

ARENA PHARMACEUTICALS INC

FORM 10-Q (Quarterly Report)

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2016

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)

6154 Nancy Ridge Drive, San Diego, CA
(Address of principal executive offices)

23-2908305
(I.R.S. Employer
Identification No.)

92121
(Zip Code)

858.453.7200

(Registrant's telephone number, including area code)

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 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 No

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 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

The number of shares of common stock outstanding as of the close of business on November 4, 2016:

Class
Common Stock, \$0.0001 par value

Number of Shares Outstanding
243,313,807

ARENA PHARMACEUTICALS, INC.

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TRADEMARKS AND CERTAIN TERMS

Arena Pharmaceuticals®, Arena® and our corporate logo are registered service marks of Arena. BELVIQ®, BELVIQ XR®, and VENESPRI® are registered trademarks of our wholly owned subsidiary, Arena Pharmaceuticals GmbH. Any other brand names or trademarks appearing in this Quarterly Report on Form 10-Q are the property of their respective holders.

In this Quarterly Report on Form 10-Q, “Arena Pharmaceuticals,” “Arena,” “the Company,” “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.

Lorcaserin has been approved in the United States, South Korea and Mexico for weight management in a twice-a-day dosage formulation. The twice-a-day dosage formulation is being commercialized in the United States and South Korea under the brand name BELVIQ, and is expected to be commercialized in Mexico under the brand name VENESPRI. Lorcaserin has also recently been approved in the United States in a once-a-day dosage formulation, which is BELVIQ XR. In this document, “BELVIQ” refers to each of the formulations of lorcaserin approved for weight management, unless the context otherwise indicates.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements.

ARENA PHARMACEUTICALS, INC.

**Condensed Consolidated Balance Sheets
(In thousands)**

	September 30, 2016 (Unaudited)	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	\$ 101,629	\$ 156,184
Accounts receivable	18,304	4,934
Inventory	10,166	9,502
Prepaid expenses and other current assets	4,768	4,218
Total current assets	134,867	174,838
Land, property and equipment, net	64,980	71,828
Intangibles, net	7,518	7,775
Other non-current assets	2,883	2,351
Total assets	<u>\$ 210,248</u>	<u>\$ 256,792</u>
Liabilities and Equity		
Current liabilities:		
Accounts payable and other accrued liabilities	\$ 14,767	\$ 8,334
Accrued clinical and preclinical study fees	6,532	3,286
Payable to Eisai	12,065	12,080
Accrued restructuring charges	1,244	1,793
Current portion of deferred revenues	22,522	21,425
Current portion of lease financing obligations	3,378	2,978
Total current liabilities	60,508	49,896
Other long-term liabilities	853	470
Deferred revenues, less current portion	82,132	87,617
Lease financing obligations, less current portion	62,678	65,267
Commitments and contingencies		
Equity:		
Common stock	24	24
Additional paid-in capital	1,439,745	1,430,917
Accumulated other comprehensive income (loss)	867	(1,179)
Accumulated deficit	(1,437,308)	(1,376,220)
Total equity attributable to stockholders of Arena	3,328	53,542
Equity attributable to noncontrolling interest in consolidated variable interest entity	749	0
Total equity	4,077	53,542
Total liabilities and equity	<u>\$ 210,248</u>	<u>\$ 256,792</u>

¹ The balance sheet data at December 31, 2015, has been derived from audited financial statements at that date. It does not include, however, all of the information and notes required by US generally accepted accounting principles for complete financial statements.

See accompanying notes to unaudited condensed consolidated financial statements.

ARENA PHARMACEUTICALS, INC.

Condensed Consolidated Statements of Operations and Comprehensive Loss
(In thousands, except per share data)
(Unaudited)

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Revenues:				
Net product sales	\$ 3,323	\$ 4,884	\$ 11,104	\$ 15,787
Other Eisai collaboration revenue	12,954	2,065	18,155	7,414
Toll manufacturing	1,228	1,463	3,276	3,199
Other collaboration revenue	1,737	726	6,066	4,175
Total revenues	19,242	9,138	38,601	30,575
Operating Costs and Expenses:				
Cost of product sales	882	1,635	4,161	6,129
Cost of toll manufacturing	1,930	1,584	4,876	3,798
Research and development	17,466	22,072	54,514	68,241
General and administrative	8,590	9,028	23,979	26,311
Restructuring charges	231	0	6,346	0
Total operating costs and expenses	29,099	34,319	93,876	104,479
Loss from operations	(9,857)	(25,181)	(55,275)	(73,904)
Interest and Other Income (Expense):				
Interest income	54	37	247	105
Interest expense	(1,609)	(1,683)	(4,907)	(5,133)
Gain from valuation of derivative liabilities	0	852	0	474
Other	(1,067)	(443)	(1,275)	938
Total interest and other expense, net	(2,622)	(1,237)	(5,935)	(3,616)
Net loss	(12,479)	(26,418)	(61,210)	(77,520)
Less net loss attributable to noncontrolling interest in consolidated variable interest entity	122	0	122	0
Net loss attributable to stockholders of Arena	\$ (12,357)	\$ (26,418)	\$ (61,088)	\$ (77,520)
Net loss attributable to stockholders of Arena per share:				
Basic	\$ (0.05)	\$ (0.11)	\$ (0.25)	\$ (0.32)
Diluted	\$ (0.05)	\$ (0.11)	\$ (0.25)	\$ (0.32)
Shares used in calculating net loss attributable to stockholders of Arena per share:				
Basic	243,254	242,257	243,069	240,033
Diluted	243,254	242,257	243,069	240,033
Comprehensive Loss:				
Net loss	\$ (12,479)	\$ (26,418)	\$ (61,210)	\$ (77,520)
Foreign currency translation gain (loss)	694	(2,881)	2,046	(2,499)
Comprehensive loss	(11,785)	(29,299)	(59,164)	(80,019)
Less comprehensive loss attributable to noncontrolling interest in consolidated variable interest entity	122	0	122	0
Comprehensive loss attributable to stockholders of Arena	\$ (11,663)	\$ (29,299)	\$ (59,042)	\$ (80,019)

See accompanying notes to unaudited condensed consolidated financial statements.

ARENA PHARMACEUTICALS, INC.

Condensed Consolidated Statements of Cash Flows
(In thousands)
(Unaudited)

	Nine months ended September 30,	
	2016	2015
Operating Activities		
Net loss	\$ (61,210)	\$ (77,520)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	7,005	7,401
Amortization of intangibles	104	147
Share-based compensation	9,261	11,795
Gain from valuation of derivative liabilities	0	(474)
Amortization of prepaid financing costs	102	102
Loss on disposal of property and equipment	798	1,007
Changes in assets and liabilities:		
Accounts receivable	(13,122)	116
Inventory	157	1,240
Prepaid expenses and other assets	(514)	(366)
Payables and accrued liabilities	8,820	(21,271)
Deferred revenues	(4,929)	4,506
Other long-term liabilities	62	78
Net cash used in operating activities	(53,466)	(73,239)
Investing Activities		
Purchases of property and equipment	(644)	(10,800)
Proceeds from sale of property and equipment	786	2,232
Other non-current assets	(659)	(55)
Net cash used in investing activities	(517)	(8,623)
Financing Activities		
Principal payments on lease financing obligations	(2,189)	(1,829)
Proceeds from issuance of common stock	288	102,934
Net cash provided by (used in) financing activities	(1,901)	101,105
Effect of exchange rate changes on cash	1,329	(1,172)
Net increase (decrease) in cash and cash equivalents	(54,555)	18,071
Cash and cash equivalents at beginning of period	156,184	163,209
Cash and cash equivalents at end of period	\$ 101,629	\$ 181,280

See accompanying notes to unaudited condensed consolidated financial statements.

ARENA PHARMACEUTICALS, INC.

Notes to Unaudited Condensed Consolidated Financial Statements

1. Basis of Presentation

The accompanying unaudited condensed consolidated financial statements of Arena Pharmaceuticals, Inc. should be read in conjunction with the audited consolidated financial statements and notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2015, as filed with the Securities and Exchange Commission, or SEC, from which we derived our balance sheet as of December 31, 2015. The accompanying consolidated financial statements have been prepared in accordance with US generally accepted accounting principles, or GAAP, for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, since they are interim statements, the accompanying consolidated financial statements do not include all of the information and notes required by GAAP for complete financial statements. The accompanying consolidated financial statements reflect all adjustments, consisting of normal recurring adjustments, that are, in the opinion of our management, necessary to a fair statement of the results for the interim periods presented. Interim results are not necessarily indicative of results for a full year.

The accompanying consolidated financial statements include the balances and activity of our wholly owned subsidiaries and Beacon Discovery, Inc., or Beacon, a variable interest entity for which we have the controlling financial interest (see Note 13). The equity attributable to the noncontrolling interest in Beacon is presented as a separate component from the equity attributable to stockholders of Arena in the equity section of the condensed consolidated balance sheet. The results of operations and comprehensive loss attributable to the noncontrolling interest in Beacon is presented as separate components from the results of operations and comprehensive loss attributable to the stockholders of Arena in the condensed consolidated statement of operations and comprehensive loss.

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 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." ASU No. 2014-15 requires management to perform interim and annual assessments of an entity's ability to continue as a going concern within one year of the date the financial statements are issued and provides guidance on determining when and how to disclose going concern uncertainties in the financial statements. Certain disclosures will be required if conditions give rise to substantial doubt about an entity's ability to continue as a going concern. ASU No. 2014-15 applies to all entities and is effective for annual and interim periods ending after December 15, 2016, with early adoption permitted. We do not expect the adoption of ASU No. 2014-15 to 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 periods, and interim periods within those periods, beginning after December 15, 2017, 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.

In February 2016, the FASB issued ASU No. 2016-02, "Leases." ASU No. 2016-02 amends the accounting guidance for leases. The amendments contain principles that will require lessees to recognize most leases on the balance sheet by recording a right-of-use asset and a lease liability, unless the lease is a short-term lease that has an accounting lease term of 12 months or less. The amendments also contain other changes to the current lease guidance that may result in changes to how entities determine which contractual arrangements qualify as a lease, the accounting for executory costs (such as property taxes and insurance), as well as which lease origination costs will be capitalizable. The new standard also requires expanded quantitative and qualitative disclosures.

ASU No. 2016-02 is effective for annual reporting periods, and interim periods within those periods, beginning after December 15, 2018, with early adoption permitted. ASU No. 2016-02 requires the use of the modified retrospective transition method, whereby the new guidance will be applied at the beginning of the earliest period presented in the financial statements of the period of adoption. We are currently evaluating the impact of ASU No. 2016-02 on our consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, "Improvements to Employee Share-Based Payment Accounting." ASU No. 2016-09 is designed to simplify several aspects of accounting for share-based payment award transactions, including income tax consequences, classification of awards as either equity or liabilities, classification on the statement of cash flows and forfeiture rate calculations. ASU No. 2016-09 is effective for annual reporting periods, and interim periods within those periods, beginning after December 15, 2016, with early adoption permitted. We are currently evaluating the impact of ASU No. 2016-09 on our consolidated financial statements.

The preparation of financial statements in accordance 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.

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 September 30, 2016				
	Balance	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<i>Assets:</i>				
Money market funds ¹	\$ 56,327	\$ 56,327	\$ 0	\$ 0
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)
<i>Assets:</i>				
Money market funds ¹	\$ 113,080	\$ 113,080	\$ 0	\$ 0

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

3. Inventory

Inventory consisted of the following, in thousands:

	September 30, 2016	December 31, 2015
Raw materials	\$ 2,692	\$ 2,487
Work in process	2,969	2,781
Finished goods at Arena GmbH	727	165
Finished goods at Eisai	2,492	3,309
Finished goods at Ildong	1,286	760
Total inventory	<u>\$ 10,166</u>	<u>\$ 9,502</u>

4. Land, Property and Equipment

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

	September 30, 2016	December 31, 2015
Cost	\$ 166,420	\$ 172,729
Less accumulated depreciation and amortization	(101,440)	(100,901)
Land, property and equipment, net	<u>\$ 64,980</u>	<u>\$ 71,828</u>

5. Accounts Payable and Other Accrued Liabilities

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

	September 30, 2016	December 31, 2015
Accounts payable	\$ 7,645	\$ 2,078
Accrued compensation	5,663	5,118
Other accrued liabilities	1,459	1,138
Total accounts payable and other accrued liabilities	<u>\$ 14,767</u>	<u>\$ 8,334</u>

6. Collaborations

Please refer to our Annual Report on Form 10-K for the year ended December 31, 2015, for additional information regarding the collaborations described below.

Eisai.

We have a collaboration agreement with Eisai Inc. and Eisai Co., Ltd. (collectively with Eisai Inc., Eisai). Under this agreement, or Eisai Agreement, Eisai is the exclusive distributor of BELVIQ in the United States and most other countries in the world except for South Korea, Taiwan, Australia, New Zealand and Israel.

In July 2016, the US Food and Drug Administration approved the New Drug Application for our once-daily formulation of lorcaserin for chronic weight management under the brand name BELVIQ XR. Eisai will pay us a \$10.0 million substantive milestone payment earned from this achievement. Eisai has the exclusive rights to distribute BELVIQ XR in the United States. In October 2016, Eisai announced the commercial launch of BELVIQ XR in the United States.

In July 2016, the Federal Commission for the Protection Against Sanitary Risk approved the Marketing Authorization Application in Mexico for our twice-daily formulation of lorcaserin for chronic weight management. The product will be sold under the brand name VENESPRI. Eisai will pay us a \$1.0 million substantive milestone payment earned from this achievement. Eisai has the exclusive rights to distribute VENESPRI in Mexico.

Under the Eisai Agreement, in addition to the \$11.0 million in milestones mentioned above and the other \$86.5 million in milestones previously achieved since we entered the agreement in 2010, we are eligible to receive up to 16 substantive regulatory

milestones totaling \$165.0 million. These payments are based on 16 milestone events of which eight milestones with an aggregate value of \$105.0 million are related to a second or third product approval.

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

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Net product sales	\$ 1,868	\$ 3,274	\$ 7,179	\$ 11,603
Milestone payments	11,000	0	11,000	0
Amortization of upfront payments	1,886	1,886	5,656	5,656
Reimbursement of development expenses	11	107	1,242	1,454
Reimbursement of patent and trademark expenses	57	72	257	304
Subtotal other Eisai collaborative revenue	12,954	2,065	18,155	7,414
Total	\$ 14,822	\$ 5,339	\$ 25,334	\$ 19,017

The following table summarizes the deferred revenues under the Eisai Agreement, in thousands:

	September 30, 2016	December 31, 2015
Upfront payments	\$ 81,278	\$ 86,933
Net product sales	7,331	10,754
Total deferred revenues attributable to Eisai	88,609	97,687
Less current portion	(14,872)	(18,295)
Deferred revenues attributable to Eisai, less current portion	\$ 73,737	\$ 79,392

Ildong Pharmaceutical Co., Ltd.

We and Ildong Pharmaceutical Co., Ltd., or Ildong, have an exclusive agreement, or Ildong Agreement, under which Ildong has 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. There are no milestones we are eligible to receive in the future under the Ildong Agreement.

CY Biotech Company Limited

We have an agreement with CY Biotech Company Limited, or CYB. 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. We also provide certain services and will manufacture and sell BELVIQ to CYB. There are no material milestones we are eligible to receive in the future under this agreement.

Abic Marketing Limited (Teva)

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. There are no material milestones we are eligible to receive in the future under this agreement.

Axovant Sciences Ltd.

We and Axovant Sciences, Ltd., or Axovant, have an exclusive agreement, or Axovant Agreement, under which 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.

Under the Axovant Agreement, we are eligible to receive up to an aggregate of \$41.5 million in success milestones in case of full development and regulatory success of nelotanserin. Of these payments, two development milestones totaling \$4.0 million are substantive and four regulatory milestones totaling \$37.5 million are substantive.

Boehringer Ingelheim International GmbH.

We and Boehringer Ingelheim GmbH, or Boehringer Ingelheim, have an exclusive agreement, or Boehringer Ingelheim Agreement, to conduct joint research to identify drug candidates targeting an undisclosed G protein-coupled receptor, or GPCR, that belongs to the group of orphan central nervous system, or CNS, receptors.

Under the Boehringer Ingelheim Agreement, we are eligible to receive up to an aggregate of \$251.0 million in success milestones in case of full commercial success of multiple drug products. Of these payments, three development milestones totaling \$7.0 million are substantive, three development milestones totaling \$30.0 million are non-substantive, nine regulatory milestones totaling \$84.0 million are non-substantive and four commercial milestones totaling \$130.0 million are non-substantive.

7. Share-based Activity

Share-based Compensation.

We recognized share-based compensation expense as follows, in thousands:

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Cost of product sales	\$ 0	\$ 0	\$ 20	\$ 0
Research and development	1,200	2,097	4,940	6,338
General and administrative	981	1,751	3,269	5,457
Restructuring charges	0	0	1,032	0
Total share-based compensation expense	<u>\$ 2,181</u>	<u>\$ 3,848</u>	<u>\$ 9,261</u>	<u>\$ 11,795</u>
Total share-based compensation expense capitalized into inventory	<u>\$ 64</u>	<u>\$ 41</u>	<u>\$ 149</u>	<u>\$ 146</u>

Share-based Award Activity.

The following table summarizes our stock option activity during the nine months ended September 30, 2016, in thousands (except per share data):

	Options	Weighted-Average Exercise Price
Outstanding at January 1, 2016	16,407	\$ 5.01
Granted	16,502	1.61
Exercised	(63)	1.57
Forfeited/cancelled/expired	(7,281)	3.70
Outstanding at September 30, 2016	<u>25,565</u>	<u>\$ 3.20</u>

The following table summarizes activity with respect to our time-based restricted stock unit awards, or RSUs, during the nine months ended September 30, 2016, in thousands (except per share data):

	RSUs	Weighted-Average Grant-Date Fair Value
Unvested at January 1, 2016	273	\$ 4.67
Granted	0	
Vested	(193)	4.51
Forfeited/cancelled	(9)	4.31
Unvested at September 30, 2016	<u>71</u>	<u>\$ 5.16</u>

During the nine months ended September 30, 2016, the remaining Total Stockholder Return, or TSR, performance restricted stock unit, or PRSU, awards that we granted to our executive officers in March 2013 were forfeited without any earnout based on the TSR of our common stock relative to the TSR of the NASDAQ Biotechnology Index over the three-year performance period that began on March 1, 2013. In the aggregate, the target number of shares of common stock that could have been earned under the PRSUs

granted in March 2013 was 780,000. Except for those cancelled due to employment separation from Arena, the PRSU awards granted in March 2014 and March 2015 are still outstanding at September 30, 2016.

8. Concentrations of Credit Risk and Major Customers

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 and 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. Eisai is also the exclusive distributor of BELVIQ XR in the United States. 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:

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Eisai Agreement (See Note 6)	77.0%	58.4%	65.6%	62.2%
Ildong Agreement	8.2%	18.6%	11.0%	24.4%
Toll manufacturing agreements	6.4%	16.0%	8.5%	10.5%
Boehringer Ingelheim Agreement (See Note 6)	5.6%	0.0%	10.0%	0.0%
Axovant Agreement (See Note 6)	2.4%	6.1%	4.3%	2.2%
Other collaborative agreements	0.4%	0.9%	0.6%	0.7%
Total percentage of revenues	100.0%	100.0%	100.0%	100.0%

9. Net Loss Per Share

We calculate basic and diluted net loss attributable to stockholders of Arena 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 exclude from our calculation of diluted net loss attributable to stockholders of Arena per share all potentially dilutive in-the-money (i) stock options, (ii) RSUs, (iii) PRSUs, (iv) unvested restricted stock in our deferred compensation plan and (v) our previously outstanding warrant, and our diluted net loss per share is the same as our basic net loss per share.

The following table presents the weighted-average number of potentially dilutive securities that were excluded from our calculation of diluted net loss attributable to stockholders of Arena per share, in thousands:

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Stock options	28,559	17,462	24,791	17,033
RSUs and unvested restricted stock	175	690	242	576
Warrant	0	0	0	26
Total	28,734	18,152	25,033	17,635

Because the market conditions for the PRSUs were not satisfied at September 30, 2016, or September 30, 2015, such securities are excluded from the table above.

10. 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. A panel of the Ninth Circuit heard oral argument on the appeal on May 4, 2016. On October 26, 2016, the Ninth Circuit panel reversed the district court's dismissal of the second consolidated amended complaint and remanded the case back to the district court for further proceedings. 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.

