDA-required studies in obese pediatric patients and for additional clinical studies in other territories.

Eisai is responsible for the regulatory activities related to lorcaserin under the Eisai Agreement. If the regulatory authority for a country in the additional territories requires development work before or following approval of lorcaserin in such country, we and Eisai will share expenses for such work. In addition, CY Biotech Company Limited, or CYB, and Teva Pharmaceutical Industries Ltd.’s local Israeli subsidiary, Abic Marketing Limited, or Teva, are responsible for the regulatory approval and, ultimately, marketing and distribution of BELVIQ for weight management in Taiwan and Israel, respectively, including, with respect to CYB, related development costs and other expenses.

To date, we have obtained cash and funded our operations primarily through equity financings, payments from collaborators, the issuance of debt and related financial instruments, sale leaseback transactions and the sale of available-for-sale securities. We expect to continue to evaluate various funding alternatives on an ongoing basis. If we determine it is advisable to raise additional funds, we do not know whether adequate funding will be available to us or, if available, that such funding will be adequate or available on terms that we or our stockholders view as favorable.

We expect to incur substantial research and development expenses in 2016, and for the aggregate amount in 2016 to be higher than in 2015. We expect our external clinical costs will be higher in 2016 than in 2015 due to our continuing Phase 2 clinical trials for APD334 and ralinepag, and salaries and other internal expenses will be lower due to our recent workforce reductions. With respect to the workforce reductions, as of December 31, 2015, $2.2 million of the related restructuring charges have been paid, resulting in a remaining accrual of $1.8 million. We expect these workforce reductions will result in annual operating cost savings of approximately $13.0 million in personnel costs. Even with these workforce reductions and our plans to implement additional cost control measures, we may not have sufficient cash to meet all of our objectives beyond the next 12 months, which include advancing certain of our clinical- and earlier-stage programs and maintaining our manufacturing capabilities. If we do not generate sufficient funding, we may need to further eliminate or postpone or scale back some or all of our research and development programs and further reduce our expenses.

Long term

It will require substantial cash to achieve our objectives of discovering, developing and commercializing drugs, and this process typically takes many years and potentially several hundreds of millions of dollars for an individual drug. We may not have adequate available cash, or assets that could be readily turned into cash, to meet these objectives in the long term. We will need to obtain significant funds under our existing collaborations, under new collaborative, licensing or other commercial agreements for one or more of our drug candidates and programs or patent portfolios, or from other potential sources of liquidity, which may include the sale of equity, issuance of debt or other transactions.

We expect to continue to incur substantial costs for lorcaserin, including costs related to manufacturing and required postmarketing and potentially other studies. As described above under “short term,” we will be responsible for a portion of the expenses for lorcaserin development work required by regulatory agencies. In addition, with respect to any development work not required by the FDA that we or Eisai may conduct relating to lorcaserin, we expect to incur additional expenses, which may be significant regardless of whether we share the expenses with Eisai. Expenses for

the portion of CAMELLIA not required by the FDA (most of which we do not expect will be incurred in the short term, if ever) will be shared equally by Eisai and us for up to an aggregate of $40.0 million each, and, thereafter, Eisai will be responsible for 100% of such expenses.

Subject to applicable regulatory approval, we expect Eisai to commercialize lorcaserin in additional territories under the Eisai Agreement. Under our Teva collaboration, we are eligible to receive payments upon regulatory approval of BELVIQ for weight loss or weight management. Under our Teva and CYB collaborations, we are eligible to receive payments from net product sales of BELVIQ as well as additional milestone payments and/or purchase price adjustment payments.

In addition to potential payments from our current collaborators, as well as funds from public and private financial markets, potential sources of liquidity in the long term include (i) upfront, milestone, royalty and other payments from any future collaborators or licensees and (ii) revenues from sales of any drugs we commercialize on our own. The length of time that our current cash and cash equivalents and any available borrowings will sustain our operations will be based on, among other things, the rate of adoption and commercial success of BELVIQ, regulatory decisions, prioritization decisions regarding funding for our programs, progress in our clinical and earlier-stage programs, the time and costs related to current and future clinical trials and nonclinical studies, our research, development, manufacturing and commercialization costs (including personnel costs), our progress in any programs under collaborations, costs associated with intellectual property, our capital expenditures, and costs associated with securing any in-licensing opportunities. Any significant shortfall in funding may result in us reducing our development and/or research activities, which, in turn, would affect our development pipeline and ability to obtain cash in the future.

We evaluate from time to time potential acquisitions, in-licensing and other opportunities. Any such transaction may impact our liquidity as well as affect our expenses if, for example, our operating expenses increase as a result of such acquisition or license or we use our cash to finance the acquisition or license.

Sources and uses of our cash

Net cash used in operating activities decreased by $3.3 million to $98.1 million in the year ended December 31, 2015, compared to $101.4 million in the year ended December 31, 2014. This decrease was primarily the result of (i) net payments of $10.4 million received for shipments of BELVIQ to Eisai and Ildong in the year ended December 31, 2015, compared to $4.8 million in the year ended December 31, 2014, (ii) the $4.0 million upfront payment from Roivant Sciences Ltd., or Roivant (which subsequently assigned its rights and obligations to Axovant Sciences, Ltd., or Axovant), that we received in May 2015 and (iii) the $3.0 million milestone payment from Ildong that we received, less withholding taxes, in March 2015 for the marketing approval of BELVIQ in South Korea. These decreases in net cash used in operations were partially offset by an increase of $6.1 million in payments made to Eisai related to our share of the CVOT and other development expense they incurred.

Net cash used in operating activities was $101.4 million in the year ended December 31, 2014, compared to net cash provided by operating activities of $72.8 million in the year ended December 31, 2013. This change of $174.2 million was primarily the result of (i) the $65.0 million non-refundable milestone payment we received from Eisai in the year ended December 31, 2013, in connection with the DEA’s final scheduling designation by the US Drug Enforcement Administration, or DEA, of BELVIQ, while no similar milestone payment was received in the year ended December 31, 2014, (ii) the $60.0 million upfront payment we received from Eisai in the year ended December 31, 2013, in connection with entering into the our marketing and supply agreement with Eisai, while no similar upfront payment was received in the year ended December 31, 2014, (iii) net payments of $4.8 million received for shipments of BELVIQ to Eisai in the year ended December 31, 2014, compared to $34.9 million in the year ended December 31, 2013, and (iv) increased payments made for external clinical and preclinical study fees and internal non-commercial manufacturing costs in the year ended December 31, 2014, compared to the year ended December 31, 2013.

Net cash used in investing activities was $8.2 million in the year ended December 31, 2015, compared to net cash provided by investing activities of $40.9 million in the year ended December 31, 2014. This change of $49.1 million was primarily due to (i) proceeds from the sale of available-for-sale securities of $49.6 million received in the year ended December 31, 2014, and (ii) $11.0 million in purchases of property and equipment in the year ended December 31, 2015, compared to $8.9 million in the year ended December 31, 2014, partially offset by net proceeds from our sale of an unoccupied building in San Diego of $2.2 million received in the year ended December 31, 2015. Net cash provided by investing activities was $40.9 million in the year ended December 31, 2014, compared to net cash used in investing activities of $8.7 million in the year ended December 31, 2013. This change was primarily due to proceeds from the sale of available-for-sale securities of $49.6 million in the year ended December 31, 2014.

Net cash of $101.1 million was provided by financing activities in the year ended December 31, 2015, as a result of net proceeds of $100.7 million from the January 2015 offering of 21,000,000 shares of common stock, which we sold to the underwriters at a price of $4.8139 per share, and net proceeds of $3.0 million from stock option exercises and purchases under our employee stock purchase plan, which were partially offset by $2.5 million for principal payments on our lease financing obligations. Net cash provided by financing activities was $3.2 million in the year ended

December 31, 2014, as a result of net proceeds of $5.2 million from stock option exercises and purchases under our employee stock purchase plan, which were partially offset by $2.1 million for principal payments on our lease financing obligations. Net cash provided by financing activities was $1.7 million in the year ended December 31, 2013, as a result of net proceeds of $3.3 million from stock option exercises and purchases under our employee stock purchase plan, which were partially offset by $1.7 million for principal payments on our lease financing obligations.

CONTRACTUAL OBLIGATIONS

The following table summarizes our contractual obligations at December 31, 2015, in thousands:

	Payments due by period				
Contractual Obligations	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Financing obligations	$102,105	$8,499	$19,225	$16,307	$58,074
Purchase obligations	2,783	2,782	1	0	0
Operating leases	12,383	1,053	2,314	2,317	6,699
Total	$117,271	$12,334	$21,540	$18,624	$64,773

Our “financing obligations” relate to sale and leaseback transactions for certain of our properties. Under each of the sale and leaseback agreements for these properties, we have the option to repurchase the property in the future. Our options to repurchase these properties are considered continued involvement under the applicable accounting guidance and, therefore, we have applied the financing method to the sale and leaseback transactions, which requires that the book value of the properties and related accumulated depreciation remain on our balance sheet with no sale recognized. Instead, the sales price of the properties is recorded as a financing obligation and a portion of each lease payment is recorded as interest expense. At December 31, 2015, we expect interest expense over the remaining term of these leases to total $43.9 million. Other of our properties are under operating leases and are included under “operating leases” above. Our “purchase obligations” reflect our minimum commitments to purchase goods or services under non-cancelable contracts as of December 31, 2015.

