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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, 2015

OR

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

For the transition period from _____ to _____

Commission file number: 001-36544

Sage Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**27-4486580**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

215 First Street
Cambridge, Massachusetts 02142
(Address of principal executive office) (Zip Code)

Registrant's telephone number, including area code: (617) 299-8380

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 ☒

As of November 1, 2015, there were 28,862,471 shares of the registrant's Common Stock, $0.0001 par value per share, outstanding.

FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements that involve risks and uncertainties. We make such forward-looking statements pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and other federal securities laws. All statements other than statements of historical facts contained in this Quarterly Report on Form 10-Q are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “may”, “will”, “should”, “expects”, “intends”, “plans”, “anticipates”, “believes”, “estimates”, “predicts”, “potential”, “continue” or the negative of these terms or other comparable terminology. These forward-looking statements include, but are not limited to, statements about:

- our estimates regarding expenses, the potential for future revenues and capital requirements;
- our plans to develop and commercialize our product candidates in the CNS disorders we discuss in this Quarterly Report and potentially in other indications;
- our plans with respect to filing for regulatory approval for our product candidates, if clinical trial development is successful, and the potential to obtain such approval and to commercialize any product, if approved
- our ability to complete our ongoing nonclinical studies and clinical trials, and to advance our product candidates into additional clinical trials, including pivotal clinical trials, and successfully complete such clinical trials;
- regulatory developments in the United States and foreign countries;
- the expected performance of our third-party manufacturers and contract research organizations;
- our ability to obtain and maintain intellectual property protection for our proprietary assets;
- the size of the potential markets for our product candidates and our ability to serve those markets;
- the rate and degree of market acceptance of our product candidates for any indication once approved;
- the level of costs we may incur in connection with our activities, and our ability to obtain additional financing when needed;
- the potential for success of competing products that are or become available for the indications that we are pursuing;
- the potential risk of loss of key scientific or management personnel; and
- other risks and uncertainties, including those listed under Part II, Item 1A. Risk Factors.

Any forward-looking statements in this Quarterly Report on Form 10-Q reflect our current views with respect to future events and with respect to our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Factors that may cause actual results to differ materially from current expectations include, among other things, those described under Part II, Item 1A. Risk Factors and elsewhere in this Quarterly Report on Form 10-Q. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

This Quarterly Report on Form 10-Q also contains estimates, projections and other information concerning our industry, the general business environment, and the markets for certain diseases, including data regarding the estimated size of those markets, and the incidence and prevalence of certain medical conditions. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business information, market data and other data from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources, in some cases applying assumptions that may, in the future, not prove to have been accurate.

Sage Therapeutics, Inc.

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PART I — FINANCIAL INFORMATION

Item 1. Financial Statements

Sage Therapeutics, Inc. and Subsidiaries
Consolidated Balance Sheets
(in thousands, except share and per share data)
(Unaudited)

	September 30, 2015	December 31, 2014
Assets		
Current assets:		
Cash and cash equivalents	$ 204,877	$ 127,766
Prepaid expenses and other current assets	2,604	1,056
Total current assets	207,481	128,822
Property and equipment, net	249	163
Restricted cash	39	39
Deferred tax assets	641	641
Total assets	$ 208,410	$ 129,665
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 3,246	$ 2,429
Accrued expenses	6,404	4,687
Deferred tax liabilities	641	641
Total current liabilities	10,291	7,757
Other liabilities	15	23
Total liabilities	10,306	7,780
Commitments and contingencies (Note 4)		
Stockholders' equity:		
Preferred stock, $0.0001 par value; 5,000,000 shares authorized at September 30, 2015 and December 31, 2014, respectively; no shares issued or outstanding at September 30, 2015 and December 31, 2014, respectively	—	—
Common stock, $0.0001 par value; 120,000,000 shares authorized at September 30, 2015 and December 31, 2014, respectively; 28,788,885 and 25,621,791 shares issued and outstanding at September 30, 2015 and December 31, 2014, respectively	3	3
Additional paid-in capital	330,879	188,727
Accumulated deficit	(132,778)	(66,845)
Total stockholders' equity	198,104	121,885
Total liabilities and stockholders' equity	$ 208,410	$ 129,665

The accompanying notes are an integral part of these consolidated financial statements.

Sage Therapeutics, Inc. and Subsidiaries
Consolidated Statements of Operations and Comprehensive Loss
(in thousands, except share and per share data)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
Operating expenses:				
Research and development	$ 17,478	$ 6,601	$ 48,981	$ 15,155
General and administrative	6,604	2,869	17,057	6,294
Total operating expenses	24,082	9,470	66,038	21,449
Loss from operations	(24,082)	(9,470)	(66,038)	(21,449)
Interest income, net	53	3	115	4
Other expense, net	(6)	(1)	(10)	(5)
Net loss and comprehensive loss	(24,035)	(9,468)	(65,933)	(21,450)
Accretion of redeemable convertible preferred stock to redemption value	—	(391)	—	(2,294)
Net loss attributable to common stockholders	$ (24,035)	$ (9,859)	$ (65,933)	$ (23,744)
Net loss per share attributable to common stockholders—basic and diluted	$ (0.84)	$ (0.50)	$ (2.40)	$ (3.08)
Weighted average number of common shares used in net loss per share attributable to common stockholders—basic and diluted	28,737,743	19,581,624	27,430,275	7,711,038

The accompanying notes are an integral part of these consolidated financial statements.

Sage Therapeutics, Inc. and Subsidiaries
Consolidated Statements of Cash Flows
(in thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2015	2014
Cash flows from operating activities		
Net loss	$ (65,933)	$ (21,450)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation expense	11,154	1,186
Non-cash licensing and consulting fees	1,211	127
Depreciation	83	35
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(1,548)	(722)
Accounts payable	808	(6)
Accrued expenses and other liabilities	1,661	2,455
Net cash used in operating activities	(52,564)	(18,375)
Cash flows from investing activities		
Purchase of property and equipment	(160)	(83)
Net cash used in investing activities	(160)	(83)
Cash flows from financing activities		
Proceeds from the issuance of Series B preferred stock, net of issuance costs	—	14,970
Proceeds from the issuance of Series C preferred stock, net of issuance costs	—	37,890
Proceeds from stock option exercises and employee stock purchase plan issuances	663	39
Payment of offering costs	(548)	(2,035)
Proceeds from public offering of common stock, net of commissions and underwriting discounts	129,720	96,255
Net cash provided by financing activities	129,835	147,119
Net increase in cash and cash equivalents	77,111	128,661
Cash and cash equivalents at beginning of period	127,766	8,066
Cash and cash equivalents at end of period	$204,877	$136,727
Supplemental disclosure of non-cash financing activities		
Accretion of redeemable convertible preferred stock to redemption value	$ —	$ 2,294
Public offering costs included in accounts payable or accrued expenses	$ 4	$ 246
Conversion of preferred stock to common stock	$ —	$ 92,863

The accompanying notes are an integral part of these consolidated financial statements.

SAGE THERAPEUTICS, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements

(Unaudited)

1. Nature of Operations

Sage Therapeutics, Inc. ("Sage" or the "Company") is a clinical-stage biopharmaceutical company committed to developing and commercializing novel medicines to treat life-altering central nervous system ("CNS") disorders, where there are inadequate or no approved existing therapies. The Company is targeting CNS indications where patient populations are easily identified, clinical endpoints are well-defined, and development pathways are feasible. This focus allows the Company to make highly informed decisions when advancing its product candidates through the development process.

The Company was incorporated under the laws of the state of Delaware on April 16, 2010 and commenced operations on January 19, 2011 as Sterogen Biopharma, Inc. On September 13, 2011, the Company changed its name to Sage Therapeutics, Inc. under its Second Amended and Restated Certificate of Incorporation.

The Company is subject to risks and uncertainties common to companies in the biotech industry, including, but not limited to, the risks associated with developing product candidates at each stage of nonclinical and clinical development; the challenges associated with gaining regulatory approval of such product candidates; the potential for development by third parties of new technological innovations that may compete with the Company's products; the dependence on key personnel; the challenges of protecting proprietary technology; the need to comply with government regulations; the high costs of drug development; and the uncertainty of being able to secure additional capital when needed to fund operations.

The Company has incurred losses and negative cash flows from operations since its inception. As of September 30, 2015, the Company had an accumulated deficit of $132.8 million. From its inception through September 30, 2015, the Company has raised aggregate net proceeds of $90.6 million from the issuance of Series A, Series B and Series C redeemable convertible preferred stock. In July 2014, the Company raised net proceeds of $94.0 million from the sale of common stock in its initial public offering, ("IPO"). In April 2015, the Company raised net proceeds of $129.1 million from the sale of common stock in a follow-on underwritten public offering. Based on its current operating plans, the Company believes its cash and cash equivalents balance of $204.9 million as of September 30, 2015 will be sufficient to fund its anticipated level of operations through mid-2017.

2. Summary of Significant Accounting Policies

Basis of Presentation

The unaudited interim consolidated financial statements of the Company included herein have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the "SEC"). Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted from this report, as is permitted by such rules and regulations. Accordingly, these consolidated financial statements should be read in conjunction with the audited consolidated financial statements as of and for the year ended December 31, 2014.

The unaudited interim consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements. In the opinion of the Company's management, the accompanying unaudited interim consolidated financial statements contain all adjustments which are necessary to present fairly the Company's financial position as of September 30, 2015, the results of its operations and comprehensive loss for the three and nine months ended September 30, 2015 and 2014, and its cash flows for the nine months ended September 30, 2015 and 2014. Such adjustments are of a normal and recurring nature. The results for the three and nine months ended September 30, 2015 are not indicative of the results for the year ending December 31, 2015, or for any future period.

On July 23, 2014, the Company completed the sale of 5,750,000 shares of its common stock in its IPO at a price to the public of $18.00 per share, resulting in net proceeds to the Company of $94.0 million after deducting underwriting discounts and commissions and offering costs paid by the Company. The shares began trading on the Nasdaq Global Market on July 18, 2014.

In connection with preparing for the IPO, the Company's board of directors and stockholders approved a 1-for-3.15 reverse stock split of the Company's common stock effective July 2, 2014. All share and per share amounts in the unaudited consolidated financial statements contained herein and notes thereto have been retroactively adjusted, where necessary, to give effect to this reverse stock split. In connection with the closing of the IPO, all of the Company's outstanding redeemable convertible preferred stock

automatically converted into shares of common stock as of July 23, 2014, resulting in the issuance by the Company of an additional 18,007,575 shares of common stock. The significant increase in common stock outstanding in July 2014 will impact the year-over-year comparability of the Company's net loss per share calculations through the end of 2015.

On April 20, 2015, the Company completed the sale of 2,628,571 shares of common stock in its underwritten public offering of its common stock at a price to the public of $52.50 per share, resulting in net proceeds to the Company of $129.1 million after deducting underwriting discounts and commissions and offering costs paid by the Company.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries as disclosed in Note 2, Summary of Significant Accounting Policies, within the "Notes to Consolidated Financial Statements" accompanying its Annual Report on Form 10-K for the fiscal year ended December 31, 2014, as amended. Intercompany accounts and transactions have been eliminated.

Recently Issued Accounting Pronouncements

In May 2014, the FASB issued guidance that outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry specific guidance. The guidance is based on the principle that an entity should recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The guidance also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to fulfill a contract. Entities have the option of using either a full retrospective or a modified retrospective approach for the adoption of the new standard. The guidance becomes effective for the Company in the year ending December 31, 2018, and the Company could early adopt the standard for the year ending December 31, 2017. The Company is currently assessing the method of adoption and the impact of this new accounting guidance will have on its consolidated financial statements and footnote disclosures.

In August 2014, the FASB issued ASU 2014-15, Presentation of Financial Statements — Going Concern (Subtopic 205-40). The new guidance addresses management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures. Management's evaluation should be based on relevant conditions and events that are known and reasonably knowable at the date that the financial statements are issued. The standard will be effective for the first interim period within annual reporting periods beginning after December 15, 2016. Early adoption is permitted. The Company is evaluating the effect that this guidance will have on its consolidated financial statements.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Fair Value Measurements

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three categories:

Level 1 - Quoted market prices in active markets for identical assets or liabilities. At September 30, 2015 and December 31, 2014, the Company's Level 1 assets consisted of money market funds totaling $204.9 million and $127.8 million, respectively.

Level 2 - Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. At September 30, 2015 and December 31, 2014, the Company had no Level 2 assets or liabilities.

Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. At September 30, 2015 and December 31, 2014, the Company had no Level 3 assets or liabilities.

The Company's financial instruments generally consist of cash equivalents, accounts payable and accrued expenses. The carrying amounts for the applicable financial instruments reported in the balance sheets approximate their fair values at September 30, 2015 and December 31, 2014.

Deferred Offering Costs

The Company capitalizes certain legal, accounting and other third-party fees that are directly associated with in-process equity financings as other assets until such financings are consummated. After consummation of the IPO in July 2014, $2.3 million of these costs were recorded in stockholders' equity as a reduction of additional paid-in capital generated as a result of the IPO. After consummation of the public offering of common stock in April 2015, $0.6 million of these costs were recorded in stockholders' equity as a reduction of additional paid-in capital generated as a result of the offering.

Segment Data

The Company manages its operations as a single segment for the purposes of assessing performance and making operating decisions. The Company's singular focus is on advancing medicines to treat CNS disorders, where there are inadequate or no approved existing therapies. All tangible assets are held within the United States.

3. Accrued Expenses

Accrued expenses consist of the following (amounts in thousands):

	September 30, 2015	December 31, 2014
Development costs	$ 4,096	$ 2,788
Employee-related expenses	1,545	1,279
Professional services	756	574
Other accrued expenses	7	46
	$ 6,404	$ 4,687

4. Commitments and contingencies

CyDex License Agreement

In September 2015, the Company and CyDex Pharmaceuticals, Inc. ("CyDex") amended and restated their existing commercial license agreement. Under the terms of the commercial license agreement as amended and restated, CyDex has granted to the Company an exclusive license to CyDex's Captisol drug formulation technology and related intellectual property for the manufacture of pharmaceutical products incorporating the Company's compounds known as SAGE-547 and SAGE-689, and the development and commercialization of the resulting products in the treatment, prevention or diagnosis of any disease or symptom in humans or animals other than (i) the ocular treatment of any disease or condition with a formulation, including a hormone; (ii) topical ocular treatment of inflammatory conditions; (iii) treatment and prophylaxis of fungal infections in humans; and (iv) any ocular treatment for retinal degeneration.

As consideration for the inclusion of SAGE-689 in the license granted by CyDex, the Company paid a milestone to CyDex of $0.1 million, which was recorded as research and development expense in the three months ended September 30, 2015 in connection with execution of the amended and restated license agreement.

The Company is obligated to make milestone payments under the amended and restated license agreement with CyDex based on the achievement of clinical development and regulatory milestones in the amount of $0.8 million in clinical milestones and $3.8 million in regulatory milestones for each of the first two fields with respect to SAGE-547; $1.3 million in clinical milestones and $8.5 million in regulatory milestones for each of the third and fourth fields with respect to SAGE-547; and $0.8 million in clinical milestones and $1.8 million in regulatory milestones for one field with respect to SAGE-689.

In March 2015, a clinical development milestone was met for the SAGE-547 program under the license agreement with CyDex, and accordingly, the Company recorded research and development expense for the three months ended March 31, 2015 of $0.3 million.

In April 2015, an additional clinical development milestone for the SAGE-547 program was met under the license agreement with CyDex, and accordingly, the Company recorded research and development expense for the three months ended June 30, 2015 of $0.5 million.

The Company will also be required to pay royalties to CyDex on sales of SAGE-547 and SAGE-689, if successfully developed, in the low single digits based on levels of net sales. The Company and CyDex are also parties to a supply agreement which was amended in September 2015 to cover the supply of CyDex's Captisol for use in the manufacture of products incorporating SAGE-689. Under the amended supply agreement with CyDex, the Company is required to purchase all of its requirements for Captisol with respect to SAGE-547 and SAGE-689 from CyDex, and CyDex is required to supply the Company with Captisol for such purposes, subject to certain limitations.

Washington University License Agreement

In November 2013, the Company entered into a license agreement with Washington University whereby the Company was granted exclusive, worldwide rights to develop and commercialize a novel set of neuroactive steroids developed by Washington University. In exchange for development and commercialization rights, the Company paid an upfront, non-refundable payment of $50,000 and is required to pay an annual license maintenance fee of $15,000 on each subsequent anniversary date, until the first Phase 2 clinical trial for a licensed product is initiated. The Company is obligated to make milestone payments to Washington University based on achievement of clinical development and regulatory milestones of up to $0.7 million and $0.5 million, respectively. Additionally, the Company fulfilled its obligation to issue to Washington University 47,619 shares of common stock on December 13, 2013. The fair value of these shares totaling $0.1 million was recorded as research and development expense in 2013.

The Company is obligated to pay royalties to Washington University at rates in the low single digits on net sales of licensed products covered under patent rights and royalties at rates in the low single digits on net sales of licensed products not covered under patent rights. Additionally, the Company has the right to sublicense and is required to make payments at varying percentages of sublicensing revenue received, initially in the mid-teens and descending to the mid-single digits over time.

In September 2015, a regulatory milestone was met for one of the programs. Accordingly, the Company recorded research and development expenses for the three months ended September 30, 2015 of $50,000.

University of California License Agreements

In October 2013, the Company entered into a non-exclusive license agreement with The Regents of the University of California whereby the Company was granted a non-exclusive license to certain clinical data and clinical material for use in the development and commercialization of biopharmaceutical products in the licensed field, including status epilepticus and post-partum depression. In May 2014, the license agreement was amended to add the treatment of essential tremor to the licensed field of use, materials and milestone fee provisions of the agreement.

The Company will be required to pay to The Regents of the University of California clinical development milestones of up to $0.1 million and pay royalties of less than 1% on net sales for a period of fifteen years following the sale of the first commercial product.

The license will terminate on the earlier to occur of (i) 27 years after the effective date or (ii) 15 years after the last-derived product is first commercially sold.

In March 2015, a clinical development milestone was met. Accordingly, the Company recorded research and development expenses for the three months ended March 31, 2015 totaling $0.1 million.

In June 2015, an additional clinical development milestone was met. Accordingly, the Company recorded research and development expenses for the three months ended June 30, 2015 totaling $25,000.

In September 2015, an additional clinical development milestone was met. Accordingly, the Company recorded research and development expenses for the three months ended September 30, 2015 totaling $25,000. In June 2015, the Company entered into an exclusive license agreement with The Regents of the University of California whereby the Company was granted an exclusive license to certain patent rights related to the use of allopregnanolone to treat various diseases. In exchange for such license, the Company paid an upfront payment of $50,000 and will make annual maintenance fees of $15,000 until the calendar year following the first sale, if any, of a licensed product. The Company is obligated to make milestone payments following the achievement of specified regulatory and sales milestones of up to $0.7 million and $2.0 million in the aggregate, respectively. Following the first sale, if any, of a licensed product, the Company is obligated to pay royalties at a low single digit percentage of net sales, if any, of licensed products, subject to specified minimum annual royalty amounts. Unless terminated by operation of law or by acts of the parties under the terms of the agreement, the license agreement will terminate when the last-to-expire patents or last-to-be abandoned patent applications expire, whichever is later.

Consulting Agreement

In January 2014, the Company entered into a consulting agreement with a nonemployee advisor whereby the Company is obligated to make cash payments of up to $2.0 million and to issue up to 126,984 shares of common stock upon attainment of certain clinical development and regulatory milestones.

In January and March 2014, the first clinical development milestones for each of two programs included in the consulting agreement were met. Accordingly, the Company recorded research and development expense for the year ended December 31, 2014 of $0.2 million, comprised of $50,000 in cash and $0.1 million related to the issuance of 15,872 shares of the Company's common stock.

In March 2015, the second clinical development milestone for one of the programs included in the consulting agreement was met. Accordingly, the Company recorded research and development expense for the three months ended March 31, 2015 of $0.6 million, comprised of $0.2 million in cash and $0.4 million related to the issuance of 7,936 shares of the Company's common stock.

In April 2015, the third clinical development milestone for one of the programs included in the consulting agreement was met. Accordingly, the Company recorded research and development expense for the three months ended June 30, 2015 of $1.1 million, comprised of $0.3 million in cash and $0.8 million related to the issuance of 15,873 shares of the Company's common stock.

5. Stock-Based Compensation

2014 Stock Option Plan

On July 2, 2014, the Company's stockholders approved the 2014 Stock Option and Incentive Plan (the "2014 Stock Option Plan"), which became effective upon the completion of the IPO. The 2014 Stock Option Plan provides for the grant of restricted stock awards, incentive stock options, non-statutory stock options, among others. The 2014 Stock Option Plan replaced the Company's 2011 Stock Option and Grant Plan (the "2011 Stock Option Plan"). The Company will grant no further stock options or other awards under the 2011 Stock Option Plan. Any options or awards outstanding under the 2011 Stock Option Plan remained outstanding and effective. As of September 30, 2015, the total number of shares reserved under the 2014 Stock Option Plan and the 2011 Stock Option Plan was 3,868,298 and the Company had 997,486 shares available for future issuance under the 2014 Stock Option Plan.

The 2014 Stock Option Plan provides for an annual increase, to be added on the first day of each fiscal year, by up to 4% of the Company's issued and outstanding shares of common stock on the immediately preceding December 31. On January 1, 2015, 773,779 shares of common stock, representing 3% of the Company's issued and outstanding shares of common stock as of December 31, 2014, were added to the 2014 Stock Option Plan. Such shares are included in the equity plan totals specified in the paragraph above.

2014 Employee Stock Purchase Plan

On July 2, 2014, the Company's stockholders approved the 2014 Employee Stock Purchase Plan. A total of 282,000 shares of common stock were initially authorized for issuance under this plan. The 2014 Employee Stock Purchase Plan became effective upon the completion of the IPO. As of September 30, 2015, 3,852 shares of common stock have been issued under this plan. During the nine months ended September 30, 2015, issuances of common stock under the Employee Stock Purchase Plan resulted in proceeds to the Company of $0.1 million.

Stock-Based Compensation

Terms of restricted stock awards and stock option agreements, including vesting requirements, are determined by the Compensation Committee of the Company's Board of Directors or the Board of Directors, subject to the provisions of the applicable stock option plan. Options and restricted stock awards granted by the Company generally vest based on the continued service of the grantee with the Company during a specified period following the grant. Awards generally vest ratably over four years, with a 25% cliff vesting at the one year anniversary.

During the nine months ended September 30, 2015, the Company granted 497,100 options to employees to purchase shares of common stock that contain performance-based vesting criteria, primarily related to achievement of certain clinical and regulatory development milestones related to the Company's product candidates. Recognition of stock-based compensation expense associated with these performance-based stock options commences when the performance condition is considered probable of achievement, using management's best estimates. During the quarter ended June 30, 2015, the achievement of one milestone was considered probable and that milestone was achieved during the quarter ended September 30, 2015. The related expense was recognized over the estimated service period. This milestone represents 35% of the performance-based grants that were made during the nine months ended September 30, 2015. The achievement of the remaining milestones was deemed to be not probable as of September 30, 2015 and therefore no expense has been recognized related to these awards. During the three and nine months ended September 30, 2015, the Company recognized stock-based compensation expense of $1.4 million and $4.8 million, respectively, related to stock options with performance-based vesting criteria. During the three and nine months ended September 30, 2014, the Company recognized no stock-based compensation expense related to stock options with performance-based vesting criteria.

All awards are exercisable from the date of grant for a period of ten years.

The stock-based compensation expense recognized during the three and nine months ended September 30, 2015 and 2014 was as follows (amounts in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
Stock compensation expense:				
Research and development	$ 1,472	$ 294	$ 4,293	$ 553
General and administrative	2,935	396	6,861	633
	$ 4,407	$ 690	$ 11,154	$ 1,186

For stock option awards, the fair value of the options is estimated at the grant date using the Black-Scholes option-pricing model, taking into account the terms and conditions upon which options are granted. The fair value of the options is amortized on a straight-line basis over the requisite service period of the awards. The weighted average grant date exercise price per share relating to outstanding stock options granted under the Company's stock option plans during the nine months ended September 30, 2015 and 2014 was $45.27 and $9.08, respectively. The weighted average Black-Scholes value per share relating to outstanding stock options granted under the Company's stock option plans during the nine months ended September 30, 2015 was $33.44.