On September 30, 2016, we and Eisai filed a patent infringement lawsuit against Lupin Limited and Lupin Pharmaceuticals, Inc. (collectively with Lupin Limited, Lupin) in the U.S. District Court for the District of Delaware. The lawsuit relates to a "Paragraph IV certification" notification we and Eisai received regarding an abbreviated new drug application, or ANDA, submitted to the FDA by Lupin requesting approval to engage in the commercial manufacture, use, importation, offer for sale or sale of a generic version of BELVIQ® (lorcaserin hydrochloride tablets, 10 mg). In its notification, Lupin alleged that no valid, enforceable claim of any of the patents which are listed in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations (Orange Book) for BELVIQ® will be infringed by Lupin's manufacture, importation, use, sale or offer for sale of the product described in its ANDA. The lawsuit claims infringement of U.S. Patent Nos. 6,953,787; 7,514,422; 7,977,329; 8,207,158; 8,273,734; 8,546,379; 8,575,149; 8,999,970 and 9,169,213. In accordance with the Hatch-Waxman Act, as a result of filing a patent infringement lawsuit within 45 days of receipt of Lupin's notification, the FDA cannot approve the ANDA any earlier than 7.5 years from NDA approval unless a District Court finds that all of the asserted claims of the patents-in-suit are invalid, unenforceable or not infringed. We and Eisai are seeking a determination from the court that, among other things, Lupin has infringed our patents, Lupin's ANDA should not be approved until the expiration date of our patents, and Lupin should be enjoined from commercializing a product that infringes our patents. We cannot predict the ultimate outcome of any proceeding.

11. Restructuring Charges

In the fourth quarter of 2015, we committed to a reduction in our US workforce of approximately 35%, or approximately 80 employees, which we substantially completed by the end of 2015. In the fourth quarter of 2015, we committed to a reduction in our Swiss workforce of approximately 17%, or approximately 14 employees, which we substantially completed by the end of the second quarter of 2016. As a result of these workforce reductions, we recorded a restructuring charge in the fourth quarter of 2015 for termination benefits, including severance and other benefits, of \$4.0 million, and at September 30, 2016, all of this charge has been paid.

In the second quarter of 2016, we committed to a reduction in our US workforce of approximately 73%, or approximately 100 employees, which we substantially completed in the third quarter of 2016. As a result of this workforce reduction, we recorded a restructuring charge in the second quarter of 2016 of \$6.1 million for termination benefits, including severance and other benefits. Included within this amount is non-cash, share-based compensation expense of \$1.0 million related to the accelerated vesting of stock options and the extension of the exercise period of vested options for employees impacted by the workforce reduction. At September 30, 2016, \$4.0 million of the cash portion of the restructuring charge has been paid, resulting in a remaining accrual of \$1.1 million.

In the third quarter of 2016, we committed to a reduction of our manufacturing workforce in Zofingen, Switzerland of approximately 23%, or approximately 15 employees, which we plan to substantially complete by the end of the first quarter of 2017. As a result of this workforce reduction, we recorded a restructuring charge in the third quarter of 2016 of \$0.2 million for cash termination benefits. At September 30, 2016, \$0.1 million of this charge has been paid, resulting in a remaining accrual of \$0.1 million.

12. Management Changes

Appointment of President and Chief Executive Officer.

In May 2016, our Board of Directors appointed Amit Munshi as our President and Chief Executive Officer, and he joined our Board of Directors in June 2016 following our 2016 Annual Stockholders' Meeting. Harry F. Hixson, Jr., Ph.D., who served as our interim Chief Executive Officer from October 2015 to May 2016, continues to serve on our Board of Directors.

In connection with Mr. Munshi's appointment as an officer, our Board of Directors' Compensation Committee approved an inducement stock option grant to Mr. Munshi to purchase 3,800,000 shares of our common stock under our 2013 Long-Term Incentive Plan, as amended in May 2016, to reserve an additional 3,800,000 shares of common stock for inducement awards. The nonstatutory stock options have a seven-year term and will vest over four years, with 25% of the shares subject to vesting one year after grant and the remainder of the shares vesting quarterly over the following three years in equal installments, subject to his continued service through the applicable vesting dates and possible acceleration in specified circumstances.

Termination of Chief Medical Officer.

In June 2016, our Board of Directors terminated without cause our former Senior Vice President and Chief Medical Officer, William R. Shanahan, Jr., M.D., J.D. Under our Amended and Restated Severance Benefit Plan, as amended, or Severance Benefit Plan, Dr. Shanahan is entitled to receive the following termination benefits: (1) a cash severance payment of approximately \$0.5 million (subject to applicable withholdings); (2) continuation of health insurance coverage for a period of 12 months; (3) acceleration of the stock options and RSUs (other than PRSUs) held by Dr. Shanahan that would otherwise have vested through the 12-month period following the date of his termination, provided that, for purposes of calculating such vesting acceleration, any unvested portion of such equity awards that were scheduled to vest in annual installments are treated as if the original grant provided for vesting in equal monthly installments rather than annually; and (4) continued stock option exercisability until the later of (i) the end of the original post-termination exercise period provided in the applicable stock option agreement or (ii) 12 months (but not beyond the original contractual life of the option). In addition, with respect to outstanding PRSUs, when our Board of Directors' Compensation Committee determines our relative performance for an applicable performance period, a pro-rata portion of the relevant PRSUs held by Dr. Shanahan is eligible to vest (based on the percentage of the performance period that Dr. Shanahan provided service prior to his termination). The pro-rata vesting may be accelerated if we undergo a change in control before the scheduled end of the performance period. We recorded a charge of \$1.0 million in the second quarter of 2016 related to these benefits, including non-cash, share-based compensation expense of \$0.4 million, which is included in research and development expenses in our condensed consolidated statement of operations and comprehensive loss for the nine months ended September 30, 2016. As of September 30, 2016, there are remaining accruals for these benefits of \$0.6 million included in accounts payable and other accrued expenses, the majority of which we expect to pay in the fourth quarter of 2016.

In July 2016, we and Dr. Shanahan entered into a one-year services agreement whereby Dr. Shanahan performs services for us relating to our research and development programs. As compensation, Dr. Shanahan receives a fixed monthly fee along with reimbursement of certain pre-approved expenses and continued stock option exercisability until 24 months from the July 2016 effective date of this agreement (but not beyond the original contractual life of the option). We recorded a charge of \$0.1 million in the third quarter of 2016 related to this compensation, including non-cash, share-based compensation expense, which is included in research and development expenses in our condensed consolidated statements of operations and comprehensive loss for the three and nine months ended September 30, 2016.

Appointment of Chief Financial Officer.

In June 2016, our Board of Directors appointed Kevin R. Lind as our Executive Vice President and Chief Financial Officer. In connection with such appointment, our Board's Compensation Committee approved an inducement stock option grant to Mr. Lind to purchase 800,000 shares of our common stock under our 2013 Long-Term Incentive Plan, as amended in May 2016 and June 2016, to reserve an additional 800,000 shares of common stock for inducement awards in addition to the 3,800,000 shares it previously reserved for such awards. The nonstatutory stock options have a seven-year term and will vest over 4 years, with 25% of the shares subject to vesting one year after grant and the remainder of the shares vesting monthly over the following three years in equal installments, subject to his continued service through the applicable vesting dates and possible acceleration in specified circumstances.

Appointment of Chief Business Officer.

In August 2016, our Board of Directors appointed Vincent Aurentz as our Executive Vice President and Chief Business Officer. In connection with such appointment, our Board's Compensation Committee approved an inducement stock option grant to Mr. Aurentz to purchase 800,000 shares of our common stock under our 2013 Long-Term Incentive Plan, as amended in May 2016, June 2016 and August 2016, to reserve an additional 800,000 shares of common stock for inducement awards in addition to the 4,600,000 shares it previously reserved for such awards. The nonstatutory stock options have a seven-year term and will vest over 4 years, with 25% of the shares subject to vesting one year after grant and the remainder of the shares vesting monthly over the following three years in equal installments, subject to his continued service through the applicable vesting dates and possible acceleration in specified circumstances.

Resignation of Chief Scientific Officer.

In September 2016, Dominic P. Behan, Ph.D., D.Sc., our former Executive Vice President and Chief Scientific Officer resigned from the Company, including from our Board of Directors, and became the Chief Executive Officer of Beacon (see Note 13). Dr. Behan's resignation follows our strategic shift in priorities to emphasize our proprietary clinical stage pipeline, which was announced on June 30, 2016. Dr. Behan's resignation was for good reason under our Severance Benefit Plan resulting from Dr. Behan's materially diminished duties and responsibilities following this strategic shift.

Following his resignation from the Company, Dr. Behan acts as the Chair of our Scientific Advisory Board and provides consulting services to us regarding our research and development program under a five-year consulting agreement, or Consulting Agreement, which may be terminated earlier by either party on 30 days advanced written notice. Dr. Behan receives a market rate hourly consulting fee, along with reimbursement of certain pre-approved expenses. In addition, Dr. Behan's consulting services constitute continuous service with us, and as a result, the outstanding equity awards we previously granted to Dr. Behan continue to vest and/or be exercisable, as those services are provided in accordance with the applicable plan(s) and written grant instrument(s) for such awards.

Under the Severance Benefit Plan, Dr. Behan is entitled to receive the following termination benefits: (1) a cash severance payment of approximately \$0.9 million (subject to applicable withholdings); (2) continuation of health insurance coverage for a period of 18 months; (3) acceleration of the stock options and RSUs (other than PRSUs) held by Dr. Behan that would otherwise have vested through the 18-month period following his Arena employee-status termination date, provided that, for purposes of calculating such vesting acceleration, any unvested portion of such equity awards that were scheduled to vest in annual installments are treated as if the original grant provided for vesting in equal monthly installments rather than annually; (4) for options that were vested as of his Arena employee-status termination date, including those for which vesting was accelerated upon his termination, continued stock option exercisability until the later of (i) the end of the original post-termination exercise period provided in the applicable stock option agreement measured from the date of cessation of services under the Consulting Agreement or (ii) 18 months following his Arena employee status termination date (but not beyond the original contractual life of the option) and (5) for options that were not vested as of his Arena employee-status termination date, continued stock option exercisability, to the extent vested as of the date of cessation of services under the Consulting Agreement, until the end of the original post-termination exercise period provided in the applicable stock option agreement measured from the date of cessation of services under the Consulting Agreement (but not beyond the original contractual life of the option).

We recorded a charge of \$2.6 million in the third quarter of 2016 related to these benefits, including non-cash, share-based compensation expense of \$1.6 million, which is included in research and development expenses in our condensed consolidated statements of operations and comprehensive loss for the three and nine months ended September 30, 2016. As of September 30, 2016, there are remaining accruals for these benefits of \$0.9 million included in accounts payable and other accrued expenses, the majority of which we expect to pay in the first quarter of 2017.

13. Beacon Discovery, Inc.

In the third quarter of 2016, Beacon was formed. Beacon is a privately held drug discovery incubator which focuses on identifying and advancing molecules targeting GCPRs. Dr. Behan is the Chief Executive Officer of Beacon (see Note 12). On September 1, 2016, we entered into various agreements with Beacon described in further detail below.

We entered into a license and collaboration agreement with Beacon, pursuant to which we transferred certain equipment to Beacon and granted Beacon a non-exclusive, non-assignable and non-sublicensable license to certain database information relating to compounds, receptors and pharmacology, and transferred certain equipment to Beacon. Beacon will seek to engage global partners to facilitate discovery and development. Beacon has agreed to assign to us any intellectual property relating to our existing research and development programs developed in the course of performing research for us, and grant us a non-exclusive license to any intellectual property developed outside the course of performing work for us that is reasonably necessary or useful for developing or commercializing the products under our research and development programs. We are also entitled to rights of negotiation and rights of first refusal to potentially obtain licenses to compounds discovered and developed by Beacon. In addition, we are entitled to receive (i) a percentage of any revenue received by Beacon on or after the second anniversary of the effective date of the agreement from any third party pursuant to a third party license, including upfront payments, milestone payments and royalties; (ii) single-digit royalties on the aggregate net sales of any related products sold by Beacon and its affiliates; and (iii) in the event that Beacon is sold, a percentage of the consideration for such sale transaction.

We entered a master services agreement with Beacon, pursuant to which Beacon performs certain research services for us.

We also entered into a separate services agreement with Beacon, pursuant to which Beacon now performs our research obligations under the Boehringer Ingelheim Agreement. In consideration for performing these research obligations, Beacon is entitled to receive the applicable FTE payments that are paid to us by Boehringer Ingelheim for the research services and certain milestone payments.

We also entered into a sublease agreement, or Sublease, with Beacon, pursuant to which we sublease approximately 15,000 square feet of laboratory, office and meeting room space to Beacon for a period of five years. Beacon can defer payments due to us under the Sublease by increasing the outstanding principal amount under a secured promissory note, or Note, we issued to Beacon. The outstanding principal amount and all accrued or unpaid interest thereon (calculated at a simple interest rate of seven percent per annum) shall be due and payable on the earlier of (i) August 31, 2022 or (ii) Beacon receiving cumulative cash proceeds of \$10,000,000 from the sale of equity, issuance of debt or third party license revenue.

As Beacon would not be able to finance its activities without the financial support we are providing pursuant to these agreements, Beacon is a variable interest entity. Arena does not own any equity in Beacon; however, as these agreements provide us the controlling financial interest in Beacon, we consolidate Beacon's balances and activity within our condensed consolidated financial statements. The noncontrolling interest attributable to Beacon presented on our condensed consolidated financial statements is comprised of Beacon's equity ownership interests as we do not own any voting interest in Beacon.

The following table presents a reconciliation of the equity attributable to the stockholders of Arena and the equity attributable to Beacon, in thousands:

	Equity Attributable to Stockholders of Arena	Equity Attributable to Noncontrolling Interest in Consolidated Variable Interest Entity	Total Equity
Balance at December 31, 2015	\$ 53,542	\$ 0	\$ 53,542
Net loss	(61,088)	(122)	(61,210)
Translation gain	2,046	0	2,046
Contribution of equipment and other assets from Arena to Beacon	(871)	871	0
Other	9,699	0	9,699
Balance at September 30, 2016	<u>\$ 3,328</u>	<u>\$ 749</u>	<u>\$ 4,077</u>

The following table presents the assets and liabilities of Beacon which are included in our condensed consolidated balance sheet at September 30, 2016, in thousands. The assets include only those assets that can be used to settle obligations of Beacon. The liabilities include third party liabilities of Beacon. As of September 30, 2016, Beacon had no creditors with recourse to the general credit of Arena. The assets and liabilities exclude intercompany balances that eliminate in consolidation:

Assets of Beacon that can only be used to settle obligations of Beacon	
Cash and cash equivalents	\$ 288
Prepaid expense and other current assets	42
Land, property and equipment, net	793
Total assets of Beacon that can only be used to settle obligation of Beacon	<u>\$ 1,123</u>
Liabilities of Beacon for which creditors do not have recourse to the general credit of Arena	
Accounts payable and other accrued liabilities	\$ 8
Total liabilities of Beacon for which creditors do not have recourse to the general credit of Arena	<u>\$ 8</u>

14. Subsequent Events

In October 2016, Eisai announced the commercial launch of BELVIQ XR in the United States (see Note 6).

See Note 10 for the update to our legal proceedings which occurred subsequent to September 30, 2016.

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

General

This discussion and analysis should be read in conjunction with our financial statements and notes thereto included in this quarterly report on Form 10-Q, or Quarterly Report, and the audited consolidated financial statements and notes thereto included in our annual report on Form 10-K for the year ended December 31, 2015, or 2015 Annual Report, as filed with the Securities and Exchange Commission, or SEC. Operating results are not necessarily indicative of results that may occur in future periods.

This Quarterly Report includes forward-looking statements that involve a number of risks, uncertainties and assumptions. 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 plans, strategies, intentions, expectations, objectives, goals or prospects and other statements that are not historical facts are also forward-looking statements. For such statements, we claim the protection of the Private Securities Litigation Reform Act of 1995. Readers of this Quarterly Report are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the time this Quarterly Report was filed with the 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, the risk factors identified in our SEC reports, including this Quarterly 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.

Use of “BELVIQ” in this Quarterly Report

Lorcaserin has been approved in the United States, South Korea and Mexico for weight management in a twice-a-day dosage formulation. The twice-a-day dosage formulation is being commercialized in the United States and South Korea under the brand name BELVIQ, and will be commercialized in Mexico under the brand name VENESPRI. Lorcaserin has also been approved in the United States in a once-a-day dosage formulation, which is BELVIQ XR.

In this document, “BELVIQ” refers to each of the formulations of lorcaserin approved for weight management, unless the context otherwise indicates.

OVERVIEW AND RECENT DEVELOPMENTS

We are a biopharmaceutical company focused on developing novel, small-molecule drugs across a range of therapeutic areas, and are currently directing our efforts and resources primarily on the following activities:

- Advancing our proprietary clinical programs:
 - Etrasimod (formerly known as APD334) – a selective, next generation S1P₁ modulator of the sphingosine 1-phosphate, or S1P, receptor – which we are evaluating in an ongoing Phase 2 clinical trial for ulcerative colitis, and will potentially explore in additional indications
 - APD371 — an agonist of the cannabinoid-2, or CB₂, receptor – which we expect to evaluate this compound in a Phase 2 clinical trial for pain associated with Crohn’s disease
 - Ralinepag (formerly known as APD811) – an agonist of the prostacyclin receptor – which we are evaluating in an ongoing Phase 2 clinical trial for pulmonary arterial hypertension, or PAH
 - We continue to explore additional indications for all of our clinical-stage programs

- Supporting our collaborations:
 - Eisai Inc. and Eisai Co., Ltd., which we refer to collectively as Eisai, and other collaborators in their efforts with respect to BELVIQ
 - Axovant Sciences Ltd., or Axovant, in their efforts with respect to nelotanserin, an orally available inverse agonist of the serotonin 2A receptor, which is in (i) a Phase 2 clinical trial in Lewy body dementia patients who experience frequent visual hallucinations, and (ii) a separate Phase 2 clinical trial to evaluate nelotanserin as a potential treatment for REM behavior disorder in patients with dementia with Lewy bodies
 - Boehringer Ingelheim International GmbH, or Boehringer Ingelheim, targeting a G protein-coupled receptor, or GPCR, that belongs to the group of orphan central nervous system, or CNS, receptors, which is in preclinical development

In July 2016, the US Food and Drug Administration, or FDA, approved the New Drug Application for our once-daily formulation of lorcaserin for chronic weight management under the brand name BELVIQ XR. Eisai will pay us a \$10.0 million milestone payment earned from this achievement. In July 2016, the Federal Commission for the Protection Against Sanitary Risk approved the Marketing Authorization Application in Mexico for our twice-daily formulation of lorcaserin for chronic weight management. The product will be sold under the brand name VENESPRI. Eisai will pay us a \$1.0 million milestone payment earned from this achievement.

In the second quarter of 2016, we committed to a reduction of our US workforce of approximately 73%, or approximately 100 employees, which we substantially completed in the third quarter of 2016. As a result of this workforce reduction, we recorded estimated restructuring charges during the second quarter of 2016 of \$6.1 million in connection with one-time employee termination costs, including severance and other benefits. Included within this amount is non-cash, share-based compensation expense of \$1.0 million related to the accelerated vesting of stock options and the extension of the exercise period of vested options for employees impacted by the workforce reduction. We estimate that the reduction will decrease annualized cash expenditures for (i) personnel by approximately \$17 million and (ii) related other operating expenses between \$6-8 million.

In the third quarter of 2016, we committed to a reduction of our manufacturing workforce in Zofingen, Switzerland of approximately 23%, or approximately 15 employees, which we plan to substantially complete by the end of the first quarter of 2017. As a result of this workforce reduction, we recorded a restructuring charge in the third quarter of 2016 of \$0.2 million in cash termination benefits. We estimate that the reduction will decrease annualized cash expenditures by approximately \$2 million.

In May 2016, our Board of Directors appointed Amit Munshi as our President and Chief Executive Officer, and he joined our Board of Directors in June 2016 following our 2016 Annual Stockholders' Meeting. Harry F. Hixson, Jr., Ph.D., who served as our interim Chief Executive Officer from October 2015 to May 2016, continues to serve on our Board of Directors. In June 2016, our Board of Directors appointed Kevin R. Lind as our Executive Vice President and Chief Financial Officer. In August 2016, our Board of Directors appointed Vincent Aurentz as our Executive Vice President and Chief Business Officer.

In general, developing drugs and obtaining marketing approval is a long, uncertain and expensive process, and our ability to execute on our plans and achieve our goals 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, and manufacture BELVIQ for commercial sale and studies.

We expect our cash used in operations will be lower in 2016 as compared to 2015 due to cost savings from the workforce reductions we effected at the end of 2015, in June 2016 and in July 2016 and by continuing to implement cost control measures. However, we will need to receive additional funds under our existing collaboration agreements, under any new collaboration 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 prioritization decisions, 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.

Our US operations are located in San Diego, California. Our primary clinical operations are located in Zug, Switzerland, and our commercial manufacturing for BELVIQ is located in Zofingen, Switzerland.