In addition to the above obligations, the “Cost Sharing for Development with Eisai” chart set forth below in the discussion of our Eisai collaboration summarizes our obligations to pay certain development costs under such collaboration. As set forth in such chart, we are obligated to pay 10% of the cost of the FDA-required portion of the CVOT. The FDA-required portion of the CVOT is expected to continue during the next couple of years, and the remaining amount of our share of the cost for this portion is estimated to be approximately $14.0 million. This cost will be incurred over the remaining time that the FDA-required portion of the CVOT is conducted, and the actual amount of the cost will depend on how long it takes to complete this portion of the CVOT and other factors. In addition, if the CVOT is continued to conduct the non-FDA required portion (evaluating MACE+ and conversion to type 2 diabetes), we expect our share of the cost of such portion will be up to $40.0 million, most of which cost is contingent on the success of the FDA-required portion and will occur in years after the FDA-required portion is completed. We are also obligated to share the cost of two remaining FDA-required studies in obese pediatric patients and for additional clinical studies in other territories.

Off-balance sheet arrangements.

We do not have and did not have at December 31, 2015, any off-balance sheet arrangements that have or are reasonably likely to have a current or future material effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

COLLABORATIONS

Lorcaserin collaborations

Eisai

In November 2013, Arena GmbH and Eisai entered into the Second Amended and Restated Marketing and Supply Agreement, or Eisai Agreement. The Eisai Agreement expanded Eisai’s exclusive commercialization rights for lorcaserin to all of the countries in the world, except for South Korea, Taiwan, Australia, New Zealand and Israel. Lorcaserin is approved in the United States and marketed as BELVIQ for chronic weight management in adults who are overweight with a comorbidity or obese, and was made available to patients by prescription in the United States by Eisai in June 2013. In addition to providing commercialization rights, which are subject to applicable regulatory approval, we manufacture and sell lorcaserin to Eisai and provide Eisai with services related to development and regulatory activities. Under the Eisai Agreement, we have received an upfront payment and payments from sales of lorcaserin, and are entitled to receive payments from future sales of lorcaserin, milestone payments based on the achievement of regulatory filings and approvals, one-time purchase price adjustment payments and other payments.

Prior to entering into the Eisai Agreement, Arena GmbH and Eisai Inc. entered into the original marketing and supply agreement in July 2010, under which we granted Eisai Inc. exclusive commercialization rights for lorcaserin solely in the United States and its territories and possessions. In May 2012, Arena GmbH and Eisai Inc. amended and restated such

agreement by entering into the first amended agreement, which expanded Eisai Inc.'s exclusive commercialization rights to include most of North and South America.

The following table summarizes the revenues we recognized under our collaboration with Eisai for the periods presented, in thousands:

	Years ended December 31,			From Inception Through
	2015	2014	2013	December 31, 2015
Net product sales	$14,236	$15,983	$5,702	$35,921
Amortization of upfront payments	7,541	7,630	4,035	28,067
Reimbursement of development expenses	1,538	10,037	2,020	16,958
Milestone payments	0	500	66,000	86,500
Reimbursement of patent and trademark expenses	426	444	361	1,318
Subtotal other Eisai collaborative revenue	9,505	18,611	72,416	132,843
Total	$23,741	$34,594	$78,118	$168,764

Upfront and milestone payments

In connection with entering into the Eisai Agreement, we received from Eisai an upfront payment of $60.0 million. This payment is in addition to the $50.0 million and $5.0 million in upfront payments we received from Eisai in connection with entering into the original agreement and the first amended agreement, respectively. Revenues from these upfront payments were deferred, as we determined that the exclusive rights did not have standalone value without our ongoing development and regulatory activities. Accordingly, these payments are recognized ratably as revenue over the periods in which we expect the services to be rendered, which are approximately 15 years for the Eisai Agreement and first amended agreement and 16 years for the original agreement.

In addition to the upfront payments, we have received from Eisai a total of $86.5 million in milestones payments, and we are eligible to receive up to an aggregate of $176.0 million in additional regulatory and development milestone payments.

Product purchase price and purchase price adjustment payments

We manufacture lorcaserin at our facility in Switzerland, and sell lorcaserin to Eisai for Eisai's commercialization in the United States and, subject to applicable regulatory approval, in the other territories under the Eisai Agreement (other than Europe, China and Japan) for a purchase price starting at 31.5% and 30.75%, respectively (and starting at 27.5% in Europe, China and Japan), of Eisai's aggregate annual net product sales (which are the gross invoiced sales less certain deductions described in the Eisai Agreement), or the Product Purchase Price, in the respective territory. The Product Purchase Price will increase on a tiered basis in the United States and the other territories (other than Europe, China and Japan) to as high as 36.5% and 35.75%, respectively, on the portion of Eisai's annual aggregate net product sales exceeding $750.0 million in all territories other than Europe, China and Japan. The Product Purchase Price will increase to 35% in Europe, China and Japan on the portion of Eisai's annual aggregate net product sales exceeding $500.0 million in such territories. The Product Purchase Price is subject to reduction (for sales in a particular country), including in the event of generic competition in the applicable country. The revenue we recognize for BELVIQ product revenue related to redemption of vouchers and product samples is based on our cost of goods sold.

In addition to payments for purchases of lorcaserin, we are eligible to receive up to an aggregate of $1.56 billion in one-time purchase price adjustment payments and other payments. These payments include up to an aggregate of $1.19 billion that are based on Eisai's annual net product sales of lorcaserin in all of the territories under the Eisai Agreement on an aggregate basis, with the first and last amounts payable with annual net product sales of $250.0 million and $2.5 billion, respectively. Of these payments, Eisai will pay us a total of $330.0 million for annual net product sales of up to $1.0 billion. The $1.56 billion also includes $370.0 million in one-time purchase price adjustment payments we are eligible to receive based on annual net product sales in the non-US territories, comprised of $185.0 million based on Eisai's annual net product sales in the non-US territories in North and South America and

$185.0 million based on Eisai's annual net product sales in the territories outside of North and South America. The first and last amounts are payable upon first achievement of annual net product sales of $100.0 million and $1.0 billion, respectively, with respect to each of the following areas: (i) the non-US territories in North and South America and (ii) the territories outside of North and South America. In addition, we are also eligible to receive certain payments by Eisai if certain annual minimum sales requirements in Mexico, Canada and Brazil are not met during the first ten years after initial commercial sale in such territories.

The amount that Eisai pays us for lorcaserin product supply is based on Eisai's estimated price at the time the order is shipped, which is Eisai's estimate of the Eisai Product Purchase Price, and is subject to change on April 1 and October 1 of each year. At the end of Eisai's fiscal year (March 31), the estimated price paid to us for product that Eisai sold to their distributors is compared to the Eisai Product Purchase Price of such product, and the difference is either refunded back to Eisai (for overpayments) or paid to us (for underpayments). On a monthly basis, Eisai provides us the total amount of net product sales for the month, details of the total deductions from gross to net product sales and the sales in units. We recognize our revenues monthly based on our percentage of Eisai's monthly net product sales figures. When the revenues we recognize differ from the estimated price that Eisai paid us for such product, the difference is reclassified from deferred revenues to a receivable or payable account, as appropriate. We also adjust the deferred revenues balance for the product supply held at Eisai based on the most current net product sales figures provided to us, with the difference reclassified from deferred revenues to a receivable or payable account. The Eisai Product Purchase Price for the product Eisai has sold has been lower than the estimated price that Eisai paid us for such product, primarily due to an increase in deductions from savings cards and returns, partially offset by a decrease in vouchers. In January 2015, Eisai announced the launch of a new savings card which enables eligible patients without commercial coverage for BELVIQ to pay no more than $75 for each monthly prescription while those patients with commercial coverage for BELVIQ are able to use the card to obtain additional savings if their copay is greater than $50 per monthly prescription. Subsequent to the end of Eisai's fiscal year, we refund the portion of these excess payments, which total the $12.1 million classified as Payable to Eisai on our consolidated balance sheet at December 31, 2015, related to product sold by Eisai to their distributors through March 31.

Development payments

In connection with the US approval of BELVIQ, the FDA is requiring (i) an evaluation as part of the CVOT of the effect of long-term treatment with BELVIQ on the incidence of MACE in overweight and obese patients with cardiovascular disease or multiple cardiovascular risk factors and (ii) the conduct of postmarketing studies to assess the safety and efficacy of BELVIQ for weight management in obese pediatric patients. In addition to the FDA-required studies, we and Eisai are prioritizing the development and approval of a once-daily formulation of lorcaserin, as well as potentially exploring, including as part of the CVOT, BELVIQ's effect on conversion to type 2 diabetes and improvements in cardiovascular outcomes.

The chart below summarizes the general agreement regarding cost sharing between Eisai and us for significant development activities under the Eisai Agreement. In addition, Eisai or we may from time to time conduct approved development of lorcaserin at such party's own expense.