The fair value of each option granted to employees and directors during the three and nine months ended September 30, 2015 and 2014 under the Company's stock option plans has been calculated on the date of grant using the following weighted average assumptions:

Black-Scholes Assumptions:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
Expected dividend yield	0%	0%	0%	0%
Expected volatility	86.59%	100.43%	91.03%	101.07%
Risk free interest rate	1.80%	1.99%	1.57%	1.90%
Expected term	6.08 years	5.96 years	6.03 years	6.01 years

For options granted to nonemployees, the expected life of the option used is ten years, which is the contractual term of each such option. All other assumptions used to calculate the grant date fair value are generally consistent with the assumptions used for options granted to employees.

The table below summarizes activity related to stock options:

	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Life (in years)	Aggregate Intrinsic Value
Outstanding as of December 31, 2014	1,996,615	$ 7.01	8.98	$ 59,362
Granted	1,369,807	45.27		
Exercised	(411,349)	1.30		28,184
Forfeited	(84,261)	26.31		1,644
Outstanding as of September 30, 2015	2,870,812	$ 25.52	8.86	$ 55,937
Vested or expected to vest as of September 30, 2015	2,236,739	$ 23.58	8.78	$ 48,431
Exercisable as of September 30, 2015	565,941	$ 14.74	8.56	$ 15,607

As of September 30, 2015, the Company had unrecognized stock-based compensation expense related to its unvested stock option awards of $29.6 million, which is expected to be recognized over the remaining weighted average vesting period of 3.08 years. The total fair value of shares vested for the nine months ended September 30, 2015 and 2014 was $7.3 million and $0.6 million, respectively. During the nine months ended September 30, 2015 and 2014, stock option exercises resulted in proceeds of $0.5 million and $39,379, respectively. The intrinsic value of stock options exercised during the nine months ended September 30, 2015 and 2014 was $28.2 million and $2.4 million, respectively.

Restricted Stock Awards

The Company has granted restricted stock awards to certain officers, employees, directors, and consultants of the Company. During the three months ended September 30, 2015 and 2014, the Company recorded $0.1 million of stock-based compensation expense related to its restricted stock. During the nine months ended September 30, 2015 and 2014, the Company recorded $0.2 million and $0.1 million, respectively, of stock-based compensation expense related to its restricted stock.

The table below summarizes activity relating to restricted stock:

	Shares
Outstanding as of December 31, 2014	170,832
Issued	—
Vested	(99,513)
Forfeited	—
Repurchased	—
Outstanding as of September 30, 2015	71,319

As of September 30, 2015 and 2014, the Company had unrecognized stock-based compensation expense related to its unvested restricted stock awards of $0.1 million and $0.4 million, respectively, which is expected to be recognized over the remaining weighted average vesting period of 0.49 years and 1.39 years, respectively

Unvested shares are subject to repurchase by the Company, at the issuance price, upon the employee's termination at the Company's sole discretion. No shares of restricted stock were repurchased in the nine months ended September 30, 2015.

6. Net Loss Per Share

Basic and diluted net loss per share attributable to common stockholders was calculated as follows for the three and nine months ended September 30, 2015 and 2014 (in thousands, except share and per share data):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
Basic net loss per share attributable to common stockholders:				
Numerator:				
Net loss	$ (24,035)	$ (9,859)	$ (65,933)	$ (23,744)
Denominator:				
Weighted average common shares outstanding—basic and diluted	28,737,743	19,581,624	27,430,275	7,711,038
Net loss per share attributable to common stockholders—basic and diluted	$ (0.84)	$ (0.50)	$ (2.40)	$ (3.08)

The following common stock equivalents outstanding as of September 30, 2015 and 2014 were excluded from the computation of diluted net loss per share attributable to common stockholders for the periods presented because including them would have been anti-dilutive:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
Options to purchase common stock	2,510,900	1,580,223	2,510,900	1,580,223
Employee Stock Purchase Plan	2,803	—	2,803	—
Restricted stock	71,319	202,986	71,319	202,986
	2,585,022	1,783,209	2,585,022	1,783,209

7. Income Taxes

The Company did not record a federal or state income tax benefit for the Company's losses for the three and nine months ended September 30, 2015 and 2014 due to the Company's conclusion that a valuation allowance is required.

8. Subsequent Event

In October 2015, the Company entered into a Third Amendment to Lease, effective as of September 9, 2015, and a Fourth Amendment to Lease, effective as of October 27, 2015, with ARE-MA Region No. 38 ("Landlord") under which the Company increased the amount of rented space under the lease for its 215 First Street, Cambridge, MA offices and extended the term through February, 2022. The increase in future expected payments under these amendments total $6.6 million.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited consolidated financial statements and related notes appearing elsewhere in this Quarterly Report on Form 10-Q ("Quarterly Report") and the Annual Report on Form 10-K, as amended ("Annual Report") and the audited financial information and the notes thereto.

Our actual results and timing of certain events may differ materially from the results discussed, projected, anticipated, or indicated in any forward-looking statements. We caution you that forward-looking statements are not guarantees of future performance, and that our actual results of operations, financial condition and liquidity, and the developments in the industry in which we operate, may differ materially from the forward-looking statements contained in this Quarterly Report. In addition, even if our results of operations, financial condition and liquidity, and the developments in the industry in which we operate are consistent with the forward-looking statements contained in this Quarterly Report, they may not be predictive of results or developments in future periods.

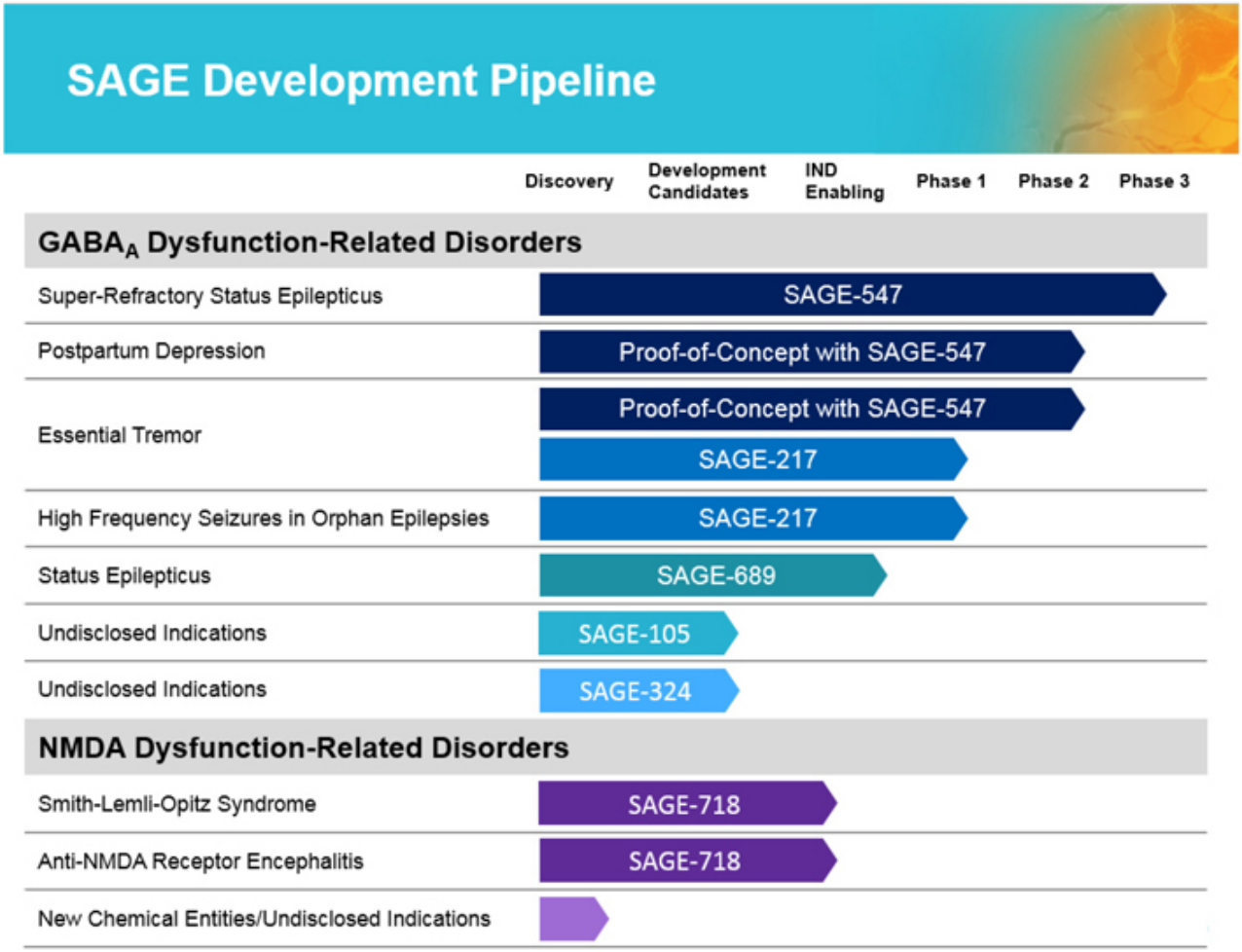
The following information and any forward-looking statements should be considered in light of factors discussed elsewhere in this Quarterly Report, including those risks identified under Part II, Item 1A. Risk Factors.

We caution readers not to place undue reliance on any forward-looking statements made by us, which speak only as of the date they are made. We disclaim any obligation, except as specifically required by law and the rules of the SEC, to publicly update or revise any such statements to reflect any change in our expectations or in events, conditions or circumstances on which any such statements may be based, or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements.

Overview

We are a clinical –stage biopharmaceutical company committed to developing and commercializing novel medicines to treat life-altering, central nervous system, or CNS, disorders, where there are inadequate or no approved existing therapies. We are targeting CNS indications where patient populations are easily identified, clinical endpoints are well-defined and development pathways are feasible.

Our initial product candidates are summarized in the table below.



The lead product candidate in our status epilepticus (SE) program, SAGE-547, is an intravenous, or IV, agent in Phase 3 clinical development as an adjunctive therapy, a therapy combined with current therapeutic approaches, for the treatment of super-refractory SE, or SRSE. The current standard of care for SRSE is empiric, and there are no therapies at present that have been specifically approved for this indication. Over the course of 2014, the U.S. Food and Drug Administration, or FDA, granted us orphan drug designation for SAGE-547 in the treatment of SE including SRSE, and Fast Track designation for our investigational new drug application for SAGE-547 as a treatment for SRSE. On April 2, 2015, we announced that, at an End-of-Phase 2 meeting with the FDA, general agreement was reached on the design and key elements for our Phase 3 clinical program for SAGE-547 for the treatment of SRSE, and in August 2015, we reached agreement with the FDA under a Special Protocol Assessment for the Phase 3 clinical trial. In the third quarter of 2015, we initiated the STATUS Trial (SAGE-547 Treatment as Adjunctive Therapy Utilized in Status Epilepticus), a global, randomized, double-blind, placebo-controlled Phase 3 clinical trial to evaluate SAGE-547 as a treatment for patients with SRSE. On August 17, 2015, we reported we had treated the first patient enrolled in our Phase 3 STATUS Trial. If successful, we believe the results from this Phase 3 clinical trial, together with other clinical data obtained from the SAGE-547 development program and results of completed and ongoing non-clinical studies, could form the basis of a New Drug Application, or NDA, submission for SAGE-547. On May 14, 2015, we reported final results from our Phase 1/2 clinical trial of SAGE-547 in SRSE.

SAGE-547 demonstrated robust activity with 77% of 22 evaluable patients meeting the key efficacy endpoint of being successfully weaned off their anesthetic agents while SAGE-547 was being administered. In addition, 77% of the total evaluable patients were successfully weaned off SAGE-547 without recurrence of SRSE in the 24 hour period following treatment. SAGE-547 also demonstrated favorable tolerability and a benefit-risk profile supporting further development for this acutely ill patient population. Overall, 64% of patients experienced at least one serious adverse event, though none were drug-related as determined by the Safety Review Committee. Independent of treatment response, six patient deaths occurred within the study period, all driven by underlying medical conditions.

We have also used SAGE-547 in proof-of-concept clinical trials to explore potential uses of $GABA_A$ receptor modulators to treat essential tremor, a debilitating neurological disorder that causes involuntary, rhythmic shaking with no known cause, and post-partum depression, or PPD, a distinct and readily identified depressive disorder that affects certain women following childbirth.

On June 9, 2015, we reported top-line data from our proof-of-concept open-label clinical trial of SAGE-547 in PPD that indicated a statistically significant improvement from baseline in depression in four women within 24 hours after administration of intravenous SAGE-547. During the SAGE-547 treatment period, all four patients rapidly achieved remission, as measured by the Hamilton Rating Scale for Depression, or HAM-D, and improved from a mean HAM-D score of 26.5 at baseline to a mean HAM-D score of 1.8 at the end of the 60-hour treatment period. All four patients also demonstrated consistent improvement as measured by the Clinical Global Impression-Improvement, or CGI-I scale. SAGE-547 was well-tolerated in all patients treated with no serious adverse events observed on therapy or during the 30-day follow-up period, and no discontinuations due to adverse events. A total of 14 adverse events were reported in four patients. In November 2015, we initiated a multi-center, placebo-controlled, proof-of-concept study of SAGE-547 in severe PPD patients. We plan to enroll 32 patients in the trial.

On September 3, 2015, we announced results from a successful proof-of-concept clinical trial of SAGE-547 to evaluate the $GABA_A$ mechanism of action as a treatment for essential tremor. In a randomized, double-blind, placebo-controlled, crossover trial of 25 patients affected by essential tremor, where patients were exposed to the target steady state dose of SAGE-547 for only two hours, several clinician-rated and accelerometer-rated measures showed significant reductions in tremor. These changes included a significant reduction in accelerometer-measured upper limb kinetic tremor ($p=0.046$) which is one of the major manifestations of tremor impacting morbidity. Overall clinician ratings of large tremor motions, as well as smaller movements such as writing and spiral drawing, also showed improvement ($p=0.056$). In addition, SAGE-547 demonstrated a clinically meaningful reduction of tremor amplitude as measured by accelerometer (at least a 30% reduction from baseline) in 33% of patients, compared with 16% of patients in the placebo arm. In this phase of the trial, anti-tremor activity of SAGE-547 was observed at non-sedating doses, and peak anti-tremor activity correlated with steady state SAGE-547 levels. The time points showing the greatest reductions in tremor corresponded to peak plasma measurements. Seventeen of these patients were exposed to higher doses of SAGE-547 in an open-label extension with 44% demonstrating at least a 30% reduction in tremor amplitude from baseline. The most common adverse events at higher doses were fatigue and dizziness. Hypotension led to discontinuation of one patient. No serious adverse events were observed on therapy or during the 30-day follow-up period.

Our next-generation product candidates, SAGE-217 and SAGE-689, utilize similar mechanistic pathways as SAGE-547 and are designed to have pharmaceutical properties which optimize both their non-clinical profiles and potential clinical profiles for the treatment of different stages of status epilepticus, as well as other seizure and non-seizure disorders. On October 3, 2015, we announced the initial dosing in a Phase 1 single ascending dose trial evaluating SAGE-217 in healthy volunteers, and, if the Phase 1 clinical trial is successful, we plan to advance development of SAGE-217 as an oral therapy for orphan epilepsies, such as Dravet syndrome and Rett syndrome, and in certain non-seizure indications such as essential tremor. SAGE-689 is in non-clinical development. In November 2015, we announced that commencement of our Phase 1 clinical trial of SAGE-689 has been delayed to respond to a request from the FDA for additional non-clinical study data.

We are also studying novel compounds that target the NMDA receptor, a critical excitability receptor system implicated in a broad range of CNS disorders. The first product candidate selected for development for this program is known as SAGE-718. The Company plans to begin non-clinical studies of SAGE-718, with an initial development focus on two rare conditions, Smith-Lemli-Opitz Syndrome and Anti-NMDA Receptor Encephalitis.

Since our inception in April 2010, we have devoted substantially all of our resources to organizing and staffing our company; business planning; raising capital; identifying and developing our product candidates; preparing to conduct and conducting non-clinical studies and clinical trials of our product candidates; providing general and administrative support for these operations; and protecting our intellectual property. We have funded our operations to date through sales of our common stock and redeemable convertible preferred stock; the issuance of convertible notes and through proceeds from our initial public offering of common stock, or IPO, and a follow-on offering of common stock that was completed in April 2015.

We have not generated any revenue to date. We have incurred net losses in each year since our inception, and we have an accumulated deficit of $132.8 million as of September 30, 2015. Our net losses were $65.9 million and $36.1 million for the nine months ended September 30, 2015 and the year ended December 31, 2014. These losses have resulted principally from costs incurred in connection with research and development activities and general and administrative costs associated with our operations. We expect to incur significant expenses and increasing operating losses for the foreseeable future.

We expect that our expenses will increase substantially in connection with our ongoing activities, as we:

- advance clinical development of SAGE-547, our lead product candidate in our SE program, including completing the Phase 3 clinical trial for SAGE-547 in SRSE and additional clinical and non-clinical studies of SAGE-547 required for a new drug application ("NDA"), advancing regulatory activities focused on potential filing of the NDA, and initial preparations for a potential commercial launch;
- continue to advance our efforts to establish proof of principle of the potential for use of $GABA_A$ receptor modulators in PPD;
- complete the Phase 1 clinical trial of SAGE-217 in healthy volunteers, and if successful, advance development of SAGE-217 as an oral therapy for orphan epilepsies such as Dravet syndrome and Rett syndrome, and in certain non-seizure indications such as essential tremor;
- advance development of SAGE-689 as an adjunctive second-line therapy for the treatment of SE, including conducting additional non-clinical studies;
- advance our early-stage novel allosteric modulator for NMDA into non-clinical studies;
- continue our research and development efforts for other drug candidates in the treatment of CNS disorders;
- seek regulatory approvals for our product candidates that successfully complete clinical development;
- add personnel, including personnel to support our product development and future commercialization efforts;
- add operational, financial and management information systems;
- maintain, leverage and expand our intellectual property portfolio; and
- operate as a public company.

As a result, we will need additional financing to support our continuing operations. Until such time that we can generate significant revenue from product sales, if ever, we expect to finance our operations through a combination of public or private equity or debt financings or other sources, which may include collaborations with third parties. Arrangements with collaborators or others may require us to relinquish rights to certain of our technologies or product candidates. In addition, we may never successfully complete development of any of our product candidates, obtain adequate patent protection for our technology, obtain necessary regulatory approval for our product candidates or achieve commercial viability for any approved product candidates. Adequate additional financing may not be available to us on acceptable terms, or at all. Our inability to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy. We will need to generate significant revenue to achieve profitability, and we may never do so.

We expect that our existing cash and cash equivalents as of September 30, 2015, will enable us to fund our operating expenses and capital expenditure requirements, based on our current operating plan, through mid-2017. See "—Liquidity and Capital Resources."

Financial Operations Overview

Operating Expenses

Our operating expenses since inception have consisted of research and development expenses and general and administrative costs.

Research and Development Expenses

Research and development expenses, which consist primarily of costs associated with our product research and development efforts, are expensed as incurred. Research and development expenses consist primarily of:

- personnel costs, including salaries, related benefits, stock-based compensation and related travel expenses for employees engaged in scientific research and development functions;
- expenses incurred under agreements with contract research organizations, or CROs, and investigative sites that conduct our non-clinical studies and clinical trials;
- expenses associated with manufacturing clinical trial materials and developing external manufacturing capabilities;
- costs of outside consultants, including their fees, stock-based compensation and related travel expenses;
- other expenses related to our non-clinical studies and clinical trials and expenses related to our regulatory activities; and
- payments made under our third-party licensing agreements.

Costs for certain development activities are recognized based on an evaluation of the progress to completion of specific tasks using information and data provided to us by our vendors and our clinical sites.

We have been developing SAGE-547, SAGE-217 and SAGE-689 and focusing on other research and development programs related to exploratory efforts, target validation and lead optimization for our earlier-validated programs. Our direct research and development expenses are tracked on a program-by-program basis and consist primarily of external costs, such as fees paid to investigators, central laboratories, CROs and contract manufacturing organizations, or CMOs, in connection with our non-clinical studies and clinical trials; third-party license fees related to our product candidates; fees paid to outside consultants who perform work on our programs; and costs related to manufacturing or purchasing clinical trial materials. We do not allocate employee-related costs and other indirect costs to specific research and development programs because these costs are deployed across multiple product programs under research and development and, as such, are separately classified as unallocated research and development expenses.

The following table summarizes our research and development expenses by program:

	Nine Months Ended September 30,		Increase (Decrease)
	2015	2014	
	(in thousands)		
SAGE-547	$26,654	$ 5,148	$ 21,506
SAGE-217	3,386	1,950	1,436
SAGE-689	2,643	2,607	36
Other research and development programs	6,987	1,328	5,659
Unallocated expenses	9,311	4,122	5,189
Total research and development expenses	$48,981	$15,155	$ 33,826

Research and development activities are central to our business. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. We expect that our research and development expenses will continue to increase in the foreseeable future as we continue or initiate clinical trials and non-clinical studies for certain product candidates and pursue later stages of clinical development of our product candidates.

We cannot determine with certainty the duration and completion costs of the current or future clinical trials of our product candidates or if, when, or to what extent we will generate revenue from the commercialization and sale of any of our product candidates. The duration, costs, and timing of clinical trials and development of our product candidates will depend on a variety of factors, including:

- the scope, size, rate of progress, and expense of our ongoing as well as any additional non-clinical studies, clinical trials and other research and development activities;
- future clinical trial and non-clinical study results;
- decisions by regulatory authorities related to our product candidates;
- uncertainties in clinical trial enrollment rate or design;

- significant and changing government regulation; and
- the timing and receipt of any regulatory approvals, if any.

A change in the outcome of any of these variables with respect to the development of a product candidate could mean a significant change in the costs and timing associated with the development of that product candidate. For example, if the FDA or another regulatory authority were to require us to conduct clinical trials beyond those that we currently anticipate will be required for the completion of clinical development of a product candidate, or if we experience significant delays in enrollment in any of our clinical trials, we could be required to expend significant additional financial resources and time on the completion of clinical development.

General and Administrative Expenses

General and administrative expenses consist primarily of personnel costs, consisting of salaries, related benefits, stock-based compensation and related travel expenses of our executive, finance, business and corporate development and other administrative functions. General and administrative expenses also include expenses incurred under agreements with third parties relating to initial commercial evaluation and planning, facilities and other expenses, including rent, depreciation, maintenance of facilities, insurance and supplies; and professional fees for audit, tax and legal services, including legal expenses to pursue patent protection of our intellectual property.

We anticipate that our general and administrative expenses will increase in the future as we increase our headcount to support the expected growth in our business and the potential commercialization of our product candidates. We also anticipate increased expenses associated with being a public company and general operations, including costs related to audit, legal, regulatory and tax-related services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance premiums, and investor relations costs. Additionally, we anticipate an increase in payroll and related expenses as we continue to build our organizational capabilities and as a result of our preparation for commercial operations, especially as it relates to the sales and marketing of our product candidates, if approved.

Interest Income, net and Other Expense, net

Interest income, net, and other expense, net, were insignificant for the nine months ended September 30, 2015 and 2014.

Results of Operations

Comparison of Three Months Ended September 30, 2015 and 2014

The following table summarizes our results of operations for the three months ended September 30, 2015 and 2014:

	Three Months Ended September 30,		Increase (Decrease)
	2015	2014	
	(in thousands)		
Operating expenses:			
Research and development	$ 17,478	$ 6,601	$ 10,877
General and administration	6,604	2,869	3,735
Total operating expenses	24,082	9,470	14,612
Loss from operations	(24,082)	(9,470)	(14,612)
Interest income, net	53	3	50
Other expense, net	(6)	(1)	(5)
Net loss	$(24,035)	$(9,468)	$(14,567)

Research and development expenses

	Three Months Ended September 30,		Increase (Decrease)
	2015	2014	
	(in thousands)		
SAGE-547	$ 9,891	$ 2,533	$ 7,358
SAGE-217	1,048	558	490
SAGE-689	521	841	(320)
Other research and development programs	2,864	1,068	1,796
Unallocated expenses	3,154	1,601	1,553
Total research and development expenses	$ 17,478	$ 6,601	$ 10,877

Research and development expenses for the three months ended September 30, 2015 and 2014 were $17.5 million and $6.6 million, respectively. The increase of $10.9 million period over period was primarily due to the following:

- an increase of $7.4 million in expenses associated with our SAGE-547 program, due to the advancement of the program in clinical development, including commencement of activities for Phase 3, an increase in work related to chemistry, manufacturing and controls, or CMC, and toxicology. Expenses related to payments made as a result of development milestones met by consultants and licensors were $0.2 million in the three months ended September 30, 2015, and no such costs were incurred in the three months ended September 30, 2014;
- an increase of $0.5 million in expenses of our SAGE-217 program with advancement of the lead optimization program into IND-enabling non-clinical development activities (e.g., toxicology studies, process development, and drug substance manufacturing), filing of the IND and preparation for the Phase 1 clinical trial initiated in October 2015;
- a decrease of $0.3 million in expenses of our SAGE-689 program, due to the timing of IND-enabling non-clinical development activities (e.g., toxicology studies, process development, and drug substance manufacturing), offset by an increase in costs associated with filing of the IND;
- an increase of $1.8 million in expenses of our other research and development programs and discovery efforts for our next clinical candidates and back-up programs; and
- an increase of $1.6 million in employee-related expenses, including an increase of $1.2 million of non-cash stock-based compensation expense and the effects of hiring additional full-time employees to support the growth in our activities. The amount of non-cash stock-based compensation related to the achievement of performance-based vesting criteria was $0.6 million for the three months ended September 30, 2015.