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

Source of revenue	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Milestone payments earned from Eisai	\$ 11.0	\$ 0.0	\$ 11.0	\$ 0.0
Arena's portion of Eisai net product sales	1.9	3.3	7.2	11.6
Amortization of upfront payments from Eisai	1.9	1.9	5.7	5.7
Arena's portion of Ildong net product sales	1.4	1.6	3.9	4.2
Toll manufacturing	1.2	1.5	3.3	3.2
Collaborative agreement with Boehringer Ingelheim	1.1	0.0	3.9	0.0
Other collaborative agreements	0.5	0.6	1.8	0.9
Reimbursement of development expenses and patent and trademark expenses from Eisai	0.1	0.2	1.5	1.8
Amortization of upfront payment from Ildong	0.1	0.0	0.3	0.2
Milestone payment earned from Ildong	0.0	0.0	0.0	3.0
Total revenues	<u>\$ 19.2</u>	<u>\$ 9.1</u>	<u>\$ 38.6</u>	<u>\$ 30.6</u>

Research and development expenses

Type of expense	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
External clinical and preclinical study fees and internal non-commercial manufacturing costs	\$ 10.0	\$ 8.1	\$ 25.6	\$ 24.8
Salary and other personnel costs (excluding non-cash, share-based compensation)	3.6	7.3	14.4	23.1
Facility and equipment costs	2.0	2.7	6.7	7.5
Non-cash, share-based compensation	1.2	2.1	4.9	6.3
Research supply costs	0.4	1.5	2.1	5.3
Other	0.3	0.4	0.8	1.2
Total research and development expenses	<u>\$ 17.5</u>	<u>\$ 22.1</u>	<u>\$ 54.5</u>	<u>\$ 68.2</u>

General and administrative expenses

Type of expense	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Salary and other personnel costs (excluding non-cash, share-based compensation)	\$ 3.0	\$ 3.0	\$ 9.3	\$ 9.9
Legal, accounting and other professional fees	2.9	2.5	7.0	5.7
Facility and equipment costs	1.3	1.4	3.4	4.0
Non-cash, share-based compensation	1.0	1.8	3.3	5.5
Other	0.4	0.3	1.0	1.2
Total general and administrative expenses	<u>\$ 8.6</u>	<u>\$ 9.0</u>	<u>\$ 24.0</u>	<u>\$ 26.3</u>

THREE MONTHS ENDED SEPTEMBER 30, 2016, AND 2015

Revenues. We recognized revenues of \$19.2 million for the three months ended September 30, 2016, compared to \$9.1 million for the three months ended September 30, 2015. This increase was primarily due to (i) the \$10.0 million milestone payment earned

from Eisai for the July 2016 approval of BELVIQ XR in the United States, (ii) \$1.1 million earned in the three months ended September 30, 2016, under our collaboration agreement with Boehringer Ingelheim, or Boehringer Ingelheim Agreement, which commenced in December 2015 and (iii) the \$1.0 million milestone payment earned from Eisai for the July 2016 approval of VENESPRI in Mexico. This increase was partially offset by a decrease of \$ 1.6 million in our portion of net product sales of BELVIQ due to a decrease in the number of tablets sold and a lower net sales price per tablet in the United States. The lower net sales price per tablet in the United States is primarily related to an increase in the gross-to-net discount attributable to the Eisai saving card programs .

When collaborators pay us before revenues are earned, we record such payments as deferred revenues. At September 30, 2016, we had a total of \$104.7 million in deferred revenues. Of such amount, \$81.3 million is attributable to upfront payments we received under our collaboration with Eisai, \$10.0 million is attributable to product supply of BELVIQ and the remaining amount is primarily attributable to the upfront payments we received under our other collaboration agreements.

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

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 for us 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. For example, 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 collaboration 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 savings cards or, to a lesser extent, vouchers.

In addition to revenues from the commercialization of BELVIQ in the United States, South Korea and Mexico, 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 ongoing BELVIQ cardiovascular outcomes trial, or CVOT, also known as the CAMELLIA study.

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. Cost of products sold decreased to \$0.9 million for the three months ended September 30, 2016, from \$1.6 million for the three months ended September 30, 2015, due to a decrease in the number of BELVIQ tablets sold in the United States and South Korea and a decrease in per tablet manufacturing costs.

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 \$0.3 million to \$1.9 million for the three months ended September 30, 2016, from \$1.6 million for the three months ended September 30, 2015, primarily due to increased costs incurred on toll manufacturing performed for Siegfried. We may consider entering into additional toll manufacturing agreements in the future to increase revenues and the 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, 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 \$ 4 . 6 million to \$ 1 7 . 5 million for the three months ended September 30, 2016, from \$22.1 million for the three months ended September 30, 2015 . This decrease was primarily due to decreases of \$ 3.7 million in salary and other personnel costs , \$1.1 million in research supply costs , \$0.9 million in non-cash, share-based compensation expense and \$0.7 million in facility and equipment costs , primarily due to o ur recent workforce reductions. This dec rease was partially offset by an in crease of \$ 1.9 million in external clinical and preclinical study fees and internal non-commercial manufacturing costs.

Although we expect to incur substantial research and development expenses in 2016, we expect these expenses will be lower than in 2015, primarily due to our recent workforce reductions. Our actual expenses may be higher or lower than anticipated due to various factors, including our focus, progress and results. For example, patient enrollment in our Phase 2 clinical trials for etrasimod and ralinepag is competitive and challenging and has taken longer than projected. This has resulted in our related external expenses being lower at this point than anticipated, and will likely increase our long-term expenses for these trials.

Included in the \$10.0 million of total external clinical and preclinical study fees and internal non-commercial manufacturing costs noted in the table above for the three months ended September 30, 2016, were the following:

- \$6.3 million related to etrasimod,
- \$2.1 million related to lorcaserin and non-commercial manufacturing costs and
- \$1.1 million related to ralinepag.

Included in the \$8.1 million of total external clinical and preclinical study fees and internal non-commercial manufacturing costs noted in the table above for the three months ended September 30, 2015, were the following:

- \$3.8 million related to lorcaserin and non-commercial manufacturing costs,
- \$1.9 million related to etrasimod and
- \$1.4 million related to ralinepag.

General and administrative expenses. General and administrative expenses decreased by \$0.4 million to \$8.6 million for the three months ended September 30, 2016, from \$9.0 million for the three months ended September 30, 2015. This decrease was primarily due to a decrease of \$0.8 million in non-cash, share-based compensation expenses, primarily due to the recent reductions in the number of our employees. This decrease was partially offset by an increase of \$0.4 million in legal, accounting and other professional fees. We expect that our 2016 general and administrative expenses will be lower than in 2015, primarily due to our recent workforce reductions and other cost control initiatives.

Restructuring charges. We recognized \$0.2 million of restructuring charges for the three months ended September 30, 2016, in connection with employee termination costs related to the reduction of our manufacturing workforce in Zofingen, Switzerland to which we committed in July 2016, compared to no restructuring charges for the three months ended September 30, 2015.

Interest and other expense, net. Interest and other expense, net, increased by \$1.4 million to \$2.6 million for the three months ended September 30, 2016, from \$1.2 million for the three months ended September 30, 2015. This increase was primarily due to (i) a \$0.9 million gain from revaluation of our derivative liabilities related to our previously outstanding warrant for the three months ended September 30, 2015, with no revaluation recorded in the three months ended September 30, 2016, as the warrant expired in August 2015 according to its terms and (ii) \$0.4 million in foreign currency transaction losses, net for the three months ended September 30, 2016, compared to \$0.5 million in foreign currency transaction gains, net for the three months ended September 30, 2015.

NINE MONTHS ENDED SEPTEMBER 30, 2016, AND 2015

Revenues. We recognized revenues of \$38.6 million for the nine months ended September 30, 2016, compared to \$30.6 million for the nine months ended September 30, 2015. This increase was primarily due to (i) the \$10.0 million milestone payment earned from Eisai for the July 2016 approval of BELVIQ XR in the United States, (ii) \$3.9 million earned in the nine months ended September 30, 2016, under the Boehringer Ingelheim Agreement, which commenced in December 2015, (iii) the \$1.0 million milestone payment earned from Eisai for the July 2016 approval of VENESPRI in Mexico and (iv) an increase of \$1.0 million earned under our collaboration agreement with Axovant, which commenced in May 2015. This increase was partially offset by a decrease of \$4.7 million in our portion of net product sales of BELVIQ and 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, while no milestone payments were earned from Ildong in the nine months ended September 30, 2016. The decrease in our portion of net product sales of BELVIQ was due to a decrease in the number of tablets sold and a lower net sales price per tablet in the United States. The lower net sales price per tablet in the United States is primarily related to an increase in the gross-to-net discount attributable to the Eisai voucher and saving card programs.

Cost of product sales. Cost of products sold decreased to \$4.2 million for the nine months ended September 30, 2016, from \$6.1 million for the nine months ended September 30, 2015, due to a decrease in the number of BELVIQ tablets sold in the United States and South Korea and a decrease in per tablet manufacturing costs.

Cost of toll manufacturing. Cost of toll manufacturing increased by \$1.1 million to \$4.9 million for the nine months ended September 30, 2016, from \$3.8 million for the nine months ended September 30, 2015, primarily due to increased costs incurred on toll manufacturing performed for Siegfried and from a toll manufacturing agreement that we entered into in April 2015 with a third party.

Research and development expenses. Research and development expenses decreased by \$13.7 million to \$54.5 million for the nine months ended September 30, 2016, from \$68.2 million for the nine months ended September 30, 2015. This decrease was primarily due to decreases of \$8.8 million in salary and other personnel costs, \$3.2 million in research supply costs, \$1.4 million in non-cash, share-based compensation expense and \$0.8 million in facility and equipment costs, primarily due to the recent reduction in the number of our employees. This decrease was partially offset by an increase of \$0.8 million in external clinical and preclinical study fees and internal non-commercial manufacturing costs.

Included in the \$25.6 million of total external clinical and preclinical study fees and internal non-commercial manufacturing costs noted in the table above for the nine months ended September 30, 2016, were the following:

- \$12.0 million related to etrasimod,
- \$8.7 million related to lorcaserin and non-commercial manufacturing costs and
- \$3.2 million related to ralinepag.

Included in the \$24.8 million of total external clinical and preclinical study fees and internal non-commercial manufacturing costs noted in the table above for the nine months ended September 30, 2015, were the following:

- \$13.2 million related to lorcaserin and non-commercial manufacturing costs,
- \$5.8 million related to etrasimod and
- \$4.0 million related to ralinepag.

General and administrative expenses. General and administrative expenses decreased by \$2.3 million to \$24.0 million for the nine months ended September 30, 2016, from \$26.3 million for the nine months ended September 30, 2015. This decrease was primarily due to decreases of \$2.2 million in non-cash, share-based compensation expense, \$0.6 million in salary and other personnel costs and \$0.6 million in facility and equipment costs, primarily due to the recent reductions in the number of our employees. This decrease was partially offset by an increase of \$1.3 million in legal, accounting and other professional fees.

Restructuring charges. We recognized \$6.3 million of restructuring charges for the nine months ended September 30, 2016, in connection with employee termination costs, including severance and other benefits, related to the reduction of our US workforce to which we committed in June 2016 and the reduction of our manufacturing workforce in Zofingen, Switzerland to which we committed in July 2016, compared to no restructuring charges for the nine months ended September 30, 2015.

Interest and other expense, net. Interest and other expense, net, increased by \$2.3 million to \$5.9 million for the nine months ended September 30, 2016, from \$3.6 million for the nine months ended September 30, 2015. This increase was primarily due to (i)

\$0.9 million in foreign currency transaction losses, net for the nine months ended September 30, 2016, compared to \$1.6 million in foreign currency transaction gains, net for the nine months ended September 30, 2015, and (ii) a \$0.5 million gain from revaluation of our derivative liabilities related to our previously outstanding warrant for the nine months ended September 30, 2015, with no revaluation recorded in the nine months ended September 30, 2016, as the warrant expired in August 2015 according to its terms. This increase was partially offset by (i) a decrease in interest expense of \$0.2 million, (ii) a decrease in fixed asset disposal losses, net of \$0.2 million and (iii) an increase in interest income of \$0.1 million.

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 weight management in the United States under the brand names BELVIQ and BELVIQ XR, in South Korea under the brand name BELVIQ and in Mexico under the brand name VENESPRI, and we refer to all such products as “BELVIQ” in this Form 10-Q, unless the context otherwise indicates. 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 the commercialization of BELVIQ in the United States, South Korea, Mexico or in any other territory in which BELVIQ may be approved. We expect to continue to incur substantial losses for at least the short term.

Short term.

At September 30, 2016, we had \$101.6 million in cash and cash equivalents. In addition, in the fourth quarter of 2016, we expect to receive a total of \$11.0 million in milestone payments under our collaboration agreement with Eisai for the approval of BELVIQ XR in the United States and for the approval of VENESPRI in Mexico. 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, fund 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 collaboration, 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 we expect Eisai will commercialize lorcaserin in Mexico, and, subject to applicable regulatory approval, 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, South Korea and Mexico, but there is no assurance of whether or when lorcaserin will be approved 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 Swiss manufacturing facility and sell the drug product to Eisai for 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 the 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 BELVIQ 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. As of September 30, 2016, our accrued payable to Eisai is \$12.1 million.

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 three and nine months ended September 30, 2016, 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 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 (which is the FDA-required portion of the trial 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, Eisai and we are responsible for 90% and 10%, respectively, of the cost for 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 \$ 8.0 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 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 our collaboration. 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, under our collaboration agreements, 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 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 or if we change our focus, we may determine 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 developing and commercializing drugs, and this process carries substantial risk and 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 collaboration, 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. For example, Eisai and we will share equally the expenses for the portion of CAMELLIA not required by the FDA for up to an aggregate of \$40.0 million each, and Eisai will be responsible for 100% of such expenses thereafter. We estimate that our share of the cost of CAMELLIA and other development activities could be in excess of \$80 million over the next several years.

Subject to applicable regulatory approval, we expect Eisai to commercialize lorcaserin in additional territories under our collaboration. 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 \$19.8 million to \$53.5 million in the nine months ended September 30, 2016, compared to \$73.2 million in the nine months ended September 30, 2015. This decrease was primarily the result of (i) a decrease of \$9.0 million in payments made for external clinical and preclinical study fees, (ii) the \$7.5 million payment we received from Boehringer Ingelheim, less \$1.2 million of withholding taxes (which was refunded to us in October 2016), in February 2016 upon entering into the Boehringer Ingelheim Agreement, while we did not receive any similar upfront payment in the nine months ended September 30, 2015, and (iii) reduced cash expenditures of approximately \$4.6 million for personnel costs primarily resulting from the workforce reductions we effected at the end of 2015. These decreases in net cash used in operations were partially offset by (i) the \$3.0 million milestone payment we received from Ildong, less withholding taxes, in March 2015 for the marketing approval of BELVIQ in South Korea, while we did not receive any similar milestone payment in the nine months ended September 30, 2016, and (ii) net payments of \$6.1 million we received for shipments of BELVIQ to Eisai and Ildong in the nine months ended September 30, 2016, compared to \$8.8 million in the nine months ended September 30, 2015.

Net cash used in investing activities decreased by \$8.1 million to \$0.5 million in the nine months ended September 30, 2016, compared to \$8.6 million in the nine months ended September 30, 2015. This decrease was primarily due to \$0.6 million in purchases of property and equipment in the nine months ended September 30, 2016, compared to \$10.8 million in the nine months ended September 30, 2015. This decrease was partially offset by \$0.8 million in proceeds from the sale of property and equipment in the nine months ended September 30, 2016, compared to \$2.2 million in the nine months ended September 30, 2015. We expect that our capital expenditures will be lower in 2016 compared to 2015 primarily due to the payment in July 2015 of CHF 8.2 million for our acquisition of additional space in our Swiss manufacturing facility.

Net cash of \$1.9 million was used in financing activities in the nine months ended September 30, 2016, as a result of payments of \$2.2 million on our lease financing obligations, which were partially offset by net proceeds of \$0.3 million from stock option exercises and purchases under our employee stock purchase plan. Net cash of \$101.1 million was provided by financing activities in the nine months ended September 30, 2015, as a result of net proceeds of \$100.7 million from our January 2015 offering of 21,000,000 shares of common stock and net proceeds of \$2.2 million from stock option exercises and purchases under our employee stock purchase plan, which were partially offset by payments of \$1.8 million on our lease financing obligations.

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 condensed 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.

Our critical accounting policies and management estimates are discussed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, and there have been no material changes during the nine months ended September 30, 2016.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

There have been no material changes from the information we included in this section of our Annual Report on Form 10-K for the year ended December 31, 2015.

Item 4. Controls and Procedures.

Based on an evaluation carried out as of the end of the period covered by this Quarterly Report, under the supervision and with the participation of our management, including our President and Chief Executive Officer and our Executive Vice President and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures, our President and Chief Executive Officer and our Executive Vice President and Chief Financial Officer have concluded that, as of the end of such period, our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934) were effective at the reasonable assurance level. There was no change in our internal control over financial reporting that occurred during the quarter covered by this Quarterly Report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. 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. A panel of the Ninth Circuit heard oral argument on the appeal on May 4, 2016. On October 26, 2016, the Ninth Circuit panel reversed the district court's dismissal of the second consolidated amended complaint and remanded the case back to the district court for further proceedings. 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.

On September 30, 2016, we and Eisai filed a patent infringement lawsuit against Lupin Limited and Lupin Pharmaceuticals, Inc. (collectively with Lupin Limited, Lupin) in the U.S. District Court for the District of Delaware. The lawsuit relates to a "Paragraph IV certification" notification we and Eisai received regarding an abbreviated new drug application, or ANDA, submitted to the FDA by Lupin requesting approval to engage in the commercial manufacture, use, importation, offer for sale or sale of a generic version of BELVIQ® (lorcaserin hydrochloride tablets, 10 mg). In its notification, Lupin alleged that no valid, enforceable claim of any of the patents which are listed in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations (Orange Book) for BELVIQ® will be infringed by Lupin's manufacture, importation, use, sale or offer for sale of the product described in its ANDA. The lawsuit claims infringement of U.S. Patent Nos. 6,953,787; 7,514,422; 7,977,329; 8,207,158; 8,273,734; 8,546,379; 8,575,149; 8,999,970 and 9,169,213. In accordance with the Hatch-Waxman Act, as a result of filing a patent infringement lawsuit within 45 days of receipt of Lupin's notification, the FDA cannot approve the ANDA any earlier than 7.5 years from NDA approval unless a District Court finds that all of the asserted claims of the patents-in-suit are invalid, unenforceable or not infringed. We and Eisai are seeking a determination from the court that, among other things, Lupin has infringed our patents, Lupin's ANDA should not be approved until the expiration date of our patents, and Lupin should be enjoined from commercializing a product that infringes our patents. We cannot predict the ultimate outcome of any proceeding.

Item 1A. Risk Factors.

RISK FACTORS

General

Investment in our stock involves a high degree of risk. You should consider carefully the risks described below, together with other information in this Quarterly Report on Form 10-Q 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.

The risk factors set forth below with an asterisk () before the title are new risk factors or ones containing substantive changes, including any material changes, from the risk factors previously disclosed in Item 1A to Part I of our Annual Report on Form 10-K for the year ended December 31, 2015, as filed with the Securities and Exchange Commission, or SEC.*

Use of “BELVIQ” in this Quarterly Report

In this document, “BELVIQ” refers to once-a-day and twice-a-day formulations of lorcaserin for weight management, and, unless the context otherwise indicates, the risks identified for BELVIQ also apply to VENESPRI, BELVIQ XR and lorcaserin.

Risks Relating to Our Business

***We will need to further collaborate or obtain additional funds to execute on our corporate strategy, and we may not be able to do so; 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.**

It takes many years and potentially hundreds of millions of dollars to successfully develop a compound into a marketed drug, and we have accumulated a large deficit since inception that has primarily resulted from the significant expenditures we have made with respect to lorcaserin and in seeking to research and develop other compounds. Our efforts may not result in any additional marketed drugs, and we expect that our losses and operating expenses will continue to be substantial.

While we intend to advance drug candidates and potentially earlier-stage compounds in our pipeline, we may not have adequate funds to develop our compounds into marketed drugs. Cash we have generated from sales of BELVIQ has been substantially lower than initially anticipated, and cash we may generate in the future from BELVIQ or otherwise is uncertain and difficult to predict. All of our other programs are in the research or development stage.

In June 2016, we announced a strategic shifting of priorities to emphasize our proprietary clinical-stage pipeline, and the implementation of cost reductions to streamline the organization to support our internal programs and collaborations. Such cost reductions include a substantial reduction of our workforce, primarily in areas of research, manufacturing and general and administrative, or G&A. In addition to these and possibly other cost reduction measures, we are hiring new personnel, primarily to support development, and revising our systems, processes and vendors. We cannot guarantee that we will be able to realize sufficient cost savings and other anticipated benefits from such reorganization, prioritization or other efforts, that our workforce reductions, other cost-control measures, and revisions to our systems and processes will not interfere with our ability to achieve our business objectives or have other negative consequences, or that we will not have to undertake future restructuring and cost-control measures.