Cost Sharing for Development with Eisai

	United States	Rest of North and South America	Remaining Territor
BELVIQ -Pre-approval*	Not Applicable	General Eisai: 90%; Arena: 10%	Up to total of $100. million** - Eisai: 5 Arena: 50%
		Certain stability work Eisai: 50%; Arena: 50%	Thereafter, Eisai: 1
BELVIQ -Post-approval*	General - Eisai: 90%; Arena 10% Non-FDA required portion of CVOT Up to $80.0 million - Eisai: 50%; Arena: 50% Thereafter, Eisai: 100% Certain pediatric studies Eisai: 50%; Arena: 50%	General Eisai: 90%; Arena: 10%	Up to total of $50.0 Eisai: 50%; Arena:
		Certain stability work Eisai: 50%; Arena: 50%	Thereafter, Eisai: 9 Arena: 10%
Lorcaserin products other than BELVIQ -Pre-approval	Up to a total of $250.0 million (as reduced by up to $80.0 million for non-FDA required portion of CVOT - Eisai: 50%; Arena: 50%		
Lorcaserin products other than BELVIQ -Post-approval	Up to a total of $100.0 million in the aggregate across all additional products - Eisai: 50%; Arena: 50% Thereafter, Eisai: 90%; Arena: 10%		

* Development required by a regulatory authority, with the exception of the non-FDA required portion of the CVOT.

** Under the collaborative agreement, the amount for BELVIQ pre-approval in the Remaining Territories was decreased and the amount for lorcaserin products other than BELVIQ pre-approval was increased by such amount.

Ildong Pharmaceutical Co., Ltd.

In November 2012, Arena GmbH and Ildong entered into the Marketing and Supply Agreement, or Ildong BELVIQ Agreement. Under this agreement, we granted Ildong exclusive rights to commercialize BELVIQ in South Korea for weight loss or weight management in obese and overweight patients. We also provide certain services and manufacture and sell BELVIQ to Ildong. Ildong has agreed not to conduct activities outside of our agreement related to the approval or commercialization of any other pharmaceutical product for weight loss, weight management or obesity in South Korea, with the exception of phentermine.

In connection with entering into the Ildong BELVIQ Agreement, we received from Ildong an upfront payment of $5.0 million, less withholding taxes. Revenues from this upfront payment were deferred, as we determined that the exclusive rights did not have standalone value without our ongoing development and regulatory activities. Accordingly, this payment is recognized ratably as revenue over the period in which we expect the services to be rendered, which is approximately 14 years. In addition to the upfront payment, we received a milestone payment of $3.0 million, less withholding taxes, in March 2015, which we earned upon the February 2015 approval of BELVIQ for marketing in South Korea for weight management.

We manufacture BELVIQ at our facility in Switzerland, and sell BELVIQ to Ildong for a purchase price starting at the higher of the defined minimum amount or 35% of Ildong’s annual net product sales (which are the gross invoiced sales less certain deductions described in the Ildong Agreement), or the Ildong Product Purchase Price. The Ildong Product Purchase Price increases on a tiered basis up to the higher of the defined minimum amount or 45% on the portion of

annual net product sales exceeding $15.0 million. However, in no event shall the Ildong Product Purchase Price be less than a defined minimum amount adjusted annually based upon a consumer price index. For the year ended December 31, 2015, the Ildong Product Purchase Price equaled the defined minimum amount (which exceeded the amounts calculated using the applicable percentages for the applicable tiers of Ildong's annual net product sales). If certain annual net product sales amounts are not met, we can convert Ildong's right to commercialize BELVIQ in South Korea to be non-exclusive.

For the years ended December 31, 2015, 2014, and 2013, we recognized revenues of $8.9 million (including $5.5 million from our portion of Ildong net product sales of BELVIQ and the $3.0 million milestone payment), $0.4 million and $0.5 million respectively, under this agreement.

CY Biotech Company Limited

In July 2013, Arena GmbH entered into the CYB Agreement. Under this agreement, we granted CYB exclusive rights to commercialize BELVIQ in Taiwan for weight loss or weight management in obese and overweight patients, subject to regulatory approval of BELVIQ by the Taiwan Food and Drug Administration, or TFDA. We also provide certain services and will manufacture and sell BELVIQ to CYB. CYB has agreed not to conduct outside of our agreement activities related to the approval or commercialization of any other pharmaceutical product for weight loss, weight management or obesity in Taiwan.

We will receive payments from sales of BELVIQ under the CYB Agreement, and are eligible to receive purchase price adjustment payments based on CYB's annual net product sales, as well as a milestone payment upon approval of the first additional indication for lorcaserin by the TFDA. We received from CYB an upfront payment of $2.0 million, less withholding taxes, which was recorded as deferred revenue and is being recognized as revenue ratably over approximately 14 years, which is the period in which we expect to provide services under the arrangement. For the years ended December 31, 2015, 2014, and 2013, we recognized revenues of $0.2 million, $0.2 million and $0.1 million, respectively, under this agreement.

CYB is responsible for the regulatory approval and, ultimately, commercialization of BELVIQ in Taiwan for weight loss or weight management in obese and overweight patients, including related development and other costs and expenses. We will manufacture BELVIQ at our facility in Switzerland, and sell BELVIQ to CYB for a purchase price starting at the higher of the defined minimum amount or 45% of CYB's annual net product sales (which are the gross invoiced sales less certain deductions described in the CYB Agreement).

Abic Marketing Limited (Teva)

In July 2014, Arena GmbH entered into the Teva Agreement. Under this agreement, we granted Teva exclusive rights to commercialize BELVIQ in Israel for weight loss or weight management in obese and overweight patients, subject to regulatory approval of BELVIQ by the Israeli Ministry of Health, or MOH. We also provide certain services and will manufacture and sell BELVIQ to Teva. Teva has agreed not to conduct outside of our agreement activities related to the approval or commercialization of any other pharmaceutical product for weight loss, weight management or obesity in Israel.

We will receive payments from sales of BELVIQ under the Teva Agreement. We received from Teva an upfront payment of $500,000 and a milestone payment of $250,000 earned upon its application for regulatory approval of BELVIQ in Israel. We recorded the upfront payment as deferred revenue and are recognizing it as revenue ratably over approximately nine years, which is the period in which we expect to provide services under the arrangement. For the years ended December 31, 2015, and 2014, we recognized revenues of $0.1 million and $0.3 million, respectively, under the Teva Agreement.

Teva is responsible for the regulatory approval and, ultimately, commercialization of BELVIQ in Israel for weight loss or weight management in obese and overweight patients, including related development and other costs and expenses. We will manufacture BELVIQ at our facility in Switzerland, and sell BELVIQ to Teva for a purchase price starting at the higher of the defined minimum amount or 35% of Teva's annual net product sales (which are the gross invoiced sales less certain deductions described in the Teva Agreement).

Other collaborations

Nelotanserin - Axovant Sciences Ltd.

In May 2015, Arena GmbH entered into the Axovant Agreement. In October 2015, Roivant assigned the exclusive rights to develop and commercialize nelotanserin to its subsidiary, Axovant. Under this agreement, Axovant has exclusive worldwide rights to develop and commercialize nelotanserin, subject to regulatory approval. We also provide certain services and will manufacture and sell nelotanserin to Axovant.

We received an upfront payment of $4.0 million, which was recorded as deferred revenue and is being recognized as revenue ratably over approximately five years, which is the period in which we expect to provide services under the arrangement. We will receive payments from sales of nelotanserin under the Axovant Agreement, and are eligible to

receive purchase price adjustment payments based on Axovant's annual net product sales, as well as $41.5 million in development and regulatory milestone payments. For the year ended December 31, 2015, we recognized revenues of $1.1 million under this agreement.

Axovant is responsible for the regulatory approval and, ultimately, commercialization of nelotanserin, including related development and other costs and expenses. We will manufacture nelotanserin at our facility in Switzerland, and sell nelotanserin to Axovant for a purchase price at the higher of a defined minimum amount or 15% (for at least the 12 years following the first commercial sale of such product in each country, thereafter 10%) of Axovant's annual net product sales (which are the gross invoiced sales less certain deductions described in the Axovant Agreement).

Temanogrel - Ildong Pharmaceutical Co., Ltd.

In November 2012, we entered into the Ildong Temanogrel Agreement for temanogrel, our internally discovered inverse agonist of the serotonin 2A receptor. Under such agreement, we granted Ildong exclusive rights to commercialize temanogrel in South Korea for myocardial infarction, acute coronary syndrome, stroke, peripheral artery disease, and other cardiovascular diseases, subject to further development and regulatory approval of temanogrel. Initially, Ildong will be responsible for funding and conducting, under the direction of a joint steering committee, the ongoing Phase 1 clinical trial in healthy volunteers to investigate the safety of co-administration with clopidogrel and aspirin and a planned Phase 2a proof-of-concept trial in patients.

We will maintain ownership of temanogrel outside of South Korea, and have the rights to use data generated by Ildong for the development and potential commercialization of temanogrel outside of South Korea by us or other Arena licensees. In addition, Ildong has agreed to pay us a $2.0 million development milestone if the planned additional Phase 1 and Phase 2a clinical trials conducted by Ildong support continued development and we or another Arena licensee initiates a Phase 2b clinical trial of temanogrel. We are also eligible to receive a royalty on net product sales of temanogrel in South Korea, and Ildong is eligible to receive a share of future payments received by us related to licensing transactions and sales of temanogrel in other territories.