General and administrative expenses

	Three Months Ended September 30, 2015	2014	Increase (Decrease)
		(in thousands)	
Personnel-related	$ 4,237	$ 1,178	$ 3,059
Professional fees	1,572	1,221	351
Facilities	135	90	45
Other	660	380	280
Total general and administrative expenses	$ 6,604	$ 2,869	$ 3,735

General and administrative expenses for the three months ended September 30, 2015 and 2014 were $6.6 million and $2.9 million, respectively. The increase of $3.7 million in general and administrative expenses was primarily due to the $3.1 million increase in personnel-related costs due to the effects of hiring additional full-time employees to support operations, finance, human resources and early commercial planning activities, including an increase of $2.5 million in non-cash stock-based compensation expense. The amount of non-cash stock-based compensation related to the achievement of the performance-based vesting criteria was $0.8 million for the three months ended September 30, 2015. The increase of $0.4 million in professional fees was associated with being a public company and general operations, including costs related to audit, legal, regulatory and tax-related services, as well as investor relations costs.

Other income (expense), net

Interest income, net, and other expense, net, were insignificant for the three months ended September 30, 2015 and 2014.

Comparison of Nine Months Ended September 30, 2015 and 2014

The following table summarizes our results of operations for the nine months ended September 30, 2015 and 2014:

	Nine Months Ended September 30, 2015	2014	Increase (Decrease)
		(in thousands)	
Operating expenses:			
Research and development	$ 48,981	$ 15,155	$ 33,826
General and administration	17,057	6,294	10,763
Total operating expenses	66,038	21,449	44,589
Loss from operations	(66,038)	(21,449)	(44,589)
Interest income, net	115	4	111
Other expense, net	(10)	(5)	(5)
Net loss	$(65,933)	$(21,450)	$(44,483)

Research and development expenses

	Nine Months Ended September 30, 2015	2014	Increase (Decrease)
		(in thousands)	
SAGE-547	$26,654	$ 5,148	$ 21,506
SAGE-217	3,386	1,950	1,436
SAGE-689	2,643	2,607	36
Other research and development programs	6,987	1,328	5,659
Unallocated expenses	9,311	4,122	5,189
Total research and development expenses	$48,981	$15,155	$ 33,826

Research and development expenses for the nine months ended September 30, 2015 and 2014 were $49.0 million and $15.2 million, respectively. The increase of $33.8 million period over period was primarily due to the following:

- an increase of $21.5 million in expenses of our SAGE-547 program, due to the advancement of the program into clinical development, including the completion of the Phase 1/2 clinical trial, commencement of activities for Phase 3, an increase in work related to CMC and toxicology. For the nine months ended September 30, 2015 and 2014, expenses related to payments made as a result of development milestones met by consultants and licensors were $2.7 million and $0.4 million, respectively;
- an increase of $1.4 million in expenses of our SAGE-217 program with advancement of the lead optimization program into IND-enabling non-clinical development activities (e.g., toxicology studies, process development, and drug substance manufacturing), filing of the IND and preparation for the Phase 1 clinical trial initiated in October 2015;
- an increase of $36,000 in expenses of our SAGE-689 program, with advancement of the lead optimization programs into IND-enabling non-clinical development activities (e.g., toxicology studies, process development, and drug substance manufacturing), and filing of the IND;
- an increase of $5.7 million in expenses of our other research and development programs and discovery efforts for our next clinical candidates and back-up programs; and
- an increase of $5.2 million in employee-related expenses, including an increase of $3.7 million of non-cash stock-based compensation expense and the effects of hiring additional full-time employees to support the growth in our activities. The amount of non-cash stock-based compensation related to the achievement of performance-based vesting criteria was $2.0 million for the nine months ended September 30, 2015.

General and administrative expenses

	Nine Months Ended September 30,		
	2015	2014	Increase (Decrease)
	(in thousands)		
Personnel-related	$10,545	$2,633	$ 7,912
Professional fees	4,393	2,651	1,742
Facilities	330	275	55
Other	1,789	735	1,054
Total general and administrative expenses	$17,057	$6,294	$ 10,763

General and administrative expenses for the nine months ended September 30, 2015 and 2014 were $17.1 million and $6.3 million, respectively. The increase of $10.8 million in general and administrative expenses was primarily due to the $7.9 million increase in personnel-related costs due to the effects of hiring additional full-time employees to support operations, finance, human resources and early commercial planning activities, including an increase of $6.2 million in non-cash stock-based compensation expense. The amount of non-cash stock-based compensation related to the achievement of performance-based vesting criteria was $2.7 million for the nine months ended September 30, 2015.

The increase of $1.7 million in professional fees was associated with being a public company and general operations, including costs related to audit, legal, regulatory and tax-related services, as well as investor relations costs.

Other income (expense), net

Interest income, net, and other expense, net, were insignificant for the nine months ended September 30, 2015 and 2014.

Liquidity and Capital Resources

Since our inception in April 2010, we have not generated any revenue and have incurred recurring net losses. As of September 30, 2015, we had an accumulated deficit of $132.8 million. From our inception through December 31, 2014, we have received net proceeds of $184.6 million from the sales of redeemable convertible preferred stock, the issuance of convertible notes and

the proceeds from our IPO. On April 20, 2015, we completed the sale of 2,628,571 shares of common stock in a follow-on underwritten public offering of our common stock at a price to the public of $52.50 per share, resulting in net proceeds of $129.1 million after deducting underwriting discounts and commissions and offering expenses payable by us.

As of September 30, 2015, our primary sources of liquidity were our cash and cash equivalents, which totaled $204.9 million. We invest our cash equivalents in highly liquid, interest-bearing investment-grade and government securities in order to preserve principal.

The following table summarizes the primary sources and uses of cash for the periods presented below:

	Nine Months Ended September 30,	
	2015	2014
	(in thousands)	
Net cash provided by (used in):		
Operating activities	$ (52,564)	$ (18,375)
Investing activities	(160)	(83)
Financing activities	129,835	147,119
Net increase in cash and cash equivalents	$ 77,111	$128,661

Operating activities

Operating activities used $52.6 million of cash in the nine months ended September 30, 2015. Cash used in operating activities resulted primarily from our net loss of $65.9 million for the period offset in part by cash provided by non-cash charges of $12.4 million and by changes in our operating assets and liabilities of $0.9 million. Our net loss was primarily attributable to research and development activities related to our lead programs in development and our general and administrative expenses, as we had no revenue in the period. Our non-cash charges during the nine months ended September 30, 2015 consisted primarily of stock-based compensation expense of $11.2 million and non-cash licensing and consulting fees of $1.2 million. Net cash provided by changes in our operating assets and liabilities consisted primarily of increases in accrued expenses and other liabilities of $1.7 million and accounts payable of $0.8 million, offset in part by an increase in prepaid expenses and other current assets of $1.6 million. Our prepaid expenses and other current assets, accounts payable and accrued expenses and other liability balances were affected by the timing of vendor invoicing and payments. Stock-based compensation expense for the nine months ending September 30, 2015 includes expense related to the achievement of performance-based vesting criteria of $4.8 million.

During the nine months ended September 30, 2014, operating activities used $18.4 million of cash, primarily resulting from our net loss of $21.5 million, partially offset by non-cash charges of $1.3 million and cash provided by changes in our operating assets and liabilities of $1.7 million. Our net loss was primarily attributed to research and development activities related to our lead programs in development and our general and administrative expenses, as we had no revenue in the period. Our net non-cash charges during the nine months ended September 30, 2014 primarily consisted of stock-based compensation expenses of $1.2 million and a non-cash licensing and consulting fee of $0.1 million. Net cash provided by changes in our operating assets and liabilities consisted primarily of an increase in accrued expenses of $2.5 million offset by an increase in prepaid expenses and other current assets of $0.7 million. Our prepaid expenses and other current assets, accounts payable and accrued expense balances were affected by the timing of vendor invoicing and payments.

Investing activities

During the nine months ended September 30, 2015 and 2014, we used $0.2 million and $0.1 million, respectively, of cash for purchases of property and equipment.

Financing activities

During the nine months ended September 30, 2015 and 2014, net cash provided by financing activities was $129.8 million and $147.1 million, respectively. Net cash provided by financing activities in the nine months ended September 30, 2015 consisted primarily of $129.1 million of net proceeds from a follow-on underwritten public offering of our common stock after deducting commissions and underwriting discounts and financing costs. Net cash provided by financing activities in the nine months ended September 30, 2014 consisted primarily of $94.0 million in net proceeds from our IPO on July 23, 2014 and $52.9 million from the issuance of Series B and Series C redeemable convertible preferred stock.

Operating Capital Requirements

To date, we have not generated any revenue from product sales. We do not know when, or if, we will generate any revenue from product sales. We do not expect to generate significant revenue from product sales unless and until we obtain regulatory approval of and commercialize one of our current or future product candidates. We anticipate that we will continue to generate losses for the foreseeable future, and we expect the losses to increase as we continue the development of, and seek regulatory approvals for, our product candidates, plan for potential future commercialization efforts, and begin to commercialize any products, if approved. We expect to incur additional costs associated with operating as a public company and in connection with general operations. In addition, subject to obtaining regulatory approval of any of our product candidates, we expect to incur significant commercialization expenses for product sales, marketing and manufacturing. Accordingly, we anticipate that we will need substantial additional funding in connection with our continuing operations.

Based on our current operating plan, we expect that our existing cash and cash equivalents as of September 30, 2015, will enable us to fund our operating expenses and capital expenditure requirements through mid-2017. During that time, we expect that our expenses will increase substantially as we continue clinical development of SAGE-547, including completing our Phase 3 clinical trial; conduct Phase 1 clinical development for SAGE-217 and advance the product candidate into Phase 2 clinical trials, if the Phase 1 clinical trial is successful; advance SAGE-689 into Phase 1 clinical development, if permitted by the FDA; conduct additional proof-of-concept studies of SAGE-547 in PPD; advance our early-stage novel allosteric modulator for NMDA into non-clinical studies; fund new and ongoing research and development activities and working capital, and fund other general corporate purposes. Our current operating plan does not contemplate that all of these activities will proceed at the same pace, or that all of these activities will be fully initiated or completed during that time. We have based our estimates on assumptions that could change, and we may use our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, we are unable to estimate the amounts of increased capital outlays and operating expenditures necessary to complete the development and commercialization of our product candidates.

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

- the ability of our product candidates to progress through clinical development successfully;
- the initiation, progress, timings, costs, and results of non-clinical studies and clinical trials for our existing and future product candidates, and the costs of preparing regulatory filings;
- the cost, timing, and outcome of regulatory reviews and approvals;
- the number and characteristics of the product candidates we pursue;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims;
- the extent to which we acquire or in-license other products and technologies;
- our ability to establish any future collaboration arrangements on favorable terms, if at all; and
- the level and timing of costs associated with preparations for a potential commercial launch, including manufacturing-related costs.

Until such time, if ever, as we can generate substantial product revenue, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. Even if we believe we have sufficient funds for our current or future operating plans, we may seek additional capital if market conditions are favorable or if we have specific strategic considerations. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends and may require the issuance of warrants, which could potentially dilute the ownership interest of our stockholders. If we raise additional funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams or research programs or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market products or product candidates that we would otherwise prefer to develop and market ourselves.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations at September 30, 2015 and the effect such obligations are expected to have on our liquidity and cash flow in future periods:

	Payments Due by Period				
	Total	Less Than 1 year	1-3 Years	3-5 Years	More Than 5 years
			(in thousands)		
Operating lease commitments (1)	$571	$ 371	$ 200	$ —	$ —
Total (1)(2)(3)(4)	$571	$ 371	$ 200	$ —	$ —

(1) We lease office space in Cambridge, Massachusetts under operating lease agreements that initially expire on February 28, 2017 and July 31, 2017. The minimum lease payments in the table do not include related common area maintenance charges or real estate taxes, which costs are variable.

In October 2015, the Company entered into a Third Amendment to Lease, effective as of September 9, 2015, and a Fourth Amendment to Lease, effective as of October 27, 2015, with ARE-MA Region No. 38 ("Landlord") under which the Company increased the amount of rented space under the lease for its 215 First Street, Cambridge, MA offices and extended the term through February, 2022. The increase in future expected payments under these amendments total $6.6 million.

(2) We have acquired exclusive and non-exclusive rights to use, research, develop and offer for sale certain products and patents under four separate licensing agreements, including amendments entered into in April and May 2014, and September 2015, with Washington University, CyDex Pharmaceuticals, Inc. and two with The Regents of the University of California. The licensing rights obligate us to make payments to the licensors for license fees, milestones, license maintenance fees and royalties. We are obligated to make future remaining milestone payments under these agreements of up to $34.1 million upon achieving certain pre-commercialization milestones, such as clinical trials and regulatory approvals.

In the nine months ended September 30, 2015, clinical development and regulatory milestones were met for some of the programs. We recorded research and development expense for the nine months ended September 30, 2015 of $1.1 million.

Amounts related to contingent milestone payments are not considered contractual obligations as they are contingent on the successful achievement of certain milestones. These contingent milestones may not be achieved. We have not included any of these amounts in the table as we cannot estimate or predict when, or if, these amounts will become due.

In addition, under the licensing agreements, we will owe single-digit royalties on sales of commercial products, if any, developed using the licensed technologies. Under two of these license agreements, we are obligated to pay to the licensors a percentage of fees received if and when we sublicense the technologies. As of September 30, 2015, we had not developed a commercial product using the licensed technologies and we had not entered into any sublicense agreements for the technologies. We have not included any of these amounts in the table as we cannot estimate or predict when, or if, these amounts will become due.

(3) We enter into contracts in the normal course of business with CROs for clinical trials, non-clinical research studies and testing, manufacturing and other services and products for operating purposes. These contracts generally provide for termination upon notice, and therefore we believe that our non-cancelable obligations under these agreements are not material.

(4) Under a January 2014 consulting agreement, we are obligated to make remaining milestone payments of up to $1.5 million and to issue up to 87,303 shares of our common stock to a nonemployee consultant upon achieving certain clinical trial milestones and regulatory approval milestones.

In the nine months ended September 30, 2015, the second and third clinical development milestones for one of the programs included in the consulting agreement were met. We recorded research and development expense for the nine months ended September 30, 2015 of $1.7 million, comprised of $0.5 million in cash and $1.2 million related to the issuance of 23,809 shares of our common stock.

Amounts related to contingent milestone payments are not considered contractual obligations as they are contingent on the successful achievement of certain milestones. These contingent milestones may not be achieved. We have not included any of these amounts in the table as we cannot estimate or predict when, or if, these amounts will become due.

Off-Balance Sheet Arrangements

We do not currently have, nor did we have during the periods presented, any off-balance sheet arrangements as defined by SEC rules.

Application of Critical Accounting Policies

We have prepared our consolidated financial statements in accordance with U.S. generally accepted accounting principles. Our preparation of these consolidated financial statements requires us to make estimates, assumptions, and judgments that affect the reported amounts of assets, liabilities, expenses, and related disclosures at the date of the consolidated financial statements, as well as revenue and expenses recorded during the reporting periods. We evaluate our estimates and judgments on an ongoing basis. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could therefore differ materially from these estimates under different assumptions or conditions.

There have been no material changes to our critical accounting policies from those described in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in our Annual Report on Form 10-K filed by us with the SEC on March 6, 2015, as amended.

Recently Issued Accounting Pronouncements

In May 2014, the FASB issued guidance that outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry specific guidance. The guidance is based on the principle that an entity should recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The guidance also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to fulfill a contract. Entities have the option of using either a full retrospective or a modified retrospective approach for the adoption of the new standard. The guidance becomes effective for us in the year ending December 31, 2018, and we could early adopt the standard for the year ending December 31, 2017. We are currently assessing the method of adoption and the impact of this new accounting guidance will have on its consolidated financial statements and footnote disclosures.

In August 2014, the FASB issued ASU 2014-15, Presentation of Financial Statements — Going Concern (Subtopic 205-40). The new guidance addresses management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures. Management's evaluation should be based on relevant conditions and events that are known and reasonably knowable at the date that the financial statements are issued. The standard will be effective for the first interim period within annual reporting periods beginning after December 15, 2016. Early adoption is permitted. We are evaluating the effect that this guidance will have on our consolidated financial statements.

Item 3. Quantitative and Qualitative Disclosure about Market Risk

We had cash and cash equivalents of approximately $204.9 million at September 30, 2015. The primary objectives of our investment activities are to preserve principal, provide liquidity and maximize income without significantly increasing risk. Our primary exposure to market risk relates to fluctuations in interest rates, which are affected by changes in the general level of U.S. interest rates. Given the short-term nature of our cash and cash equivalents, we believe that a sudden change in market interest rates would not be expected to have a material impact on our financial condition and/or results of operation. We do not have any foreign currency or other derivatives financial instruments.

We do not believe that our cash and cash equivalents have significant risk of default or illiquidity. While we believe our cash and cash equivalents do not contain excessive risk, we cannot provide absolute assurance that in the future our investments will not be subject to adverse changes in market value. In addition, we maintain significant amounts of cash and cash equivalents at one or more financial institutions that are in excess of federally insured limits.

Inflation generally affects us by increasing our cost of labor and clinical trial costs. We do not believe that inflation had a material effect on our results of operations during the year ended September 30, 2015.

Item 4. Controls and Procedures

Management's Evaluation of our Disclosure Controls and Procedures

We maintain disclosure controls and procedures (as defined in Rules 13a-15(e) or 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act) that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is (1) recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and (2) accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

As of September 30, 2015, our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. In designing and evaluating our disclosure controls and procedures, our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our principal executive officer and principal financial officer have concluded based upon the evaluation described above that, as of September 30, 2015, our disclosure controls and procedures were effective at the reasonable assurance level.

We continue to review and document our disclosure controls and procedures, including our internal controls and procedures for financial reporting, and may from time to time make changes aimed at enhancing their effectiveness and to ensure that our systems evolve with our business.

Changes in Internal Control Over Financial Reporting

During the three months ended September 30, 2015, there have been no changes in our internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15(d)-15(f) promulgated under the Exchange Act, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings

As of the date of this filing, we are not party to any legal proceedings. In the future, we may become party to legal matters and claims arising in the ordinary course of business, the resolution of which we do not anticipate would have a material adverse impact on our financial position, results of operations or cash flows.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, as well as the other information in this Quarterly Report on Form 10-Q and in our other public filings before making an investment decision. Our business, prospects, financial condition, or operating results could be harmed by any of these risks, as well as other risks not currently known to us or that we currently consider immaterial. If any such risks or uncertainties actually occur, our business, financial condition or operating results could differ materially from the plans, projections and other forward-looking statements included in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in this report and in our other public filings and public statements. The trading price of our common stock could decline due to any of these risks, and as a result, our stockholders may lose all or part of their investment.

Risks Related to Product Development, Regulatory Approval and Commercialization

We depend heavily on the success of our current product candidates, of which SAGE-547 is in Phase 3 clinical development for super-refractory status epilepticus; SAGE 217 is in Phase 1 clinical development; SAGE-689 is in non-clinical development; and other product candidates are at earlier stages. We cannot be certain that we will be able to successfully develop, obtain regulatory approval for, or successfully commercialize, any of our product candidates.

We currently have no drug products for sale, and may never be able to successfully develop marketable drug products. Our business depends heavily on our ability to successfully complete non-clinical and clinical development of our current product candidates, and to obtain regulatory approval and successfully commercialize those product candidates. Before obtaining regulatory approvals for the commercial sale of any product candidate, we must demonstrate through non-clinical studies and clinical trials that the product candidate is safe and effective for use in each target indication. Our lead product candidate, SAGE-547, is currently in Phase 3 clinical development for the treatment of super-refractory status epilepticus, or SRSE. SAGE 217 is in Phase 1 clinical development, SAGE-689 is in non-clinical development and other product candidates are at earlier stages. Drug development involves a high degree of risk. We may not be able to enroll our clinical trials on the timing we expect. We may not be able to demonstrate the efficacy and safety of our current product candidates or any other product candidate at each stage of clinical development. The results of clinical trials or non-clinical testing of our product candidates at any stage may not support further development or may not be sufficient to obtain regulatory approval. Clinical trials of our product candidates are, and the manufacturing and marketing of our product candidates will be, subject to extensive and rigorous review and regulation by numerous government authorities in the United States and in other countries where we intend to test and, if approved, market any product candidate. Drug development is a long, expensive and uncertain process, and delay or failure can occur at any stage of our clinical trials. Success in non-clinical studies or in earlier stage clinical trials may not be repeated or observed in ongoing or future studies involving the same compound or other product candidates. The drug development process can take many years, and may include post-marketing studies and surveillance, which will require the expenditure of substantial resources. Of the large number of drugs in development in the United States, only a small percentage will successfully complete the U.S. Food and Drug Administration, or FDA, regulatory approval process and will be commercialized. Accordingly, even if we are able to obtain the requisite financing to continue to fund our development efforts, we cannot assure you that any of our product candidates will be successfully developed or commercialized.

We are not permitted to market our product candidates in the United States until we receive approval of a New Drug Application, or an NDA, from the FDA, or in any foreign countries until we receive the requisite approval from such countries.

Obtaining approval of an NDA in the U.S. or marketing approval in any country outside the U.S. is a complex, lengthy, expensive and uncertain process, and the FDA and regulatory authorities outside the U.S. may delay, limit or deny approval of any of our product candidates for many reasons, including, among others:

- we may not be able to demonstrate, to the satisfaction of the FDA or other regulatory authorities that our product candidates are safe and effective in any indication;
- the results of our non-clinical studies and clinical trials may be negative, or may not meet the level of statistical or clinical significance required by the FDA or regulatory authorities outside the U.S. for marketing approval;
- the FDA or regulatory authorities outside the U.S. may disagree with the number, design, size, conduct, or implementation of our non-clinical studies or clinical trials or changes in drug formulation used in our non-clinical studies or clinical trials;
- the FDA or regulatory authorities outside the U.S. may require that we conduct additional non-clinical studies and clinical trials prior to approval or post-approval;
- the FDA or the applicable foreign regulatory agency may not approve the formulation, labeling or specifications of any of our product candidates;
- the contract research organizations, or CROs, that we retain to conduct our non-clinical studies and clinical trials may take actions outside of our control that materially adversely impact our non-clinical studies and clinical trials;
- the FDA or regulatory authorities outside the U.S. may find the data from non-clinical studies and clinical trials insufficient to demonstrate that our product candidates' clinical and other benefits outweigh their safety risks;
- the FDA or regulatory authorities outside the U.S. may disagree with our interpretation of data from our non-clinical studies and clinical trials;
- the FDA or regulatory authorities outside the U.S. may not accept data generated at our non-clinical studies and clinical trial sites;
- if our NDA, if and when submitted, is reviewed by an advisory committee, the FDA may have difficulties scheduling an advisory committee meeting in a timely manner or the advisory committee may recommend against approval of our application or may recommend that the FDA require, as a condition of approval, additional non-clinical studies or clinical trials, limitations on approved labeling or distribution and use restrictions;
- the FDA may require development of a Risk Evaluation and Mitigation Strategy, or REMS, as a condition of approval or post-approval;
- the FDA or the applicable foreign regulatory agency may determine that the manufacturing processes or facilities of third-party contract manufacturers with which we contract do not conform to applicable requirements, including current Good Manufacturing Practices, or cGMPs; or
- the FDA or applicable foreign regulatory agency may change its approval policies or adopt new regulations.