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 activities. We may enter into collaboration or other agreements with other entities 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 any such agreement for any of our programs or drug candidates may depend on the outcomes of additional testing or regulatory applications for marketing approval, and we do not control these outcomes.

We may seek to obtain additional funding through the capital markets or other financing sources or we may eliminate, scale back or delay some or all of our research and 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.

***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 research and development. Clinical trials and preclinical studies are needed to demonstrate that drug candidates are safe and effective to the satisfaction of the US Food and Drug Administration, or FDA, and similar non-US regulatory authorities, and 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 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 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 part of the restructuring we announced in June 2016, we made significant changes in staffing, process, procedures and strategy, including with respect to the group overseeing our ongoing Phase 2 clinical trials in these therapeutic areas. We transferred much of the oversight of these clinical trials to recently hired employees in Switzerland. We plan to further modify the staffing of our clinical group, and there is no guarantee that we can hire qualified personnel in a timely manner or retain such personnel. It is unknown how our staffing and other changes will impact these clinical trials, and it is difficult to predict when these trials (or any future 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.

***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, workforce reductions, subsequent departures of additional employees, threatened or actual litigation involving us and the volatility of our stock price. If we do not recruit and retain effective management and other key employees, particularly our executive officers, our operations, ability to generate or raise additional capital, and our business in general may be adversely impacted. For example, to execute our clinical programs, our strategy is to maintain a sufficient and robust clinical expertise and program management function. We are in the process of modifying and building this function, and we may not be able to establish the function we believe necessary to support our clinical goals and meet our corporate objectives.

***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.

The process of conducting preclinical studies of compounds that we discover requires the commitment of a substantial amount of technical and financial resources and personnel. We cannot be certain that we will have sufficient technical or financial resources or personnel, that results sufficiently favorable to justify commencement of new clinical trials will be obtained in preclinical studies or our current clinical trials, or that we will further develop a drug candidate at any stage of development. Even if favorable results are obtained from preclinical studies or clinical trials, our financial resources may not allow us to advance a drug candidate. If we are unable to identify our 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 the number of 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 approved for marketing in the United States, Orexigen has also received approval to market its weight-loss drug in South Korea, and Novo Nordisk has also received approval to market its weight-loss drug in Mexico. 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, 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 and sales 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.

***We believe that our revenues 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.**

BELVIQ has received regulatory approval for weight management in only the United States, South Korea and Mexico. We believe our revenues are substantially dependent on the success of BELVIQ, which was our first drug approved by any regulatory agency. 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 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, Mexico 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 approval from any other regulatory agency or be commercialized in any other territories.

Revenues generated by BELVIQ may constitute the majority of our revenues over the next several years, which will substantially depend on product sales of BELVIQ and, to a lesser extent, 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 treated with BELVIQ and their results;
- 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;
- the willingness of physicians to prescribe and of patients to use BELVIQ notwithstanding that results from our required postmarketing studies are not yet available and other long-term efficacy and safety data does not yet exist;
- 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 collaborators' 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 initially anticipated. If BELVIQ does not achieve sufficient market acceptance in the United States, South Korea and Mexico, 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.

In July 2016, the FDA approved our once-daily formulation of BELVIQ, which is called BELVIQ XR. In October, Eisai announced the commercial launch of BELVIQ XR in the United States. We do not know whether or how the availability of a once-daily formulation will impact product sales or our revenues.

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.

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 uncertainties 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;
- 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 weight-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 differs 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 and Mexico, 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 current marketing authorizations 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, South Korea and Mexico. 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 additional regulatory approvals of lorcaserin. 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, or MACE (non-fatal myocardial infarction, non-fatal stroke and cardiovascular death), 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 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 up to four more years, but the duration could be longer or shorter depending on the actual number of events observed. 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, South Korea and Mexico, 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 Marketing Authorization Application, or 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 collaboration 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 collaboration 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, etrasimod is an orally available modulator of the S1P₁ 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 S1P₁ 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 etrasimod. 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, the FDA has taken the position that this change in the law does not 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 collaborators' 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.

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.

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 collaboration 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.

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 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 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 in Switzerland include clinical operations and regulatory, 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. 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. 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 and July 2016, we initiated measures to reduce our expenditures and streamline our operations in Switzerland, including changes with respect to the staffing, process, procedures and strategy relating our Swiss manufacturing facility and our ongoing Phase 2 clinical trials. These staffing and other changes may increase risks related to our international operations as well as our operations in general.

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 are located in a 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.

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 m 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 etrasimod. For example, we are aware of a third-party patent, as well as third-party patent applications, with broad claims to administering an SIP_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 etrasimod 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 etrasimod, if etrasimod is approved with a specific dosing regimen.

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 and Eisai have filed a patent infringement lawsuit against an ANDA filer relating to a “Paragraph IV certification.” While we intend to vigorously enforce our intellectual property rights relating to BELVIQ, we cannot predict the outcome of any litigation matter. For example, our existing patents could be invalidated, found unenforceable or found not to cover a generic form of BELVIQ. If an ANDA filer were to prevail in patent litigation and/or receive approval to sell a generic version of BELVIQ, BELVIQ would become subject to increased competition and our revenue would be adversely affected.

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 November 4, 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 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 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 timing of 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;
- the allocation of our resources;
- our ability, or the perception by investors of our ability, to continue to meet all applicable requirements for continued listing of our common stock on the The NASDAQ Stock Market, and the possible delisting of our common stock if we are unable to do so;
- 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 November 4, 2016, there were (i) options to purchase 25,557,696 shares of our common stock outstanding under our equity incentive plans at a weighted-average exercise price of \$3.20 per share, (ii) 582,349 restricted stock unit awards outstanding under our equity incentive plans, (iii) performance restricted stock unit awards outstanding under our equity incentive plans targeted at 931,667 shares (however, the actual number of shares that may be awarded ranges from 0% to 200% of such amount), (iv) 16,985,776

additional shares of common stock remaining issuable under our 2013 Long-Term Incentive Plan, as amended, (v) 1,126,635 shares of common stock remaining issuable under our 2009 Employee Stock Purchase Plan, as amended, and (vi) 62,501 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 November 4, 2016, there were 243,313,807 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 6. Exhibits.

EXHIBIT NO.	DESCRIPTION
3.1	Fifth Amended and Restated Certificate of Incorporation of Arena (incorporated by reference to Exhibit 3.1 to Arena's quarterly report on Form 10-Q for the quarter ended June 30, 2002, filed with the Securities and Exchange Commission on August 14, 2002, Commission File No. 000-31161)
3.2	Certificate of Amendment of the Fifth Amended and Restated Certificate of Incorporation of Arena (incorporated by reference to Exhibit 4.2 to Arena's registration statement on Form S-8 filed with the Securities and Exchange Commission on June 28, 2006, Commission File No. 333-135398)
3.3	Certificate of Amendment No. 2 of the Fifth Amended and Restated Certificate of Incorporation of Arena, as amended (incorporated by reference to Exhibit 4.3 to Arena's registration statement on Form S-8 filed with the Securities and Exchange Commission on June 30, 2009, Commission File No. 333-160329)
3.4	Certificate of Amendment No. 3 of the Fifth Amended and Restated Certificate of Incorporation of Arena, as amended (incorporated by reference to Exhibit 3.4 to Arena's registration statement on Form S-8 filed with the Securities and Exchange Commission on June 20, 2012, Commission File No. 333-182238)
3.5	Amended and Restated Bylaws of Arena (incorporated by reference to Exhibit 3.1 to Arena's current report on Form 8-K filed with the Securities and Exchange Commission on October 9, 2014, Commission File No. 000-31161)
4.1	Form of common stock certificate (incorporated by reference to Exhibit 4.2 to Arena's registration statement on Form S-1, as amended, filed with the Securities and Exchange Commission on July 19, 2000, Commission File No. 333-35944)
10.1*	2013 Long-Term Incentive Plan, as amended in May, June and August 2016
10.2*	Amendment No. 2, effective August 15, 2016, to Amended and Restated Severance Benefit Plan, effective May 9, 2016 and amended on June 13, 2016, and, as amended, providing benefits for Drs. Audet, Behan and Shanahan and Messrs. Aurentz, Lind, Mezzino and Spector
10.3*	Employment Agreement, dated as of August 9, 2016, between Arena and Vincent E. Aurentz
10.4*	Consulting Agreement dated July 15, 2016, between Arena and William R. Shanahan, Jr.
10.5*	Consulting Agreement dated September 1, 2016, between Arena and Dominic P. Behan
31.1	Certification of principal executive officer pursuant to Rule 13a-14(A) promulgated under the Securities Exchange Act of 1934
31.2	Certification of principal financial officer pursuant to Rule 13a-14(A) promulgated under the Securities Exchange Act of 1934
32.1	Certification of principal executive officer and principal financial officer pursuant to 18 U.S.C. Section 1350 and Rule 13a-14(B) promulgated under the Securities Exchange Act of 1934
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* Management contract or compensatory plan or arrangement.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: November 9, 2016

ARENA PHARMACEUTICALS, INC.

By: /s/ Amit Munshi

Amit Munshi

President and Chief Executive Officer (principal executive officer)

By: /s/ Kevin R. Lind

Kevin R. Lind

Executive Vice President and Chief Financial Officer (principal financial and accounting officer)

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* Management contract or compensatory plan or arrangement.

**ARENA PHARMACEUTICALS, INC.
2013 LONG-TERM INCENTIVE PLAN**

Arena Pharmaceuticals, Inc. (the “Company”), a Delaware corporation, hereby establishes and adopts the following 2013 Long-Term Incentive Plan (the “Plan”), as amended May 6, 2016, June 13, 2016, and August 10, 2016 .

1. PURPOSE OF THE PLAN

The purpose of the Plan is to assist the Company and its Affiliates in attracting and retaining employees, directors, consultants and advisors of the Company and its Affiliates who are expected to contribute to the Company’s success and achieve long-term objectives that will benefit the stockholders of the Company through the additional incentives inherent in the Awards hereunder.

2. DEFINITIONS

2.1. “*Affiliate*” shall mean, at the time of determination, any “parent” or “subsidiary” of the Company as such terms are defined in Rule 405 of the Securities Act. The Board or the Committee shall have the authority to determine the time or times at which “parent” or “subsidiary” status is determined within the foregoing definition.

2.2. “*Award*” shall mean any Option, Stock Appreciation Right, Restricted Stock Award, Restricted Stock Unit Award, Performance Award or any other right, interest or option relating to Shares or other property (including cash) granted pursuant to the provisions of the Plan.

2.3. “*Award Agreement*” shall mean any written agreement, contract or other instrument or document evidencing any Award granted hereunder, including through an electronic medium.

2.4. “*Board*” shall mean the Board of Directors of the Company.

2.5. “*Cause*” shall mean, unless otherwise provided in an Award Agreement or another agreement between the Participant and the Company or an Affiliate or a plan maintained by the Company or an Affiliate in which the Participant participates, a determination by the Committee that the Participant has breached his or her employment or service contract with the Company, or has been engaged in disloyalty to the Company, including, without limitation, fraud, embezzlement, theft, commission of a felony or proven dishonesty in the course of his or her employment or service, or has disclosed trade secrets or confidential information of the Company to persons not entitled to receive such information, or has breached any written noncompetition or nonsolicitation agreement between the Participant and the Company or has engaged in such other behavior detrimental to the interests of the Company as the Committee determines in its sole discretion. Any determination of “cause” for the purposes of outstanding Awards held by such Participant shall have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

2.6. “ *Code* ” shall mean the Internal Revenue Code of 1986, as amended from time to time.

2.7. “ *Committee* ” shall mean the Compensation Committee of the Board or a subcommittee thereof formed by the Compensation Committee to act as the Committee hereunder. The Committee shall consist of no fewer than two Directors, each of whom is (i) a “Non-Employee Director” within the meaning of Rule 16b-3 of the Exchange Act, (ii) an “outside director” within the meaning of Section 162(m) of the Code, and (iii) an “independent director” for purpose of the rules of the NASDAQ Stock Market (or such other principal U.S. national securities exchange on which the Shares are traded) to the extent required by such rules.

2.8. “ *Consultant* ” shall mean any consultant or advisor who is a natural person and who provides services to the Company or any Affiliate, so long as such person (i) renders bona fide services that are not in connection with the offer and sale of the Company’s securities in a capital-raising transaction and (ii) does not directly or indirectly promote or maintain a market for the Company’s securities.

2.9. “ *Covered Employee* ” shall mean an employee of the Company or its Affiliates who is a “covered employee” within the meaning of Section 162(m) of the Code.

2.10. “ *Director* ” shall mean a non-employee member of the Board.

2.11. “ *Dividend Equivalents* ” shall have the meaning set forth in Section 12.5.

2.12. “ *Employee* ” shall mean any employee of the Company or any Affiliate and any prospective employee conditioned upon, and effective not earlier than, such person becoming an employee of the Company or any Affiliate.

2.13. “ *Exchange Act* ” shall mean the Securities Exchange Act of 1934, as amended.

2.14. “ *Fair Market Value* ” shall mean, with respect to Shares as of any date, (i) the per Share closing price of the Shares as reported on the NASDAQ Stock Market on that date (or if there was no reported closing price on such date, on the last preceding date on which the closing price was reported), (ii) if the Shares are not then listed on the NASDAQ Stock Market, the closing price on such other principal U.S. national securities exchange on which the Shares are listed (or if there was no reported closing price on such date, on the last preceding date on which the closing price was reported); or (iii) if the Shares are not listed on a U.S. national securities exchange, the Fair Market Value of Shares shall be determined by the Committee in its sole discretion using appropriate criteria. The Fair Market Value of any property other than Shares shall mean the market value of such property determined by such methods or procedures as shall be established from time to time by the Committee.

2.15. “ *Incentive Stock Option* ” shall mean an Option which when granted is intended to be, and qualifies as, as an incentive stock option for purposes of Section 422 of the Code.

2.16. “ *Inducement Award* ” means an Award, other than an Incentive Stock Option, that is granted pursuant to Section 3.3 of the Plan.

2.17. “ *Inducement Shares* ” shall have the meaning set forth in Section 3.3.

2.18. “ *Limitations* ” shall have the meaning set forth in Section 10.5.

2.19. “ *Option* ” shall mean any right granted to a Participant under the Plan allowing such Participant to purchase Shares at such price or prices and during such period or periods as the Committee shall determine.

2.20. “ *Participant* ” shall mean an Employee, Director or Consultant who is selected by the Committee to receive an Award under the Plan.

2.21. “ *Payee* ” shall have the meaning set forth in Section 13.1.

2.22. “ *Performance Award* ” shall mean any Award of Performance Cash, Performance Shares or Performance Units granted pursuant to Article 9.

2.23. “ *Performance Cash* ” shall mean any cash incentives granted pursuant to Article 9 payable to the Participant upon the achievement of such performance goals as the Committee shall establish.

2.24. “ *Performance Period* ” shall mean that period established by the Committee at the time any Performance Award is granted or at any time thereafter during which any performance goals specified by the Committee with respect to such Award are to be measured.

2.25. “ *Performance Share* ” shall mean any grant pursuant to Article 9 of a unit valued by reference to a designated number of Shares, which value may be paid to the Participant by delivery of such property as the Committee shall determine, including cash, Shares, other property, or any combination thereof, upon achievement of such performance goals during the Performance Period as the Committee shall establish.

2.26. “ *Performance Unit* ” shall mean any grant pursuant to Section 9 of a unit valued by reference to a designated amount of property other than Shares (or cash), which value may be paid to the Participant by delivery of such property as the Committee shall determine, including cash, Shares, other property, or any combination thereof, upon achievement of such performance goals during the Performance Period as the Committee shall establish.

2.27. “ *Permitted Assignee* ” shall have the meaning set forth in Section 12.3.

2.28. “ *Prior Plans* ” shall mean, collectively, the Company’s Amended and Restated 1998 Equity Compensation Plan, Amended and Restated 2000 Equity Compensation Plan, 2002 Equity Compensation Plan, 2006 Long-Term Incentive Plan, as amended, 2009 Long-Term Incentive Plan and 2012 Long-Term Incentive Plan. Awards granted under the Prior Plans continue to be governed under the terms of those Prior Plans.

2.29. “*Restricted Stock*” shall mean any Share issued with the restriction that the holder may not sell, transfer, pledge or assign such Share and with such other restrictions as the Committee, in its sole discretion, may impose (including any restriction on the right to vote such Share and the right to receive any dividends), which restrictions may lapse separately or in combination at such time or times, in installments or otherwise, as the Committee may deem appropriate.

2.30. “*Restricted Stock Award*” shall have the meaning set forth in Section 7.1.

2.31. “*Restricted Stock Unit Award*” shall have the meaning set forth in Section 8.1.

2.32. “*Restricted Stock Unit*” means an Award that is valued by reference to a Share, which value may be paid to the Participant by delivery of cash, Shares or such other property as the Committee shall determine, which restrictions may lapse separately or in combination at such time or times, in installments or otherwise, as the Committee may deem appropriate.

2.33. “*Shares*” shall mean the shares of common stock, \$0.0001 par value, of the Company.

2.34. “*Stock Appreciation Right*” shall mean the right granted to a Participant pursuant to Section 6.

2.35. “*Substitute Awards*” shall mean Awards granted or Shares issued by the Company in assumption of, or in substitution or exchange for, awards previously granted, or the right or obligation to make future awards, in each case by a company acquired by the Company or any Affiliate or with which the Company or any Affiliate combines.

2.36. “*Vesting Period*” shall mean the period of time specified by the Committee during which vesting restrictions for an Award are applicable.

3. SHARES SUBJECT TO THE PLAN

3.1 Number of Shares .

(a) Subject to adjustment as provided in Section 12.2, a total of 30 million Shares shall be authorized for Awards granted under the Plan, as increased if applicable under this Section, less one (1) Share for every one (1) Share that was subject to an option or stock appreciation right granted after December 31, 2012, under the Prior Plans and 1.25 Shares for every one (1) Share that was subject to an award other than an option or stock appreciation right granted after December 31, 2012, under the Prior Plans. Any Shares that are subject to Options or Stock Appreciation Rights shall be counted against this limit as one (1) Share for every one (1) Share granted, and any Shares that are subject to Awards other than Options or Stock Appreciation Rights shall be counted against this limit as 1.25 Shares for every one (1) Share granted. After the effective date of the Plan (as provided in Section 13.13), no awards may be granted under any Prior Plan.

(b) If (i) any Shares subject to an Award are forfeited, an Award expires or an Award is settled for cash (in whole or in part), or (ii) after December 31, 2012, any Shares

subject to an award under the Prior Plans are forfeited, or an award under the Prior Plans expires or is settled for cash (in whole or in part), the Shares subject to such Award or award under the Prior Plans shall, to the extent of such forfeiture, expiration or cash settlement, again be available for Awards under the Plan, in accordance with Section 3.1(d) below. Notwithstanding anything to the contrary contained herein, the following Shares shall not be added to the Shares authorized for grant under paragraph (a) of this Section: (i) Shares tendered by the Participant or withheld by the Company in payment of the purchase price of an Option, or to satisfy any tax withholding obligation with respect to an Option or Stock Appreciation Right, (ii) Shares subject to a Stock Appreciation Right that are not issued in connection with the stock settlement of the Stock Appreciation Right on exercise thereof, and (iii) Shares reacquired by the Company on the open market or otherwise using cash proceeds from the exercise of Options or options granted under the Prior Plans.

(c) Shares issued under Substitute Awards that qualify for an exemption from the applicable stockholder-approval requirements under NASDAQ Listing Rule 5635(c) or its successor shall not reduce the Shares authorized for grant under the Plan and shall not be subject to the applicable Limitations authorized for grant to a Participant under Section 10.5, nor shall Shares subject to a Substitute Award again be available for Awards under the Plan to the extent of any forfeiture, expiration or cash settlement as provided in paragraph (b) above.

(d) Any Shares that again become available for grant pursuant to this Section shall be added back as (i) one (1) Share if such Shares were subject to Options or Stock Appreciation Rights granted under the Plan or options or stock appreciation rights granted under the Prior Plans, and (ii) as 1.25 Shares if such Shares were subject to Awards other than Options or Stock Appreciation Rights granted under the Plan or awards other than options or stock appreciation rights granted under the Prior Plans.

3.2. Character of Shares . Any Shares issued hereunder may consist, in whole or in part, of authorized and unissued shares, treasury shares or shares purchased in the open market or otherwise.

3.3. Inducement Share Pool and Inducement Award Rules . An additional 5,400,000 Shares shall be reserved under the Plan, exclusively for the grant of Inducement Awards in compliance with NASDAQ Listing Rule 5635(c)(4) (the “Inducement Shares”). The Inducement Shares that may be awarded under this Section 3.3 shall be in addition to and shall not reduce the Shares available for issuance under Section 3.1(a) of the Plan.