CNS Receptor - Boehringer Ingelheim International GmbH

In December 2015, Arena GmbH and Boehringer Ingelheim entered into an exclusive agreement, or Boehringer Ingelheim Agreement, to conduct joint research to identify drug candidates targeting an undisclosed GPCR that belongs to the group of orphan CNS receptors. Under this agreement, we granted Boehringer Ingelheim exclusive rights to our internally discovered, novel compounds and intellectual property for an orphan CNS receptor. We will jointly conduct research with Boehringer Ingelheim to identify additional drug candidates that are suitable for continued research and development as therapeutic compounds for various disease indications, with the initial focus expected to be psychiatric diseases such as schizophrenia. The agreement grants Boehringer Ingelheim exclusive worldwide rights to develop, manufacture and commercialize products resulting from the collaboration.

In part consideration of the rights to our intellectual property necessary or useful to conduct the joint research under the Boehringer Ingelheim Agreement, we received from Boehringer Ingelheim an upfront payment of $7.5 million in January 2016, less withholding taxes which are refundable to us. Revenues from this upfront payment will be deferred, as we determined that the exclusive rights did not have standalone value without our ongoing participation in the joint research. Accordingly, this payment will be recognized ratably as revenue over the period in which we expect the services to be rendered, which is approximately two years.

In addition to the upfront payment, we are eligible to receive up to an aggregate of $254 million in research funding and success milestones in case of full commercial success of multiple drug products.

CRITICAL ACCOUNTING POLICIES AND MANAGEMENT ESTIMATES

The SEC defines critical accounting policies as those that are, in management's view, important to the portrayal of our financial condition and results of operations and demanding of management's judgment. Our discussion and analysis of financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with US generally accepted accounting principles, or GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosures. We base our estimates on historical experience and on various assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ significantly from those estimates.

While our significant accounting policies are described in more detail in Note 1 to our consolidated financial statements, we believe the following accounting policies are critical in the preparation of our financial statements:

Revenue recognition. Our revenues to date have been generated primarily through collaborative agreements and, to a lesser extent, toll manufacturing agreements. Our collaborative agreements may contain multiple elements including

commercialization rights, services (joint steering committee and research and development services) and manufactured products. Consideration we receive under these arrangements may include upfront payments, research and development funding, cost reimbursements, milestone payments and payments for net product sales. We recognize revenue when (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred and title has passed, (iii) the price is fixed or determinable and (iv) collectability is reasonably assured. Any advance payments we receive in excess of amounts earned are classified as deferred revenues on our consolidated balance sheets. We defer recognition of revenue at the time we sell BELVIQ to our collaborators because we presently do not have the ability to estimate product that may be returned to us. Instead, we recognize revenues from net product sales when our collaborators ship BELVIQ to their distributors.

We manufacture and sell BELVIQ to Eisai for Eisai's marketing and distribution in the United States and, subject to applicable regulatory approval, in most territories worldwide. The net product sales price Eisai pays us for product supply for commercialization in the United States starts at 31.5% of their gross invoiced sales, less certain deductions described in the Eisai Agreement. The amount we recognize for BELVIQ product revenue related to redemption of vouchers and product samples under the Eisai Agreement is based on our cost of goods sold. We manufacture and sell BELVIQ to Ildong for Ildong's marketing and distribution in South Korea. The net product sales price Ildong pays us for product supply for commercialization in South Korea starts at the higher of the defined minimum amount or 35% of their gross invoiced sales, less certain deductions described in the Ildong BELVIQ Agreement. The net product sales price Ildong pays us increases on a tiered basis up to the higher of the defined minimum amount or 45% on the portion of annual net product sales exceeding $15.0 million. However, in no event shall the net product sales price Ildong pays us be less than a defined minimum amount adjusted annually based upon a consumer price index.

We evaluate deliverables in a multiple-element arrangement to determine whether each deliverable represents a separate unit of accounting. A deliverable constitutes a separate unit of accounting when it has standalone value to the customer. If the delivered element does not have standalone value without one of the undelivered elements in the arrangement, we combine such elements and account for them as a single unit of accounting. We allocate the consideration to each unit of accounting at the inception of the arrangement based on the relative selling price.

Non-refundable upfront payments received under our collaborative agreements for commercialization rights have been deferred as such rights have not been deemed to have standalone value without the ongoing services required under the agreement. Such amounts are recognized as revenue on a straight-line basis over the period in which we expect to perform the services. Amounts we receive as reimbursement for our research and development expenditures are recognized as revenue as the services are performed.

Under the milestone method, we recognize revenue that is contingent upon the achievement of a substantive milestone in its entirety in the period in which the milestone is achieved. A milestone is an event (i) that can be achieved in whole or in part on either our performance or on the occurrence of a specific outcome resulting from our performance, (ii) for which there is substantive uncertainty at the date the arrangement is entered into that the event will be achieved and (iii) that would result in additional payments being due us. A milestone payment is considered substantive when the consideration payable to us for each milestone (a) is consistent with our performance necessary to achieve the milestone or the increase in value to the collaboration resulting from our performance, (b) relates solely to our past performance and (c) is reasonable relative to all of the other deliverables and payments under the arrangement. In making this assessment, we consider all facts and circumstances relevant to the arrangement, including factors such as the scientific, regulatory, commercial and other risks that must be overcome to achieve the respective milestone, the level of effort and investment required to achieve the respective milestone and whether any portion of the milestone consideration is related to future performance or deliverables. Other contingent-based payments received are recognized when earned.

We manufacture drug products under toll manufacturing agreements. Upon the customer's acceptance of drug products manufactured by us under these agreements, we recognize toll manufacturing revenues.

Clinical trial expenses. We accrue clinical trial expenses based on work performed. In determining the amount to accrue, we rely on estimates of total costs incurred based on enrollment, the completion of trials and other events. We follow this method because we believe reasonably dependable estimates of the costs applicable to various stages of a clinical trial can be made. However, the actual costs and timing of clinical trials are highly uncertain, subject to risks

and may change depending on a number of factors. Differences between the actual clinical trial costs and the estimated clinical trial costs that we have accrued in any prior period are recognized in the subsequent period in which the actual costs become known. Historically, these differences have not been material; however, material differences could occur in the future.

Income taxes. Significant judgment is required by management to determine our provision for income taxes, our deferred tax assets and liabilities, and the valuation allowance to record against our net deferred tax assets, which are based on complex and evolving tax regulations throughout the world. Our tax calculation is impacted by tax rates in the jurisdictions in which we

are subject to tax and the relative amount of income earned in each jurisdiction. Our deferred tax assets and liabilities are determined using the enacted tax rates expected to be in effect for the years in which those tax assets are expected to be realized.

The effect of an uncertain income tax position is recognized at the largest amount that is "more-likely-than-not" to be sustained under audit by the taxing authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained.

The realization of our deferred tax assets is dependent upon our ability to generate sufficient future taxable income. We establish a valuation allowance when it is more-likely-than-not that the future realization of all or some of the deferred tax assets will not be achieved. The evaluation of the need for a valuation allowance is performed on a jurisdiction-by-jurisdiction basis, and includes a review of all available evidence, both positive and negative. At December 31, 2015, we concluded that it was more-likely-than-not that our deferred tax assets would not be realized.

The above listing is not intended to be a comprehensive list of all of our accounting policies. In many cases, the accounting treatment of a particular transaction is specifically dictated by GAAP. See our audited consolidated financial statements and notes thereto included elsewhere in this Annual Report, which contain additional accounting policies and other disclosures required by GAAP.

New accounting guidance.

In May 2014, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, No. 2014-09, "Revenue from Contracts with Customers." ASU No. 2014-09 outlines a comprehensive revenue recognition model and supersedes most current revenue recognition guidance. ASU No. 2014-09 is effective for annual reporting periods, and interim periods within those annual periods, beginning after December 15, 2017. ASU No. 2014-09 allows for two methods of adoption: (a) "full retrospective" adoption, meaning the standard is applied to all periods presented, or (b) "modified retrospective" adoption, meaning the cumulative effect of applying ASU No. 2014-09 is recognized as an adjustment to the opening retained earnings balance for the year of implementation. We have not yet selected an adoption method as we are currently evaluating the impact of ASU No. 2014-09 on our consolidated financial statements.

In August 2014, the FASB issued ASU No. 2014-15, "Presentation of Financial Statements – Going Concern: Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern." Under GAAP, continuation of a reporting entity as a going concern is presumed as the basis for preparing financial statements unless and until the entity's liquidation becomes imminent. Preparation of financial statements under this presumption is commonly referred to as the going concern basis of accounting. If and when an entity's liquidation becomes imminent, financial statements should be prepared under the liquidation basis of accounting. Even when an entity's liquidation is not imminent, there may be conditions or events that raise substantial doubt about the entity's ability to continue as a going concern. In those situations, financial statements should continue to be prepared under the going concern basis of accounting, but ASU No. 2014-15 should be followed to determine whether to disclose information about any relevant conditions and events. ASU No. 2014-15 is effective for the annual reporting period ending after December 15, 2016, and for annual and interim periods thereafter. We do not expect the adoption of ASU No. 2014-15 to have a material impact on our consolidated financial statements.

In November 2015, the FASB issued ASU No. 2015-17, "Balance Sheet Classification of Deferred Taxes." ASU No. 2015-17 requires entities that present a classified balance sheet to classify all deferred taxes as noncurrent assets or noncurrent liabilities. ASU No. 2015-17 is effective for annual reporting periods, and interim periods within those annual periods, beginning after December 15, 2016 and early adoption is permitted. We elected to early adopt this standard in 2015. The adoption of ASU No. 2015-17 did not have a material impact on our consolidated financial statements.