Even if we receive marketing approval for our product candidates, regulatory or other governmental authorities may still impose significant restrictions on our products, including restrictions on indicated uses or marketing, or may impose ongoing requirements for potentially costly post-approval studies. For example, we expect that, prior to product launch, the U.S. Drug Enforcement Agency, or DEA, will need to determine the controlled substance schedule of SAGE-547, taking into account the recommendation of the FDA. The DEA is not currently obligated to make its determination in any specific timeframe. As a result, the process may be more time consuming than we expect, and may delay our ability to market SAGE-547 if it is approved. Any of these factors, many of which are beyond our control, could jeopardize our ability to obtain regulatory approval for and successfully market our product candidates. Any such setback would have a material adverse effect on our business and prospects.

We cannot be certain that the results of our ongoing Phase 3 clinical trial of SAGE-547 will be sufficient to support the submission of an NDA for this product candidate, and in any event we must obtain additional clinical and non-clinical data before an NDA may be submitted.

In general, the FDA requires two pivotal trials to support approval of an NDA, but in certain circumstances, will approve an NDA based on only one pivotal trial. If successful, we believe the results from our ongoing Phase 3 clinical trial of SAGE-547, together with other safety and efficacy data from the SAGE-547 development program, could form the basis of an NDA submission for SAGE-547. However, depending upon the outcome of the Phase 3 clinical trial and the other development activities under the current program, the FDA may require that we conduct additional pivotal trials before we can submit an NDA for SAGE-547.

Furthermore, we will need to complete several other clinical and non-clinical studies prior to submitting an NDA to the FDA, including studies to evaluate the pharmacokinetics and/or pharmacodynamics of SAGE-547 in special populations. If the result of these additional clinical and non-clinical studies are delayed or yield unanticipated results, it may delay or prevent the submission or approval of an NDA for SAGE-547.

A Fast Track designation by the FDA may not actually lead to a faster development or regulatory review or approval process.

We have received Fast Track designation for our investigational new drug application, or IND, for SAGE-547 for the treatment of SRSE, and in the future we may seek Fast Track designation for other product candidates as well. If a product is intended for the treatment of a serious or life-threatening condition and the product demonstrates the potential to address unmet medical needs for this condition, the sponsor may apply for the FDA Fast Track designation. Fast Track designation does not necessarily lead to a faster development pathway or regulatory review process, and does increase the likelihood of regulatory approval. The FDA may withdraw Fast Track designation if it believes that the designation is no longer supported by data from our clinical development programs.

The number of patients suffering from SRSE is small and has not been established with precision. If the actual number of patients with SRSE or any other diseases or disorders we elect to pursue with our product candidates is smaller than we anticipate, we may encounter difficulties in enrolling patients in our clinical trials, thereby delaying or preventing development of our product candidates, and even if such product candidates are approved, our revenue and ability to achieve profitability may be materially adversely affected.

Our lead product, SAGE-547, is currently being studied in a Phase 3 clinical trial for the treatment of patients with SRSE. There is no precise method of establishing the actual number of patients with SRSE in any geography over any time period. Moreover, SRSE is an acute episode condition. If we are not able to identify patients at the time of SRSE onset, we will have difficulty completing our Phase 3 clinical trial. We estimate that the annual incidence of SRSE in the United States is approximately 25,000 patients, and it may be that only a subset of those patients would be potential candidates for treatment with SAGE-547. We plan to develop our product candidates in certain other indications, including potentially status epilepticus, refractory status epilepticus, orphan epilepsies, post-partum depression, essential tremor, Smith-Lemli-Opitz Syndrome and anti-NMDA receptor encephalitis. We may not be able to accurately estimate the prevalence or size of the addressable patient population for some or all of those indications or any other indication that we elect to pursue. In estimating the potential prevalence or size of market we may use assumptions that do not prove to be accurate. If the actual number of patients with SRSE or any other indication in which we elect to pursue development of our product candidates is lower than we believe, we may experience difficulty in enrolling patients in our clinical trials, thereby delaying development of our product candidates. Further, if any of our product candidates are approved and our prevalence estimates with respect to any indication or our market assumptions are not accurate, the markets for our product candidates for these indications may be smaller than we anticipate, which could limit our revenues and our ability to achieve profitability.

Favorable results from the emergency-use cases of SAGE-547 do not ensure that clinical trials will be successful and the results in any future emergency-use cases or under our expanded access protocol may not be positive and could adversely impact our clinical development plans.

SAGE-547 has been administered to a small number of patients as part of emergency-use cases, which permitted the administration of SAGE-547 outside of clinical trials. We expect that there may be additional emergency use cases, and also expect to continue to enroll SRSE patients under a Phase 3 open-label expanded access protocol in the U.S. for patients who are affected by SRSE but who have not been admitted to, nor can be transferred to, a Phase 3 clinical site. No assurance can be given that positive results observed to date in emergency-use cases are attributable to SAGE-547, as they were not carried out in the controlled environment of a clinical trial. Further, no assurance can be provided that administration of SAGE-547 to SRSE patients under the open-label expanded access protocol or in any future emergency-use cases will have positive results or that the positive results will be deemed to be attributable to SAGE-547. In the event there are negative results in future emergency-use cases or under the expanded access protocol, it could adversely affect or delay our clinical development of SAGE-547.

If serious adverse events or other undesirable side effects are identified during the use of SAGE-547 in emergency-use cases, investigator sponsored trials; exploratory clinical trials; expanded access programs; or any clinical trials, it may adversely affect our development of SAGE-547 for SRSE.

In addition to use in emergency cases and under the expanded access protocol, as described above, SAGE-547 is currently being tested in an investigator sponsored clinical trial for the treatment of traumatic brain injury, or TBI, by one of our collaborators and may be subjected to testing for other indications in additional investigator sponsored trials. We are also conducting, or expect to conduct, additional proof of concept trials using SAGE-547 and additional non-clinical studies and clinical trials. If serious adverse events or other undesirable side effects, or unexpected characteristics of SAGE-547 are observed in emergency-use cases or in investigator sponsored clinical trials of SAGE-547 or our clinical trials, it may adversely affect or delay our clinical development of SAGE-547, or we may need to abandon its development for SRSE entirely, and the occurrence of these events would have a material adverse effect on our business.

Positive results from early non-clinical studies and clinical trials of our product candidates are not necessarily predictive of the results of later non-clinical studies and clinical trials of our product candidates. If we cannot replicate the positive results from our earlier non-clinical studies and clinical trials of our product candidates in our later non-clinical studies and clinical trials, we may be unable to successfully develop, obtain regulatory approval for and commercialize our product candidates.

Positive results from non-clinical studies and clinical trials, including proof-of-concept trials, of our product candidates may not necessarily be predictive of the results we may obtain from subsequent non-clinical studies or clinical trials using the same product candidate or other product candidates. For example, the positive results from our Phase 1/2 clinical trial of SAGE-547 in SRSE may not be replicated in our ongoing Phase 3 clinical trial. Our Phase 3 clinical trial of SAGE-547 differs in important ways from the Phase 1/2 clinical trial, which could cause the outcome of the Phase 3 clinical trial to differ from the earlier stage clinical trial. The Phase 3 clinical trial of SAGE-547 is a placebo-controlled trial, while our Phase 1/2 clinical trial was open-label, and in our Phase 3 clinical trial an intent-to-treat statistical analysis, which is a more rigorous statistical analysis, will be employed in evaluating the data in our Phase 3 clinical trial. In addition, the formulation of SAGE-547 we are using in our Phase 3 trial is somewhat different than the formulation used in the Phase 1/2 trial. We do not believe the change will negatively affect trial results, but we cannot be sure. Similarly, the results from our early-stage proof-of-concept clinical trials of SAGE-547 in essential tremor and post-partum depression may not be replicated in subsequent clinical trials of same or other product candidates in those indications even if the mechanism of action is the same. Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in later-stage clinical trials after achieving positive results in early-stage development, and we cannot be certain that we will not face similar setbacks. These setbacks have been caused by, among other things, non-clinical findings made while clinical trials were underway or safety or efficacy observations made in non-clinical studies and clinical trials, including previously unreported adverse events. For example, we may observe safety issues in clinical studies of SAGE-217 that we did not observe or appreciate in non-clinical studies. Moreover, non-clinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that believed their product candidates performed satisfactorily in non-clinical studies and clinical trials nonetheless failed to obtain FDA approval. If we fail to produce positive results in our planned non-clinical studies or clinical trials of any of our product candidates, the development timeline and regulatory approval and commercialization prospects for our product candidates, and, correspondingly, our business and financial prospects, would be materially adversely affected.

Failures or delays in the commencement or completion of our planned clinical trials of our product candidates could result in increased costs to us and could delay, prevent or limit our ability to generate revenue and continue our business.

Successful completion of clinical trials at each applicable stage of development is a prerequisite to submitting an NDA to the FDA and, consequently, the ultimate approval and commercial marketing of SAGE-547 for SRSE and our other product candidates for the indications in which we develop them. We do not know whether any of our clinical trials will begin or be completed on schedule, if at all, as the commencement and completion of clinical trials can be delayed or prevented for a number of reasons, including, among others:

- the FDA may deny permission to proceed with our planned clinical trials or any other clinical trials we may initiate, or may place a clinical trial on hold;
- delays in filing or receiving approvals of additional INDs that may be required;
- negative results from our ongoing non-clinical studies or clinical trials;
- delays in reaching or failing to reach agreement on acceptable terms with prospective CROs and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- inadequate quantity or quality of a product candidate or other materials necessary to conduct clinical trials, for example delays in the manufacturing of sufficient supply of finished drug product;
- difficulties obtaining Institutional Review Board, or IRB, approval, and equivalent approval for sites outside the U.S., to conduct a clinical trial at a prospective site or sites;
- challenges in recruiting and enrolling patients to participate in clinical trials, including, in the case of SAGE-547, the small size of the patient population and acute nature of SRSE; the proximity of patients to trial sites; eligibility criteria for the clinical trial; the nature of the clinical trial protocol; the availability of approved effective treatments for the relevant disease; and competition from other clinical trial programs for similar indications;
- severe or unexpected drug-related side effects experienced by patients in a clinical trial;
- delays in validating any endpoints utilized in a clinical trial;

- our inability to satisfy the CMC requirements of the FDA or file amendments to our IND as requested by the FDA prior to the initiation of a clinical trial;
- the FDA and applicable regulatory authorities outside the U.S. may disagree with our clinical trial design and our interpretation of data from clinical trials, or may change the requirements for approval even after it has reviewed and commented on the design for our clinical trials;
- reports from non-clinical or clinical testing of other CNS therapies that raise safety or efficacy concerns; and
- difficulties retaining patients who have enrolled in a clinical trial but may be prone to withdraw due to rigors of the clinical trials, lack of efficacy, side effects, personal issues or loss of interest.

Clinical trials may also be delayed or terminated as a result of ambiguous or negative interim results. For example, commencement of a Phase 1 clinical trial of SAGE-689 has been delayed to respond to a request from the FDA for additional non-clinical study data. There is no guarantee that we will be able to generate data that will satisfy the FDA, and enable us to commence the Phase 1 clinical trial. In addition, a clinical trial may be suspended or terminated by us, the FDA, the IRBs at the sites where the IRBs are overseeing a clinical trial, a data and safety monitoring board, or DSMB, overseeing the clinical trial at issue or other regulatory authorities due to a number of factors, including, among others:

- failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols;
- inspection of the clinical trial operations or trial sites by the FDA or other regulatory authorities that reveals deficiencies or violations that require us to undertake corrective action, including the imposition of a clinical hold;
- unforeseen safety issues, including any that could be identified in our ongoing non-clinical studies, or adverse side effects or lack of effectiveness identified in ongoing clinical trials;
- changes in government regulations or administrative actions;
- problems with clinical supply materials; and
- lack of adequate funding to continue clinical trials.

Changes in regulatory requirements, FDA guidance or unanticipated events during our non-clinical studies and clinical trials of our product candidates may occur, which may result in changes to non-clinical studies and clinical trial protocols or additional non-clinical studies and clinical trial requirements, which could result in increased costs to us and could delay our development timeline.

Changes in regulatory requirements, FDA guidance or unanticipated events during our non-clinical studies and clinical trials may force us to amend non-clinical studies and clinical trial protocols or the FDA or applicable regulatory authorities outside the U.S. may impose additional non-clinical studies and clinical trial requirements. Amendments or changes to our clinical trial protocols would require resubmission to the FDA and IRBs for review and approval, which may adversely impact the cost, timing or successful completion of clinical trials. Similarly, amendments to our non-clinical studies may adversely impact the cost, timing, or successful completion of those non-clinical studies. If we experience delays completing, or if we terminate, any of our non-clinical studies or clinical trials, or if we are required to conduct additional non-clinical studies or clinical trials, the commercial prospects for our product candidates may be harmed and our ability to generate product revenue will be delayed.

We rely, and expect that we will continue to rely, on third parties to conduct any clinical trials for our product candidates. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates and our business could be substantially harmed.

We do not have the ability to independently conduct clinical trials. We rely on medical institutions, clinical investigators, contract laboratories and other third parties, such as CROs, to conduct clinical trials of our product candidates. We enter into agreements with third-party CROs to provide monitors for and to manage data for our ongoing clinical trials. We rely heavily on these parties for execution of clinical trials for our product candidates and control only certain aspects of their activities. As a result, we have less direct control over the conduct, timing and completion of these clinical trials and the management of data developed through clinical trials than would be the case if we were relying entirely upon our own staff. Communicating with outside parties can also be challenging, potentially leading to mistakes as well as difficulties in coordinating activities. Outside parties may:

- have staffing difficulties;
- fail to comply with contractual obligations;
- experience regulatory compliance issues;
- undergo changes in priorities or become financially distressed; or
- form relationships with other entities, some of which may be our competitors.

These factors may materially adversely affect the willingness or ability of third parties to conduct our clinical trials and may subject us to unexpected cost increases that are beyond our control. Nevertheless, we are responsible for ensuring that each of our clinical trials is conducted in accordance with the applicable protocol, legal, regulatory and scientific requirements and standards, and our reliance on CROs does not relieve us of our regulatory responsibilities. We and our CROs are required to comply with regulations and guidelines, including current Good Clinical Practices, or cGCPs, 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 patients are adequately informed of the potential risks of participating in clinical trials. These regulations are enforced by the FDA, the Competent Authorities of the Member States of the European Economic Area and comparable foreign regulatory authorities for any products in clinical development. The FDA enforces cGCP regulations through periodic inspections of clinical trial sponsors, principal investigators and trial sites. If we or our CROs fail to comply with applicable cGCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that, upon inspection, the FDA or applicable regulatory authorities outside the U.S. will determine that any of our clinical trials comply with cGCPs. In addition, our clinical trials must be conducted with product candidates produced under cGMPs regulations and will require a large number of test patients. Our failure or the failure of our CROs to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process, and could also subject us to enforcement action up to and including civil and criminal penalties.

Although we do design our clinical trials for our product candidates, CROs conduct all of the clinical trials. As a result, many important aspects of our drug development programs are outside of our direct control. In addition, the CROs may not perform all of their obligations under arrangements with us or in compliance with regulatory requirements, but we remain responsible and are subject to enforcement action that may include civil penalties up to and including criminal prosecution for any violations of FDA laws and regulations during the conduct of our clinical trials. If the CROs do not perform clinical trials in a satisfactory manner, breach their obligations to us or fail to comply with regulatory requirements, the development and commercialization of our product candidates may be delayed or our development program materially and irreversibly harmed. We cannot control the amount and timing of resources these CROs devote to our program or our clinical products. If we are unable to rely on clinical data collected by our CROs, we could be required to repeat, extend the duration of, or increase the size of our clinical trials and this could significantly delay commercialization and require significantly greater expenditures.

If any of our relationships with these third-party CROs terminate, we may not be able to enter into arrangements with alternative CROs. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, any clinical trials such CROs are associated with may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, we believe that our financial results and the commercial prospects for our product candidates in the subject indication would be harmed, our costs could increase and our ability to generate revenue could be delayed.

We rely completely on third-party suppliers to manufacture our clinical drug supplies for our product candidates, and we intend to rely on third parties to produce non-clinical, clinical and commercial supplies of our product candidates in the future.

We do not currently have, nor do we plan to acquire, the infrastructure or capability to internally manufacture our clinical drug supply of our product candidates, or any future product candidates, for use in the conduct of our non-clinical studies and clinical trials, or for future commercial use, and we rely completely on third-party suppliers. For example, SAGE-547 used in the emergency-use cases was manufactured at an academic site, the active pharmaceutical ingredient for SAGE-547 for our Phase 1/2 clinical trial was manufactured at an academic site and SAGE-547 as formulated for our Phase 1/2 clinical trial was manufactured at a third-party manufacturer's site. SAGE-547, as formulated for our Phase 3 clinical trial, is also manufactured at a third-party manufacturer's site. The facilities used by our contract manufacturers to manufacture the active pharmaceutical ingredient and final drug product must complete a pre-approval inspection by the FDA and other comparable foreign regulatory agencies to assess compliance with applicable requirements, including cGMPs, after we submit our NDA or equivalent foreign regulatory submission to the applicable regulatory agency.

We do not control the manufacturing process of, and are completely dependent on, our contract manufacturers to comply with cGMPs for manufacture of both active drug substances and finished drug products, and to manufacturing validation batches required for regulatory approval. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or applicable foreign regulatory agencies, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities. In addition, we have no direct control over our contract manufacturers' ability to maintain adequate quality control, quality assurance and qualified personnel. Furthermore, all of our third-party contract manufacturers are engaged with other companies to supply and/or manufacture materials or products for such companies, which exposes our third-party contract manufacturers to regulatory risks for the production of such materials and products. As a result, failure to satisfy the regulatory requirements for the production of those materials and products may affect the regulatory clearance of our contract manufacturers' facilities generally. If the FDA or an applicable foreign regulatory agency determines now or in the future that these facilities for the manufacture of our product candidates are noncompliant, we may need to find alternative manufacturing facilities, which would adversely impact our ability to develop, obtain regulatory approval for or market our product candidates. Our reliance on contract manufacturers also exposes us to the possibility that they, or third parties with access to their facilities, will have access to and may appropriate our trade secrets or other proprietary information.

We do not have long-term supply agreements in place with our contract manufacturers, and each batch of our product candidates is individually contracted under a quality and supply agreement. If we engage new contract manufacturers, such contractors must complete an inspection by the FDA and other applicable foreign regulatory agencies. We plan to continue to rely upon contract manufacturers and, potentially, collaboration partners to manufacture commercial quantities of our product candidates, if approved. If we are unable to maintain arrangements for third-party manufacturing, or are unable to do so on commercially reasonable terms, or are unable to obtain timely regulatory approvals in connection with our contract manufacturers, we may not be able to successfully complete development of our product candidates or commercialize our product candidates, if approved.

We believe our current scale of manufacturing is adequate to support all of our needs for non-clinical studies and clinical trial supplies.

Even if we receive marketing approval for our product candidates in the United States, we may never receive regulatory approval to market our product candidates outside of the United States.

Even if we receive marketing approval for our product candidates in the United States, we may never receive regulatory approval to market our product candidates outside of the United States. In order to market any product outside of the United States, we must establish and comply with the numerous and varying safety, efficacy and other regulatory requirements of other countries. Approval procedures vary among countries and can involve additional product candidate testing and additional administrative review periods. The time required to obtain approvals in other countries might differ from that required to obtain FDA approval. Marketing approval in one country does not ensure marketing approval in another, but a failure or delay in obtaining marketing approval in one country may have a negative effect on the regulatory process in others. The marketing approval processes in other countries may implicate all of the risks detailed above regarding FDA approval in the United States as well as other risks. In particular, in many countries outside of the United States, products must receive pricing and reimbursement approval before the product can be commercialized. Obtaining this approval can result in substantial delays in bringing products to market in such countries. Even if we are able to successfully develop our product candidates and obtain marketing approval in a country, we may not be able to obtain pricing and reimbursement approvals in such country at acceptable levels or at all, and any pricing and reimbursement approval we may obtain may be subject to onerous restrictions such as caps or other hurdles or restrictions on reimbursement. Failure to obtain marketing and pricing approval in countries outside the U.S. or any delay or other setback in obtaining such approval would impair our ability to market our product candidates in such foreign markets. Any such impairment would reduce the size of our potential market, which could have a material adverse impact on our business, results of operations and prospects.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our product candidates, we may not be able to generate any revenue.

We do not currently have an infrastructure for the sales, marketing and distribution of pharmaceutical products. In order to market our product candidates, if approved by the FDA or any other regulatory body, we must build our sales, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. If we are unable to establish adequate sales, marketing and distribution capabilities, whether independently or with third parties, or if we are unable to do so on commercially reasonable terms, our business, results of operations, financial condition and prospects will be materially adversely affected.

Even if we receive marketing approval for our product candidates, our product candidates may not achieve broad market acceptance, which would limit the revenue that we generate from their sales.

The commercial success of our product candidates, if approved by the FDA or other applicable regulatory authorities, will depend upon the awareness and acceptance of our product candidates among the medical community, including physicians, patients and healthcare payors. Market acceptance of our product candidates, if approved, will depend on a number of factors, including, among others:

- the efficacy of our product candidates as demonstrated in clinical trials, and, if required by any applicable regulatory authority in connection with the approval for the applicable indications, to provide patients with incremental health benefits, as compared with other available CNS therapies;
- limitations or warnings contained in the labeling approved for our product candidates by the FDA or other applicable regulatory authorities;
- the clinical indications for which our product candidates are approved;
- availability of alternative treatments already approved or expected to be commercially launched in the near future;
- the potential and perceived advantages of our product candidates over current treatment options or alternative treatments, including future alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support and timing of market introduction of competitive products;
- publicity concerning our products or competing products and treatments;
- pricing and cost effectiveness;
- the effectiveness of our sales and marketing strategies;
- our ability to increase awareness of our product candidates through marketing efforts;
- our ability to obtain sufficient third-party coverage or reimbursement; or
- the willingness of patients to pay out-of-pocket in the absence of third-party coverage.

If our product candidates are approved but do not achieve an adequate level of acceptance by patients, physicians and payors, we may not generate sufficient revenue from our product candidates to become or remain profitable. Before granting reimbursement approval, healthcare payors may require us to demonstrate that our product candidates, in addition to treating these target indications, also provide incremental health benefits to patients. Our efforts to educate the medical community and third-party payors about the benefits of our product candidates may require significant resources and may never be successful.

Our product candidates may cause undesirable side effects that could delay or prevent their regulatory approval, limit the commercial profile of an approved label, or result in significant negative consequences following marketing approval, if any.

Undesirable side effects caused by our product candidates could cause us or regulatory authorities to interrupt, delay or halt non-clinical studies and clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other regulatory authorities.

Further, clinical trials by their nature utilize a sample of the potential patient population. With a limited number of patients and limited duration of exposure, rare and severe side effects of our product candidates may only be uncovered with a significantly larger number of patients exposed to the product candidate. If our product candidates receive marketing approval and we or others identify undesirable side effects caused by such product candidates (or any other similar products) after such approval, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw or limit their approval of such product candidates;
- regulatory authorities may require the addition of labeling statements, such as a "boxed" warning or a contraindication;
- we may be required to change the way such product candidates are distributed or administered, conduct additional clinical trials or change the labeling of the product candidates;
- we may be subject to regulatory investigations and government enforcement actions;
- we may decide to remove such product candidates from the marketplace;
- we could be sued and held liable for injury caused to individuals exposed to or taking our product candidates; and
- our reputation may suffer.

We believe that any of these events could prevent us from achieving or maintaining market acceptance of the affected product candidates and could substantially increase the costs of commercializing our product candidates and significantly impact our ability to successfully commercialize our product candidates and generate revenues.

Even if we receive marketing approval for our product candidates, we may still face future development and regulatory difficulties.

Even if we receive marketing approval for our product candidates, regulatory authorities may still impose significant restrictions on our product candidates, indicated uses or marketing or impose ongoing requirements for potentially costly post-approval studies. For example, we expect that, prior to product launch, the U.S. Drug Enforcement Agency, or DEA, will need to determine the controlled substance schedule of SAGE-547, taking into account the recommendation of the FDA. The DEA is not currently obligated to make its determination in any specific timeframe. As a result, the process may be more time consuming than we expect. Our product candidates will also be subject to ongoing FDA requirements governing the labeling, packaging, storage and promotion of the product and record keeping and submission of safety and other post-market information. The FDA has significant post-marketing authority, including, for example, the authority to require labeling changes based on new safety information and to require post-marketing studies or clinical trials to evaluate serious safety risks related to the use of a drug. The FDA also has the authority to require, as part of an NDA or post-approval, the submission of a REMS. Any REMS required by the FDA may lead to increased costs to assure compliance with new post-approval regulatory requirements and potential requirements or restrictions on the sale of approved products, all of which could lead to lower sales volume and revenue.