The following rules and restrictions shall apply to any Inducement Award granted pursuant to the Plan:

(a) An Inducement Award may be granted only to an Employee who has not previously been an Employee or a Director of the Company or an Affiliate, except following a bona fide period of non-employment, as an inducement material to the individual’s entering into employment with the Company within the meaning of Rule 5635(c)(4) of the NASDAQ Listing Rules.

(b) No Inducement Award may be designated as an Incentive Stock Option.

(c) All such Inducement Awards must be granted by a Committee consisting of the majority of the Company's independent directors or the Company's Compensation Committee, in each case in accordance with NASDAQ Listing Rule 5635(c)(4).

(d) The Inducement Shares underlying any Inducement Awards shall be subject to the same share counting provisions as described in Section 3.1, except that such Inducement Shares shall count against, or shall be added back to, the reserve of Inducement Shares available for grant under this Section 3.3, and shall not count against, or be added back to, the Shares available for issuance under Section 3.1(a) of the Plan.

(e) The limits in Section 10.5 will not apply to Inducement Awards.

4. ELIGIBILITY AND ADMINISTRATION

4.1. Eligibility. Any Employee, Director or Consultant shall be eligible to be selected as a Participant.

4.2. Administration.

(a) The Plan shall be administered by the Committee. The Committee shall have full power and authority, subject to the provisions of the Plan and subject to such orders or resolutions not inconsistent with the provisions of the Plan as may from time to time be adopted by the Board, to: (i) select the Employees, Directors and Consultants to whom Awards may from time to time be granted hereunder; (ii) determine the type or types of Awards, not inconsistent with the provisions of the Plan, to be granted to each Participant hereunder; (iii) determine the number of Shares (or dollar value) to be covered by each Award granted hereunder; (iv) determine the terms and conditions, not inconsistent with the provisions of the Plan, of any Award granted hereunder (including the power to amend outstanding Awards); (v) determine whether, to what extent and under what circumstances Awards may be settled in cash, Shares or other property; (vi) determine whether, to what extent, and under what circumstances cash, Shares, other property and other amounts payable with respect to an Award made under the Plan shall be deferred either automatically or at the election of the Participant; (vii) determine whether, to what extent and under what circumstances any Award shall be canceled or suspended; (viii) interpret and administer the Plan and any instrument or agreement entered into under or in connection with the Plan, including any Award Agreement; (ix) correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award in the manner and to the extent that the Committee shall deem desirable to carry it into effect; (x) establish such rules and regulations and appoint such agents as it shall deem appropriate for the proper administration of the Plan; (xi) determine whether any Award, other than an Option or Stock Appreciation Right, will have Dividend Equivalents; and (xii) make any other determination and take any other action that the Committee deems necessary or desirable for administration of the Plan.

(b) Decisions of the Committee shall be final, conclusive and binding on all persons or entities, including the Company, any Participant, and any Affiliate. A majority of the members of the Committee may determine its actions, including fixing the time and place of its meetings.

(c) To the extent not inconsistent with applicable law, including the Delaware General Corporation Law, Section 162(m) of the Code, or the rules and regulations of the NASDAQ Stock Market (or such other principal U.S. national securities exchange on which the Shares are traded), the Committee may delegate to: (i) a committee of one or more members of the Board the authority to take action on behalf of the Committee under the Plan including the right to grant, cancel, suspend or amend Awards and (ii) one or more “executive officers” within the meaning of Rule 16a-1(f) of the Exchange Act or a committee of executive officers the right to grant Awards to Employees who are not executive officers of the Company (provided that the Committee resolutions regarding such delegation will specify the total number of Shares that may be subject to the Awards granted by such person or persons) and the authority to take action on behalf of the Committee pursuant to the Plan to cancel or suspend Awards to Employees who are not directors or executive officers of the Company.

(d) The Board in its discretion may ratify and approve actions taken by the Committee. In addition, to the extent not inconsistent with applicable law or the rules and regulations of the NASDAQ Stock Market or such other principal U.S. national securities exchange on which the Shares are traded, the Board may take any action under the Plan that the Committee is authorized to take. In the event the Board takes such action references to the Committee hereunder shall be understood to refer to the Board.

5. OPTIONS

5.1. *Grant of Options* . Options may be granted hereunder to Participants either alone or in addition to other Awards granted under the Plan. Any Option shall be subject to the terms and conditions of this Article and to such additional terms and conditions, not inconsistent with the provisions of the Plan, as the Committee shall deem desirable.

5.2. *Award Agreements* . All Options granted pursuant to this Article shall be evidenced by a written Award Agreement in such form and containing such terms and conditions as the Committee shall determine which are not inconsistent with the provisions of the Plan. The terms of Options need not be the same with respect to each Participant. Granting an Option pursuant to the Plan shall impose no obligation on the recipient to exercise such Option. Any individual who is granted an Option pursuant to this Article may hold more than one Option granted pursuant to the Plan at the same time.

5.3. *Option Price* . Other than in connection with Substitute Awards, the option price per each Share purchasable under any Option granted pursuant to this Article shall not be less than 100% of the Fair Market Value of one Share on the date of grant of such Option; provided, however, that in the case of an Incentive Stock Option granted to a Participant who, at the time of the grant, owns stock representing more than 10% of the voting power of all classes of stock of the Company or any Affiliate, the option price per share shall be no less than 110% of the Fair Market Value of one Share on the date of grant. Other than pursuant to Section 12.2, the Committee shall not without the approval of the Company’s stockholders (a) lower the option price per Share of an Option after it is granted, (b) cancel an Option when the option price per Share exceeds the Fair Market Value of one Share in exchange for cash or another Award (other than in connection with a Change in Control as defined in Section 11.3 or Substitute Awards), and (c) take any other action with respect to an Option that would be treated as a repricing under

the rules and regulations of the NASDAQ Stock Market (or such other principal U.S. national securities exchange on which the Shares are traded).

5.4. Option Term . The term of each Option shall be fixed by the Committee in its sole discretion; provided that no Option shall be exercisable after the expiration of seven (7) years from the date the Option is granted, except in the event of death or disability; provided, however, that the term of the Option shall not exceed five (5) years from the date the Option is granted in the case of an Incentive Stock Option granted to a Participant who, at the time of the grant, owns stock representing more than 10% of the voting power of all classes of stock of the Company or any Affiliate.

5.5. Exercise of Options .

(a) Vested Options granted under the Plan may be exercised by the Participant or by a Permitted Assignee thereof (or by the Participant's executors, administrators, guardian or legal representative, as may be provided in an Award Agreement) as to all or part of the Shares covered thereby, by the giving of notice of exercise to the Company or its designated agent, specifying the number of Shares to be purchased. The notice of exercise shall be in such form, made in such manner, and shall comply with such other requirements consistent with the provisions of the Plan as the Committee may from time to time prescribe.

(b) Unless otherwise provided in an Award Agreement, full payment of such purchase price shall be made at the time of exercise and shall be made (i) in cash or cash equivalents (including certified check or bank check or wire transfer of immediately available funds), (ii) by tendering previously acquired Shares (either actually or by attestation), valued at their then Fair Market Value, (iii) with the consent of the Committee, by delivery of other consideration (including, where permitted by law and the Committee, other Awards) having a Fair Market Value on the exercise date equal to the total purchase price, (iv) with the consent of the Committee, by withholding Shares otherwise issuable in connection with the exercise of the Option, (v) through any other method specified in an Award Agreement (including same-day sales through a broker), or (vi) any combination of any of the foregoing. In no event may any Option granted hereunder be exercised for a fraction of a Share. No adjustment shall be made for cash dividends or other rights for which the record date is prior to the date of such issuance.

(c) Notwithstanding the foregoing, an Award Agreement may provide that if on the last day of the term of an Option the Fair Market Value of one Share exceeds the option price per Share, the Participant has not exercised the Option and the Option has not expired, the Option shall be deemed to have been exercised by the Participant on such day with payment made by withholding Shares otherwise issuable in connection with the exercise of the Option. In such event, the Company shall deliver to the Participant the number of Shares for which the Option was deemed exercised, less the number of Shares required to be withheld for the payment of the total purchase price and required withholding taxes; provided, however, any fractional Share shall be settled in cash.

(d) No Option granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, shall be first exercisable for any Shares until at least six months following the date of grant of the Option. Notwithstanding the

foregoing, consistent with the provisions of the Worker Economic Opportunity Act, (i) in the event of the Employee's death or disability, (ii) upon a corporate transaction in which such Option is not assumed, continued, or substituted, (iii) upon a Change in Control, or (iv) upon the Employee's retirement (as such term may be defined in the Employee's Award Agreement or in another applicable agreement or in accordance with the Company's then current employment policies and guidelines), any such vested Options may be exercised earlier than six months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option will be exempt from his or her regular rate of pay.

5.6. Form of Settlement . In its sole discretion, the Committee may provide in the form of Award Agreement that the Shares to be issued upon an Option's exercise shall be in the form of Restricted Stock or other similar securities.

5.7. Incentive Stock Options . The Committee may grant Options intended to qualify as "incentive stock options" as defined in Section 422 of the Code, to any employee of the Company or any Affiliate, subject to the requirements of Section 422 of the Code. Notwithstanding anything in Section 3.1 to the contrary and solely for the purposes of determining whether Shares are available for the grant of "incentive stock options" under the Plan, the maximum aggregate number of Shares that may be issued pursuant to "incentive stock options" granted under the Plan shall be 30 million Shares, subject to adjustment as provided in Section 12.2.

5.8. Extension of Termination Date. Unless otherwise provided in a Participant's Award Agreement and in the sole determination of the Committee, if the sale of any Common Stock received on exercise of an Option following the termination of the Participant's employment by or services to the Company (other than for Cause) would be prohibited at any time solely because the issuance of Shares would violate (i) the registration requirements under the Securities Act, (ii) the Company's insider trading policy, or (iii) a "lock-up" agreement undertaken in connection with an issuance of securities by the Company, then the Option will terminate on the earlier of (a) the expiration of a total period of 90 days (that need not be consecutive) after the termination of the Participant's employment by or services to the Company during which the exercise of the Option would not be in violation of any of such registration requirement, insider trading policy or lock-up agreement, and (b) the expiration of the term of the Option as set forth in the applicable Award Agreement.

6. STOCK APPRECIATION RIGHTS

6.1. Grant and Exercise . The Committee may provide Stock Appreciation Rights (a) in conjunction with all or part of any Option granted under the Plan or at any subsequent time during the term of such Option, (b) in conjunction with all or part of any Award (other than an Option) granted under the Plan or at any subsequent time during the term of such Award, or (c) without regard to any Option or other Award, in each case upon such terms and conditions as the Committee may establish in its sole discretion.

6.2. Terms and Conditions . Stock Appreciation Rights shall be subject to such terms and conditions, not inconsistent with the provisions of the Plan, as shall be determined from time to time by the Committee, including the following:

(a) Upon the exercise of a Stock Appreciation Right, the holder shall have the right to receive the excess of (i) the Fair Market Value of one Share on the date of exercise (or such amount less than such Fair Market Value as the Committee shall so determine at any time during a specified period before the date of exercise) over (ii) the grant price of the Stock Appreciation Right.

(b) Upon the exercise of a Stock Appreciation Right, the Committee shall determine in its sole discretion whether payment shall be made in cash, in whole Shares or other property, or any combination thereof.

(c) The terms and conditions of Stock Appreciation Rights need not be the same with respect to each recipient.

(d) The Committee may impose such other conditions on the exercise of any Stock Appreciation Right, as it shall deem appropriate. A Stock Appreciation Right shall have (i) a grant price per Share of not less than the Fair Market Value of one Share (x) on the date of grant or (y) if applicable, on the date of grant of an Option with respect to a Stock Appreciation Right granted in exchange for or in tandem with, but subsequent to, the Option (subject to the requirements of Section 409A of the Code with respect to a Stock Appreciation Right granted in exchange for or in conjunction with, but subsequent to, an Option), except in the case of Substitute Awards or in connection with an adjustment provided in Section 12.2, and (ii) a term not greater than seven (7) years. In addition to the foregoing, but subject to Section 12.2, the Committee shall not without the approval of the Company's stockholders (x) lower the grant price per Share of any Stock Appreciation Right after it is granted, (y) cancel any Stock Appreciation Right when the grant price per Share exceeds the Fair Market Value of the underlying Shares in exchange for cash or another Award (other than in connection with a Change in Control as defined in Section 11.3 or Substitute Awards), and (z) take any other action with respect to any Stock Appreciation Right that would be treated as a repricing under the rules and regulations of the NASDAQ Stock Market (or such other principal U.S. national securities exchange on which the Shares are traded).

(e) In no event may any Stock Appreciation Right granted hereunder be exercised for a fraction of a Share. No adjustment shall be made for cash dividends or other rights for which the record date is prior to the date of such issuance.

(f) An Award Agreement may provide that if on the last day of the term of a Stock Appreciation Right the Fair Market Value of one Share exceeds the grant price per Share of the Stock Appreciation Right, the Participant has not exercised the Stock Appreciation Right or the tandem Option (if applicable), and neither the Stock Appreciation Right nor the Option has expired, the Stock Appreciation Right shall be deemed to have been exercised by the Participant on such day. In such event, the Company shall make payment to the Participant in accordance with this Section, reduced by the number of Shares (or cash) required for withholding taxes; any fractional Share shall be settled in cash.

(g) No Stock Appreciation Right granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, shall be first exercisable for any Shares until at least six months following the date of grant of the Stock Appreciation Right. Notwithstanding the foregoing, consistent with the provisions of the Worker Economic Opportunity Act, (i) in the event of the Employee's death or disability, (ii) upon a corporate transaction in which such Stock Appreciation Right is not assumed, continued, or substituted, (iii) upon a Change in Control, or (iv) upon the Employee's retirement (as such term may be defined in the Employee's Award Agreement or in another applicable agreement or in accordance with the Company's then current employment policies and guidelines), any such vested Stock Appreciation Rights may be exercised earlier than six months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of a Stock Appreciation Right will be exempt from his or her regular rate of pay.

(h) *Extension of Termination Date*. Unless otherwise provided in a Participant's Award Agreement and in the sole determination of the Committee, if the sale of any Common Stock received on exercise of a Stock Appreciation Right following the termination of the Participant's employment by or services to the Company (other than for Cause) would be prohibited at any time solely because the issuance of Shares would violate (i) the registration requirements under the Securities Act, (ii) the Company's insider trading policy, or (iii) a "lock-up" agreement undertaken in connection with an issuance of securities by the Company, then the Stock Appreciation Right will terminate on the earlier of (a) the expiration of a total period of 90 days (that need not be consecutive) after the termination of the Participant's employment by or services to the Company during which the exercise of the Stock Appreciation Right would not be in violation of any of such registration requirement, insider trading policy or lock-up agreement, and (b) the expiration of the term of the Stock Appreciation Right as set forth in the applicable Award Agreement.

7. RESTRICTED STOCK AWARDS

7.1. Grants. Awards of Restricted Stock may be issued hereunder to Participants either alone or in addition to other Awards granted under the Plan (a "Restricted Stock Award"), and such Restricted Stock Awards may also be available as a form of payment of Performance Awards and other earned cash-based incentive compensation. A Restricted Stock Award shall be subject to vesting restrictions imposed by the Committee covering a period of time specified by the Committee. The Committee has absolute discretion to determine whether any consideration (other than services) is to be received by the Company or any Affiliate as a condition precedent to the issuance of Restricted Stock.

7.2. Award Agreements. The terms of any Restricted Stock Award granted under the Plan shall be set forth in an Award Agreement which shall contain provisions determined by the Committee and not inconsistent with the Plan. The terms of Restricted Stock Awards need not be the same with respect to each Participant.

7.3. Rights of Holders of Restricted Stock. Unless otherwise provided in the Award Agreement, beginning on the date of grant of the Restricted Stock Award and subject to execution of the Award Agreement, the Participant shall become a stockholder of the Company

with respect to all Shares subject to the Award Agreement and shall have all of the rights of a stock holder, including the right to vote such Shares and the right to receive distributions made with respect to such Shares; provided, however, that except as otherwise provided in an Award Agreement any Shares or any other property distributed as a dividend or otherwise with respect to any Restricted Stock as to which the restrictions have not yet lapsed shall be subject to the same restrictions as such Restricted Stock. Notwithstanding the provisions of this Section, cash dividends, stock and any other property (other than cash) distributed as a dividend or otherwise with respect to any Restricted Stock Award that vests based on achievement of performance goals shall be (i) accumulated, (ii) subject to restrictions and risk of forfeiture to the same extent as the Restricted Stock with respect to which such cash, stock or other property has been distributed and (iii) paid at the time, and to the extent, such restrictions and risk of forfeiture lapse.

8. RESTRICTED STOCK UNIT AWARDS

8.1. Grants. Other Awards of units having a value equal to an identical number of Shares (“Restricted Stock Unit Awards”) may be granted hereunder to Participants either alone or in addition to other Awards granted under the Plan. Restricted Stock Unit Awards shall also be available as a form of payment of other Awards granted under the Plan and other earned cash-based incentive compensation.

8.2. Award Agreements. The terms of Restricted Stock Unit Award granted under the Plan shall be set forth in a written Award Agreement which shall contain provisions determined by the Committee and not inconsistent with the Plan. Restricted Stock Unit Awards shall be subject to vesting restrictions imposed by the Committee covering a period of time specified by the Committee. The terms of such Awards need not be the same with respect to each Participant. Notwithstanding anything contained herein to the contrary, cash dividends, stock and any other property (other than cash) distributed as a dividend or otherwise with respect to any Restricted Stock Unit Award that vests based on achievement of performance goals shall either (i) not be paid at all, or (ii) be accumulated, be subject to restrictions and risk of forfeiture to the same extent as the Restricted Stock Units with respect to which such cash, stock or other property has been distributed and be paid at the time, and to the extent, such restrictions and risk of forfeiture lapse.

8.3. Payment. Except as provided in Article 10 or as may be provided in an Award Agreement, Restricted Stock Unit Awards may be paid in cash, Shares, other property, or any combination thereof, in the sole discretion of the Committee. Restricted Stock Unit Awards may be paid in a lump sum or in installments or, in accordance with procedures established by the Committee, on a deferred basis subject to the requirements of Section 409A of the Code.

9. PERFORMANCE AWARDS

9.1. Grants . Performance Awards in the form of Performance Cash, Performance Shares or Performance Units, as determined by the Committee in its sole discretion, may be granted hereunder to Participants, for no consideration or for such minimum consideration as may be required by applicable law, either alone or in addition to other Awards granted under the Plan. The performance goals to be achieved for each Performance Period shall be conclusively determined by the Committee and may be based upon the criteria set forth in Section 10.2.

9.2. Award Agreements . The terms of any Performance Award granted under the Plan shall be set forth in an Award Agreement which shall contain provisions determined by the Committee and not inconsistent with the Plan, including whether such Awards shall have Dividend Equivalents. The terms of Performance Awards need not be the same with respect to each Participant. Notwithstanding anything contained herein to the contrary, cash dividends, stock and any other property (other than cash) distributed as a dividend or otherwise with respect to any Award of Performance Shares that vests based on achievement of performance goals shall either (i) not be paid at all, or (ii) be accumulated, be subject to restrictions and risk of forfeiture to the same extent as the Performance Shares with respect to which such cash, stock or other property has been distributed and be paid at the time, and to the extent, such restrictions and risk of forfeiture lapse.

9.3. Terms and Conditions . The performance criteria to be achieved during any Performance Period and the length of the Performance Period shall be determined by the Committee upon the grant of each Performance Award; provided, however, that a Performance Period shall not be less than 12 months. The amount of the Award to be distributed shall be conclusively determined by the Committee.

9.4. Payment . Except as provided in Article 11 or as may be provided in an Award Agreement, Performance Awards will be distributed only after the end of the relevant Performance Period. Performance Awards may be paid in cash, Shares, other property, or any combination thereof, in the sole discretion of the Committee. Performance Awards may be paid in a lump sum or in installments following the close of the Performance Period or, in accordance with procedures established by the Committee, on a deferred basis subject to the requirements of Section 409A of the Code.

10. CODE SECTION 162(m) PROVISIONS

10.1. Covered Employees . Notwithstanding any other provision of the Plan, if the Committee determines at the time a Restricted Stock Award, a Performance Award or an Restricted Stock Unit Award is granted to a Participant who is, or is likely to be, as of the end of the tax year in which the Company would claim a tax deduction in connection with such Award, a Covered Employee, then the Committee may provide that this Article 10 is applicable to such Award.