In January 2016, the FASB issued ASU No. 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities." ASU No. 2016-01 supersedes and amends the guidance to classify equity securities with readily determinable fair values into different categories (that is, trading or available-for-sale) and require equity securities to be measured at fair value with changes in the fair value recognized through net income. The amendments allow equity investments that do not have readily determinable fair values to be remeasured at fair value either upon the occurrence of an observable price change or upon identification of an impairment. The amendments also require enhanced

disclosures about those investments. ASU No. 2016-01 is effective for annual reporting beginning after December 15, 2017, including interim periods within the year of adoption, and calls for prospective application, with early application permitted. We do not expect the adoption of ASU No. 2016-01 to have a material impact on our consolidated financial statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We have a wholly owned subsidiary in Switzerland, which exposes us to foreign currency exchange risk. The functional currency of our subsidiary in Switzerland is the Swiss franc. Accordingly, all assets and liabilities of our subsidiary are translated to US dollars based on the applicable exchange rate on the balance sheet date. Revenue and expense components are translated to US dollars at weighted-average exchange rates in effect during the period. Gains and losses resulting from foreign currency translation are reported as a separate component of accumulated other comprehensive gain (loss) in the stockholders' equity section of our consolidated balance sheets.

Foreign currency transaction gains and losses, which are primarily the result of remeasuring US dollar-denominated receivables and payables at Arena GmbH, are recorded in the interest and other income (expense) section of our consolidated statement of operations and comprehensive loss. For the year ended December 31, 2015, we recognized foreign currency transaction gains, net of $2.0 million. If a 10% change in the US dollar-to-Swiss franc exchange rate were to have occurred on December 31, 2015, this change would not have had a material effect on our results of operations.

We have not hedged exposures denominated in foreign currencies, but may do so in the future.

Item 8. Financial Statements and Supplementary Data.

ARENA PHARMACEUTICALS, INC.

INDEX TO FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders

Arena Pharmaceuticals, Inc.:

We have audited the accompanying consolidated balance sheets of Arena Pharmaceuticals, Inc. and subsidiaries (the Company) as of December 31, 2015 and 2014, and the related consolidated statements of operations and comprehensive loss, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2015. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of Arena Pharmaceuticals, Inc. and subsidiaries as of December 31, 2015 and 2014, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2015, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Arena Pharmaceuticals, Inc.'s internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 29, 2016, expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

/s/ KPMG LLP

San Diego, California

February 29, 2016

ARENA PHARMACEUTICALS, INC.
Consolidated Balance Sheets
(In thousands, except share and per share data)

	December 31, 2015	2014
Assets		
Current assets:		
Cash and cash equivalents	$156,184	$163,209
Accounts receivable	4,934	3,712
Inventory	9,502	10,831
Prepaid expenses and other current assets	4,218	4,144
Total current assets	174,838	181,896
Land, property and equipment, net	71,828	82,919
Intangibles, net	7,775	8,482
Other non-current assets	2,351	3,088
Total assets	$256,792	$276,385
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable and other accrued liabilities	$10,127	$10,209
Accrued clinical and preclinical study fees	3,286	7,027
Payable to Eisai	12,080	23,705
Current portion of deferred revenues	21,425	15,238
Current portion of lease financing obligations	2,978	2,492
Payable to Siegfried for acquisition of land and building	0	8,217
Derivative liabilities	0	474
Total current liabilities	49,896	67,362
Deferred rent	470	369
Deferred revenues, less current portion	87,617	93,064
Lease financing obligations, less current portion	65,267	68,245
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $0.0001 par value: 7,500,000 shares authorized and 0 shares issued and outstanding at December 31, 2015, and 2014	0	0
Common stock, $0.0001 par value: 367,500,000 shares authorized at December 31, 2015, and 2014; 242,871,179 shares issued and outstanding at December 31, 2015; 220,321,645 shares issued and outstanding at December 31, 2014	24	22
Additional paid-in capital	1,430,917	1,312,656
Accumulated other comprehensive income (loss)	(1,179)	2,908
Accumulated deficit	(1,376,220)	(1,268,241)
Total stockholders' equity	53,542	47,345
Total liabilities and stockholders' equity	$256,792	$276,385

See accompanying notes to consolidated financial statements.

ARENA PHARMACEUTICALS, INC.
Consolidated Statements of Operations and Comprehensive Loss
(In thousands, except share and per share data)

	Years ended December 31,		
	2015	2014	2013
Revenues:			
Net product sales	$19,726	$15,983	$5,702
Other Eisai collaborative revenue	9,505	18,611	72,416
Toll manufacturing	4,250	1,497	2,690
Other collaborative revenue	4,845	879	586
Total revenues	38,326	36,970	81,394
Operating Costs and Expenses:			
Cost of product sales	8,590	6,369	1,803
Cost of toll manufacturing	4,585	1,390	4,377
Research and development	88,411	100,347	66,468
General and administrative	35,966	34,137	31,681
Restructuring charges	3,972	0	0
Total operating costs and expenses	141,524	142,243	104,329
Loss from operations	(103,198)	(105,273)	(22,935)
Interest and Other Income (Expense):			
Interest income	158	83	89
Interest expense	(6,828)	(6,915)	(7,091)
Gain from valuation of derivative liabilities	474	4,418	10,150
Gain on sale of available-for-sale securities	0	49,553	0
Other	1,415	(2,374)	352
Total interest and other income (expense), net	(4,781)	44,765	3,500
Net loss	$(107,979)	$(60,508)	$(19,435)
Net loss per share:			
Basic	$(0.45)	$(0.28)	$(0.09)
Diluted	$(0.45)	$(0.28)	$(0.09)
Shares used in calculating net loss per share:			
Basic	240,671,335	219,733,539	218,104,323
Diluted	240,671,335	219,733,539	218,104,323
Comprehensive Loss:			
Net loss	$(107,979)	$(60,508)	$(19,435)
Foreign currency translation gain (loss)	(4,087)	(2,820)	239
Comprehensive loss	$(112,066)	$(63,328)	$(19,196)

See accompanying notes to consolidated financial statements.

ARENA PHARMACEUTICALS, INC.
Consolidated Statements of Stockholders' Equity
(In thousands, except share data)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance at December 31, 2012	217,476,458	$22	$1,281,426	$ 5,489	$(1,188,298)	$ 98,639
Issuance of common stock upon exercise of options	954,174		2,375			2,375
Issuance of common stock under employee stock purchase plan	334,360		852			852
Issuance of common stock upon vesting of restricted stock unit awards	41,250					
Issuance of common stock upon exercise of Series B warrant	10,000		88			88
Share-based compensation expense, net of forfeitures			9,024			9,024
Share-based compensation expense capitalized			75			75
Translation gain				239		239
Net loss					(19,435)	(19,435)
Balance at December 31, 2013	218,816,242	22	1,293,840	5,728	(1,207,733)	91,857
Issuance of common stock upon exercise of options	1,115,068		4,078			4,078
Issuance of common stock under employee stock purchase plan	304,085		1,148			1,148
Issuance of common stock upon vesting of restricted stock unit awards	86,250					
Share-based compensation expense, net of forfeitures			13,509			13,509
Share-based compensation expense capitalized			81			81
Translation loss				(2,820)		(2,820)
Net loss					(60,508)	(60,508)
Balance at December 31, 2014	220,321,645	22	1,312,656	2,908	(1,268,241)	47,345
Issuance of common stock to underwriters	21,000,000	2	100,656			100,658
Issuance of common stock upon exercise of options	1,154,084		2,211			2,211
Issuance of common stock under employee stock purchase plan	327,950		758			758
Issuance of common stock upon vesting of restricted stock unit awards	67,500					
Share-based compensation expense, net of forfeitures			14,463			14,463
Share-based compensation expense capitalized			173			173

Translation loss				(4,087)		(4,087)
Net loss					(107,979)	(107,979)
Balance at December 31, 2015	242,871,179	$24	$1,430,917	$ (1,179)	$(1,376,220)	$ 53,542

See accompanying notes to consolidated financial statements.

ARENA PHARMACEUTICALS, INC.
Consolidated Statements of Cash Flows
(In thousands)

	Years ended December 31,		
	2015	2014	2013
Operating Activities			
Net loss	$(107,979)	$(60,508)	$(19,435)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation and amortization	9,804	8,655	7,733
Amortization of intangibles	238	506	469
Share-based compensation	14,463	13,509	9,024
Gain from valuation of derivative liabilities	(474)	(4,418)	(10,150)
Gain on sale of available-for-sale securities	0	(49,553)	0
Amortization of prepaid financing costs	136	136	136
Loss on disposal or sale of equipment	1,007	172	49
Changes in assets and liabilities:			
Accounts receivable	(1,425)	6,407	(4,473)
Inventory	1,858	870	(6,065)
Prepaid expenses and other assets	575	(772)	(65)
Payables and accrued liabilities	(16,970)	13,240	19,572
Deferred revenues	553	(29,764)	75,880
Deferred rent	101	122	125
Net cash provided by (used in) operating activities	(98,113)	(101,398)	72,800
Investing Activities			
Proceeds from sale of available-for-sale securities	0	49,553	0
Purchases of land, property and equipment	(10,992)	(8,905)	(9,164)
Proceeds from sale of equipment	2,232	47	60
Other non-current assets	609	209	439
Net cash provided by (used in) investing activities	(8,151)	40,904	(8,665)
Financing Activities			
Principal payments on lease financing obligations	(2,492)	(2,057)	(1,664)
Proceeds from issuance of common stock	103,628	5,225	3,315
Net cash provided by financing activities	101,136	3,168	1,651
Effect of exchange rate changes on cash	(1,897)	(1,343)	1
Net increase (decrease) in cash and cash equivalents	(7,025)	(58,669)	65,787
Cash and cash equivalents at beginning of year	163,209	221,878	156,091
Cash and cash equivalents at end of year	$156,184	$163,209	$221,878
Supplemental Disclosure Of Cash Flow Information:			
Interest paid	$6,562	$6,778	$6,954
Supplemental Disclosure Of Non-Cash Investing and Financing Information:			
Payable to Siegfried for acquisition of land and building	$0	$8,217	$0

See accompanying notes to consolidated financial statements.