Manufacturers of drug products and their facilities are subject to continual review and periodic inspections by the FDA and other regulatory authorities for compliance with cGMPs and other regulations. If we or a regulatory agency discover problems with our product candidates, such as adverse events of unanticipated severity or frequency, or problems with the facility where our product candidates are manufactured, a regulatory agency may impose restrictions on our product candidates, the manufacturer or us, including requiring withdrawal of our product candidates from the market or suspension of manufacturing. If we, our product candidates or the manufacturing facilities for our product candidates fail to comply with applicable regulatory requirements, a regulatory agency may, among other things:

- issue warning letters or untitled letters;
- seek an injunction or impose civil or criminal penalties or monetary fines;
- suspend or withdraw marketing approval;
- suspend any ongoing clinical trials;
- refuse to approve pending applications or supplements to applications submitted by us;
- suspend or impose restrictions on operations, including costly new manufacturing requirements; or
- seize or detain products, refuse to permit the import or export of products, or require that we initiate a product recall.

Competing therapies could emerge adversely affecting our opportunity to generate revenue from the sale of our product candidates.

The biopharmaceuticals industry is highly competitive. There are many public and private biopharmaceutical companies, universities, governmental agencies and other research organizations actively engaged in the research and development of products that may be similar to our product candidates or address similar markets. It is probable that the number of companies seeking to develop products and therapies similar to our products will increase.

Currently, there are no therapies specifically approved for RSE or SRSE. However, many products approved for other indications, general anesthetics and anti-seizure drugs, are used off-label for various stages of SE therapy. Additionally, though not indicated, acupuncture, hypothermia, and electroconvulsive therapy are sometimes used prior to withdrawal of care for patients with SRSE.

In the field of neuroactive steroids focused on modulation of $GABA_A$ or NMDA receptors, our principal competitor is Marinus Pharmaceuticals, Inc., or Marinus, which is developing a reformulated form of Ganaxolone, a known $GABA_A$ positive allosteric modulator neuroactive steroid, for potential treatment of drug-resistant partial complex seizures and fragile X syndrome. In addition, Marinus has announced initiation of the clinical phase of its intravenous Ganaxolone program in SE.

Many of our potential competitors, alone or with their strategic partners, have substantially greater financial, technical and human resources than we do and significantly greater experience in the discovery and development of product candidates, obtaining FDA and other regulatory approvals of treatments and the commercialization of those treatments. Mergers and acquisitions in the biotechnology and pharmaceutical industries may result in even more resources being concentrated among a smaller number of our competitors. Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market.

We may seek to establish collaborations, and, if we are not able to establish them on commercially reasonable terms, we may have to alter our development and commercialization plans.

Our drug development programs and the potential commercialization of our product candidates will require substantial additional cash to fund expenses. For some of our product candidates, we may decide to collaborate with pharmaceutical and biotechnology companies for the development and potential commercialization of those product candidates.

We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such collaboration could be more attractive than the one with us for our product candidate. The terms of any collaboration or other arrangements that we may establish may not be favorable to us.

We may also be restricted under existing collaboration agreements from entering into future agreements on certain terms with potential collaborators. Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators.

We may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of the product candidate for which we are seeking to collaborate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate product revenue.

In addition, any future collaborations that we enter into may not be successful. The success of our collaboration arrangements will depend heavily on the efforts and activities of our collaborators. Collaborators generally have significant discretion in determining the efforts and resources that they will apply to these collaborations. Disagreements between parties to a collaboration arrangement regarding clinical development and commercialization matters can lead to delays in the development process or commercializing the applicable product candidate and, in some cases, termination of the collaboration arrangement. These disagreements can be difficult to resolve if neither of the parties has final decision-making authority. Collaborations with pharmaceutical or biotechnology companies and other third parties often are terminated or allowed to expire by the other party. Any such termination or expiration would adversely affect us financially and could harm our business reputation.

We may not be successful in our efforts to identify or discover additional product candidates or we may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

The success of our business depends primarily upon our ability to identify, develop and commercialize products based on our proprietary chemistry platform. Although some of our product candidates are in non-clinical and clinical development, our research programs may fail to identify other potential product candidates for clinical development for a number of reasons. Our research methodology may be unsuccessful in identifying potential product candidates or our potential product candidates may be shown to have harmful side effects or may have other characteristics that may make the products unmarketable or unlikely to receive marketing approval.

Because we have limited financial and management resources, we focus on a limited number of research programs and product candidates and are currently focused on CNS disorders, including our SE program. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial drugs or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable drugs. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through future collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

If any of these events occur, we may be forced to abandon our development efforts for a program or programs, which would have a material adverse effect on our business and could potentially cause us to cease operations. Research programs to identify new product candidates require substantial technical, financial and human resources. We may focus our efforts and resources on potential programs or product candidates that ultimately prove to be unsuccessful.

We are subject to healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Although we do not currently have any products on the market, once we begin commercializing our products, we will be subject to additional healthcare statutory and regulatory requirements and enforcement by the federal government and the states and foreign governments in which we conduct our business. Healthcare providers, physicians and others will play a primary role in the recommendation and prescription of our product candidates, if approved. Our future arrangements with third-party payors will expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell and distribute our product candidates, if we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations include the following:

- The federal anti-kickback statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under federal healthcare programs such as Medicare and Medicaid.
- The federal False Claims Act imposes criminal and civil penalties, including those from civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease, or conceal an obligation to pay money to the federal government.
- The federal Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program and also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information.

- The federal false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services.
- The federal transparency requirements, sometimes referred to as the "Sunshine Act," under the Patient Protection and Affordable Care Act, require manufacturers of drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid, or the Children's Health Insurance Program to report to the Department of Health and Human Services information related to physician payments and other transfers of value and physician ownership and investment interests.
- Analogous state laws and regulations, such as state anti-kickback and false claims laws and transparency laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers, and some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug manufacturers to report information related to payments to physicians and other healthcare providers or marketing expenditures and drug pricing.

Ensuring that our future business arrangements with third parties comply with applicable healthcare laws and regulations could be costly. It is possible that governmental authorities will conclude that our business practices do not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations, including anticipated activities to be conducted by our sales team, were found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines and exclusion from government funded healthcare programs, such as Medicare and Medicaid, any of which could substantially disrupt our operations. If any of the physicians or other providers or entities with whom we expect to do business is found not to be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

The FDA and other regulatory agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses. If we are found to have improperly promoted off-label uses, we may become subject to significant liability.

The FDA and other regulatory agencies strictly regulate the promotional claims that may be made about prescription products, such as SAGE-547, SAGE-217, and SAGE-689, if approved. In particular, a product may not be promoted for uses that are not approved by the FDA or such other regulatory agencies as reflected in the product's approved labeling. For example, if we receive marketing approval for SAGE-547 as a treatment for SRSE, physicians may nevertheless prescribe SAGE-547 to their patients in a manner that is inconsistent with the approved label. If we are found to have promoted such off-label uses, we may become subject to significant liability. The federal government has levied large civil and criminal fines against companies for alleged improper promotion and has enjoined several companies from engaging in off-label promotion. The FDA has also requested that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed. If we cannot successfully manage the promotion of our product candidates, if approved, we could become subject to significant liability, which would materially adversely affect our business and financial condition.

SAGE-547 will, and our other product candidates may, contain controlled substances, the manufacture, use, sale, importation, exportation, prescribing and distribution of which are subject to regulation by the DEA.

Before we can commercialize SAGE-547, and potentially our other product candidates, it is expected that the DEA will need to determine the controlled substance schedule, taking into account the recommendation of the FDA. This may be a lengthy process that could delay our marketing of a product candidate and could potentially diminish any regulatory exclusivity periods for which we may be eligible. If approved, SAGE-547 is expected to be, and our other product candidates may be, regulated as "controlled substances" as defined in the Controlled Substances Act of 1970, or CSA, and the implementing regulations of the DEA, which establish registration, security, recordkeeping, reporting, storage, distribution, importation, exportation, inventory, quota and other requirements administered by the DEA. These requirements are applicable to us, to our third-party manufacturers and to distributors, prescribers and dispensers of our product candidates. The DEA regulates the handling of controlled substances through a closed chain of distribution. This control extends to the equipment and raw materials used in their manufacture and packaging, in order to prevent loss and diversion into illicit channels of commerce. A number of states and foreign countries also independently regulate these drugs as controlled substances.

The DEA regulates controlled substances as Schedule I, II, III, IV or V substances. Schedule I substances by definition have no established medicinal use, and may not be marketed or sold in the United States. A pharmaceutical product may be listed as Schedule II, III, IV or V, with Schedule II substances considered to present the highest risk of abuse and Schedule V substances the lowest relative risk of abuse among such substances.

We expect that SAGE-547 will, and our other product candidates may, be listed by the DEA as Schedule IV controlled substances under the CSA. Consequently, the manufacturing, shipping, storing, selling and using of the products will be subject to an additional regulation. Also, distribution, prescribing and dispensing of these drugs are regulated. Other Schedule IV compounds include sedative hypnotics such as benzodiazepines.

Annual registration is required for any facility that manufactures, distributes, dispenses, imports or exports any controlled substance. The registration is specific to the particular location, activity and controlled substance schedule.

Because of their restrictive nature, these laws and regulations could limit commercialization of our product candidates containing controlled substances. Failure to comply with these laws and regulations could also result in withdrawal of our DEA registrations, disruption in manufacturing and distribution activities, consent decrees, criminal and civil penalties and state actions, among other consequences.

Even if approved, reimbursement policies could limit our ability to sell our product candidates.

Market acceptance and sales of our product candidates will depend on reimbursement policies and may be affected by healthcare reform measures. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels for those medications. Cost containment is a primary concern in the U.S. healthcare industry and elsewhere. Government authorities and these third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. We cannot be sure that reimbursement will be available for our product candidates and, if reimbursement is available, the level of such reimbursement. Reimbursement may impact the demand for, or the price of, our product candidates. If reimbursement is not available or is available only at limited levels, we may not be able to successfully commercialize our product candidates.

In some foreign countries, particularly in Canada and European countries, the pricing of prescription pharmaceuticals is subject to strict governmental control. In these countries, pricing negotiations with governmental authorities can take six to twelve months or longer after the receipt of regulatory approval and product launch. To obtain favorable reimbursement for the indications sought or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidates with other available therapies. If reimbursement for our product candidates is unavailable in any country in which we seek reimbursement, if it is limited in scope or amount, if it is conditioned upon our completion of additional clinical trials, or if pricing is set at unsatisfactory levels, our operating results could be materially adversely affected.

Even though we have obtained orphan drug designation for SAGE-547 as a treatment for SE, there may be limits to the regulatory exclusivity afforded by such designation.

Even though we have obtained orphan drug designation for SAGE-547 for treatment of SE from the FDA, there are limitations to exclusivity afforded by such designation. In the United States, the company that first obtains FDA approval for a designated orphan drug for the specified rare disease or condition receives orphan drug marketing exclusivity for that drug for a period of seven years. This orphan drug exclusivity prevents the FDA from approving another application, including a full NDA to market the same drug for the same orphan indication, except in very limited circumstances, including when the FDA concludes that the later drug is safer, more effective or makes a major contribution to patient care. For purposes of small molecule drugs, the FDA defines “same drug” as a drug that contains the same active moiety and is intended for the same use as the drug in question. To obtain approval for a drug that shares the same active moiety as an already approved orphan-designated drug, it must be demonstrated to the FDA that the drug is safer or more effective than the approved orphan designated drug, or that it makes a major contribution to patient care. In addition, a designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. In addition, orphan drug exclusive marketing rights in the United States 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 quantity of the drug to meet the needs of patients with the rare disease or condition.

Our future growth may depend, in part, on our ability to penetrate foreign markets, where we would be subject to additional regulatory burdens and other risks and uncertainties.

Our future profitability may depend, in part, on our ability to commercialize our product candidates in foreign markets for which we may rely on collaboration with third parties. If we commercialize our product candidates in foreign markets, we would be subject to additional risks and uncertainties, including:

- our customers' ability to obtain reimbursement for our product candidates in foreign markets;
- our inability to directly control commercial activities to the extent we are relying on third parties;
- the burden of complying with complex and changing foreign regulatory, tax, accounting and legal requirements;
- different medical practices and customs in foreign countries affecting acceptance in the marketplace;
- import or export licensing requirements;
- longer accounts receivable collection times;
- longer lead times for shipping;
- language barriers for technical training;
- reduced protection of intellectual property rights in some foreign countries;
- the existence of additional potentially relevant third party intellectual property rights;
- foreign currency exchange rate fluctuations; and
- the interpretation of contractual provisions governed by foreign laws in the event of a contract dispute.

Foreign sales of our product candidates could also be adversely affected by the imposition of governmental controls, political and economic instability, trade restrictions and changes in tariffs.

Risks Related to Our Intellectual Property Rights

If we are unable to adequately protect our proprietary technology, or obtain and maintain issued patents that are sufficient to protect our product candidates, others could compete against us more directly, which would have a material adverse impact on our business, results of operations, financial condition and prospects.

We strive to protect and enhance the proprietary technologies that we believe are important to our business, including seeking patents intended to cover our products and compositions, their methods of use and any other inventions that are important to the development of our business. We also rely on trade secrets to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

Our success will depend significantly on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to our business, defend and enforce our patents, should they issue, preserve the confidentiality of our trade secrets and operate without infringing the valid and enforceable patents and proprietary rights of third parties. We also rely on know-how, continuing technological innovation and in-licensing opportunities to develop, strengthen and maintain the proprietary position of our product candidates. Our owned and licensed patent applications relate to SAGE-547, $GABA_A$ receptor modulators, including genus and species claims to SAGE-217, SAGE-689 and NMDA receptor modulators.

We currently have no issued patents covering any of our lead product candidates, SAGE-547, SAGE-217, or SAGE-689. We cannot provide any assurances that any of our pending patent applications will mature into issued patents and, if they do, that such patents will include, claims with a scope sufficient to protect our product candidates or otherwise provide any competitive advantage. For example, the patent applications that may provide coverage for SAGE-547, only cover particular formulations and particular methods of using such formulations to treat seizure conditions, such as SE. As a result, if a patent issues from such patent applications, it would not prevent third-party competitors from creating, making and marketing alternative formulations, that fall outside the scope of our patent claims or practicing alternative methods. There can be no assurance that any such alternative formulations will not be equally effective as our formulation of SAGE-547. Moreover, other parties have developed technologies that may be related or competitive to our approach, and may have filed or may file patent applications and may have received or may receive patents that may overlap or conflict with our patent applications, either by claiming the same methods or formulations or by claiming subject matter that could dominate our patent position. Such third-party patent positions may limit or even eliminate our ability to obtain patent protection for certain inventions.

The patent positions of biotechnology and pharmaceutical companies, including our patent position, involve complex legal and factual questions, and, therefore, the issuance, scope, validity and enforceability of any patent claims that we may obtain cannot be predicted with certainty. Patents, if issued, may be challenged, deemed unenforceable, invalidated, or circumvented. U.S. patents and patent applications may also be subject to interference proceedings, *ex parte* reexamination, or *inter partes* review proceedings, supplemental examination and challenges in district court. Patents may be subjected to opposition, post-grant review, or comparable proceedings lodged in various foreign, both national and regional, patent offices. These proceedings could result in either loss of the patent or denial of the patent application or loss or reduction in the scope of one or more of the claims of the patent or patent application. In addition, such proceedings may be costly. Thus, any patents, should they issue, that we may own or exclusively license may not provide any protection against competitors. Furthermore, an adverse decision in an interference proceeding can result in a third party receiving the patent right sought by us, which in turn could affect our ability to develop, market or otherwise commercialize our product candidates.

Furthermore, though a patent, if it were to issue, is presumed valid and enforceable, its issuance is not conclusive as to its validity or its enforceability, and it may not provide us with adequate proprietary protection or competitive advantages against competitors with similar products. Even if a patent issues and is held to be valid and enforceable, competitors may be able to design around our patents, such as using pre-existing or newly developed technology. Other parties may develop and obtain patent protection for more effective technologies, designs or methods. We may not be able to prevent the unauthorized disclosure or use of our technical knowledge or trade secrets by consultants, vendors, former employees and current employees. The laws of some foreign countries do not protect our proprietary rights to the same extent as the laws of the United States, and we may encounter significant problems in protecting our proprietary rights in these countries. If these developments were to occur, they could have a material adverse effect on our sales if any of our product candidates are approved in those countries.

Our ability to enforce our patent rights depends on our ability to detect infringement. It is difficult to detect infringers who do not advertise the components that are used in their products. Moreover, it may be difficult or impossible to obtain evidence of infringement in a competitor's or potential competitor's product. Any litigation to enforce or defend our patent rights, even if we were to prevail, could be costly and time-consuming and would divert the attention of our management and key personnel from our business operations. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded if we were to prevail may not be commercially meaningful.

In addition, proceedings to enforce or defend our patents, if and when issued, could put our patents at risk of being invalidated, held unenforceable, or interpreted narrowly. Such proceedings could also provoke third parties to assert claims against us, including that some or all of the claims in one or more of our patents are invalid or otherwise unenforceable. If any of our patents, if and when issued, covering our product candidates are invalidated or found unenforceable, our financial position and results of operations would be materially and adversely impacted. In addition, if a court found that valid, enforceable patents held by third parties covered our product candidates, our financial position and results of operations would also be materially and adversely impacted.

The degree of future protection for our proprietary rights is uncertain, and we cannot ensure that:

- any of our pending patent applications, if issued, will include claims having a scope sufficient to protect our product candidates or any other products or product candidates;
- any of our pending patent applications will issue as patents at all;
- we will be able to successfully commercialize our product candidates, if approved, before our relevant patents expire;
- we were the first to make the inventions covered by each of our patents and pending patent applications;
- we were the first to file patent applications for these inventions;
- others will not develop similar or alternative technologies that do not infringe our patents;
- others will not use pre-existing technology to effectively compete against us;
- any of our patents, if issued, will be found to ultimately be valid and enforceable;
- any patents issued to us will provide a basis for an exclusive market for our commercially viable products, will provide us with any competitive advantages or will not be challenged by third parties;
- we will develop additional proprietary technologies or product candidates that are separately patentable; or
- that our commercial activities or products will not infringe upon the patents or proprietary rights of others.

We rely upon unpatented trade secrets, unpatented know-how and continuing technological innovation to develop and maintain our competitive position, which we seek to protect, in part, by confidentiality agreements with our employees and our collaborators and consultants. It is possible that technology relevant to our business will be independently developed by a person that is not a party to such an agreement. Furthermore, if the employees and consultants who are parties to these agreements breach or violate the terms of these agreements, we may not have adequate remedies for any such breach or violation, and we could lose our trade secrets through such breaches or violations. Further, our trade secrets could otherwise become known or be independently discovered by our competitors.

We may infringe the intellectual property rights of others, which may prevent or delay our product development efforts and stop us from commercializing or increase the costs of commercializing our product candidates, if approved.

Our success will depend in part on our ability to operate without infringing the intellectual property and proprietary rights of third parties. We cannot assure you that our business, products and methods do not or will not infringe the patents or other intellectual property rights of third parties.

The pharmaceutical industry is characterized by extensive litigation regarding patents and other intellectual property rights. Other parties may allege that our product candidates or the use of our technologies infringes patent claims or other intellectual property rights held by them or that we are employing their proprietary technology without authorization. As we continue to develop and, if approved, commercialize our current product candidates and future product candidates, competitors may claim that our technology infringes their intellectual property rights as part of business strategies designed to impede our successful commercialization. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our product candidates. Because patent applications can take many years to issue, third parties may have currently pending patent applications which may later result in issued patents that our product candidates may infringe, or which such third parties claim are infringed by our technologies. The outcome of intellectual property litigation is subject to uncertainties that cannot be adequately quantified in advance. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we are sued for patent infringement, we would need to demonstrate that our product candidates, products or methods either do not infringe the patent claims of the relevant patent or that the patent claims are invalid, and we may not be able to do this. Even if we are successful in these proceedings, we may incur substantial costs and the time and attention of our management and scientific personnel could be diverted in pursuing these proceedings, which could have a material adverse effect on us. In addition, we may not have sufficient resources to bring these actions to a successful conclusion.

Patent and other types of intellectual property litigation can involve complex factual and legal questions, and their outcome is uncertain. Any claim relating to intellectual property infringement that is successfully asserted against us may require us to pay substantial damages, including treble damages and attorney's fees if we are found to be willfully infringing another party's patents, for past use of the asserted intellectual property and royalties and other consideration going forward if we are forced to take a license. In addition, if any such claim were successfully asserted against us and we could not obtain such a license, we may be forced to stop or delay developing, manufacturing, selling or otherwise commercializing our product candidates.

Even if we are successful in these proceedings, we may incur substantial costs and divert management time and attention in pursuing these proceedings, which could have a material adverse effect on us. If we are unable to avoid infringing the patent rights of others, we may be required to seek a license, defend an infringement action or challenge the validity of the patents in court, or redesign our products. Patent litigation is costly and time-consuming. We may not have sufficient resources to bring these actions to a successful conclusion. In addition, intellectual property litigation or claims could force us to do one or more of the following:

- cease developing, selling or otherwise commercializing our product candidates;
- pay substantial damages for past use of the asserted intellectual property;
- obtain a license from the holder of the asserted intellectual property, which license may not be available on reasonable terms, if at all; and
- in the case of trademark claims, redesign, or rename, some or all of our product candidates to avoid infringing the intellectual property rights of third parties, which may not be possible and, even if possible, could be costly and time-consuming.

Any of these risks coming to fruition could have a material adverse effect on our business, results of operations, financial condition and prospects.

We may be subject to claims challenging the inventorship or ownership of our patents and other intellectual property.

We enter into confidentiality and intellectual property assignment agreements with our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors. These agreements generally provide that inventions conceived by the party in the course of rendering services to us will be our exclusive property. However, these agreements may not be honored and may not effectively assign intellectual property rights to us. For example, even if we have a consulting agreement in place with an academic advisor pursuant to which such academic advisor is required to assign any inventions developed in connection with providing services to us, such academic advisor may not have the right to assign such inventions to us, as it may conflict with his or her obligations to assign all such intellectual property to his or her employing institution.

Litigation may be necessary to defend against these and other claims challenging inventorship or ownership. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

The U.S. Patent and Trademark Office, or U.S. PTO, and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process. There are situations in which noncompliance can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to enter the market earlier than would otherwise have been the case.

We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time-consuming and unsuccessful.

Even if the patent applications we own or license are issued, competitors may infringe these patents. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours or our licensors is not valid, is unenforceable and/or is not infringed, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing.

Interference proceedings provoked by third parties or brought by us may be necessary to determine the priority of inventions with respect to our patents or patent applications or those of our licensors. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. Our defense of litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distract our management and other employees. We may not be able to prevent, alone or with our licensors, misappropriation of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States.

Furthermore, because of the substantial amount of 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. There could also 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 material adverse effect on the price of our common stock.

Issued patents covering our product candidates could be found invalid or unenforceable if challenged in court.

If we or one of our licensing partners initiated legal proceedings against a third party to enforce a patent, if and when issued, covering one of our product candidates, the defendant could counterclaim that the patent covering our product candidate is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge include alleged failures to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for unenforceability assertions include allegations that someone connected with prosecution of the patent withheld relevant information from the U.S. PTO, or made a misleading statement, during prosecution. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, post grant review and equivalent proceedings in foreign jurisdictions, e.g., opposition proceedings. Such proceedings could result in revocation or amendment of our patents in such a way that they no longer cover our product candidates or competitive products. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to validity, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our product candidates. Such a loss of patent protection would have a material adverse impact on our business.

We will not seek to protect our intellectual property rights in all jurisdictions throughout the world and we may not be able to adequately enforce our intellectual property rights even in the jurisdictions where we seek protection.

Filing, prosecuting and defending patents on product candidates in all countries and jurisdictions throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States could be less extensive than those in the United States, assuming that rights are obtained in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. The statutory deadlines for pursuing patent protection in individual foreign jurisdictions are based on the priority date of each of our patent applications. For the patent families related to SAGE-547, SAGE-217 and SAGE-689, and many of the other patent families that we own or license, the relevant statutory deadlines have not yet expired. For each of the patent families that we believe provide coverage for our lead product candidates, we will need to decide whether and where to pursue protection outside the United States.