10.2. Performance Criteria . If the Committee determines that a Restricted Stock Award, a Performance Award or an Restricted Stock Unit Award is intended to be subject to this Article 10, the lapsing of restrictions thereon and the distribution of cash, Shares or other property

pursuant thereto, as applicable, shall be subject to the achievement of one or more objective performance goals established by the Committee, which shall be based on the attainment of specified levels of one or any combination of the following: net sales; revenue; revenue or product revenue growth; operating income or loss (before or after taxes); pre- or after-tax income or loss (before or after allocation of corporate overhead and bonus) ; net earnings or loss; earnings or loss per share; net income or loss (before or after taxes) ; return on equity; total stock holder return; return on assets or net assets ; attainment of strategic and operational initiatives; appreciation in and/or maintenance of the price of the Shares or any other publicly-traded securities of the Company; market share; gross profits; earnings or losses (including earnings or losses before taxes , earnings or losses before interest and taxes , earnings or losses before interest, taxes and depreciation or earnings or losses before interest, taxes, depreciation and amortization) ; economic value-added models (or equivalent metrics) ; comparisons with various stock market indices; reductions in costs ; cash flow or cash flow per share (before or after dividends); return on capital (including return on total capital or return on invested capital); cash flow return on investment; improvement in or attainment of expense levels or working capital levels; operating margin; gross margin; year-end cash; cash margin; debt reduction; stockholder's equity; market share; achievement of drug development milestones; regulatory achievements including approval of a drug candidate; progress of internal research or clinical programs; progress of partnered programs; implementation or completion of projects and processes; partner satisfaction; budget management; clinical achievements; completing phases of a clinical study (including the treatment phase) or announcing or presenting preliminary or final data from clinical studies, in each case, whether on particular timelines or generally ; timely completion of clinical trials; submission of INDs and NDAs and other regulatory achievements; partner or collaborator achievements; internal controls, including those related to the Sarbanes-Oxley Act of 2002; research progress, including the development of programs; financing; investor relations , analysts and communication; manufacturing achievements (including obtaining particular yields from manufacturing runs and other measurable objectives related to process development activities); strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property); establishing relationships with commercial entities with respect to the marketing, distribution and sale of the Company's products (including with group purchasing organizations, distributors and other vendors); supply chain achievements (including establishing relationships with manufacturers or suppliers of active pharmaceutical ingredients and other component materials and manufacturers of the Company's products); co-development, co-marketing, profit sharing, joint venture or other similar arrangements; financing and other capital raising transactions (including sales of the Company's equity or debt securities); sales or licenses of the Company's assets, including its intellectual property (whether in a particular jurisdiction or territory or globally or through partnering transactions); implementation, completion or attainment of measurable objectives with respect to research, development, manufacturing, commercialization, products or projects, production volume levels, acquisitions and divestitures; factoring transactions; and recruiting and maintaining personnel. Such performance goals also may be based solely by reference to the Company's performance or the performance of an Affiliate, division, business segment or business unit of the Company, or based upon the relative performance of other companies or upon comparisons of any of the indicators of performance relative to other companies. The Committee may also exclude charges related to an event or occurrence which the Committee determines should appropriately be excluded, including (a) restructurings, discontinued operations, extraordinary items, and other

unusual or non-recurring charges, (b) an event either not directly related to the operations of the Company or not within the reasonable control of the Company's management, or (c) the cumulative effects of tax or accounting changes in accordance with U.S. generally accepted accounting principles. Such performance goals shall be set by the Committee within the time period prescribed by, and shall otherwise comply with the requirements of, Section 162(m) of the Code, and the regulations thereunder.

10.3. Adjustments . Notwithstanding any provision of the Plan (other than Article 11), with respect to any Restricted Stock, Performance Award or Restricted Stock Unit Award that is subject to this Section 10, the Committee may adjust downwards, but not upwards, the amount payable pursuant to such Award, and the Committee may not waive the achievement of the applicable performance goals, except in the case of the death or disability of the Participant or as otherwise determined by the Committee in special circumstances.

10.4. Restrictions . The Committee shall have the power to impose such other restrictions on Awards subject to this Article as it may deem necessary or appropriate to ensure that such Awards satisfy all requirements for "performance-based compensation" within the meaning of Section 162(m) of the Code.

10.5. Limitations on Grants to Individual Participants . Subject to adjustment as provided in Section 12.2, no Participant may be granted (i) Options or Stock Appreciation Rights during any 12-month period with respect to more than 3,000,000 Shares or (ii) more than 1,000,000 Shares for each 12 months in the vesting period or Performance Period with respect to Restricted Stock Awards, Performance Awards and/or Restricted Stock Unit Awards that are denominated in Shares and are intended to comply with the performance-based exception under Code Section 162(m) (collectively, the "Limitations"). In addition to the foregoing, the maximum dollar value that may be granted to any Participant for each 12 months in a Performance Period with respect to Performance Awards that are intended to comply with the performance-based exception under Code Section 162(m) and are denominated in cash is \$5,000,000. If an Award is cancelled, the cancelled Award shall continue to be counted toward the applicable Limitations (or, in the case of a performance award denominated in cash, to be counted toward the dollar amount in the preceding sentence).

11. CHANGE IN CONTROL PROVISIONS

11.1. Impact on Certain Awards . The Committee, in its discretion, may determine that in the event of a Change in Control of the Company (as defined in Section 11.3) Options and Stock Appreciation Rights outstanding as of the date of the Change in Control shall be cancelled and terminated without payment therefor if the Fair Market Value of one Share as of the date of the Change in Control is less than the Option per Share option price or Stock Appreciation Right per Share grant price.

11.2. Assumption or Substitution of Certain Awards .

(a) To the extent provided in an Award Agreement, in the event of a Change in Control of the Company in which the successor company assumes or substitutes for an Option, Stock Appreciation Right, Restricted Stock Award or Restricted Stock Unit Award (or in which

the Company is the ultimate parent corporation and continues the Award), if a Participant's employment with such successor company (or the Company) or a subsidiary thereof terminates within the time period following such Change in Control set forth in the Award Agreement (or prior thereto if applicable) and under the circumstances specified in the Award Agreement: (i) Options and Stock Appreciation Rights outstanding as of the date of such termination of employment will immediately vest, become fully exercisable, and may thereafter be exercised for the period of time set forth in the Award Agreement, (ii) the restrictions, limitations and other conditions applicable to Restricted Stock shall lapse and the Restricted Stock shall become free of all restrictions, limitations and conditions and become fully vested, and (iii) the restrictions, limitations and other conditions applicable to any Restricted Stock Unit Awards or any other Awards shall lapse, and such Restricted Stock Unit Awards or such other Awards shall become free of all restrictions, limitations and conditions and become fully vested and transferable to the full extent of the original grant. For the purposes of this Section, an Option, Stock Appreciation Right, Restricted Stock Award or Restricted Stock Unit Award shall be considered assumed or substituted for if following the Change in Control the Award confers the right to purchase or receive, for each Share subject to the Option, Stock Appreciation Right, Restricted Stock Award or Restricted Stock Unit Award immediately prior to the Change in Control, the consideration (whether stock, cash or other securities or property) received in the transaction constituting a Change in Control by holders of Shares for each Share held on the effective date of such transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares); provided, however, that if such consideration received in the transaction constituting a Change in Control is not solely common stock of the successor company, the Committee may, with the consent of the successor company, provide that the consideration to be received upon the exercise or vesting of an Option, Stock Appreciation Right, Restricted Stock Award or Restricted Stock Unit Award, for each Share subject thereto, will be solely common stock of the successor company substantially equal in fair market value to the per Share consideration received by holders of Shares in the transaction constituting a Change in Control. The determination of such substantial equality of value of consideration shall be made by the Committee in its sole discretion and its determination shall be conclusive and binding.

(b) Unless otherwise provided in an Award Agreement, in the event of a Change in Control of the Company, to the extent that the successor company does not assume or substitute for an Option, Stock Appreciation Right, Restricted Stock Award, Restricted Stock Unit Award or Performance Award (or in which the Company is the ultimate parent corporation and does not continue the Award), then immediately prior to the Change in Control: (i) those Options and Stock Appreciation Rights outstanding as of the date of the Change in Control that are not assumed or substituted for (or continued) shall immediately vest and become fully exercisable, (ii) restrictions, limitations and conditions on Restricted Stock not assumed or substituted for (or continued) shall lapse and the Restricted Stock shall become free of all restrictions, limitations and conditions and become fully vested, (iii) the restrictions limitations and conditions applicable to any Restricted Stock Unit Awards or any other Awards not assumed or substituted for (or continued) shall lapse, and such Restricted Stock Unit Awards or such other Awards shall become free of all restrictions, limitations and conditions and become fully vested and transferable to the full extent of the original grant, (iv) all Performance Awards not assumed or substituted for (or continued) shall be considered to be earned and payable in full, and any deferral or other restriction shall lapse and such Performance Awards shall be immediately

settled or distributed, and (v) all Awards not assumed or substituted for (or continued) shall terminate immediately after the Change in Control.

(c) The Committee, in its discretion, may determine that, upon the occurrence of a Change in Control of the Company, each Option and Stock Appreciation Right outstanding shall terminate within a specified number of days after notice to the Participant, and/or that each Participant shall receive, with respect to each Share subject to such Option or Stock Appreciation Right, an amount equal to the excess (if any) of the Fair Market Value of such Share immediately prior to the occurrence of such Change in Control over the exercise price per Share of such Option and/or Stock Appreciation Right; such amount to be payable in cash, in one or more kinds of stock or property (including the stock or property, if any, payable in the transaction) or in a combination thereof, as the Committee, in its discretion, shall determine.

11.3. Change in Control . For purposes of the Plan, unless otherwise provided in an Award Agreement, Change in Control means the occurrence of any one of the following events:

(i) During any twenty-four (24) month period, individuals who, as of the beginning of such period, constitute the Board (the “Incumbent Directors”) cease for any reason to constitute at least a majority of the Board, provided that any person becoming a director subsequent to the beginning of such period whose election or nomination for election was approved by a vote of at least a majority of the Incumbent Directors then on the Board (either by a specific vote or by approval of the proxy statement of the Company in which such person is named as a nominee for director, without written objection to such nomination) shall be an Incumbent Director; provided, however, that no individual initially elected or nominated as a director of the Company as a result of an actual or threatened election contest with respect to directors or as a result of any other actual or threatened solicitation of proxies by or on behalf of any person other than the Board shall be deemed to be an Incumbent Director;

(ii) Any “person” (as such term is defined in the Exchange Act and as used in Sections 13(d)(3) and 14(d)(2) of the Exchange Act) is or becomes a “beneficial owner” (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing 50% or more of the combined voting power of the Company’s then outstanding securities eligible to vote for the election of the Board (the “Company Voting Securities”); provided, however, that the event described in this paragraph (ii) shall not be deemed to be a Change in Control by virtue of any of the following acquisitions: (A) by the Company or any Affiliate, (B) by any employee benefit plan (or related trust) sponsored or maintained by the Company or any Affiliate, (C) by any underwriter temporarily holding securities pursuant to an offering of such securities, (D) pursuant to a Non-Qualifying Transaction, as defined in paragraph (iii), or (E) by any person of Voting Securities from the Company, if a majority of the Incumbent Board approves in advance the acquisition of beneficial ownership of 50% or more of Company Voting Securities by such person;

(iii) The consummation of a merger, consolidation, statutory share exchange or similar form of corporate transaction involving the Company or any of its Affiliates that requires the approval of the Company’s stockholders, whether for such transaction or the

issuance of securities in the transaction (a “ Business Combination ”), unless immediately following such Business Combination: (A) more than 60% of the total voting power of (x) the corporation resulting from such Business Combination (the “ Surviving Corporation ”), or (y) if applicable, the ultimate parent corporation that directly or indirectly has beneficial ownership of 100% of the voting securities eligible to elect directors of the Surviving Corporation (the “ Parent Corporation ”), is represented by Company Voting Securities that were outstanding immediately prior to such Business Combination (or, if applicable, is represented by shares into which such Company Voting Securities were converted pursuant to such Business Combination), and such voting power among the holders thereof is in substantially the same proportion as the voting power of such Company Voting Securities among the holders thereof immediately prior to the Business Combination, (B) no person (other than any employee benefit plan (or related trust) sponsored or maintained by the Surviving Corporation or the Parent Corporation), is or becomes the beneficial owner, directly or indirectly, of 50% or more of the total voting power of the outstanding voting securities eligible to elect directors of the Parent Corporation (or, if there is no Parent Corporation, the Surviving Corporation) and (C) at least a majority of the members of the board of directors of the Parent Corporation (or, if there is no Parent Corporation, the Surviving Corporation) following the consummation of the Business Combination were Incumbent Directors at the time of the Board’s approval of the execution of the initial agreement providing for such Business Combination (any Business Combination which satisfies all of the criteria specified in (A), (B) and (C) above shall be deemed to be a “ Non - Qualifying Transaction ”); or

(iv) The stockholders of the Company approve a plan of complete liquidation or dissolution of the Company or the consummation of a sale, lease, exclusive license or other disposition of all or substantially all of the Company’s assets.

Notwithstanding the foregoing, a Change in Control shall not be deemed to occur solely because any person acquires beneficial ownership of more than 50% of the Company Voting Securities as a result of the acquisition of Company Voting Securities by the Company which reduces the number of Company Voting Securities outstanding; provided, that if after such acquisition by the Company such person becomes the beneficial owner of additional Company Voting Securities that increases the percentage of outstanding Company Voting Securities beneficially owned by such person, a Change in Control of the Company shall then occur.

12. GENERALLY APPLICABLE PROVISIONS

12.1. *Amendment and Termination of the Plan* . The Board may, from time to time, alter, amend, suspend or terminate the Plan as it shall deem advisable, subject to any requirement for stockholder approval imposed by applicable law, including the rules and regulations of the NASDAQ Stock Market (or such other principal U.S. national securities exchange on which the Shares are traded); provided that the Board may not amend the Plan in any manner that would result in noncompliance with Rule 16b-3 of the Exchange Act; and further provided that the Board may not, without the approval of the Company’s stockholders to the extent required by such applicable law, amend the Plan to (a) increase the number of Shares that may be the subject of Awards under the Plan (except for adjustments pursuant to Section 12.2); (b) expand the types

of awards available under the Plan; (c) materially expand the class of persons eligible to participate in the Plan; (d) amend any provision of Section 5.3 or the last sentence of Section 6.2(d); or (e) increase the maximum permissible term of the Plan or of any Option specified by Section 5.4 or the maximum permissible term of a Stock Appreciation Right specified by Section 6.2(d). The Board may not without the approval of the Company's stockholders cancel an Option or Stock Appreciation Right in exchange for cash or take any action with respect to an Option or Stock Appreciation Right that may be treated as a repricing under the rules and regulations of the NASDAQ Stock Market (or such other principal U.S. national securities exchange on which the Shares are traded), including a reduction of the exercise price of an Option or the grant price of a Stock Appreciation Right or the exchange of an Option or Stock Appreciation Right for cash or another Award when the option price or grant price per Share exceeds the Fair Market Value of one Share. In addition, no amendments to, or termination of, the Plan shall in any way impair the rights of a Participant under any Award previously granted without such Participant's consent.

12.2. Adjustments . In the event of any merger, reorganization, consolidation, recapitalization, dividend or distribution (whether in cash, shares or other property, other than a regular cash dividend), stock split, reverse stock split, spin-off or similar transaction or other change in corporate structure affecting the Shares or the value thereof, such adjustments and other substitutions shall be made to the Plan and to Awards as the Committee deems equitable or appropriate taking into consideration the accounting and tax consequences, including such adjustments in the aggregate number, class and kind of securities that may be delivered under the Plan and pursuant to Section 3.3, the Limitations, the maximum number of Shares that may be issued pursuant to Incentive Stock Options and, in the aggregate or to any one Participant, in the number, class, kind and option or exercise price of securities subject to outstanding Awards granted under the Plan (including, if the Committee deems appropriate, the substitution of similar options to purchase the shares of, or other awards denominated in the shares of, another company) as the Committee may determine to be appropriate in its sole discretion; provided, however, that the number of Shares subject to any Award shall always be a whole number.

12.3. Transferability of Awards . Except as provided below, no Award and no Shares subject to Awards described in Article 8 that have not been issued or as to which any applicable restriction, performance or deferral period has not lapsed, may be sold, assigned, transferred, pledged or otherwise encumbered, other than by will or the laws of descent and distribution, and such Award may be exercised during the life of the Participant only by the Participant or the Participant's guardian or legal representative. To the extent and under such terms and conditions as determined by the Committee, a Participant may assign or transfer an Award (each transferee thereof, a "Permitted Assignee") to a "family member" as such term is defined in the General Instructions to Form S-8 (whether by gift or a domestic relations order for no consideration); provided that such Permitted Assignee shall be bound by and subject to all of the terms and conditions of the Plan and the Award Agreement relating to the transferred Award and shall execute an agreement satisfactory to the Company evidencing such obligations; and provided further that such Participant shall remain bound by the terms and conditions of the Plan. The Company shall cooperate with any Permitted Assignee and the Company's transfer agent in effectuating any transfer permitted under this Section.

12.4. Termination of Employment . The Committee shall determine and set forth in each Award Agreement whether any Awards granted in such Award Agreement will continue to be

exercisable, continue to vest or be earned and the terms of such exercise, vesting or earning, on and after the date that a Participant ceases to be employed by or to provide services to the Company or any Affiliate (including as a Director), whether by reason of death, disability, voluntary or involuntary termination of employment or services, or otherwise. The date of termination of a Participant's employment or services will be determined by the Committee, which determination will be final.

12.5. *Deferral ; Dividend Equivalents* . The Committee shall be authorized to establish procedures pursuant to which the payment of any Award may be deferred. Subject to the provisions of the Plan and any Award Agreement, the recipient of an Award (including any deferred Award) other than an Option or Stock Appreciation Right may, if so determined by the Committee, be entitled to receive, currently or on a deferred basis, cash, stock or other property dividends, or cash payments in amounts equivalent to cash, stock or other property dividends on Shares ("Dividend Equivalents") with respect to the number of Shares covered by the Award, as determined by the Committee, in its sole discretion. The Committee may provide that such amounts and Dividend Equivalents (if any) shall be deemed to have been reinvested in additional Shares or otherwise reinvested and may provide that such amounts and Dividend Equivalents are subject to the same vesting or performance conditions as the underlying Award. Notwithstanding the foregoing, Dividend Equivalents credited in connection with an Award that vests based on the achievement of performance goals shall be subject to restrictions and risk of forfeiture to the same extent as the Award with respect to which such Dividend Equivalents have been credited.

13. MISCELLANEOUS

13.1. *Tax Withholding* . The Company shall have the right to make all payments or distributions pursuant to the Plan to a Participant (or a Permitted Assignee thereof) (any such person, a "Payee") net of any applicable federal, state and local taxes required to be paid or withheld as a result of (a) the grant of any Award, (b) the exercise of an Option or Stock Appreciation Right, (c) the delivery of Shares or cash, (d) the lapse of any restrictions in connection with any Award or (e) any other event occurring pursuant to the Plan. The Company or any Affiliate shall have the right to withhold from wages or other amounts otherwise payable to such Payee such withholding taxes as may be required by law, or to otherwise require the Payee to pay such withholding taxes. If the Payee shall fail to make such tax payments as are required, the Company or its Affiliates shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to such Payee or to take such other action as may be necessary to satisfy such withholding obligations. The Committee shall be authorized to establish procedures for election by Participants to satisfy such obligation for the payment of such taxes by tendering previously acquired Shares (either actually or by attestation, valued at their then Fair Market Value), or by directing the Company to retain Shares (up to the Participant's minimum required tax withholding rate or such other rate that will not cause an adverse accounting consequence or cost) otherwise deliverable in connection with the Award.

13.2. *Right of Discharge Reserved; Claims to Awards* . Nothing in the Plan nor the grant of an Award hereunder shall confer upon any Employee, Director or Consultant the right to continue in the employment or service of the Company or any Affiliate or affect any right that the Company or any Affiliate may have to terminate the employment or service of (or to demote or to exclude from future Awards under the Plan) any such Employee, Director or Consultant at

any time for any reason. Except as specifically provided by the Committee, the Company shall not be liable for the loss of existing or potential profit from an Award granted in the event of termination of an employment or other relationship. No Employee, Director or Consultant shall have any claim to be granted any Award under the Plan, and there is no obligation for uniformity of treatment of Employees, Directors or Consultants under the Plan. In addition, in the event a Participant's regular level of time commitment in the performance of his or her services for the Company and any Affiliates is reduced (for example, and without limitation, if the Participant is an Employee of the Company and the Employee has a change in status from a full-time Employee to a part-time Employee) after the date of grant of any Award to the Participant, the Compensation Committee has the right in its sole discretion to (x) make a corresponding reduction in the number of shares or cash amount subject to any portion of such Award that is scheduled to vest or become payable after the date of such change in time commitment, and (y) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Award. In the event of any such reduction, the Participant will have no right with respect to any portion of the Award that is so reduced.