ARENA PHARMACEUTICALS, INC.
Notes to Consolidated Financial Statements
(1) The Company and Summary of Significant Accounting Policies
The Company
Arena Pharmaceuticals, Inc., or Arena, was incorporated on April 14, 1997, and commenced operations in July 1997. We are a biopharmaceutical company focused on discovering, developing and commercializing novel drugs that target G protein-coupled receptors, or GPCRs, to address unmet medical needs. We operate in one business segment. Our US operations are located in San Diego, California, and our operations outside of the United States, including our commercial manufacturing facility, are located in Zofingen, Switzerland.
Our internally discovered drug, lorcaserin, has been approved for marketing in the United States and South Korea for weight management, and is being marketed under the brand name BELVIQ® (which is pronounced as "BEL-VEEK"). In June 2013 and February 2015, BELVIQ was made available to patients by prescription by our collaborators in the United States and South Korea, respectively. BELVIQ is our first and only drug approved for marketing by any regulatory agency.
Our wholly owned subsidiary, Arena Pharmaceuticals GmbH, or Arena GmbH, granted Eisai Inc. and Eisai Inc.'s parent company, Eisai Co., Ltd. (collectively with Eisai Inc., Eisai) exclusive commercialization rights to market lorcaserin in all of the countries in the world, except for South Korea, Taiwan, Australia, New Zealand and Israel. Arena GmbH also granted exclusive commercialization rights to market lorcaserin for weight loss or weight management to Ildong Pharmaceutical Co., Ltd., or Ildong, for South Korea; to CY Biotech Company Limited, or CYB, for Taiwan; and to Teva Pharmaceuticals Ltd.'s Israeli subsidiary, Abic Marketing Limited, or Teva, for Israel. We intend to continue our research and development efforts to advance our earlier-stage drug candidates and to discover and advance additional compounds.
Lorcaserin and our earlier-stage drug candidates and compounds have resulted from our GPCR-focused drug discovery and development approach, specialized expertise and technologies.
Basis of Presentation
The accompanying consolidated financial statements have been prepared in accordance with US generally accepted accounting principles, or GAAP, and reflect all of our activities, including those of our wholly owned subsidiaries. All material intercompany accounts and transactions have been eliminated in consolidation.
New Accounting Guidance
In May 2014, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, No. 2014-09, "Revenue from Contracts with Customers." ASU No. 2014-09 outlines a comprehensive revenue recognition model and supersedes most current revenue recognition guidance. ASU No. 2014-09 is effective for annual reporting periods, and interim periods within those annual periods, beginning after December 15, 2017. ASU No. 2014-09 allows for two methods of adoption: (a) "full retrospective" adoption, meaning the standard is applied to all periods presented, or (b) "modified retrospective" adoption, meaning the cumulative effect of applying ASU No. 2014-09 is recognized as an adjustment to the opening retained earnings balance for the year of implementation. We have not yet selected an adoption method as we are currently evaluating the impact of ASU No. 2014-09 on our consolidated financial statements.
In August 2014, the FASB issued ASU No. 2014-15, "Presentation of Financial Statements – Going Concern: Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern." Under GAAP, continuation of a reporting entity as a going concern is presumed as the basis for preparing financial statements unless and until the entity's liquidation becomes imminent. Preparation of financial statements under this presumption is commonly referred to as the going concern basis of accounting. If and when an entity's liquidation becomes imminent, financial statements should be prepared under the liquidation basis of accounting. Even when an entity's liquidation is not imminent, there may be conditions or events that raise substantial doubt about the entity's ability to continue as a going concern. In those situations, financial statements should continue to be prepared under the going concern basis of accounting, but ASU No. 2014-15 should be followed to determine whether to disclose information about any relevant conditions and events. ASU No. 2014-15 is effective for the annual reporting period ending after December 15, 2016, and for annual and interim periods thereafter. We do not expect the adoption of ASU No. 2014-15 to have a material

impact on our consolidated financial statements.

In November 2015, FASB issued ASU No. 2015-17, “Balance Sheet Classification of Deferred Taxes.” ASU No. 2015-17 requires entities that present a classified balance sheet to classify all deferred taxes as noncurrent assets or noncurrent liabilities. ASU No. 2015-17 is effective for annual reporting periods, and interim periods within those annual periods, beginning after December 15, 2016 and early adoption is permitted. We elected to early adopt this standard in 2015. The adoption of ASU No. 2015-17 did not have a material impact on our consolidated financial statements.

In January 2016, the FASB issued ASU No. 2016-01, “Recognition and Measurement of Financial Assets and Financial Liabilities.” ASU No. 2016-01 supersedes and amends the guidance to classify equity securities with readily determinable fair values into different categories (that is, trading or available-for-sale) and require equity securities to be measured at fair value with changes in the fair value recognized through net income. The amendments allow equity investments that do not have readily determinable fair values to be remeasured at fair value either upon the occurrence of an observable price change or upon identification of an impairment. The amendments also require enhanced disclosures about those investments. ASU No. 2016-01 is effective for annual reporting beginning after December 15, 2017, including interim periods within the year of adoption, and calls for prospective application, with early application permitted. We do not expect the adoption of ASU No. 2016-01 to have a material impact on our consolidated financial statements.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires our management to make estimates and assumptions that affect the reported amounts (including assets, liabilities, revenues and expenses) and related disclosures. The amounts reported could differ under different estimates and assumptions.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash and highly liquid investments with remaining maturities of three months or less when purchased.

Inventory

Inventory is stated at the lower of cost or market. We determine cost, which includes amounts related to materials, labor and overhead, using a first-in, first-out basis. We evaluate our inventory each period to identify potential obsolete, excess or otherwise non-saleable items. If non-saleable items are observed and there are no alternate uses for the inventory, we will record a write-down to net realizable value in the period that the decline in value is first recognized.

Concentrations of Risk and Geographical Data

Financial instruments, which potentially subject us to concentrations of credit risk, consist primarily of cash and cash equivalents. We limit our exposure to credit loss by holding our cash primarily in US dollars or, from time to time, placing our cash and investments in US government, agency or government-sponsored enterprise obligations and in corporate debt instruments that are rated investment grade, in accordance with an investment policy approved by our Board of Directors.

Eisai and Ildong are the exclusive distributors of BELVIQ in the United States and South Korea, respectively, which are the only jurisdictions for which BELVIQ has received regulatory approval for marketing. We also produce drug products for Siegfried AG, or Siegfried, and, to a lesser extent, another third party under toll manufacturing agreements.

Percentages of our total revenues are as follows:

	Years ended December 31,					
	2015		2014		2013	
Eisai Agreement (See Note 12)	61.9	%	93.6	%	96.0	%
Ildong Agreement (See Note 12)	23.2	%	1.0	%	0.6	%
Toll manufacturing agreements	11.1	%	4.0	%	3.3	%
Other collaborative agreements	3.8	%	1.4	%	0.1	%
Total percentage of revenues	100.0	%	100.0	%	100.0	%

Percentages of our total accounts receivable are as follows:

	December 31,					
	2015		2014		2013	
Eisai Agreement (See Note 12)	77.5	%	93.1	%	94.5	%
Ildong Agreement (See Note 12)	1.3	%	0.4	%	1.0	%
Toll manufacturing agreements	9.6	%	0.0	%	4.3	%
Other collaborative agreements	11.6	%	6.5	%	0.2	%
Total percentage of accounts receivable	100.0	%	100.0	%	100.0	%

We purchase raw materials, starting materials, intermediates, API, excipients and other materials from commercial sources. To decrease the risk of an interruption to our supply, when we believe it is reasonable for us to do so, we source these materials from multiple suppliers so that, in general, the loss of any one source of supply would not have a material adverse effect on commercial production, project timelines or inventory of supplies for our studies or clinical trials. However, currently we have only one or a limited number of suppliers for some of these materials for BELVIQ and for other of our programs. The loss of a primary source of supply would potentially delay our production of BELVIQ or our development projects and potentially those of current or future collaborators. We intend to maintain a safety stock of certain of these materials to help avoid delays in production, but we do not know whether such stock will be sufficient. Our facility in Zofingen, Switzerland is the only manufacturer of finished drug product for BELVIQ. We believe that it could take longer than one year to secure a second source of supply for finished drug product of BELVIQ.

Long-lived assets located in the United States and Switzerland were $41.5 million and $38.1 million, respectively, at December 31, 2015. Long-lived assets located in the United States and Switzerland were $49.0 million and $42.4 million, respectively, at December 31, 2014.