Competitors may use our technologies in jurisdictions where we do not pursue and obtain patent protection to develop their own products and further, may export otherwise infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our products and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing. Even if we pursue and obtain issued patents in particular jurisdictions, our patent claims or other intellectual property rights may not be effective or sufficient to prevent third parties from so competing.

The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States. Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. The legal systems of some countries, particularly developing countries, do not favor the enforcement of patents and other intellectual property protection, especially those relating to biotechnology. For example, an April 2014 report from the Office of the United States Trade Representative identified a number of countries, including India and China, where challenges to the procurement and enforcement of patent rights have been reported. Several countries, including India and China, have been listed in the report every year since 1989. This could make it difficult for us to stop the infringement of our patents, if obtained, or the misappropriation of our other intellectual property rights. For example, many foreign countries have compulsory licensing laws under which a patent owner must grant licenses to third parties. In addition, many countries limit the enforceability of patents against third parties, including government agencies or government contractors. In these countries, patents may provide limited or no benefit. Patent protection must ultimately be sought on a country-by-country basis, which is an expensive and time-consuming process with uncertain outcomes. Accordingly, we may choose not to seek patent protection in certain countries, and we will not have the benefit of patent protection in such countries.

Furthermore, proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

We are dependent on licensed intellectual property. If we were to lose our rights to licensed intellectual property, we may not be able to continue developing or commercializing our product candidates, if approved. If we breach any of the agreements under which we license the use, development and commercialization rights to our product candidates or technology from third parties or, in certain cases, we fail to meet certain development deadlines, we could lose license rights that are important to our business.

We are a party to a number of license agreements under which we are granted rights to intellectual property that are important to our business and we expect that we may need to enter into additional license agreements in the future. Our existing license agreements impose, and we expect that future license agreements will impose on us, various development, regulatory and/or commercial diligence obligations, payment of milestones and/or royalties and other obligations. If we fail to comply with our obligations under these agreements, or we are subject to a bankruptcy, the licensor may have the right to terminate the license, in which event we would not be able to market products covered by the license. Our business could suffer, for example, if any current or future licenses terminate, if the licensors fail to abide by the terms of the license, if the licensed patents or other rights are found to be invalid or unenforceable, or if we are unable to enter into necessary licenses on acceptable terms.

As we have done previously, we may need to obtain licenses from third parties to advance our research or allow commercialization of our product candidates, and we cannot provide any assurances that third-party patents do not exist that might be enforced against our current product candidates or future products in the absence of such a license. We may fail to obtain any of these licenses on commercially reasonable terms, if at all. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In that event, we may be required to expend significant time and resources to develop or license replacement technology. If we are unable to do so, we may be unable to develop or commercialize the affected product candidates, which could materially harm our business and the third parties owning such intellectual property rights could seek either an injunction prohibiting our sales, or, with respect to our sales, an obligation on our part to pay royalties and/or other forms of compensation.

Licensing of intellectual property is of critical importance to our business and involves complex legal, business and scientific issues. Disputes may arise between us and our licensors regarding intellectual property subject to a license agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our product candidates, and what activities satisfy those diligence obligations; and
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates.

We have entered into several licenses to support our various programs. We completed an exclusive license agreement with Washington University, or WU, under certain patent families that comprise a variety of small molecule allosteric modulators of $GABA_A$ receptors and for which we have the worldwide right to develop and commercialize. A patent family that discloses and claims SAGE-689 is licensed to us under this agreement. We are obligated to pay WU certain clinical/regulatory milestones and single-digit royalties on products developed from this technology. Termination of our license agreement with WU would have a material adverse impact on our ability to develop and commercialize SAGE-689.

We have also entered into an exclusive license agreement with CyDex Pharmaceuticals, Inc., or CyDex, a wholly owned subsidiary of Ligand Pharmaceuticals, Inc., to use its Captisol technology to develop SAGE-547 and SAGE-689 for the field of use, which includes all fields for the treatment, prevention or diagnosis of any disease or symptom in humans or animals other than (i) the ocular treatment of any disease or condition with a formulation, including a hormone; (ii) topical ocular treatment of inflammatory conditions; (iii) treatment and prophylaxis of fungal infections in humans; and (iv) any ocular treatment for retinal degeneration. We are obligated to pay CyDex certain clinical/regulatory milestones and, if approved and marketed, single-digit royalties on SAGE-547 and SAGE-689. In addition, we have entered into a supply agreement with CyDex, pursuant to which CyDex supplies us with Captisol to formulate both products. Absent an alternative agreement by the parties, our rights under our exclusive license agreement terminate in the event that the supply agreement terminates. Currently, our SAGE-547 and SAGE-689 product candidates are formulated in Captisol. Termination of our license agreement with CyDex would have a material adverse impact on our ability to develop and commercialize SAGE-547 and SAGE-689 in their current formulations.

We also entered into a non-exclusive license with The Regents of the University of California, or the Regents. Pursuant to this agreement the Regents granted us a non-exclusive, non-transferable license under all personal property rights of the Regents covering the tangible personal property in an IND application package owned by the Regents, or the Data, and a specified quantity of cGMP grade allopregnanolone, or the Material, to (i) use the Data for reference or incorporation in an IND for use of the Material as a treatment of SE, essential tremor and/or postpartum depression and (ii) use the Material or modifications of the Material to develop a pharmaceutical formulation for clinical trials for SE, essential tremor and/or postpartum depression. This agreement requires us to pay milestone payments in connection with the first derived product, which would include SAGE-547, that meets the relevant milestones and we must also pay single-digit royalties for each derived product for a period of 15 years following the first commercial sale of such derived product. Termination of our license agreement with the Regents would have a material adverse impact on our ability to develop and commercialize derived products, which would include SAGE-547.

In June 2015, we entered into an exclusive license agreement with The Regents of the University of California whereby we were granted an exclusive license to certain patent rights related to the use of allopregnanolone to treat various diseases. In exchange for such license, we paid an upfront payment and will pay annual maintenance fees until the calendar year following the first sale, if any, of a licensed product. We are obligated to make milestone payments following the achievement of specified regulatory and sales milestones. Following the first sale, if any, of a licensed product, we are obligated to pay royalties at a low single digit percentage of net sales, if any, of licensed products, subject to specified minimum annual royalty amounts.

We may enter into additional license(s) to third-party intellectual property that are necessary or useful to our business. Our current licenses and any future licenses that we may enter into impose various royalty payment, milestone, and other obligations on us. For example, as is the case for the Washington University license, the licensor may retain control over patent prosecution and maintenance under a license agreement, in which case, we may not be able to adequately influence patent prosecution or prevent inadvertent lapses of coverage due to failure to pay maintenance fees. If we fail to comply with any of our obligations under a current or future license agreement, our licensor(s) may allege that we have breached our license agreement and may accordingly seek to terminate our license with them. In addition, future licensor(s) may decide to terminate our license at will. Termination of any of our current or future licenses could result in our loss of the right to use the licensed intellectual property, which could materially adversely affect our ability to develop and commercialize a product candidate or product, if approved, as well as harm our competitive business position and our business prospects.

In addition, if our licensors fail to abide by the terms of the license, if the licensors fail to prevent infringement by third parties, if the licensed patents or other rights are found to be invalid or unenforceable, or if we are unable to enter into necessary licenses on acceptable terms our business could suffer.

Some intellectual property which we have licensed may have been discovered through government funded programs and thus may be subject to federal regulations such as "march-in" rights, certain reporting requirements, and a preference for U.S. industry. Compliance with such regulations may limit our exclusive rights, subject us to expenditure of resources with respect to reporting requirements, and limit our ability to contract with non-U.S. manufacturers.

Some of the intellectual property rights we have licensed may have been generated through the use of U.S. government funding and may therefore be subject to certain federal regulations. For example, some of the intellectual property rights licensed to us under the license agreements with WU and the Regents may have been generated using U.S. government funds. As a result, the U.S. government may have certain rights to intellectual property embodied in our current or future product candidates pursuant to the Bayh-Dole Act of 1980, or Bayh-Dole Act. These U.S. government rights in certain inventions developed under a government-funded program include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. In addition, the U.S. government has the right to require us to grant exclusive, partially exclusive, or non-exclusive licenses to any of these inventions to a third party if it determines that: (i) adequate steps have not been taken to commercialize the invention; (ii) government action is necessary to meet public health or safety needs; or (iii) government action is necessary to meet requirements for public use under federal regulations (also referred to as "march-in rights"). The U.S. government also has the right to take title to these inventions if we fail, or the applicable licensor fails, to disclose the invention to the government and fail to file an application to register the intellectual property within specified time limits. In addition, the U.S. government may acquire title to these inventions in any country in which a patent application is not filed within specified time limits. Intellectual property generated under a government funded program is also subject to certain reporting requirements, compliance with which may require us, or the applicable licensor, to expend substantial resources. In addition, the U.S. government requires that any products embodying the subject invention or produced through the use of the subject invention be manufactured substantially in the United States. The manufacturing preference requirement can be waived if the owner of the intellectual property can show that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible. This preference for U.S. manufacturers may limit our ability to contract with non-U.S. product manufacturers for products covered by such intellectual property.

We currently do not plan to apply for additional U.S. government funding, but if we do, and we discover compounds or drug candidates as a result of such funding, intellectual property rights to such discoveries may be subject to the applicable provisions of the Bayh-Dole Act.

If we do not obtain additional protection under the Hatch-Waxman Amendments and similar foreign legislation by extending the patent terms and obtaining data exclusivity for our product candidates, our business may be materially harmed.

Depending upon the timing, duration and specifics of FDA marketing approval of our product candidates, one or more of the U.S. patents we own or license may be eligible for limited patent term restoration under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, we may not be granted an extension because of, for example, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. For example, we may not be granted an extension if the active ingredient of SAGE-547, allopregnanolone, is used in another drug company's product candidate and that product candidate is the first to obtain FDA approval. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or restoration or the term of any such extension is less than we request, our competitors may obtain approval of competing products following our patent expiration, and our ability to generate revenues could be materially adversely affected.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.

As is the case with other biotechnology companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biotechnology industry involve both technological and legal complexity, and is therefore costly, time-consuming and inherently uncertain. In addition, the United States has recently enacted and is currently implementing wide-ranging patent reform legislation: the Leahy-Smith America Invents Act, referred to as the America Invents Act. The America Invents Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications will be prosecuted and may also affect patent litigation. It is not yet clear what, if any, impact the America Invents Act will have on the operation of our business. However, the America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of any patents that may issue from our patent applications, all of which could have a material adverse effect on our business and financial condition.

In addition, recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. The full impact of these decisions is not yet known. For example, on March 20, 2012 in *Mayo Collaborative Services, DBA Mayo Medical Laboratories, et al. v. Prometheus Laboratories, Inc.*, the Court held that several claims drawn to measuring drug metabolite levels from patient samples and correlating them to drug doses were not patentable subject matter. The decision appears to impact diagnostics patents that merely apply a law of nature via a series of routine steps and it has created uncertainty around the ability to obtain patent protection for certain inventions. Additionally, on June 13, 2013 in *Association for Molecular Pathology v. Myriad Genetics, Inc.*, the Court held that claims to isolated genomic DNA are not patentable, but claims to complementary DNA molecules are patent eligible because they are not a natural product. The effect of the decision on patents for other isolated natural products is uncertain. In Alice Corporation Pty. Ltd. v. CLS Bank International, et al., a case involving patent claims directed to a method for mitigating settlement risk, the Court held that the patent eligibility of claims directed to abstract ideas, products of nature, and laws of nature should be determined using the same framework set forth in Prometheus. The U.S. PTO recently issued a set of guidelines setting forth procedures for determining subject matter eligibility of claims directed to abstract ideas, products of nature, and laws of nature in line with the Prometheus, Myriad, and Alice decisions. The guidance does not limit the application of Myriad to DNA but, rather, applies the decision to other natural products.

In addition to increasing uncertainty with regard to our ability to obtain future patents, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on these and other decisions by the U.S. Congress, the federal courts and the U.S. PTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce any patents that may issue in the future.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

Most of our employees have been previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. We also engage advisors and consultants who are concurrently employed at universities or who perform services for other entities.

Although we are not aware of any claims currently pending against us, we may be subject to claims that we or our employees, advisors or consultants have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of a former employer or other third party. We have and may in the future also be subject to claims that an employee, advisor or consultant performed work for us that conflicts with that person's obligations to a third party, such as an employer, and thus, that the third party has an ownership interest in the intellectual property arising out of work performed for us. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management. If we fail in defending such claims, in addition to paying monetary claims, we may lose valuable intellectual property rights or personnel. A loss of key personnel or their work product could hamper or prevent our ability to commercialize our product candidates, which would materially adversely affect our commercial development efforts.

Numerous factors may limit any potential competitive advantage provided by our intellectual property rights.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations, and may not adequately protect our business, provide a barrier to entry against our competitors or potential competitors, or permit us to maintain our competitive advantage. Moreover, if a third party has intellectual property rights that cover the practice of our technology, we may not be able to fully exercise or extract value from our intellectual property rights. The following examples are illustrative:

- others may be able to develop and/or practice technology that is similar to our technology or aspects of our technology but that is not covered by the claims of patents, should such patents issue from our patent applications;
- we might not have been the first to make the inventions covered by a pending patent application that we own;
- we might not have been the first to file patent applications covering an invention;
- others may independently develop similar or alternative technologies without infringing our intellectual property rights;
- pending patent applications that we own or license may not lead to issued patents;
- patents, if issued, that we own or license may not provide us with any competitive advantages, or may be held invalid or unenforceable, as a result of legal challenges by our competitors;
- third parties may compete with us in jurisdictions where we do not pursue and obtain patent protection;
- we may not be able to obtain and/or maintain necessary or useful licenses on reasonable terms or at all;
- third parties may assert an ownership interest in our intellectual property and, if successful, such disputes may preclude us from exercising exclusive rights over that intellectual property;
- we may not develop or in-license additional proprietary technologies that are patentable; and
- the patents of others may have an adverse effect on our business.

Should any of these events occur, they could significantly harm our business and results of operations.

General Company-Related Risks

As our product candidates reach alter stage clinical development, we will need to develop and expand our company, and we may encounter difficulties in managing this development and expansion, which could disrupt our operations.

As of the date of this filing, we had 46 full-time employees and no part-time employees, and as our product candidates reach later stage clinical development, we expect to increase our number of employees and the scope of our operations. To manage our anticipated development and expansion, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Also, our management may need to divert a disproportionate amount of its attention away from its day-to-day activities and devote a substantial amount of time to managing these development activities. Due to our limited resources, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. This may result in weaknesses in our infrastructure, give rise to operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. The physical expansion of our operations may lead to significant costs and may divert financial resources from other projects, such as the development of our product candidates. If our management is unable to effectively manage our expected development and expansion, our expenses may increase more than expected, our ability to successfully develop our product candidates and generate or increase our revenue, if such product candidates are approved, could be reduced and we may not be able to implement our business strategy. Our future financial performance and our ability to commercialize our product candidates, if approved, and compete effectively will depend, in part, on our ability to effectively manage the future development and expansion of our company.

Our future success depends on our ability to retain our President and Chief Executive Officer and to attract, retain and motivate qualified personnel.

We are highly dependent on Dr. Jeffrey M. Jonas, our President and Chief Executive Officer. We have entered into an employment agreement with Dr. Jonas, but he may terminate his employment with us at any time. Although we do not have any reason to believe that we will lose the services of Dr. Jonas in the foreseeable future, the loss of his services might impede the achievement of our research, development and commercialization objectives. We also do not have any key-man life insurance on Dr. Jonas. We rely on consultants and advisors, including scientific, clinical and regulatory advisors, to assist us in formulating our development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us and may not be subject to our standard non-compete agreements. Recruiting and retaining qualified personnel will also be critical to our success. We may not be able to attract and retain these personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific personnel from universities and research institutions. Failure to succeed in clinical trials may make it more challenging to recruit and retain qualified scientific personnel.

Our employees may engage in misconduct or other improper activities, including violating applicable regulatory standards and requirements or engaging in insider trading, which could significantly harm our business.

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with the regulations of the FDA and applicable non-U.S. regulators, provide accurate information to the FDA and applicable non-U.S. regulators, comply with healthcare fraud and abuse laws and regulations in the United States and abroad, report financial information or data accurately or disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of, including trading on, information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. We have adopted a code of conduct, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may be ineffective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions.

We face potential product liability exposure, and, if claims are brought against us, we may incur substantial liability.

The use of our product candidates in clinical trials and the sale of our product candidates, if approved, exposes us to the risk of product liability claims. Product liability claims might be brought against us by patients, healthcare providers or others selling or otherwise coming into contact with our product candidates. For example, we may be sued if any product we develop allegedly causes injury or is found to be otherwise unsuitable during product testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, including as a result of interactions with alcohol or other drugs, negligence, strict liability and a breach of warranties. Claims could also be asserted under state consumer protection acts. If we become subject to product liability claims and cannot successfully defend ourselves against them, we could incur substantial liabilities. In addition, regardless of merit or eventual outcome, product liability claims may result in, among other things:

- withdrawal of patients from our clinical trials;
- substantial monetary awards to patients or other claimants;
- decreased demand for our product candidates or any future product candidates following marketing approval, if obtained;
- damage to our reputation and exposure to adverse publicity;
- increased FDA warnings on product labels;
- litigation costs;
- distraction of management's attention from our primary business;
- loss of revenue; and
- the inability to successfully commercialize our product candidates or any future product candidates, if approved.

We maintain product liability insurance coverage for our clinical trials with a $10 million annual aggregate coverage limit. Nevertheless, our insurance coverage may be insufficient to reimburse us for any expenses or losses we may suffer. Moreover, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses, including if insurance coverage becomes increasingly expensive. If and when we obtain marketing approval for our product candidates, we intend to expand our insurance coverage to include the sale of commercial products; however, we may not be able to obtain this product liability insurance on commercially reasonable terms. Large judgments have been awarded in class action lawsuits based on drugs that had unanticipated side effects. The cost of any product liability litigation or other proceedings, even if resolved in our favor, could be substantial, particularly in light of the size of our business and financial resources. A product liability claim or series of claims brought against us could cause our stock price to decline and, if we are unsuccessful in defending such a claim or claims and the resulting judgments exceed our insurance coverage, our financial condition, business and prospects could be materially adversely affected.

We will incur increased costs as a result of operating as a public company, and our management team will be required to devote substantial time to new compliance initiatives.

Now that we are a public company, and since we will no longer be an "emerging growth company" at the end of 2015, we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act of 2002 and rules subsequently implemented by the Securities and Exchange Commission and The NASDAQ Stock Market have imposed various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404, we will be required to furnish a report by our management on our internal control over financial reporting, including an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with Section 404 within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented and implement a continuous reporting and improvement process for internal control over financial reporting. Despite our efforts, there is a risk that neither we nor our independent registered public accounting firm will be able to conclude that our internal control over financial reporting is effective as required by Section 404. This could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our consolidated financial statements.

As we continue to grow, we will need to hire additional qualified accounting and financial personnel with appropriate public company experience.

As we continue to grow our organization, we will need to establish and maintain effective disclosure and financial controls and make changes in our corporate governance practices. We will need to hire additional accounting and financial personnel with appropriate public company experience and technical accounting knowledge, and it may be difficult to recruit and maintain such personnel. Even if we are able to hire appropriate personnel, our existing operating expenses and operations will be impacted by the direct costs of their employment and the indirect consequences related to the diversion of management resources from product development efforts.

Our ability to use our net operating loss carryforwards and certain tax credit carryforwards may be subject to limitation.

As of December 31, 2014, we had federal and state net operating loss carryforwards of $55.8 million and $55.4 million, respectively, which begin to expire in 2031. As of December 31, 2014, we also had federal and state research and development tax credit carryforwards of $0.7 million and $0.3 million, respectively, which begin to expire in 2031 and 2027, respectively. As of December 31, 2014, we had federal orphan drug tax credit carryforwards of $3.6 million, which begin to expire in 2034. Under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, changes in our ownership may limit the amount of our net operating loss carryforwards and tax credit carryforwards that could be utilized annually to offset our future taxable income, if any. This limitation would generally apply in the event of a cumulative change in ownership of our company of more than 50% within a three-year period. Any such limitation may significantly reduce our ability to utilize our net operating loss carryforwards and research and development tax credit carryforwards before they expire. The completion of a follow-on public offering in April 2015 and our initial public offering, or IPO, together with private placements and other transactions that have occurred since our inception, may trigger such an ownership change pursuant to Section 382. Any such limitation, whether as the result of our IPO, follow-on offering, prior private placements, sales of our common stock by our existing stockholders or additional sales of our common stock by us, could have a material adverse effect on our results of operations in future years. We have not completed a study to assess whether an ownership change for purposes of Section 382 has occurred, or whether there have been multiple ownership changes since our inception, due to the significant costs and complexities associated with such study.

Unfavorable global economic conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. A severe or prolonged economic downturn could result in a variety of risks to our business, including, weakened demand for our product candidates and our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our products if we receive marketing approval. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

We or the third parties upon whom we depend may be adversely affected by natural disasters and our business continuity and disaster recovery plans may not adequately protect us from a serious disaster.

Natural disasters could severely disrupt our operations, and have a material adverse effect on our business, results of operations, financial condition and prospects. If a natural disaster, power outage or other event occurred that prevented us from using all or a significant portion of our headquarters, that damaged critical infrastructure, such as the manufacturing facilities of our third-party contract manufacturers, or that otherwise disrupted operations, it may be difficult or, in certain cases, impossible for us to continue our business for a substantial period of time. The disaster recovery and business continuity plans we have in place may prove inadequate in the event of a serious disaster or similar event. We may incur substantial expenses as a result of the limited nature of our disaster recovery and business continuity plans, which could have a material adverse effect on our business.

Our internal computer systems, or those of our third-party CROs or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our product candidates' development programs.

Despite the implementation of security measures, our internal computer systems and those of our third-party CROs and other contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While we have not experienced any such system failure, accident, or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our programs. For example, the loss of clinical trial data for our product candidates could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss of or damage to our data or applications or other data or applications relating to our technology or product candidates, or inappropriate disclosure of confidential or proprietary information, we could incur liabilities and the further development of our product candidates could be delayed.

We may acquire businesses or products, or form strategic alliances, in the future, and we may not realize the benefits of such acquisitions.

We may acquire additional businesses or products, form strategic alliances or create joint ventures with third parties that we believe will complement or augment our existing business. If we acquire businesses with promising markets or technologies, we may not be able to realize the benefit of acquiring such businesses if we are unable to successfully integrate them with our existing operations and company culture. We may encounter numerous difficulties in developing, manufacturing and marketing any new products resulting from a strategic alliance or acquisition that delay or prevent us from realizing their expected benefits or enhancing our business. We cannot assure you that, following any such acquisition, we will achieve the expected synergies to justify the transaction.

Risks Related to Our Financial Position and Need for Capital

We are a biopharmaceutical company with a limited operating history and have not generated any revenue from product sales. We have incurred significant operating losses since our inception and anticipate that we will incur continued losses for the foreseeable future.

We are a biopharmaceutical company with a limited operating history on which to base your investment decision. Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. We were incorporated in April 2010. Our operations to date have been limited primarily to organizing and staffing our company, raising capital and conducting research and development activities for our product candidates. We have never generated any revenue from product sales. We have not obtained regulatory approvals for any of our product candidates.

We have funded our operations to date through proceeds from sales of common stock, redeemable convertible preferred stock and, to a lesser extent, the issuance of convertible notes. On July 23, 2014, we completed the sale of 5,750,000 shares of our common stock in our IPO, at a price to the public of $18.00 per share, resulting in net proceeds of $94.0 million after deducting underwriting discounts and commissions and offering expenses paid by us. On April 20, 2015, we completed the sale of 2,628,571 shares of our common stock in a public offering, at a price to the public of $52.50 per share, resulting in net proceeds of $129.1 million after deducting underwriting discounts and commissions and offering expenses paid by us. From our inception through September 30, 2015, we had received net proceeds of $313.7 million from such transactions. As of September 30, 2015, our cash and cash equivalents were $204.9 million. We have incurred significant net losses in each year since our inception, including net losses of $65.9 million for the nine months ended September 30, 2015 and $36.1 million for the year ended December 31, 2014. Substantially all of our operating losses have resulted from costs incurred in connection with our research and development programs and from general and administrative costs associated with our operations. We expect to incur increasing levels of operating losses over the next several years and for the

foreseeable future. Our prior losses, combined with expected future losses, have had and will continue to have an adverse effect on our stockholders' deficit and working capital. We expect our research and development expenses to significantly increase in connection with our clinical trials of our product candidates. In addition, if we obtain marketing approval for our product candidates, we will incur significant sales, marketing and outsourced-manufacturing expenses. As a public company, we incur additional costs associated with operating as a public company. As a result, we expect to continue to incur significant and increasing operating losses for the foreseeable future. Because of the numerous risks and uncertainties associated with developing pharmaceutical products, we are unable to predict the extent of any future losses or when we will become profitable, if at all. Even if we do become profitable, we may not be able to sustain or increase our profitability on a quarterly or annual basis.