13.3. Prospective Recipient . The prospective recipient of any Award under the Plan shall not, with respect to such Award, be deemed to have become a Participant, or to have any rights with respect to such Award, until and unless such recipient shall have executed an agreement or other instrument evidencing the Award and delivered a copy thereof to the Company, and otherwise complied with the then applicable terms and conditions.

13.4. Substitute Awards . Notwithstanding any other provision of the Plan, the terms of Substitute Awards may vary from the terms set forth in the Plan to the extent the Committee deems appropriate to conform, in whole or in part, to the provisions of the awards in substitution for which they are granted.

13.5. Cancellation of Award .

(a) Notwithstanding anything to the contrary contained herein, an Award Agreement may provide that the Award shall be canceled if the Participant, without the consent of the Company, while employed by, or providing services to, the Company or any Affiliate or after termination of such employment or services, establishes a relationship with a competitor of the Company or any Affiliate or engages in activity that is in conflict with or adverse to the interest of the Company or any Affiliate (including conduct contributing to any financial restatements or financial irregularities), as determined by the Committee in its sole discretion. The Committee may provide in an Award Agreement that if within the time period specified in the Agreement the Participant establishes a relationship with a competitor or engages in an activity referred to in the preceding sentence, the Participant will forfeit any gain realized on the vesting or exercise of the Award and must repay such gain to the Company. In addition, all Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company adopts, including any clawback policy the Company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Board may impose such other clawback, recovery or recoupment provisions in an Award Agreement as the Board determines necessary or appropriate.

(b) In the event the Participant ceases to be employed by, or provide services to, the Company on account of a termination for Cause by the Company, any Award held by the Participant shall terminate as of the date the Participant ceases to be employed by, or provide services to, the Company. In addition, notwithstanding any other provisions of this Section, if the Committee determines that the Participant has engaged in conduct that constitutes Cause at any time while the Participant is employed by, or providing services to, the Company or after the Participant's termination of employment or services, any Awards held by the Participant shall immediately terminate. In the event a Participant's employment or services is terminated for Cause, in addition to the immediate termination of all Awards, the Participant shall automatically forfeit all shares underlying any exercised portion of an Option for which the Company has not yet delivered the share certificates, upon refund by the Company of the option price paid by the Participant for such shares.

13.6. *Stop Transfer Orders* . All certificates for Shares delivered under the Plan pursuant to any Award shall be subject to such stop-transfer orders and other restrictions as the Committee may deem advisable under the rules, regulations and other requirements of the Securities and Exchange Commission, any stock exchange upon which the Shares are then listed, and any applicable federal or state securities law, and the Committee may cause a legend or legends to be put on any such certificates to make appropriate reference to such restrictions.

13.7. *Nature of Payments* . All Awards made pursuant to the Plan are in consideration of services performed or to be performed for the Company or any Affiliate, division or business unit of the Company. Any income or gain realized pursuant to Awards under the Plan constitutes a special incentive payment to the Participant and shall not be taken into account, to the extent permissible under applicable law, as compensation for purposes of any of the employee benefit plans of the Company or any Affiliate except as may be determined by the Committee or by the Board or board of directors of the applicable Affiliate.

13.8. *Other Plans* . Nothing contained in the Plan shall prevent the Board from adopting other or additional compensation arrangements, subject to stockholder approval if such approval is required; and such arrangements may be either generally applicable or applicable only in specific cases.

13.9 . Severability . The provisions of the Plan shall be deemed severable. If any provision of the Plan shall be held unlawful or otherwise invalid or unenforceable in whole or in part by a court of competent jurisdiction or by reason of a change in a law or regulation, such provision shall (a) be deemed limited to the extent that such court of competent jurisdiction deems it lawful, valid and/or enforceable and as so limited shall remain in full force and effect, and (b) not affect any other provision of the Plan or part thereof, each of which shall remain in full force and effect. If the making of any payment or the provision of any other benefit required under the Plan shall be held unlawful or otherwise invalid or unenforceable by a court of competent jurisdiction, such unlawfulness, invalidity or unenforceability shall not prevent any other payment or benefit from being made or provided under the Plan, and if the making of any payment in full or the provision of any other benefit required under the Plan in full would be unlawful or otherwise invalid or unenforceable, then such unlawfulness, invalidity or unenforceability shall not prevent such payment or benefit from being made or provided in part, to the extent that it would not be unlawful, invalid or unenforceable, and the maximum payment or benefit that would not be unlawful, invalid or unenforceable shall be made or provided under the Plan.

13.10. Construction . As used in the Plan, the words “ *include* ” and “ *including* ,” and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words “ *without limitation* .”

13.11. Unfunded Status of the Plan . The Plan is intended to constitute an “unfunded” plan for incentive and deferred compensation. With respect to any payments not yet made to a Participant by the Company, nothing contained herein shall give any such Participant any rights that are greater than those of a general creditor of the Company. In its sole discretion, the Committee may authorize the creation of trusts or other arrangements to meet the obligations created under the Plan to deliver the Shares or payments in lieu of or with respect to Awards hereunder; provided, however, that the existence of such trusts or other arrangements is consistent with the unfunded status of the Plan.

13.12. Governing Law . The Plan and all determinations made and actions taken thereunder, to the extent not otherwise governed by the Code or the laws of the United States, shall be governed by the laws of the State of Delaware, without reference to principles of conflict of laws, and construed accordingly.

13.13. Effective Date of Plan; Termination of Plan . The Plan shall be effective on the date of the approval of the Plan by the holders of the shares entitled to vote at a duly constituted meeting of the stockholders of the Company. The Plan shall be null and void and of no effect if the foregoing condition is not fulfilled and in such event each Award shall, notwithstanding any of the preceding provisions of the Plan, be null and void and of no effect. Awards may be granted under the Plan at any time and from time to time on or prior to the tenth anniversary of the effective date of the Plan, on which date the Plan will expire except as to Awards then outstanding under the Plan. Such outstanding Awards shall remain in effect until they have been exercised or terminated, or have expired.

13.14. Foreign Employees and Consultants . Awards may be granted to Participants who are foreign nationals or employed or providing services outside the United States, or both, on

such terms and conditions different from those applicable to Awards to Employees employed or providing services in the United States as may, in the judgment of the Committee, be necessary or desirable in order to recognize differences in local law or tax policy. The Committee also may impose conditions on the exercise or vesting of Awards in order to minimize the Company's obligation with respect to tax equalization for Employees or Consultants on assignments outside their home country.

13.15. *Compliance with Section 409A of the Code* . This Plan is intended to comply and shall be administered in a manner that is intended to comply with Section 409A of the Code and shall be construed and interpreted in accordance with such intent. To the extent that an Award or the payment, settlement or deferral thereof is subject to Section 409A of the Code, the Award shall be granted, paid, settled or deferred in a manner that will comply with Section 409A of the Code, including regulations or other guidance issued with respect thereto, except as otherwise determined by the Committee. Any provision of this Plan that would cause the grant of an Award or the payment, settlement or deferral thereof to fail to satisfy Section 409A of the Code shall be amended to comply with Section 409A of the Code on a timely basis, which may be made on a retroactive basis, in accordance with regulations and other guidance issued under Section 409A of the Code.

13.16. *Captions* . The captions in the Plan are for convenience of reference only, and are not intended to narrow, limit or affect the substance or interpretation of the provisions contained herein.

**AMENDMENT NO. 2 TO
ARENA PHARMACEUTICALS, INC.
AMENDED AND RESTATED SEVERANCE BENEFIT PLAN**

The Arena Pharmaceuticals, Inc., Amended and Restated Severance Benefit Plan, dated May 9, 2016, as amended (the “*Plan*”), is hereby further amended as of August 15, 2016, by this Amendment No. 2 as follows:

Vincent E. Aurentz is hereby added to Exhibit A of the Plan, with a Severance Period of 18 months .

To record the adoption of this Amendment No. 2, Arena Pharmaceuticals, Inc., has caused its duly authorized officer to execute the same this 15th day of August 2016.

Arena Pharmaceuticals, Inc.

/s/ Amit Munshi

Amit Munshi
President and Chief Executive Officer

August 9, 2016

Vincent E. Aurentz
1105 Pinehurst Drive
Chapel Hill, NC 27517

Dear Vince,

I am pleased to offer you, subject to approval by the Board of Directors and its Compensation Committee, the regular, full-time, exempt position of **Chief Business Officer**, reporting to Amit Munshi, President & Chief Executive Officer.

You will receive a semi-monthly salary of **\$16,666.67** which annualized is **\$400,000.00**. In addition, as an inducement material to entering into employment with Arena, you will be granted **800,000 nonstatutory stock options** that entitle you to purchase Arena stock at a price and on terms to be determined by the Compensation Committee of the Board of Directors. You are also entitled to participate in a bonus plan of up to **50%** of your base salary earned during the year. You will also be eligible to participate in the employee benefit programs provided by Arena, which currently include medical, dental/vision reimbursement, life, AD&D, short-term and long-term disability insurance programs, a 401(k) plan and Employee Stock Purchase Plan (ESPP), you are entitled to enter into a standard form of Indemnification Agreement maintained by Arena for its executive officers, and you will participate in Arena's Severance Benefit Plan with a severance period of 18 months.

Arena will pay you a "*Monthly Housing Allowance*" of **\$9,166.00 each month for up to 18 months** to be used for covering temporary executive housing and car allowance while commuting between North Carolina and San Diego. In addition, Arena will also reimburse you on an after tax basis for the costs of airfare for commuting between North Carolina and San Diego. This reimbursement will be paid to you upon receiving airfare receipts at the end of every quarter.

This offer is subject to:

- Successful completion of background verification conducted by an Arena service provider.
 - Verification of your eligibility to work in the United States, as required by the Immigration Reform and Control Act of 1986. You must complete **section 1 only** of the attached* I-9 form and provide the required documentation on your first day of employment. For assistance with employment (H-1B) visa issues, please contact Allison Anderson at extension 1737.
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- Execution of the attached * Employee Proprietary Information and Inventions Agreement , which specifies your responsibilities regarding proprietary information , trade secrets and intellectual property .
- Completion and confirmation of all other required employment and benefits forms, including the attached* Policy-Protection of Material/Prevention of Insider Trading, IT Security and Compliance Policy, Code of Business Conduct and Ethics, Anti-Corruption Policy, Policy Against Harassment, Policy on Filing, Receipt, and Treatment of Complaints, Policy Regarding Serving of Alcohol at Company Events, Legal Hold Policy, Publication Policy, Corporate Communications Guidelines, Lab Notebook Policy, and PhRMA Code on Interactions with Healthcare Professionals.

All other employment forms will be included in your New Hire/Benefits package and forwarded to you on or before your start date in preparation for orientation on your first day.

Consistent with Arena policy, your employment will be terminable at will and is guaranteed for no specified period. This means that you may resign at any time and Arena may terminate your employment at any time with or without cause and without notice. This “at will” status may not be changed except by written agreement signed by both you and the Chief Executive Officer of Arena Pharmaceuticals. By signing this offer letter, you acknowledge that no representative of Arena has made any statement to the contrary in discussing prospective employment with you.

You represent that your employment with Arena will not conflict with or violate any agreement or understanding with a former employer or other person or entity.

If you accept this offer, please sign both copies of this letter signifying your agreement, and return one copy to the Benefits and Employee Resources Department on or before **August 11, 2016** . Complete and return the attached additional documents as well.

Please contact a member of the Benefits and Employee Resources Department if you have any questions or concerns.

We look forward to having you as a member of the Arena team and hope our future association will be rewarding for you as well as the company.

Sincerely,

/s/ Amit Munshi

Amit D. Munshi

President and Chief Executive Officer

Acceptance:

I accept the offer as stated in this letter and I agree to the terms of employment described, including that my employment relationship is terminable at will by either me or Arena, with or without cause or notice.

<u>/s/ Vincent E. Aurentz</u>	<u>8-11-2016</u>
Vincent E. Aurentz	Date

Offer Expiration Date: August 11, 2016
Proposed Start Date: August 15, 2016

cc: Amit D. Munshi
President & Chief Executive Officer

*These forms will not be attached to faxed or emailed copies of the offer letter.

SERVICES AGREEMENT

THIS SERVICES AGREEMENT (the "Agreement") is entered into as of July 15, 2016 ("Effective Date") by and between Arena Pharmaceuticals, Inc., a Delaware corporation ("Arena"), and William R. Shanahan, Jr., M.D. ("Consultant").

WHEREAS, Consultant's terminated employment with Arena was terminated on June 13, 2016 (the "Employment Termination Date"); and

WHEREAS, Arena wishes to obtain the services of Consultant for certain purposes and Consultant wishes to provide such services, all subject to the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth, and intending to be legally bound hereby, Arena and Consultant hereby agree as follows:

1. Services to be Provided. During the term of this Agreement, Consultant shall perform for Arena (and if applicable, Arena's Affiliates) services relating to research and development (the "Services"), as requested by Arena from time to time. Such Services are expected to approximate, but shall not exceed more than, 20% of the average level of services performed in the three years preceding his employment termination. In no event shall Consultant perform Services during working hours for any employer or other client of Consultant, nor shall Consultant utilize the confidential information, funds, personnel, space, equipment or facilities of any employer or other client. All services performed pursuant to this Agreement shall be performed solely by Consultant and in a good, timely, efficient and professional manner. As used herein, "Affiliate" means any entity, which controls, is controlled by, or is under common control with Arena. In this context "control" shall mean ownership by one entity, directly or indirectly, of more than fifty percent (50%) of the voting stock of another entity, which voting stock is entitled to vote for the election of directors, or otherwise has the actual right and ability to control and direct the management and business affairs of such other entity.

2. Term. This Agreement will begin on the Effective Date and continue until the one year anniversary of the Effective Date, unless terminated earlier.

3. Compensation; No Benefits; Licenses; Insurance; Taxes.

(a) As compensation for Consultant's performance of the Services, Arena (or its Affiliate) shall pay Consultant \$6,763.60 per month. In addition, Consultant shall be entitled to exercise any of his stock options to purchase Arena common stock that were outstanding and vested as of the Employment Termination Date, or that become vested thereafter due to his termination of employment under the Amended and Restated Severance Benefit Plan, until 2 years after the Effective Date (but not beyond the original contractual life of the stock option); provided, however, the 2 year extension provided in this Agreement shall be null and void if (i) Consultant has not provided Arena an effective release relating to the termination of his employment with Arena or (ii) Consultant terminates this Agreement without the consent of Arena prior to the one year anniversary of the Employment Termination Date. For clarity, this two year post Effective Date exercise period will apply for all vested options (either through the term of employment or

through the Amended and Restated Severance Benefit Plan) even if the Services outlined in section 1 above are terminated by the Company prior to the one year anniversary of the Effective date for this contract. Consultant understands and agrees that such extension of the post-termination exercise period for his Arena stock options may disqualify, immediately, any stock options that were previously considered "incentive stock options" under Section 422 of the Internal Revenue Code of 1986, as amended, under the rules of the Code. For clarity, Consultant's termination of employment with Arena on the Employment Termination Date constitutes termination of Consultant's continuous services as an employee, consultant or director to Arena or any affiliate for purposes of all of Consultant's stock options and other equity awards covering Arena common stock that are outstanding as of the Employment Termination Date (the "Equity Awards") and the Services do not constitute continuous employment or services with Arena or its affiliates for purposes of any of such Equity Awards. Except to the extent provided in this Section 3, all of the Equity Awards shall continue to be governed by the terms and conditions of the equity plan and equity grant documents evidencing such awards.

(b) Consultant shall be responsible for all expenses incurred in connection with the performance of the Services, unless such expenses are reasonable and approved in advance by Arena. All such pre-approved expenses shall be invoiced to Arena at cost and Consultant shall include copies of all receipts for such expenses.

(c) Consultant is not an employee of Arena and will not be entitled to participate in, or receive any benefit or right as an Arena employee under, any Arena employee benefit and welfare plans, including, without limitation, employee insurance, pension, savings and security plans, as a result of Consultant entering into this Agreement.

(d) Consultant is solely responsible for filing tax returns and submitting payments as required by any federal, state or local tax authority arising under this Agreement, and agrees to do so in a timely manner. Arena, in its sole discretion, may file applicable documents or reports with the Internal Revenue Service and withhold taxes and other amounts it determines is required or appropriate under applicable law.

(e) Consultant is solely responsible for obtaining any necessary business or similar licenses required by any federal, state or local authority.

(f) Arena will not obtain workers' compensation insurance on behalf of, or for the benefit of, Consultant

4. Ownership of Results.

(a) All findings, conclusions, data, inventions, discoveries, trade secrets, techniques, processes, know-how, trademarks, servicemarks, brands, trade dress and tag lines, whether or not patentable or otherwise registrable, that are made by Consultant, either alone or with others, in the performance of the Services or which result, to any extent, from use of Arena's (or Arena's Affiliate's) premises or property (collectively, "Inventions") shall become the exclusive property of Arena or its designee. Consultant shall provide Arena prompt written notice of each Invention. Consultant hereby assigns, transfers and conveys all of Consultant's right, title and interest in and to any and all Inventions to Arena or its designee.

(b) Upon the request and at the expense of Arena or its designee, Consultant will execute and deliver any and all instruments and documents and take such other acts as may be necessary or desirable to document such transfer or to enable Arena or its designee to apply for, prosecute and enforce patents, trademark registrations or copyrights in any jurisdiction with respect to any Inventions or to obtain any extension, validation, re-issue, continuance or renewal of any such intellectual property right. Without limiting the foregoing, Consultant shall assign, grant and convey unto Arena or its designee all of Consultant's right, title and interest, now existing or that may exist in the future, in and to any copyrights in any findings, reports, data compilations and other information and material resulting from the performance of the Services. Consultant shall not submit applications for copyright registration in any country for any information or materials created by Consultant pursuant to this Agreement.

(c) Consultant acknowledges and agrees that the work (the services to be rendered), and all rights therein, including without limitation, copyright, belongs to and shall be the sole and exclusive property of Arena or its designee.

(d) The provisions of this paragraph 4 shall survive the expiration or sooner termination of the term of this Agreement, and such provisions are in addition to, and do not supersede, any agreements Consultant entered into as an Arena employee.

5. Confidentiality. Consultant will not either during or after the term of this Agreement, disclose to any third person or use any confidential or proprietary information of Arena, its Affiliates or its corporate collaborators for any purpose other than the performance of the Services without the prior written authorization of Arena. This obligation shall not apply to information that is in the public domain through no fault of Consultant. For purposes of this paragraph 5, "confidential or proprietary information" is defined as any information disclosed hereunder by Arena or its Affiliates, or on behalf of Arena or its Affiliates, or developed by Consultant in the performance of Services, including without limitation the structure and activity of any chemical compositions provided to Consultant pursuant to this Agreement, as well as synthetic and analytical methods, biomaterials, micro-organisms, cells, cell lines and the progeny and derivatives thereof, including all modified and recombinant DNA molecules and all vectors and hosts containing the same, patent applications, pre-clinical or clinical data, marketing methods and plans, pricing information, manufacturing information and other unpublished information related to the business or the financial condition of Arena and its Affiliates and corporate collaborators. The provisions of this paragraph 5 shall survive the expiration or sooner termination of this Agreement, and such provisions are in addition to, and do not supersede, any agreements Consultant entered into as an Arena employee.

6. Termination. Either party may terminate this Agreement for any reason whatsoever upon written notice to the other party, and the termination is effective upon delivery of the notice.

7. Return of Arena Property. Consultant will return to Arena any property of Arena, its Affiliates and corporate collaborators, in Consultant's possession, at any time when so requested by Arena and in any event upon termination of this Agreement. Consultant will not remove any such property from Arena premises without written authorization from Arena.

8. No Conflicting Agreements. Consultant represents that Consultant is not a party to any existing agreements that would prevent Consultant from entering into and performing this Agreement. Consultant will not enter into any other agreement that is in conflict with Consultant's obligations under this Agreement. Consultant shall not seek or use funding to support the Services from any third party (including the U.S. Government), without the prior written consent of Arena. If Consultant is an employee (or, during the term of this Agreement, becomes an employee) of a third party, Consultant represents that Consultant has complied (and, in the case of a new employer, will comply) with any and all applicable policies and procedures of such third party pertaining to the disclosure of proposed agreements for services and, to the extent necessary or required, received approval from such third party to enter into or continue this Agreement and be bound by the terms herein. Without limiting the foregoing, Consultant represents that receipt and use of confidential or proprietary information hereunder will not conflict with any agreement Consultant has (or will have) with any third party, and that no third party shall have any interest or rights in such confidential or proprietary information or any Inventions. If requested by Arena, Consultant will provide to Arena information concerning payments and equity holdings that could be viewed as creating a conflict of interest with respect to the provision of Services hereunder, as well as other information that is required or requested by regulatory authorities.

9. Independent Contractor. Consultant is an independent contractor under this Agreement. Neither party shall have the power to bind the other party to any agreement, contract, obligation or liability. Consultant shall not communicate on behalf of Arena or its Affiliates, or report on the Services rendered under this Agreement to any third party without specific written authorization by Arena.