Property and Equipment

Property and equipment are stated at cost and depreciated over the estimated useful lives of the assets (generally 3 to 15 years) using the straight-line method. Buildings are stated at cost and depreciated over an estimated useful life of approximately 20 years using the straight-line method. Leasehold improvements are stated at cost and amortized over the shorter of the estimated useful lives of the assets or the lease term using the straight-line method. Capital improvements are stated at cost and amortized over the estimated useful lives of the underlying assets using the straight-line method.

Intangibles

Intangible assets consist of our manufacturing facility production licenses we acquired from Siegfried in January 2008 and are amortized using the straight-line method over their estimated useful life of 20 years.

Long-lived Assets

If indicators of impairment exist, we assess the recoverability of the affected long-lived assets by determining whether the carrying value of such assets can be recovered through undiscounted cash flows. If impairment is indicated, we measure the impairment loss by comparing the fair value of the asset, estimated using discounted cash flows expected to be generated from the asset, to the carrying value.

Deferred Rent

For financial reporting purposes, rent expense is recognized on a straight-line basis over the term of the lease. The difference between rent expense and amounts paid under lease agreements is recorded as deferred rent in the liability section of our consolidated balance sheets.

Derivative Liabilities

We account for warrants and other derivative financial instruments as either equity or liabilities based upon the characteristics and provisions of each instrument. Warrants classified as equity are recorded as additional paid-in capital on our consolidated balance sheets and no further adjustments to their valuation are made. Warrants classified as derivative liabilities and other derivative financial instruments that require separate accounting as liabilities are recorded on our consolidated balance sheets at their fair value on the date of issuance and are revalued on each balance sheet date until such instruments are exercised or expire, with changes in the fair value between reporting periods recorded as other income or expense. We estimate the fair value of warrants classified as derivative liabilities

using the Black-Scholes option pricing model.

Foreign Currency

The functional currency of our wholly owned subsidiary in Switzerland, Arena GmbH, is the Swiss franc. Accordingly, all assets and liabilities of this subsidiary are translated to US dollars based on the applicable exchange rate on the balance sheet date. Revenue and expense components are translated to US dollars at weighted-average exchange rates in effect during the period. Gains and losses resulting from foreign currency translation are reported as a separate component of accumulated other comprehensive income or loss in the stockholders' equity section of our consolidated balance sheets.

Foreign currency transaction gains and losses, which are primarily the result of remeasuring US dollar-denominated receivables and payables at Arena GmbH, are recorded in the interest and other income (expense) section of our consolidated statement of operations and comprehensive loss. For the year ended December 31, 2015, we recognized foreign currency transaction gains, net of $2.0 million. For the year ended December 31, 2014, we recognized foreign currency transaction losses, net of $2.2 million. For the year ended December 31, 2013, we recognized foreign currency transaction gains, net of $0.3 million.

Share-based Compensation

Our share-based awards are measured at fair value and recognized over the requisite service or performance period. The fair value of each stock option is estimated on the date of grant using the Black-Scholes option pricing model, based on the market price of the underlying common stock, expected life, expected stock price volatility and expected risk-free interest rate. Expected volatility is computed using a combination of historical volatility for a period equal to the expected term and implied volatilities from traded options to buy our common stock, with historical volatility being weighted at 75%. The expected life of options is determined based on historical experience of similar awards, giving consideration to the contractual terms of the share-based awards, vesting schedules and post-vesting terminations. The risk-free interest rates are based on the US Treasury yield curve, with a remaining term approximately equal to the expected term used in the option pricing model. The fair value of each restricted stock unit award is estimated based on the market price of the underlying common stock on the date of the grant. The fair value of restricted stock unit awards that include market-based performance conditions is estimated on the date of grant using a Monte Carlo simulation model, based on the market price of the underlying common stock, expected performance measurement period, expected stock price volatility and expected risk-free interest rate. We estimate forfeitures at the time of grant and revise our estimate in subsequent periods if actual forfeitures differ from those estimates.

Revenue Recognition

Our revenues to date have been generated primarily through collaborative agreements and, to a lesser extent, toll manufacturing agreements. Our collaborative agreements may contain multiple elements including commercialization rights, services (joint steering committee and research and development services) and manufactured products. Consideration we receive under these arrangements may include upfront payments, research and development funding, cost reimbursements, milestone payments and payments for net product sales. We recognize revenue when (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred and title has passed, (iii) the price is fixed or determinable and (iv) collectability is reasonably assured. Any advance payments we receive in excess of amounts earned are classified as deferred revenues. We defer recognition of revenue at the time we sell BELVIQ to our collaborators because we presently do not have the ability to estimate product that may be returned to us. Instead, we recognize revenues from net product sales when our collaborators ship BELVIQ to their distributors. See Note 12.

We evaluate deliverables in a multiple-element arrangement to determine whether each deliverable represents a separate unit of accounting. A deliverable constitutes a separate unit of accounting when it has standalone value to the customer. If the delivered element does not have standalone value without one of the undelivered elements in the arrangement, we combine such elements and account for them as a single unit of accounting. We allocate the consideration to each unit of accounting at the inception of the arrangement based on the relative selling price.

Non-refundable upfront payments received under our collaborative agreements for commercialization rights have been deferred as such rights have not been deemed to have standalone value without the ongoing services required under the agreement. Such amounts are recognized as revenue on a straight-line basis over the period in which we expect to perform the services. Amounts we receive as reimbursement for our research and development expenditures are

recognized as revenue as the services are performed.

Under the milestone method, we recognize revenue that is contingent upon the achievement of a substantive milestone in its entirety in the period in which the milestone is achieved. A milestone is an event (i) that can be achieved in whole or in part on either our performance or on the occurrence of a specific outcome resulting from our performance, (ii) for which there is substantive uncertainty at the date the arrangement is entered into that the event will be achieved and (iii) that would result in additional payments being due us. A milestone payment is considered substantive when the consideration payable to us for each

milestone (a) is consistent with our performance necessary to achieve the milestone or the increase in value to the collaboration resulting from our performance, (b) relates solely to our past performance and (c) is reasonable relative to all of the other deliverables and payments under the arrangement. In making this assessment, we consider all facts and circumstances relevant to the arrangement, including factors such as the scientific, regulatory, commercial and other risks that must be overcome to achieve the respective milestone, the level of effort and investment required to achieve the respective milestone and whether any portion of the milestone consideration is related to future performance or deliverables. Other contingent-based payments received are recognized when earned.

We also manufacture drug products under toll manufacturing agreements. Upon the customer's acceptance of drug products manufactured by us under these agreements, we recognize toll manufacturing revenues.

Research and Development Expenses

Research and development expenses, which consist primarily of salaries and other personnel costs, clinical trial costs and preclinical study fees, manufacturing costs for non-commercial products, and the development of earlier-stage programs and technologies, are expensed as incurred when these expenditures have no alternative future uses.

We accrue clinical trial expenses based on work performed. In determining the amount to accrue, we rely on estimates of total costs incurred based on enrollment, the completion of trials and other events. We follow this method because we believe reasonably dependable estimates of the costs applicable to various stages of a clinical trial can be made. However, the actual costs and timing of clinical trials are highly uncertain, subject to risks and may change depending on a number of factors. Differences between the actual clinical trial costs and the estimated clinical trial costs that we have accrued in any prior period are recognized in the subsequent period in which the actual costs become known. Historically, these differences have not been material; however, material differences could occur in the future.

Payments made to reimburse collaborators for our share of their research and development activities are recorded as research and development expenses, and are recognized as the work is performed.

Comprehensive Loss

Comprehensive loss is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources. We report components of comprehensive loss in the period in which they are recognized. For the years ended December 31, 2015, 2014, and 2013, comprehensive loss consisted of net loss and foreign currency translation gains and losses.

Net Loss Per Share

We calculate basic and diluted net loss per share using the weighted-average number of shares of common stock outstanding during the period.

Since we are in a net loss position, in addition to excluding potentially dilutive out-of-the money securities, we have excluded from our calculation of diluted net loss per share all potentially dilutive in-the-money (i) stock options, (ii) restricted stock unit awards, or RSUs, (iii) Total Stockholder Return, or TSR, performance restricted stock unit, or PRSU, awards, (iv) unvested restricted stock in our deferred compensation plan and (v) our previously outstanding warrants, and our diluted net loss per share is the same as our basic net loss per share. The table below presents the weighted-average number of potentially dilutive securities that were excluded from our calculation of diluted net loss per share for the years presented, in thousands.

	Years ended December 31,		
	2015	2014	2013
Stock options	17,030	15,530	14,435
Warrants	19	370	776
RSUs and unvested restricted stock	547	476	306
Total	17,596	16,376	15,517

Because the market condition for the PRSUs was not satisfied at December 31, 2015, 2014, and 2013, such securities are excluded from the table above.

Income Taxes

We use the asset and liability method of accounting for income taxes. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Our deferred tax assets and liabilities are determined using the enacted tax rates expected to be in effect for the years in which those tax assets are expected to be realized. The realization of our deferred tax assets is dependent upon our ability to generate sufficient future taxable income. We establish a valuation allowance when it is more-likely-than-not the future realization of all or some of the deferred tax assets will not be achieved. The evaluation of the need for a valuation allowance is performed on a jurisdiction-by-jurisdiction basis, and includes a review of all available evidence, both positive and negative.