Our ability to become profitable depends upon our ability to generate revenue. To date, we have not generated any revenue from our lead product candidates, SAGE-547, SAGE-217 and SAGE-689, and we do not know when, or if, we will generate any revenue. We do not expect to generate significant revenue unless and until we obtain marketing approval of, and begin to sell SAGE-547, SAGE-217 or SAGE-689. Our ability to generate revenue depends on a number of factors, including, but not limited to, our ability to:

- initiate and successfully complete clinical trials that meet their clinical endpoints;
- initiate and successfully complete all efficacy and safety studies and non-clinical studies required to file for, and obtain, U.S. and foreign marketing approval for our product candidates;
- commercialize our product candidates, if approved, by developing a sales force or entering into collaborations with third parties; and
- achieve market acceptance of our product candidates in the medical community and with third-party payors.

Absent our entering into a collaboration or partnership agreement, we expect to incur significant sales and marketing costs as we prepare to commercialize our product candidates. Even if we initiate and successfully complete pivotal clinical trials of our product candidates, and our product candidates are approved for commercial sale, and despite expending these costs, our product candidates may not be a commercially successful drug. We may not achieve profitability soon after generating product sales, if ever. If we are unable to generate product revenue, we will not become profitable and may be unable to continue operations without continued funding.

We will need to raise additional funding, which may not be available on acceptable terms, or at all. Failure to obtain this necessary capital when needed may force us to delay, limit or terminate our product development efforts or other operations.

We are currently advancing our product candidates through non-clinical and clinical development. Developing small molecule products is expensive, and we expect our research and development expenses to increase substantially in connection with our ongoing activities, particularly as we continue to advance our product candidate in clinical trials. Depending on the status of regulatory approval or, if approved, commercialization of our product candidates, as well as the progress we make in selling our product candidates, we may also require additional capital to fund operating needs even after approval. We may also need to raise additional funds sooner if we choose to pursue additional indications and/or geographies for our product candidates or otherwise expand our activities more rapidly than we presently anticipate.

As of September 30, 2015, our cash and cash equivalents were $204.9 million. Based on our current operating plan, we expect that our existing cash and cash equivalents will be sufficient to fund our current operations through mid-2017. Our current operating plan does not contemplate that all of the planned activities will proceed at the same pace, or that all of the activities will be fully initiated or completed during that time. We may use available capital resources sooner than we expect under our current operating plan. In addition, our operating plan may change as a result of many factors currently unknown to us. We may need to seek additional funds sooner than planned, through public or private equity or debt financings, government or other third-party funding, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements or a combination of these approaches. In any event, we will require additional capital to obtain regulatory approval for, and to commercialize, our product candidates. Raising funds in the current economic environment may present additional challenges. Even if we believe we have sufficient funds for our current or future operating plans, we may seek additional capital if market conditions are favorable or if we have specific strategic considerations.

Any additional fundraising efforts may divert our management from their day-to-day activities, which may adversely affect our ability to develop and commercialize our product candidates. In addition, we cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, if at all. Moreover, the terms of any financing may adversely affect the holdings or the rights of our stockholders and the issuance of additional securities, whether equity or debt, by us, or the possibility of such issuance, may cause the market price of our shares to decline. The sale of additional equity or convertible securities would dilute all of our stockholders. The incurrence of indebtedness would result in increased fixed payment obligations and we may be required to agree to certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. We could also be required to seek funds through arrangements with collaborative partners or otherwise at an earlier stage than otherwise would be desirable and we may be required to relinquish rights to some of our technologies or product candidate or otherwise agree to terms unfavorable to us, any of which may have a material adverse effect on our business, operating results and prospects.

If we are unable to obtain funding on a timely basis, we may be required to significantly curtail, delay or discontinue one or more of our research or development programs or the commercialization of any product candidate or be unable to expand our operations or otherwise capitalize on our business opportunities, as desired, which could materially affect our business, financial condition and results of operations.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights.

We may seek additional capital through a combination of private and public equity offerings, debt financings, collaborations and strategic and licensing arrangements. To the extent that we raise additional capital through the sale of common stock or securities convertible or exchangeable into common stock, the ownership interest of our stockholders in our company will be diluted. In addition, the terms of any such securities may include liquidation or other preferences that materially adversely affect the rights of our stockholders. Debt financing, if available, would increase our fixed payment obligations and may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through collaboration, strategic partnerships and licensing arrangements with third parties, we may have to relinquish valuable rights to our product candidates, our intellectual property, future revenue streams or grant licenses on terms that are not favorable to us.

Risks Related to Our Common Stock

Market volatility may affect our stock price and the value of an investment in our stock.

The market price for our common stock, similar to other biopharmaceutical companies, is likely to be volatile. The market price of our common stock may fluctuate significantly in response to a number of factors, most of which we cannot control, including, among others:

- plans for, progress of, or results from non-clinical studies and clinical trials of our product candidates;
- any delay in filing for regulatory approval of our product candidates;
- the failure of the FDA or any other regulatory authority to approve our product candidates, or any unexpected limitation on the approved indication or onerous condition of approval;
- announcements of new products, technologies, commercial relationships, acquisitions or other events by us or our competitors;
- the success or failure of our CNS therapies;
- regulatory or legal developments in the United States and other countries;
- failure of our product candidates, if approved, to achieve commercial success;
- fluctuations in stock market prices and trading volumes of similar companies;
- general market conditions and overall fluctuations in U.S. equity markets;
- variations in our quarterly operating results;
- changes in our financial guidance or securities analysts’ estimates of our financial performance;
- changes in accounting principles;

- our ability to raise additional capital and the terms on which we can raise it;
- sales of large blocks of our common stock, including sales by our executive officers, directors and significant stockholders;
- additions or departures of key personnel;
- discussion of us or our stock price by the press and by online investor communities; and
- other risks and uncertainties described in these risk factors.

We have a significant stockholder, which will limit a stockholder's ability to influence corporate matters and may give rise to conflicts of interest.

A fund affiliated with Third Rock Ventures, or TRV, is our largest stockholder. As of September 30, 2015, TRV beneficially owned approximately 22.4% of our common stock. Accordingly, TRV exerts and will continue to exert significant influence over us and any action requiring the approval of the holders of our common stock, including the election of directors and amendments to our organizational documents, such as increases in our authorized shares of common stock and approval of significant corporate transactions. Furthermore, the interests of TRV may not always coincide with the interests of other stockholders and TRV may act in a manner that advances its best interests and not necessarily those of other stockholders, including seeking a premium value for its common stock, which might affect the prevailing market price for our common stock.

Our executive officers, directors, principal stockholders and their affiliates will continue to exercise significant control over our company, which will limit the ability of our stockholders to influence corporate matters and could delay or prevent a change in corporate control.

As of September 30, 2015, existing holdings of our executive officers, directors, principal stockholders and their affiliates, including investment funds affiliated with ARCH Venture Fund VII, L.P., or ARCH, TRV, and entities affiliated with Fidelity Investment, or Fidelity, represent beneficial ownership, in the aggregate, of approximately 42.8% of our outstanding common stock. As a result, these stockholders, if they act together, will be able to influence our management and affairs and control the outcome of matters submitted to our stockholders for approval, including the election of directors and any sale, merger, consolidation, or sale of all or substantially all of our assets. These stockholders acquired their shares of common stock for substantially less than the price of the shares of common stock acquired in the our IPO or any follow-on offering, and these stockholders may have interests, with respect to their common stock, that are different from those of investors in our IPO or any follow-on offering and the concentration of voting power among these stockholders may have an adverse effect on the price of our common stock. In addition, this concentration of ownership might adversely affect the market price of our common stock by:

- delaying, deferring or preventing a change of control of us;
- impeding a merger, consolidation, takeover or other business combination involving us; or
- discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of us.

Future sales of our common stock may cause our stock price to decline.

Sales of a substantial number of shares of our common stock in the public market or the perception that these sales might occur could significantly reduce the market price of our common stock, and impair our ability to raise adequate capital through the sale of additional equity securities.

We have broad discretion in how we use the proceeds from our IPO and follow-on public offering and may not use these proceeds effectively, which could affect our results of operations and cause our stock price to decline.

We have considerable discretion in the application of the net proceeds from our follow-on public offering and our IPO. We may use the net proceeds for purposes that do not yield a significant return or any return at all for our stockholders. In addition, pending their use, we may invest the net proceeds from the follow-on offering or from the IPO in a manner that does not produce income or that loses value.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, even one that may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may delay or prevent an acquisition of us or a change in our management. These provisions include a classified board of directors, a prohibition on actions by written consent of our stockholders and the ability of our board of directors to issue preferred stock without stockholder approval. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which limits the ability of stockholders owning in excess of 15% of our outstanding voting stock to merge or combine with us. Although we believe these provisions collectively provide for an opportunity to obtain greater value for stockholders by requiring potential acquirers to negotiate with our board of directors, they would apply even if an offer rejected by our board were considered beneficial by some stockholders. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management.

We do not intend to pay dividends on our common stock and, consequently, the ability of our stockholders to achieve a return on their investment will depend on appreciation in the price of our common stock.

We have never declared or paid any cash dividend on our common stock, and do not currently intend to do so in the foreseeable future. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends in the foreseeable future. Therefore, the success of an investment in shares of our common stock will depend upon any future appreciation in their value. There is no guarantee that shares of our common stock will appreciate in value or even maintain the price at which you purchased them.

If equity research analysts stop publishing research or reports about our business or if they issue unfavorable commentary or downgrade our common stock, the price of our common stock could decline.

The trading market for our common stock relies in part on the research and reports that equity research analysts publish about us and our business. We do not control these analysts. The price of our common stock could decline if one or more equity research analysts downgrade our common stock or if analysts issue other unfavorable commentary or cease publishing reports about us or our business.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Unregistered Sales of Equity Securities

None.

Use of Proceeds from Initial Public Offering of Common Stock

On July 23, 2014, we closed the sale of 5,750,000 shares of common stock to the public (inclusive of 750,000 shares of common stock sold by us pursuant to the full exercise of an overallotment option granted to the underwriters) at a price of $18.00 per share, before underwriting discounts. The offer and sale of the shares in our initial public offering was registered under the Securities Act pursuant to registration statements on Form S-1 (File No. 333-196849), which was filed with the SEC on June 17, 2014 and amended subsequently and declared effective by the SEC on July 17, 2014. Following the sale of the shares in connection with the closing of our initial public offering, the offering terminated. The offering did not terminate before all the securities registered in the registration statements were sold. JPMorgan Securities Co. and Goldman Sachs & Co. acted as joint book-running managers of the offering, and Canaccord Genuity Inc. and Leerink Partners acted as co-managers of the offering.

We raised approximately $94.0 million in net proceeds after deducting underwriting discounts and commissions and offering expenses paid by us. None of these expenses consisted of direct or indirect payments made by us to directors, officers or persons owning 10% or more of our common stock or to their associates, or to our affiliates. There has been no material change in the planned use of proceeds from our initial public offering as described in our final prospectus filed with the SEC on July 18, 2014 pursuant to Rule 424(b)(4). We invested the funds received in cash equivalents and other short-term investments in accordance with our investment policy.

Item 6. Exhibits

The exhibits filed as part of this Quarterly Report on Form 10-Q are set forth on the Exhibit Index, which is incorporated herein by reference.

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.

SAGE THERAPEUTICS, INC.

November 6, 2015

By: /s/ Jeffrey M. Jonas
Jeffrey M. Jonas, M.D.
Chief Executive Officer, President and Director
(Principal Executive Officer)

November 6, 2015

By: /s/ Kimi Iguchi
Kimi Iguchi
Chief Financial Officer
(Principal Financial and Accounting Officer)

EXHIBIT INDEX

Exhibit No.	Description	Incorporated by Reference to: Form or Schedule	Exhibit No.	Filing Date with SEC	SEC File Number
10.1*#	Amended and Restated Commercial License Agreement, by and between the Registrant and CyDex Pharmaceuticals, Inc., dated September 25, 2015				
10.2*#	Amendment No. 3 to Supply Agreement, by and between the Registrant and CyDex Pharmaceuticals, Inc., dated September 25, 2015				
10.3*	Third Amendment to Lease, by and between the Registrant and ARE-MA Region No. 38, LLC, dated as of September 9, 2015				
10.4*	Fourth Amendment to Lease, by and between the Registrant and ARE-MA Region No. 38, LLC, dated as of October 27, 2015				
31.1*	Certification of Principal Executive Officer pursuant to Exchange Act rules 13a-14 or 15d-14.				
31.2*	Certification of Principal Financial Officer pursuant to Exchange Act rules 13a-14 or 15d-14.				
32.1+	Certification of Principal Executive Officer and Principal Financial Officer pursuant to Exchange Act rules 13a-14(b) or 15d-14(b) and 18 U.S.C. Section 1350.				
101.INS*	XBRL Instance Document.				
101.SCH*	XBRL Taxonomy Extension Schema Document.				
101.CAL*	XBRL Taxonomy Extension Calculation Document.				
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document.				
101.LAB*	XBRL Taxonomy Extension Labels Linkbase Document.				
101.PRE*	XBRL Taxonomy Extension Presentation Link Document.				

* Filed herewith.

\+ The certification furnished in Exhibit 32.1 hereto is deemed to be furnished with this Quarterly Report on Form 10-Q and will not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, except to the extent that the Registrant specifically incorporates it by reference.

\# Application has been made to the Securities and Exchange Commission for confidential treatment of certain provisions. Omitted material for which confidential treatment has been requested has been filed separately with the Securities and Exchange Commission.

Exhibit 10.1

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 24B-2 PROMULGATED UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

AMENDED AND RESTATED COMMERCIAL LICENSE AGREEMENT

THIS AMENDED AND RESTATED COMMERCIAL LICENSE AGREEMENT (this "**Agreement**") is entered into on this 25th day of September, 2015 (the "**2015 Date**"), with retroactive effect to April 30, 2014 (the "**2014 Effective Date**") between:

CYDEX PHARMACEUTICALS, INC., a Delaware corporation with offices at 11119 North Torrey Pines Road, Suite 200, La Jolla, California 92037 ("**CyDex**"); and

SAGE THERAPEUTICS, INC., a Delaware corporation with offices at 215 First Street, Cambridge, Massachusetts 02142 ("**Sage**").

RECITALS

WHEREAS, CyDex is engaged in the business of developing and commercializing novel drug delivery technologies designed to enhance the solubility and effectiveness of existing and development-stage drugs;

WHEREAS, CyDex is the exclusive supplier of Captisol®, a patented drug formulation system designed to enhance the solubility and stability of drugs;

WHEREAS, Sage has developed or obtained certain rights related to the Compounds (defined below);

WHEREAS, Sage desires to obtain a license to use Captisol (as defined below) together with each of the Compounds for the development and commercialization of the Licensed Products (defined below) and CyDex is willing to grant such license to Sage under the terms and conditions set forth herein;

WHEREAS, CyDex and Sage entered into a Commercial License Agreement with an effective date of December 13, 2012 (the "**Original Agreement**" and such effective date, the "**2012 Effective Date**");

WHEREAS, CyDex and Sage entered into a Commercial License Agreement with an effective date of August 21, 2013 (the "**2013 Effective Date**"), as amended April 30, 2014 (as so amended, the "**2013-2014 Agreement**"), which superseded the Original Agreement;

WHEREAS, CyDex and Sage now wish to enter into this Amended and Restated Commercial License Agreement to further amend and to restate the 2013-2014 Agreement in its entirety; and

WHEREAS, on or about December 13, 2012, CyDex and Sage entered into a Supply Agreement, as amended August 21, 2013 and April 30, 2014, and as further amended on the 2015 Date with retroactive effect to the 2014 Effective Date, specifying the terms under which CyDex would sell Captisol to Sage or its Contract Manufacturers (defined below), and Sage would obtain supplies of Captisol from CyDex, for use in development of and in the Licensed Products (as so amended, the "**Supply Agreement**").

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 24B-2 PROMULGATED UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

NOW, **THEREFORE**, in consideration of the following mutual promises and other good and valuable consideration, the receipt and sufficiency of which are acknowledged, the parties, intending to be legally bound, agree that the 2013-2014 Agreement is hereby amended and restated to read in full as follows (it being understood that the 2013-2014 Agreement, as so amended and restated and set forth as follows, self-references as "**this Agreement**"):

1. **DEFINITIONS**.

For the purposes of this Agreement, the following terms whether used in singular or plural form shall have the meanings as defined below:

"**Affiliate**" means, with respect to any party, any entity controlling, controlled by, or under common control with such party, during and for such time as such control exists. For these purposes, "control" shall refer to the ownership, directly or indirectly, of at least 50% of the voting securities or other ownership interest of the relevant entity.

"**Allo Licensed Product**" means (a) a Licensed Product the active pharmaceutical ingredient Compound of which is Allopregnanolone or any acid, base, salt, hydrate, solvate, polymorph or co-crystal of Allopregnanolone, excluding any metabolite, ester, isomer, enantiomer, pro-drug form, degradant, stereoisomer, isotope or racemate of Allopregnanolone; or (b) a Licensed Product that is a placebo intended for use in research or development (including clinical trials) of a Licensed Product described in item (a) of this definition.

"**Allopregnanolone**" means 3a-hydroxy-5a-pregnan-20-one (or 3a,5a-tetrahydroprogesterone), the compound with the chemical structure set forth in *Exhibit F* hereto.

"**Bankruptcy Code**" means title 11 of the United States Code.

"**Captisol**" means sulfobutylether b(beta) cyclodextrin, sodium salt, including the ultra high-purity form thereof which CyDex supplies under the Captisol® brand (such branded, ultra high-purity form, "**Branded Captisol®**"). Captisol also includes any modified or improved form of sulfobutylether b(beta) cyclodextrin, sodium salt, including without limitation, any improved or modified form of sulfobutylether b(beta) cyclodextrin, sodium salt that is marketed with the use of the Captisol® trademark or a variation thereof. For clarity, Captisol is not considered an active ingredient for purposes of this Agreement.

"**Captisol Data Package**" means (a) all toxicology/safety and other relevant scientific data owned, licensed or developed by CyDex and its Affiliates relating to Captisol: and (b) all toxicology/safety and other relevant scientific data owned, licensed or developed by the licensees or sublicensees of CyDex or its Affiliates or other third parties (to the extent permitted in the applicable license or other agreements between CyDex and/or its Affiliates and such licensees, sublicensees or other third parties), in each case relating to Captisol alone (and not in conjunction with a product formulation).

"**Captisol Improvement**" means any modification or improvement of Captisol alone, whether or not patentable, that is developed during the Term (or during the term of the Original Agreement) by Sage or its Affiliates, solely or jointly with a third party. For clarity, Captisol Improvements shall not include technology or improvements which are related to the Compound and/or other non-Captisol components of the Licensed Product.

"**Captisol Patents**" means all patents and patent applications in the Territory which pertain to Captisol, other than the Licensed Product Patents, and which at any time during the Term of this Agreement are owned by or licensed to CyDex or any CyDex Affiliate with the right to sublicense, including any and all extensions, renewals, continuations, substitutions, continuations-in-part, divisions, patents-of-addition, reissues, reexaminations and/or supplementary protection certificates to any such patents or patent applications. For avoidance of doubt, all intellectual property pertaining to the Licensed Product generated by Sage or its Affiliates or their Sublicensees during the Term of this Agreement shall be solely owned by Sage (or its Affiliate or Sublicensee, as applicable) and shall not be part of the Captisol Patents. The Captisol Patents include the patents and patent applications set forth on *Exhibit A* attached hereto. Such *Exhibit A* shall be updated by CyDex from time to time during the Term promptly after any addition or termination of any of the Captisol Patents.

"**Claim**" has the meaning specified in **Section 10.1**.

"**Clinical Grade Captisol**" means Captisol which (a) has been manufactured under conditions of current good manufacturing practices for bulk excipients as set forth in U.S. Pharmacopoeia <1078> as of the 2012 Effective Date or any amendment or successor thereto, (b) is intended for use in humans, and (c) is intended for clinical trials for any Licensed Product.

"**Commercial Grade Captisol**" means Captisol which (a) has been manufactured under conditions of current good manufacturing practices for bulk excipients as set forth in U.S. Pharmacopoeia <1078> as of the 2012 Effective Date or any amendment or successor thereto, (b) is intended for use in humans, and (c) is intended for commercial sale of any Licensed Product.

"**Commercial Launch Date**" means, with respect to a Licensed Product, the first commercial sale by Sage, its Affiliates or Sublicensees of such Licensed Product to a Third Party. For avoidance of doubt, any transfer of a Licensed Product to a Third Party for preclinical, clinical or regulatory purposes shall not be deemed as commercial launch.

"**Commercially Reasonable Efforts**" means those efforts consistent with the exercise of prudent scientific and business judgment as applied by a party to the development and commercialization of its own pharmaceutical products at a similar stage of development and with similar market potential.

"**Compound**" means each of the following: (a) Allopregnanolone; and (b) SAGE-689. All references to a Compound include any acids, bases, salts, hydrates, solvates, polymorphs and co-crystals thereof, but exclude any metabolite, ester, isomer, enantiomer, pro-drug form, degradant, stereoisomer, isotope or racemate of a Compound.

"**Confidential Information**" has the meaning specified in **Section 8.1**.

"**Contract Manufacturer**" has the meaning specified in **Section 2.4**.

"**Cover**" (including variations thereof such as "Covered," "Coverage," or "Covering") means, with respect to a Licensed Product, that the manufacture, use, importation or sale of the applicable Licensed Product would infringe a Valid Claim of a specified patent in the absence of a grant of rights under such patent. The determination of whether an item or process is Covered by a Valid Claim shall be made on a country-by-country basis.

"**Disclosing Party**" has the meaning specified in **Section 8.1** hereof.

"**Diligence Milestone**" means, with respect to any table for a Licensed Product in *Exhibit D*, each milestone event described in the "Milestone" column of any row of such table.

"**DMF**" means a Drug Master File (or foreign equivalent thereof as requested by Sage) for Captisol, as filed as of the 2012 Effective Date, or as updated from time to time during the Term, by CyDex with the FDA.

"**Epilepticus Subfield**" means the subfield of therapeutic use against status epilepticus in humans, but excluding the Excluded Fields.

"**Excluded Fields**" means: (i) ocular treatment of any disease or condition with a formulation including a hormone; (ii) topical ocular treatment of inflammatory conditions; (iii) treatment and prophylaxis of fungal infections in humans; and (iv) any ocular treatment for retinal degeneration.

"**Expansion**" means, with respect to a particular Subfield for which a clinical study of an Allo Licensed Product was initiated, an NDA for an Allo Licensed Product was filed or Marketing Approval for an Allo Licensed Product was obtained, an additional clinical study of, filing of NDA for or receipt of Marketing Approval for, an Allo Licensed Product in such Subfield for a different subpatient population, line of therapy or new use as a monotherapy or in combination with another treatment or drug, other than the population, line of therapy or use for which such prior clinical study(ies) was (were) initiated, NDA was filed or Marketing Approval was received.

"**FDA**" means the United States Food and Drug Administration, or any successor thereto.

"**Field**" means the treatment, diagnosis or prevention of any disease or symptom in humans or animals, but excluding the Excluded Fields. For clarity, with respect to the Allo Licensed Products, the Field includes the Epilepticus Subfield, the TBI Subfield and each other Subfield.

"**IND**" means, with respect to a Licensed Product, an investigational new drug application filed with the FDA or the corresponding application for the investigation of such Licensed Product in any other country or group of countries, as defined in the applicable laws and regulations and filed with the relevant regulatory authority of such country or group of countries.

"**Indemnified Party**" has the meaning specified in **Section 10.4**.

"**Indemnifying Party**" has the meaning specified in **Section 10.4**.