10. Debarment; Excluded Lists. Consultant warrants and represents that Consultant is not now, nor has Consultant ever been, an individual that has been debarred by the U.S. Food and Drug Administration ("FDA"), including, but not limited to, pursuant to 21 U.S.C. §335a (a "Debarred Person") or disqualified as a Clinical Investigator by the FDA, including, but not limited to, pursuant to 21 C.F.R. §312.70 or §812.119 (a "Disqualified Person"). Consultant warrants and represents that Consultant is not now, nor has Consultant ever been, listed on either (a) the United States Department of Health & Human Services' List of Excluded Individuals/Entities or (b) the United States General Services Administration's Excluded Parties List System (in each case, including any predecessor list, or replacement list, directed to the same or similar purpose) (each of (a) and (b), an "Excluded List"). Consultant further warrants and represents that Consultant has no knowledge of any circumstances which may affect the accuracy of any of the foregoing warranties and representations, including, but not limited to, FDA investigations of, or debarment proceedings against Consultant.

Consultant shall immediately notify Arena if Consultant becomes aware of any change in circumstances that would render any of the foregoing representations or warranties untrue or misleading in any material respect during the term of this Agreement and any extensions thereto.

11. Health Care Provider Payment Tracking. Arena may be required to report payments made to Consultant pursuant to this Agreement under federal, state or other law or regulation. If so requested by Arena, Consultant will provide the following information (and any other information reasonably requested by Arena for compliance with reporting requirements)

regarding Consultant to Arena's Accounts Payable department (acctpayable@arenapharm.com): (a) state license number, (b) state of license, (c) National Provider Identifier (NPI) number, and (d) name and address of primary place of business.

12. Formulary Committee Participation. To the extent Consultant is a member of a committee of any government entity that sets prescription drug formularies or develops clinical guidelines, during the term of this Agreement and for two years following the term, Consultant will disclose to such committee the existence of this Agreement and the nature of the Services, and will follow any procedure set forth by such committee relative to Services under this Agreement. Consultant will notify Arena of such committee membership and of any such procedure that Consultant is required to follow by the committee relative to the Services under this Agreement.

13. Entire Agreement and Amendment. This Agreement is the sole agreement between Consultant and Arena with respect to the Services to be performed hereunder and it supersedes all prior agreements and understandings with respect thereto, whether oral or written. No modification to any provision of this Agreement shall be binding unless in writing and signed by both Consultant and a duly authorized representative of Arena. All of the terms and provisions of this Agreement shall be binding upon and inure to the benefit of and be enforceable by the respective heirs, executors, administrators, legal representatives, successors and permitted assigns of the parties hereto.

14. Assignment and Subcontracts. The duties and responsibilities of Consultant hereunder are of a personal nature and shall not be assigned, subcontracted or delegated in whole or in part by Consultant without Arena's prior written consent.

15. Governing Law. This Agreement shall be governed by and interpreted in accordance with laws of the State of California, without giving effect to any conflict of law provisions.

16. Notices. All notices required hereunder shall be in writing and be delivered personally, sent by an internationally recognized express courier service (e.g., FedEx), transmitted via facsimile, or sent via registered or certified mail (postage prepaid) requiring return receipt, and shall be deemed given as of: (i) the date of delivery, if sent by personal delivery; (ii) two days after the date of deposit, if sent by express courier service; (iii) the date of transmission, if faxed with confirmatory printout of transmission; or (iv) one week after the date of mailing, if sent by mail. Notices shall be addressed as provided below or to such other addressee as either party may in the future designate by written notice to the other in accordance with the terms hereof:

If to Arena, to:

Arena Pharmaceuticals, Inc.
6154 Nancy Ridge Drive
San Diego, CA 92121
Attention: Chief Executive Officer
With a copy to: General Counsel
Facsimile No.: (858) 677-0065

If to Consultant, to:

William R. Shanahan, Jr., M.D.
4948 Rancho Viejo Drive
Del Mar, CA 92014

17. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, all of which together shall constitute one and the same instrument. One or more counterparts of this Agreement may be delivered by facsimile or PDF transmission with the intent that it or they shall constitute an original counterpart hereof.

18. Invalidity and Waiver. If any portion of this Agreement is held invalid or inoperative, then so far as is reasonable and possible the remainder of this Agreement shall be deemed valid and operative, and, to the greatest extent legally possible, effect shall be given to the intent manifested by the portion held invalid or inoperative. The failure by either party to enforce against the other party any term or provision of this Agreement shall not be deemed to be a waiver of such party's right to enforce against the other party the same or any other such term or provision in the future.

19. Non-Disclosure of Agreement. Consultant shall not disclose the existence of this Agreement, the identities of the parties, or the terms or provisions of this Agreement, without the prior written approval of Arena, unless such disclosure is required by applicable law or regulation.

20. Adverse Event Reporting. An adverse event is any new, undesirable medical experience or change of an existing condition which occurs during or after use of a product. To the extent Consultant becomes aware of any adverse events that may be related to any product marketed by Arena or its Affiliate, or by one or more distributors of Arena or its Affiliate, regardless of whether the events are actually related to any such product, Consultant will provide immediate notice to Arena for compliance with all applicable reporting obligations; **adverse events must be reported to Arena's drug safety department at 858-453-7200, extension 1620 or by email at safety@arenapharm.com.**

IN WITNESS WHEREOF, the undersigned, intending to be legally bound, have duly executed, or caused to be duly executed, this Agreement as of the date first above written.

ARENA PHARMACEUTICALS, INC.

By: /s/ Amit Munshi
Amit Munshi
President and Chief Executive Officer
6154 Nancy Ridge Drive
San Diego, CA 92121

Telephone Number: 858-453-7200

Date: July 26, 2016

/s/ William R. Shannan, Jr.
William R. Shanahan, Jr., M.D.

4948 Rancho Viejo Drive
Del Mar, CA 92014

Telephone Number: 858-847-9470

Date: July 15, 2016

SERVICES AGREEMENT

THIS SERVICES AGREEMENT (the "Agreement") is entered into as of September 1, 2016 (the "Effective Date"), by and between ARENA PHARMACEUTICALS, INC., a Delaware corporation ("Arena"), and Dominic P. Behan, PhD, DSc ("Consultant").

WHEREAS, Arena wishes to obtain the services of Consultant as the Chair of a Scientific Advisory Board and Consultant wishes to provide such services, all subject to the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth, and intending to be legally bound hereby, Arena and Consultant hereby agree as follows:

1. Services to be Provided. During the term of this Agreement, Consultant shall perform for Arena (and, if applicable, Arena's Affiliates) the following services (the "Services"), as directed by the Company's Chief Executive Officer or his designee: Consultant shall act as the Company's Chair of a Scientific Advisory Board and provide advice, analysis and recommendations to the Company regarding the Company's research and development programs. Such Services are not expected to not exceed more than 20% of the average level of services performed in the three years preceding Consultant's employment termination. All services performed pursuant to this Agreement shall be performed solely by Consultant and in a good, timely, efficient and professional manner. As used herein, "Affiliate" means any entity, which controls, is controlled by, or is under common control with Arena. In this context "control" shall mean ownership by one entity, directly or indirectly, of more than fifty percent (50%) of the voting stock of another entity, which voting stock is entitled to vote for the election of directors, or otherwise has the actual right and ability to control and direct the management and business affairs of such other entity.

2. Term. This Agreement will begin concurrently with the termination of Consultant's status as an employee of Arena on the Effective Date, and will continue for a period of five (5) years, unless terminated earlier, as permitted herein.

3. Compensation; Invoices; Outstanding Equity Awards; Expenses; No Other Benefits; Taxes; Insurance.

(a) Consultant shall be paid \$630.00/hour for performing the Services.

(b) Consultant shall send to Arena invoices outlining the date work was performed, the number of hours worked in each such day, and a brief description of the work performed on behalf of Arena in a form reasonably acceptable to Arena. All invoices shall include purchase order number that will be subsequently provide by Arena

to Consultant, and shall be sent to Arena, attention Accounts Payable (acctpayable@arenapharm.com). The period of work covered by each invoice shall not be more than one month and all work performed in any calendar month shall be invoiced within ten (10) days of each month end . Consultant shall be paid in full any undisputed invoiced amount within thirty (30) days from receipt of invoice by Arena.

(c) Consultant's outstanding equity awards previously granted by Arena are eligible to continue to vest and/or be exercisable, as applicable, during the term of this Agreement in accordance with the applicable Arena plan(s) and written grant instrument(s) for such awards; provided, the foregoing is subject to the Amended and Restated Severance Benefit Plan in effect on the Effective Date (the "Severance Plan"); and provided further that Consultant understands and agrees that any stock options previously considered "incentive stock options" may no longer qualify as such under Section 422 of the Internal Revenue Code of 1986. For clarity, the options subject to accelerated vesting pursuant to the Severance Plan (the "Accelerated Options") are those options that were scheduled to vest earliest following Consultant's employment termination date under the original vesting schedule and the remaining options whose vesting is not immediately accelerated pursuant to the Severance Plan (the "Unvested Options") are eligible to vest pursuant to the original vesting schedule, subject to Consultant's continued services pursuant to this Agreement. For additional clarity (A) pursuant to the Severance Plan, Consultant shall be entitled to exercise all of his stock options that are vested as of the Effective Date (including the Accelerated Options) until the later of (i) the original post-termination exercise period provided in such stock option agreements (measured from the date of cessation of Services under this Agreement, as determined by Arena in its discretion) or (ii) 18 months following the termination of Consultant's status as an employee of Arena on the Effective Date, but in any event not beyond the original contractual life of the options and (B) Consultant shall be entitled to exercise all of his Unvested Options, to the extent vested as of the date of cessation of Services under this Agreement, until the end of the original post-termination exercise period provided in such stock option agreements (measured from the date of cessation of Services under this Agreement, as determined by Arena in its discretion), but in any event not beyond the original contractual life of the options. Consultant should review such written grant instrument(s) and applicable Arena plan(s) and agreements to determine his rights.

(d) Consultant shall be responsible for all expenses incurred in connection with the performance of the Services, including travel, hotel and meal expenses, unless such expenses are reasonable and approved in advance by Arena. All such pre-approved expenses shall be invoiced to Arena at cost and Consultant shall include copies of all receipts for such expenses.

(e) Consultant will not be an employee of Arena during the term of this Agreement and will not as a result of this Agreement be entitled to participate in, or receive any benefit or right as an Arena employee under, any Arena employee benefit and welfare plans, including, without limitation, employee insurance, pension, savings and security plans.

(f) Consultant is solely responsible for filing all tax returns and submitting all payments as required by any federal, state or local tax authority arising from the payment of fees to Consultant under this Agreement, and agrees to do so in a timely manner. Arena, in its sole

discretion, may file applicable documents or reports with the Internal Revenue Service and withhold taxes and other amounts it determines is required or appropriate under applicable law .

(g) Arena will not obtain workers' compensation insurance on behalf of, or for the benefit of, Consultant.

4. Ownership of Results.

(a) All findings, conclusions, data, inventions, discoveries, trade secrets, techniques, processes, know-how, trademarks, servicemarks, brands, trade dress and tag lines, whether or not patentable or otherwise registrable, that are made by Consultant, either alone or with others, in the performance of the Services or which result, to any extent, from use of Arena's (or Arena's Affiliate's) premises or property (collectively, "Inventions") shall become the exclusive property of Arena or its designee. Consultant shall provide Arena prompt written notice of each Invention. Consultant hereby assigns, transfers and conveys all of Consultant's right, title and interest in and to any and all Inventions to Arena or its designee.

(b) Upon the request and at the expense of Arena or its designee, Consultant will execute and deliver any and all instruments and documents and take such other acts as may be necessary or desirable to document such transfer or to enable Arena or its designee to apply for, prosecute and enforce patents, trademark registrations or copyrights in any jurisdiction with respect to any Inventions or to obtain any extension, validation, re-issue, continuance or renewal of any such intellectual property right. Without limiting the foregoing, Consultant shall assign, grant and convey unto Arena or its designee all of Consultant's right, title and interest, now existing or that may exist in the future, in and to any copyrights in any findings, reports, data compilations and other information and material resulting from the performance of the Services. Consultant shall not submit applications for copyright registration in any country for any information or materials created by Consultant pursuant to this Agreement.

(c) The provisions of this paragraph 4 shall survive the expiration or sooner termination of the term of this Agreement, and such provisions are in addition to, and do not supersede, any agreements Consultant entered into as an Arena employee.

5. Confidentiality. Consultant will not, either during or after the term of this Agreement, disclose to any third person or use any confidential or proprietary information of Arena, its Affiliates or its corporate collaborators for any purpose other than the performance of the Services without the prior written authorization of Arena; provided, however, the foregoing does not restrict your ability to use Arena confidential or proprietary information as provided in the License and Services Agreement between Arena and Beacon, and any related services agreements between Arena and Beacon. This obligation shall not apply to information that is in the public domain through no fault of Consultant. For purposes of this paragraph 5, "confidential or proprietary information" is defined as any information disclosed hereunder by Arena or its Affiliates, or on behalf of Arena or its Affiliates, or developed by Consultant in the performance of Services, including without limitation the structure and activity of any chemical compositions provided to Consultant pursuant to this Agreement, as well as synthetic and analytical methods, biomaterials, micro-organisms, cells, cell lines and the progeny and derivatives thereof, including all modified and recombinant DNA molecules and all vectors and hosts containing the

same, patent applications, pre-clinical or clinical data, marketing methods and plans, pricing information, manufacturing information and other unpublished information related to the business or the financial condition of Arena and its Affiliates and corporate collaborators. The provisions of this paragraph 5 shall survive the expiration or sooner termination of this Agreement, and such provisions are in addition to, and do not supersede, any agreements Consultant entered into as an Arena employee.

6. Termination. Either party may terminate this Agreement for any reason whatsoever, upon thirty (30) days written notice to the other party.

7. Return of Arena Property. Consultant will return to Arena any property of Arena, its Affiliates and corporate collaborators, in Consultant's possession, at any time when so requested by Arena and in any event upon termination of this Agreement. Consultant will not remove any such property from Arena premises without written authorization from Arena.

8. Independent Contractor. Consultant is an independent contractor under this Agreement. Neither party shall have the power to bind the other party to any agreement, contract, obligation or liability. Consultant shall not communicate on behalf of Arena or its Affiliates, or report on the Services rendered under this Agreement to any third party without specific written authorization by Arena.

9. Debarment; Excluded Lists. Consultant warrants and represents that Consultant is not now, nor has Consultant ever been, an individual that has been debarred by the U.S. Food and Drug Administration ("FDA"), including, but not limited to, pursuant to 21 U.S.C. §335a (a "Debarred Person") or disqualified as a Clinical Investigator by the FDA, including, but not limited to, pursuant to 21 C.F.R. §312.70 or §812.119 (a "Disqualified Person"). Consultant warrants and represents that Consultant is not now, nor has Consultant ever been, listed on either (a) the United States Department of Health & Human Services' List of Excluded Individuals/Entities or (b) the United States General Services Administration's Excluded Parties List System (in each case, including any predecessor list, or replacement list, directed to the same or similar purpose) (each of (a) and (b), an "Excluded List"). Consultant further warrants and represents that Consultant has no knowledge of any circumstances which may affect the accuracy of any of the foregoing warranties and representations, including, but not limited to, FDA investigations of, or debarment proceedings against Consultant.

Consultant shall immediately notify Arena if Consultant becomes aware of any change in circumstances that would render any of the foregoing representations or warranties untrue or misleading in any material respect during the term of this Agreement and any extensions thereto.

10. Not a Health Care Provider. Consultant represents and warrants that Consultant is not a health care provider and Consultant will inform Arena promptly if he becomes a health care provider during the term of this Agreement. The term "health care provider" includes any person with a valid medical (or other applicable) license or certification to practice in the United States, or any other individual or entity based primarily in the United States, in each case, that is in a position to prescribe, purchase, recommend, refer, or arrange for the purchase, sale, or formulary placement of Arena products, including, but not limited to, physicians, pharmacists, nurses, nurse practitioners, physician assistants, medical directors, hospitals, pharmacies, pharmacy benefit

managers, group purchasing organizations, wholesalers, insurers, and any individual employed by such entities with responsibility or authority to purchase, prescribe, recommend, influence, or arrange for the purchase or sale of Arena's products.

11. Formulary Committee Participation. To the extent Consultant is a member of a committee of any government entity that sets prescription drug formularies or develops clinical guidelines, during the term of this Agreement and for two years following the term, Consultant will disclose to such committee the existence of this Agreement and the nature of the Services, and will follow any procedure set forth by such committee relative to Services under this Agreement. Consultant will notify Arena of such committee membership and of any such procedure that Consultant is required to follow by the committee relative to the Services under this Agreement.

12. Entire Agreement and Amendment. Except as specified in paragraphs 4 and 5 with respect to agreements entered into by Consultant as an Arena employee, this Agreement is the sole agreement between Consultant and Arena with respect to the Services to be performed hereunder and it supersedes all prior agreements and understandings with respect thereto, whether oral or written. No modification to any provision of this Agreement shall be binding unless in writing and signed by both Consultant and a duly authorized representative of Arena. All of the terms and provisions of this Agreement shall be binding upon and inure to the benefit of and be enforceable by the respective heirs, executors, administrators, legal representatives, successors and permitted assigns of the parties hereto.

13. Assignment and Subcontracts. The duties and responsibilities of Consultant hereunder are of a personal nature and shall not be assigned, subcontracted or delegated in whole or in part by Consultant without Arena's prior written consent.

14. Governing Law. This Agreement shall be governed by and interpreted in accordance with laws of the State of California, without giving effect to any conflict of law provisions.

15. Notices. All notices required hereunder shall be in writing and be delivered personally, sent by an internationally recognized express courier service (e.g., FedEx), or sent via registered or certified mail (postage prepaid) requiring return receipt, and shall be deemed given as of: (i) the date of delivery, if sent by personal delivery; (ii) two days after the date of deposit, if sent by express courier service; or (iii) one week after the date of mailing, if sent by mail. Notices shall be addressed as provided below or to such other addressee as either party may in the future designate by written notice to the other in accordance with the terms hereof:

If to Arena, to:

Arena Pharmaceuticals, Inc.
6154 Nancy Ridge Drive
San Diego, CA 92121
Attention: General Counsel
Telephone: 858 453 7200

If to Consultant, to:

Dominic P. Behan, PhD, DSc
15581 Pinehurst Place
San Diego, CA 92131
Telephone: 858.531.9067

16. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, all of which together shall constitute one and the same instrument. One or more counterparts of this Agreement may be delivered by facsimile or PDF transmission with the intent that it or they shall constitute an original counterpart hereof.

17. Invalidity and Waiver. If any portion of this Agreement is held invalid or inoperative, then so far as is reasonable and possible the remainder of this Agreement shall be deemed valid and operative, and, to the greatest extent legally possible, effect shall be given to the intent manifested by the portion held invalid or inoperative. The failure by either party to enforce against the other party any term or provision of this Agreement shall not be deemed to be a waiver of such party's right to enforce against the other party the same or any other such term or provision in the future.

18. Adverse Event Reporting. An adverse event is any new, undesirable medical experience or change of an existing condition which occurs during or after use of a product. To the extent Consultant becomes aware of any adverse events that may be related to any product marketed by Arena or its Affiliate, or by one or more distributors of Arena or its Affiliate, regardless of whether the events are actually related to any such product, Consultant will provide immediate notice to Arena for compliance with all applicable reporting obligations; **adverse events must be reported to Arena's drug safety department at 858-453-7200, extension 1620 or by email at safety@arenapharm.com.**

IN WITNESS WHEREOF, the undersigned, intending to be legally bound, have duly executed, or caused to be duly executed, this Agreement as of the date first above written.

ARENA PHARMACEUTICALS, INC.

By: /s/ Amit Munshi
Amit Munshi
President and Chief Executive Officer

/s/ William R. Shannan, Jr.
William R. Shanahan, Jr., M.D.

Date: 1 Sept 2016

Date: 1 Sept 2016

CERTIFICATION

I, Amit Munshi, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Arena Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 9, 2016

/s/ Amit Munshi

Amit Munshi, President and Chief Executive Officer

CERTIFICATION

I, Kevin R. Lind, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Arena Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 9, 2016

/s/ Kevin R. Lind

Kevin R. Lind, Executive Vice President
and Chief Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report on Form 10-Q of Arena Pharmaceuticals, Inc. (the "Company") for the period ended September 30, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Amit Munshi, as President and Chief Executive Officer of the Company, and Kevin R. Lind, as Executive Vice President and Chief Financial Officer of the Company, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of his knowledge:

1. the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Amit Munshi

Amit Munshi
President and Chief Executive Officer

Date: November 9, 2016

/s/ Kevin R. Lind

Kevin R. Lind
Executive Vice President and Chief Financial Officer

Date: November 9, 2016