The impact of an uncertain income tax position is recognized at the largest amount that is more-likely-than-not to be sustained upon audit by the relevant taxing authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained.

(2) Fair Value Disclosures

We measure our financial assets and liabilities at fair value, which is defined as the exit price, or the amount that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

We use the following three-level valuation hierarchy that maximizes the use of observable inputs and minimizes the use of unobservable inputs to value our financial assets and liabilities:

Level 1 - Observable inputs such as unadjusted quoted prices in active markets for identical instruments.

Level 2 - Quoted prices for similar instruments in active markets or inputs that are observable for the asset or liability, either directly or indirectly.

Level 3 - Significant unobservable inputs based on our assumptions.

The following tables present our valuation hierarchy for our financial assets and liabilities that are measured at fair value on a recurring basis, in thousands:

	Fair Value Measurements at December 31, 2015			
	Balance	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Money market funds[1]	$113,080	$ 113,080	$ 0	$ 0

	Fair Value Measurements at December 31, 2014			
	Balance	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Money market funds[1]	$143,913	$ 143,913	$ 0	$ 0
Liabilities:				
Warrant derivative liabilities[2]	$474	$ 0	$ 474	$ 0

(1) Included in cash and cash equivalents on our consolidated balance sheets.

(2) The warrant expired pursuant to its terms in August 2015. See Note 9.

(3) Short-term Investments, Available-for-Sale

We held an investment in TaiGen Biotechnology Co., Ltd., or TaiGen, that, from December 31, 2011, to January 17, 2014, had a cost basis of zero due to prior impairment charges. On January 17, 2014, TaiGen completed an initial public offering and its common stock began to trade on the GreTai Securities Listed Market, under the name “TaiGen Biopharmaceuticals Holding Limited.” Such market is deemed to be comparable to a US over-the-counter market such that the fair value of our former

investment in TaiGen, which previously had been accounted for as a cost method investment with a cost basis of zero, became readily determinable. Accordingly, on January 17, 2014, we recorded our former investment in TaiGen of 29.6 million shares based on its fair value of approximately $49.1 million. We began recording our former investment in TaiGen at fair value based on the trading price of TaiGen's common stock, and the remaining former investment was revalued on each balance sheet date.

Gains and losses on the sale of available-for-sale securities are determined using the specific-identification method. During the year ended December 31, 2014, we sold all of our shares of TaiGen and recorded a realized gain of $49.6 million.

(4) Inventory

Inventory consisted of the following, in thousands:

	December 31,	
	2015	2014
Raw materials	$2,487	$1,167
Work in process	2,781	3,520
Finished goods at Arena GmbH	165	3,681
Finished goods at Eisai	3,309	2,463
Finished goods at Ildong	760	0
Total inventory	$9,502	$10,831

(5) Land, Property and Equipment

Land, property and equipment consisted of the following, in thousands:

	December 31,	
	2015	2014
Land	$8,131	$11,339
Building and capital improvements	74,663	74,629
Leasehold improvements	18,025	17,984
Machinery and equipment	53,790	53,247
Computers and software	15,893	15,363
Furniture and office equipment	2,227	2,376
	172,729	174,938
Less accumulated depreciation and amortization	(100,901)	(92,019)
Land, property and equipment, net	$71,828	$82,919

(6) Intangibles

Intangibles consisted of the following, in thousands:

	December 31,	
	2015	2014
Acquired manufacturing production licenses – gross	$12,958	$13,049
Acquired manufacturing production licenses – accumulated amortization	(5,183)	(4,567)
Intangibles, net	$7,775	$8,482

We capitalize into inventory amortization expense related to the manufacturing of BELVIQ. Such amortization will subsequently be recognized as cost of product sales when the related inventory is sold. Using the exchange rate in effect on December 31, 2015, we expect to record amortization of $0.6 million per year through 2027 for our manufacturing facility production licenses.

(7) Accounts Payable and Other Accrued Liabilities

Accounts payable and other accrued liabilities consisted of the following, in thousands:

	December 31,	
	2015	2014
Accounts payable	$2,078	$2,844
Accrued compensation	5,118	4,792
Accrued workforce reduction expenses	1,793	0
Other accrued liabilities	1,138	2,573
Total accounts payable and other accrued liabilities	$10,127	$10,209

(8) Agreements with Siegfried

In January 2008, we acquired from Siegfried certain drug product facility assets, including manufacturing facility production licenses, fixtures, equipment, other personal property and real estate assets in Zofingen, Switzerland, under an asset purchase agreement. These assets are being used to manufacture and package lorcaserin as well as certain drug products for Siegfried. From time to time, we may also use this facility to manufacture and package tablets and capsules for other of our programs or for other entities.

In connection with this transaction, we also entered into a long-term supply agreement for the active pharmaceutical ingredient of lorcaserin, a toll manufacturing agreement and a technical services agreement with Siegfried. For the years ended December 31, 2015, 2014 and 2013, we recognized expenses of $1.3 million, $2.5 million and $2.8 million, respectively, for services incurred under the technical services agreement. The technical services agreement provides us with administrative and other services to operate the facility.

The real estate assets we acquired in January 2008 pursuant to the asset purchase agreement consisted of approximately 67,000 square feet of space in a building that consists of approximately 134,000 square feet of space along with an option to purchase the remaining Siegfried-occupied portion of the building along with the underlying land at a price of CHF 15.0 million, plus an inflation adjustment. Siegfried also had the option to sell us such remaining portion of the building with the underlying land at a price of CHF 8.0 million, plus an inflation adjustment. In July 2014, Siegfried provided us notice of its exercise of the option to sell us the remaining Siegfried-occupied portion of the building with the underlying land. In December 2014, we took title of the remaining portion of the building with the underlying land, and in July 2015 we paid the purchase price of CHF 8.2 million to Siegfried. In connection with the exercise of the option, we entered into an agreement to lease this newly acquired building space back to Siegfried through December 31, 2016, for an annual base rent amount of CHF 0.4 million. Siegfried has the right to partially or fully terminate this lease with six months' notice. Siegfried has an annual option to extend the lease for an additional year with the last extension term ending on December 31, 2019. At any time during the extension terms, we have the right to partially or fully terminate this lease with six months' notice, but with a termination date no earlier than December 31, 2017.

(9) Derivative Liabilities

In June 2006 and August 2008, we issued seven-year warrants, which we refer to as the Series B Warrants, to purchase 829,856 and 1,106,344 shares of our common stock, respectively, at an exercise price of $15.49 and $7.71 per share, respectively. As a result of the warrants' anti-dilution provision and certain of our subsequent equity issuances, the number of shares issuable upon exercise of the warrants increased and the exercise price decreased.

In June 2013, a portion of the June 2006 Series B Warrant was exercised to purchase 10,000 shares of our common stock, resulting in net proceeds to us of $0.1 million, and the remaining portion of the June 2006 Series B Warrant to purchase shares of common stock expired pursuant to its terms in June 2013. Therefore, we recorded a gain in our consolidated statement of operations and comprehensive loss for the year ended December 31, 2013.

In August 2015, the August 2008 Series B Warrant, which was recorded as a current derivative liability of $0.5 million on our consolidated balance sheet at December 31, 2014, expired pursuant to its terms. Therefore, we recorded a gain in our consolidated statement of operations and comprehensive loss for the year ended December 31, 2015.

The warrants were revalued on each balance sheet date, with changes in the fair value between reporting periods recorded in the interest and other income (expense) section of our consolidated statements of operations and

comprehensive loss.

(10) Commitments

We occupy four US properties under sale and leaseback agreements that allow us the option to repurchase these properties at various dates between 2017 and 2027 and, in some cases, include renewal options. The terms of these leases stipulate annual increases in monthly rental payments of 2.5%. We accounted for our sale and leaseback transactions using the required financing method because our options to repurchase these properties in the future are considered continued involvement. Under the financing method, the book value of the properties and related accumulated depreciation remain on our balance sheet and no sale is recognized. Instead, the sales price of the properties is recorded as a financing obligation, and a portion of each lease payment is recorded as interest expense. We recorded interest expense of $6.7 million, $6.9 million and $7.1 million for the years ended December 31, 2015, 2014, and 2013, respectively, related to these leases. We expect interest expense related to our facilities to total $43.9 million from December 31, 2015, through the remaining terms of the leases. At December 31, 2015, the total financing obligation for these facilities was $68.2 million. The aggregate residual value of the facilities at the end of the lease terms is $10.0 million.

We lease an additional US property under an operating lease, which expires in May 2027, and contains a purchase option and stipulates annual increases in monthly rental payments of 2.5%. We also lease space in various facilities in Zofingen, Switzerland that can be terminated with 12 months written notice under an agreement that expires in 2032. We also lease a separate office space in Zofingen under an operating lease which expires in August 2020.

In accordance with the lease terms for certain of our US properties, we are required to maintain deposits for the benefit of the landlord throughout the term of the leases. A total of $0.8 million and $1.4 million was recorded in other non-current assets on our consolidated balance sheets at December 31, 2015, and 2014, respectively, related to such leases.

We recognize rent expense on a straight-line basis over the term of each lease. Rent expense of $1.1 million, $1.1 million and $1.1 million was recognized for the years ended December 31, 2015, 2014, and 2013, respectively.

Annual future obligations at December 31, 2015, are as follows, in thousands:

Year ending December 31,	Financing Obligations	Operating Leases
2016	$	