"**Investigator Sponsored Study**" means, with respect to a Licensed Product, the conduct of a human study (excluding any Phase III Study or Pivotal Study) of such Licensed Product for which (a) the sponsor is (i) a natural person who is a physician, nurse, dentist, or other health professional) or (ii) a not-for-profit organization, including without limitation a governmental body (for example, the National Institutes of Health) or institution (for example, a hospital or university trust); and (b) Sage and its Affiliates do not directly or indirectly provide more than 50% of the funding for the study.

"**License Agreement**" means the License Agreement dated October 13, 2011 between CyDex and Sage.

"**Licensed Patents**" means, collectively, the Captisol Patents and the Licensed Product Patents.

"**Licensed Product**" means (a) a pharmaceutical composition in and for the Field comprising a Compound combined with or formulated using Captisol that is Covered by the Licensed Patents or that is developed with the assistance of or incorporates any component of the Captisol Data Package or (b) a pharmaceutical composition in and for the Field that is (x) a placebo combined with or formulated using Captisol, (y) Covered by the Licensed Patents or developed with the assistance of or incorporates any component of the Captisol Data Package and (z) intended for use in research or development (including clinical trials) of a Compound-based Licensed Product. For clarity, (a) the Licensed Products shall not include any product the composition of which includes a Compound and any other active pharmaceutical ingredient, and (b) each of the following are Licensed Products: the Allo Licensed Products and the SAGE-689 Licensed Products.

"**Licensed Product Patents**" means all patents and patent applications in the Territory (other than the Captisol Patents) which Cover the use of Captisol with any Compound and which at any time during the Term are owned by or licensed to CyDex or any CyDex Affiliate with the right to sublicense, including any and all extensions, renewals, continuations, substitutions, continuations-in-part, divisions, patents-of-addition, reissues, reexaminations and/or supplementary protection certificates to any such patents or patent applications. Licensed Product Patents further include all other patents and patent applications, other than the Captisol Patents which do not Cover the use of Captisol with any Compound, which are owned or licensed by CyDex or any CyDex Affiliate on the 2012 Effective Date or at any time during the Term of this Agreement and which are necessary to develop, manufacture, or commercialize any Licensed Product or which are necessary for Sage to exercise its license under this Agreement. Set forth in *Exhibit B* attached hereto is a list of the Licensed Products Patents as of the 2014 Effective Date. Such *Exhibit B* shall be updated by CyDex from time to time during the Term promptly after any addition or termination of any of the Licensed Product Patents.

"**Licensed Products Related Uses**" has the meaning set forth in **Section 3**.

"**Losses**" has the meaning set forth in **Section 10.1**.

"**Marketing Approval**" means final approval of an NDA by the FDA for the United States, or final approval of a comparable document filed with an equivalent health regulatory authority in any other country or in the European Union (using the centralized process or mutual recognition).

"**NDA**" means a New Drug Application, as defined in the United States Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder, or similar application filed with an equivalent regulatory body in another country.

"**Net Sales**" means, with respect to a particular time period and a particular Licensed Product, the total gross amounts invoiced by Sage and its Affiliates and their Sublicensees for sales of such Licensed Product made during such time period to unaffiliated Third Parties, less the following deductions to the extent actually allowed or incurred with respect to such sales:

(a) reasonable and customary discounts (other than discounts which have already diminished the gross amount invoiced), including cash, trade and quantity discounts, fees for service, patient assistance discounts, administrative fees, and rebates granted to trade customers, government, and distributors, *provided* that such discounts shall be subject to audit pursuant to **Section 5.3** below;

(b) credits or allowances granted for damaged, outdated, spoiled, returned or rejected products, including, without limitation, in connection with recalls;

(c) freight, postage, insurance and transportation charges (if separately identified on the invoice); and

(d) sales, use, value-added or excise taxes, tariffs, customs fees, duties or other governmental charges (other than income taxes) levied on, absorbed or otherwise imposed on sales of such Licensed Product (if separately identified on the invoice), as adjusted by any refunds.

Notwithstanding the foregoing, amounts invoiced by Sage and its Affiliates and Sublicensees for the sale of the Licensed Product among Sage or its Affiliates and Sublicensees for resale shall not be included in the computation of Net Sales. For purposes of determining Net Sales, a "sale" shall not include reasonable transfers or dispositions as samples for promotional purposes, or transfers or dispositions at no cost for preclinical, clinical or regulatory purposes.

"**Non-breaching Party**" has the meaning specified in **Section 13.2**.

"**Notified Party**" has the meaning specified in **Section 13.2**.

"**Pfizer**" means Pfizer Inc.

"**Phase I Study**" means the conduct of a human study, as described in 21 C.F.R. § 312.21(a) and its foreign equivalents, of the applicable Licensed Product, excluding any Probe Study and excluding any Investigator Sponsored Study.

"**Phase II Study**" means the conduct of a human study, as described in 21 C.F.R. § 312.21(b) and its foreign equivalents, of the applicable Licensed Product, excluding any Probe Study and excluding any Investigator Sponsored Study.

"**Phase III Study**" means the conduct of a human study, as described in 21 C.F.R. § 312.21(c) and its foreign equivalents, of the applicable Licensed Product.

"**Pivotal Study**" means a controlled pivotal clinical study of the applicable Licensed Product that is prospectively designed to demonstrate statistically whether such Licensed Product is effective and safe for use in a particular indication in a manner sufficient to obtain Marketing Approval to market such product in the United States, China, Japan or Germany (via the European Union (including the European Medicines Authority) or otherwise).

"**Probe Study**" means, […***…].

"**Receiving Party**" has the meaning specified in **Section 8.1**.

"**Regulatory Approval**" means, with respect to a particular Licensed Product in any country or jurisdiction, all approvals (including, where required, pricing and reimbursement approvals and the applicable Marketing Approval), registrations, licenses or authorizations from the relevant regulatory authority in a country or jurisdiction that is specific to such Licensed Product and necessary to market and sell such Licensed Product in such country or jurisdiction.

"**SAGE-689**" means the proprietary Sage compound which, as of the 2014 Effective Date, is designated by Sage as SAGE-689, the chemical identity of which Sage has separately confidentially disclosed to CyDex.

"**SAGE-689 Licensed Product**" means (a) a Licensed Product the active pharmaceutical ingredient Compound of which is SAGE-689 or any acid, base, salt, hydrate, solvate, polymorph or co-crystal of SAGE-689, excluding any metabolite, ester, isomer, enantiomer, pro-drug form, degradant, stereoisomer, isotope or racemate of SAGE-689; or (b) a Licensed Product that is a placebo intended for use in research or development (including clinical trials) of a Licensed Product described in item (a) of this definition.

"**Sage Know-How**" means information or data owned, licensed or generated by Sage and its Affiliates, before or during the Term of this Agreement. For clarity, Sage Know-How shall not include information within the Captisol Data Package; nor does Sage Know-How include any other information or data to which CyDex has obtained rights before the 2012 Effective Date, to the extent of such rights.

"**Sage Patents**" means all patents and patent applications owned now, licensed or developed during the Term of this Agreement by Sage and its Affiliates, including any and all extensions, renewals, continuations, substitutions, continuations-in-part, divisions, patents-of-addition, reissues, reexaminations and/or supplementary protection certificates to any such patents or patent applications. For clarity, Sage Patents shall not include Licensed Patents under this Agreement.

"**Specifications**" means the specifications for Branded Captisol set forth in *Exhibit C* hereto, as such may be amended from time to time.

"**Study**" has the meaning specified in **Section 6.3**.

"**Subfield**" means each subset of the Field consisting of a treatment/diagnosis/prevention/ of a particular disease or symptom in humans or animals (but excluding the Excluded Fields), on a Subfield-by-Subfield basis; for clarity, an Expansion to a particular Subfield is not a separate Subfield.

"**Sublicensees**" has the meaning specified in **Section 2.3**. For the sake of clarity, any reference to "Sublicensee" shall mean the relevant Affiliate of Sage, or Third Party, to the extent of the sublicense that Sage granted or authorized to such Affiliate or Third Party.

"**TBI Subfield**" means the treatment of traumatic brain injury in humans, but excluding the Excluded Fields.

"**Term**" has the meaning specified in **Section 13.1**.

"**Territory**" means the entire world.

"**Third Party**" means any person or entity or authority other than CyDex or Sage or an Affiliate of either of them.

"**Valid Claim**" means a claim in any unexpired, issued patent which has not been irrevocably abandoned or held to be invalid or unenforceable by a non-appealed or unappealable decision of a court or other authority of competent jurisdiction, which is not admitted to be invalid through disclaimer or dedication to the public, and which Covers the applicable Licensed Product.

2. GRANT OF RIGHTS.

2.1 License Grants from CyDex to Sage.

(a) Field Licenses.

(i) Licensed Patents. Subject to the terms and conditions of this Agreement, CyDex hereby grants to Sage an exclusive, nontransferable (except as provided in **Section 14.14**) license during the Term under the Licensed Patents, solely to research, develop, make, have made, import use, offer for sale and sell each of the Licensed Products in the Territory in and for the Field. Notwithstanding the foregoing, to the extent that any Licensed Patents are licensed to CyDex or its Affiliates by a Third Party on a non-exclusive basis, the license granted to Sage in the foregoing sentence shall be exclusive as to CyDex but nonexclusive as to such Third Party and other persons whose rights derive from such Third Party. Sage may not sublicense the Licensed Patents, except as expressly set forth in **Section 2.3** and **Section 2.4** below.

(ii) Know-How License. Subject to the terms and conditions of this Agreement, CyDex hereby grants to Sage an exclusive, nontransferable (except with respect to the assignment provision in Section 14.14) license during the Term under CyDex's rights in and to the Captisol Data Package, solely to research, develop, make, have made, import, use, offer for sale and sell each of the Licensed Products in the Territory in and for the Field. Notwithstanding the foregoing, to the extent that any contents of the Captisol Data Package are

licensed to CyDex or its Affiliates by a Third Party on a non-exclusive basis, the license granted to Sage in the foregoing sentence shall be exclusive as to CyDex but non-exclusive as to such Third Party and other persons whose rights derive from such Third Party. Sage may not sublicense its rights to the Captisol Data Package, except as expressly set forth in **Section 2.3** and **Section 2.4** below.

(b) [Intentionally Omitted].

(c) Scope of Licenses. CyDex grants no licenses or rights to use other than as expressly set forth herein. Unless otherwise provided in this Agreement, CyDex grants no rights to Sage to manufacture, import, sell or offer for sale bulk Captisol. Sage acknowledges that not all rights of CyDex related to the manufacture of Captisol are included within the rights licensed hereunder given that CyDex shall supply Sage's requirements of Captisol for the Licensed Products. Sage shall not attempt to reverse engineer, deconstruct or in any way determine the structure or composition of Captisol except as and to the extent reasonably required to determine an optimal formulation of any Licensed Product, and such structure and composition (as and if so determined) shall be considered Confidential Information of CyDex. Sage acknowledges and agrees that (i) CyDex shall not be required to obtain or maintain patent rights for the Licensed Patents, (ii) except as expressly provided herein, CyDex shall not be restricted in making sales of Captisol or licensing rights to other parties, and (iii) CyDex does not warrant or indemnify Sage or its Affiliates and Sublicensees against the Licensed Products per se (rather than the Captisol therein) infringing third party rights.

(d) Non-Suit. During the Term of this Agreement, neither CyDex nor any of its Affiliates shall sue or threaten to sue, or take any similar action against, or aid, abet or enable any third party to sue, threaten to sue or take any similar action against, Sage, or any Sublicensees, or any of their respective Affiliates, or any customers or end-users of any Licensed Products, claiming that the manufacture, use, sale, offer for sale or importation of any Licensed Product infringes any patents or patent applications owned, licensed, sublicensed or otherwise controlled, now or in the future, by CyDex or any of its Affiliates.

(e) Negative Covenant. During the Term of this Agreement, CyDex and its Affiliates shall not grant any rights to any of CyDex's Affiliates or any Third Party that conflict with the exclusive rights granted herein to Sage or that conflict with or otherwise impair Sage's ability to conduct the activities described herein. Without limiting the generality of the foregoing, in the event that CyDex or any of its Affiliates become aware that a Third Party is conducting research, development or commercial activities using any Compound with Captisol in the Field, then CyDex shall take all reasonable measures to cease the supply of Captisol to such Third Party and to any other Third Party that is determined to be supplying Captisol to such Third Party.

(f) Bankruptcy Code. All rights and licenses granted under or pursuant to this Agreement by CyDex to Sage are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the Bankruptcy Code, licenses of rights to "intellectual property" as defined under Section 101 of the Bankruptcy Code. The parties agree that Sage, as a licensee of such rights under this Agreement, shall retain and may fully exercise all of its rights and elections under the Bankruptcy Code. The parties agree that the Supply Agreement is "an agreement supplementary to" this Agreement, as that phrase is understood under Section 365(n) of the Bankruptcy Code.

2.2 Grant of License from Sage to CyDex. Sage hereby grants to CyDex a nonexclusive, transferable, perpetual, worldwide and royalty-tree license, with the right to grant sublicenses (through multiple tiers of sublicensees), under Sage's and its Affiliates' rights in and to Captisol Improvements to develop, make, have made, use, market, distribute, import, sell and offer for sale Captisol, any Captisol Improvement and products formulated with Captisol or any Captisol Improvement (in each case, other than the Compounds, the Licensed Products and any other compound that is a "Compound" under any other commercial license agreement entered into by and between Sage and CyDex and any other product that is a "Licensed Product" under any other commercial license agreement entered into by and between Sage and CyDex). If during the Term any of (a) Sage, or (b) Sublicensees pursuant to the practice of their respective sublicenses from or under Sage under **Section 2.3**, file any patent application claiming Captisol anywhere in the world, CyDex shall be deemed automatically to have a nonexclusive, transferable, perpetual, worldwide and royalty-free license, with the right to grant sublicenses (through multiple tiers of sublicensees), under the claims relating specifically to Captisol alone (and not in conjunction with a product formulation) to make, have made, use, market, distribute, import, sell, and offer for sale Captisol and all products formulated with Captisol (in each case, other than the Compounds and the Licensed Products). Sage shall provide prompt notice of any Captisol Improvement, and shall notify and consult with CyDex at least 30 days before the filing of any patent application claiming Captisol alone (and not in conjunction with a product formulation) or any Captisol Improvement. Sage grants no licenses or rights to use other than as expressly set forth herein.

All rights and licenses granted under or pursuant to this Agreement by Sage to CyDex are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the Bankruptcy Code, licenses of rights to "intellectual property" as defined under Section 101 of the Bankruptcy Code. The parties agree that CyDex, as a licensee of such rights under this Agreement, shall retain and may fully exercise all of its rights and elections under the Bankruptcy Code.

2.3 Sublicensing. Sage shall have the right to grant, and authorize the granting of, sublicenses to any Third Party or to any Affiliate of Sage (collectively "Sublicensees") under the licenses granted to Sage pursuant to **Section 2.1(a)**; *provided* that Sage warrants and shall procure, as a condition precedent thereto, that each such Sublicensee shall first be advised of the restrictions set forth in this Agreement with respect to the transfer of the rights sublicensed to such Sublicensee and such Sublicensee shall enter into an agreement (in a form reasonably satisfactory to CyDex, with CyDex named as an intended third party beneficiary) with Sage, or with a higher Sublicensee, pursuant to which such new Sublicensee shall acknowledge and agree to observe and be bound by the applicable restrictions set forth in this Agreement, and Sage shall reasonably promptly deliver to CyDex a true and complete copy of the portions of such agreement which bear on CyDex's rights (together with a certification from a Sage officer that such provided portions are the only portions of such agreement which bear on CyDex's rights). Other than as specifically provided in this **Section 2.3** and **Section 2.4**, Sage shall not have the right to grant, or authorize the granting of, sublicenses to any third party under the licenses granted pursuant to **Section 2.1**. Sage shall ensure that all Sublicensees will comply with the applicable terms and conditions of this Agreement and shall remain fully responsible for the

compliance by such Sublicensees with the applicable terms and conditions of this Agreement as if such Sublicensees were Sage hereunder. For clarity, Sage may sublicense its rights, and supply Captisol or any Licensed Product, to researchers and research institutions for research or development of any Compound-based Licensed Product, including for any investigator-initiated study of any Compound-based Licensed Product.

2.4 Contracting. Sage or its Sublicensees may manufacture any Licensed Product (but not the bulk Captisol) or contract the manufacture of any Licensed Product (but not the manufacture of bulk Captisol) with reputable FDA-inspected third party manufacturers (each a "**Contract Manufacturer**") upon notification to CyDex in writing of Sage's (or such Sublicensee's) entry into an agreement with the applicable Contract Manufacturer for such manufacture (such notice to include the identity and location of such Contract Manufacturers). To the extent necessary to engage a Contract Manufacturer for any Licensed Product, Sage shall be permitted under this Agreement to grant, and to authorize the granting to, any such Contract Manufacturer a sublicense under the licenses granted to Sage pursuant to **Section 2.1** solely for such purposes; provided that Sage warrants and shall procure, as a condition precedent thereto, that (a) any such Contract Manufacturer shall first be advised of the applicable restrictions set forth in this Agreement with respect to the transfer of the rights licensed to Sage and its Sublicensees hereunder and (b) any such Contract Manufacturer shall enter into an agreement (in a form reasonably satisfactory to CyDex, with CyDex named as an intended third party beneficiary) with Sage, or with a higher Sublicensee, pursuant to which such Contract Manufacturer shall acknowledge and agree to observe and be bound by the applicable restrictions set forth in this Agreement, and Sage shall reasonably promptly deliver to CyDex a true and complete copy of the portions of such agreement which bear on CyDex's rights (together with a certification from a Sage officer that such provided portions are the only portions of such agreement which bear on CyDex's rights). Sage shall ensure that all Contract Manufacturers will comply with the applicable terms and conditions of this Agreement and shall remain fully responsible for the compliance by such Contract Manufacturers with the applicable terms and conditions of this Agreement as if such Contract Manufacturers were Sage hereunder.

2.5 [Intentionally Omitted].

2.6 Negative Covenant by CyDex. During the Term of this Agreement, CyDex and its Affiliates shall not develop or commercialize any pharmaceutical composition comprising any of the Compounds (as the sole active pharmaceutical ingredient or in combination with other active pharmaceutical ingredients) in and for the Field, and shall not in any way assist any Third Party in developing or commercializing any pharmaceutical composition comprising any of the Compounds (as the sole active pharmaceutical ingredient or in combination with other active pharmaceutical ingredients) (including without limitation by granting any license or similar rights under intellectual property) in and for the Field.

3. MANUFACTURE AND SUPPLY OF CAPTISOL.

The provisions of the Supply Agreement and any related quality agreement shall govern the manufacture and supply of Captisol® sulfobutylether B(beta) cyclodextrin, sodium salt by CyDex for Sage for use in the preparation, formulation and production of the Licensed Products in or for the Territory (the "**Licensed Products Related Uses**"). Sage acknowledges and agrees

that CyDex is, during the term of the Supply Agreement, the exclusive manufacturer of sulfobutylether b(beta) cyclodextrin, sodium salt for Sage and its Affiliates and Sublicensees for the aforementioned Licensed Products Related Uses, Sage acknowledges and agrees that nothing set forth herein shall be deemed to grant Sage or its Affiliates or Sublicensees the right to manufacture Captisol nor the right to contract the manufacture of Captisol to a Third Party. It is understood that it shall be Sage's responsibility to obtain, at Sage's sole expense and from sources other than CyDex, all materials (including all quantities of the Compounds, but excluding sulfobutylether b(beta) cyclodextrin, sodium salt) needed by Sage for Licensed Products Related Uses - it being further understood, of course, that Sage is to obtain at Sage's sole expense and solely from CyDex (pursuant to the Supply Agreement) all sulfobutylether b(beta) cyclodextrin, sodium salt needed by Sage for Licensed Products Related Uses.

4. COMPENSATION.

4.1 Payments and Royalties for Licenses.

(a) One-Time Fees.

(i) Upon the exercise of its option under the License Agreement to enter into the Original Agreement and the Supply Agreement, Sage has paid to CyDex a nonrefundable, one-time option exercise fee. Receipt of such fee is hereby acknowledged.

(ii) CyDex acknowledges receipt of the payment of $300,000 on the Effective Date.

(iii) CyDex acknowledges receipt of the payment of $200,000 on the Effective Date.

(iv) Sage agrees to pay CyDex an additional $100,000 within 7 days after the 2015 Date.

(b) Milestone Payments.

(i) Allo Licensed Products. The provisions of this S**ection 4.1(b)(i)** shall apply only to the Allo Licensed Products.

(1) First Two Subfields. Within ten (10) days following the occurrence of any or each of the milestone events listed below with respect to an Allo Licensed Product in either or both of the first two (2) Subfields with respect to which the relevant milestone event is achieved, Sage shall provide written notice to CyDex of the achievement of such milestone event, and within 20 days after the occurrence of such milestone event, pay to CyDex the applicable non-refundable milestone fee listed next to each such event in further consideration of the rights granted Sage hereunder. The milestone payments (each payable only one time per each of the first two (2) Subfields for the Allo Licensed Products, regardless of the number of times achieved by any Allo Licensed Product for such Subfield; for the avoidance of doubt, if the same Allo Licensed Product first achieves one or more given milestones for two Subfields, then the milestone payment for that event must be paid twice; and in no event shall the maximum payment under this Section 4.1(b)(i)(l) exceed $[…***…]) are as follows. Subject to

the preceding sentence, if any such milestone is achieved by an Allo Licensed Product in the relevant Subfield before all prior sequential milestones have been actually achieved by the Allo Licensed Product in such Subfield, then any and all prior sequential milestones which were not previously actually achieved by the Allo Licensed Product shall be deemed to have thereby been achieved by the Allo Licensed Product with respect to such Subfield, and the milestone payments for such deemed-achieved milestones shall also be payable with respect to the Allo Licensed Product in such Subfield within such twenty (20) days.

	MILESTONE ACHIEVED BY ALLO LICENSED PRODUCT IN THE RELEVANT SUBFIELD	MILESTONE PAYMENT
(i)	[…***…]	$[…***…]
(ii)	[…***…]	$[…***…]
(iii)	[…***…]	$[…***…]
(iv)	[…***…]	$[…***…]

Notwithstanding the foregoing, (A) CyDex acknowledges receipt of the payment of $[…***…] upon dosing of the first patient in the first Phase II Study by Sage or under rights from Sage for an Allo Licensed Product in the Epilepticus Subfield; and (B) CyDex acknowledges receipt of the payment of $[…***…] upon dosing of the first patient in the first Phase III Study by Sage or under rights from Sage for an Allo Licensed Product in the Epilepticus Subfield.

(2) Third and Fourth Subfields. Within 10 days following the occurrence of any or each of the milestone events listed below with respect to an Allo Licensed Product in either or both of the third and fourth Subfields with respect to which the relevant milestone event is achieved (*i.e.*, if such Subfields are different Subfields than the first two Subfields with respect to which such milestone event was achieved), Sage shall provide written notice to CyDex of the achievement of such milestone event, and within 20 days after the occurrence of such milestone event, pay to CyDex the applicable non-refundable milestone fee listed next to each such event in further consideration of the rights granted Sage hereunder. The milestone payments (each payable only one time per each of the third and fourth Subfields for the Allo Licensed Products, regardless of the number of times achieved by any Allo Licensed Product for such Subfield; for the avoidance of doubt, if the same Allo Licensed Product first achieves one or more given milestones for the third and fourth Subfields with respect to which the relevant milestone event is achieved (*i.e.*, Subfields that are different Subfields than the first two Subfields with respect to which such milestone event was achieved), then the milestone payment for that event must be paid twice; and in no event shall the maximum payment under this **Section 4.1(b)(i)(2)** exceed […***…]) are as follows. Subject to the preceding sentence, if any such milestone is achieved by an Allo Licensed Product in the relevant Subfield before all prior sequential milestones have been actually achieved by the Allo Licensed Product in such Subfield, then any and all prior sequential milestones which were not previously actually achieved by the Allo Licensed Product with respect to such Subfield shall be deemed to have thereby been achieved by the Allo Licensed Product with respect to such Subfield, and the milestone payments for such deemed-achieved milestones shall also be payable with respect to the Allo Licensed Product in such Subfield within such 20 days.

	MILESTONE ACHIEVED BY ALLO LICENSED PRODUCT IN THE RELEVANT SUBFIELD	MILESTONE PAYMENT
(i)	[…***…]	$[…***…]
(ii)	[…***…]	$[…***…]
(iii)	[…***…]	$[…***…]
(iv)	[…***…]	$[…***…]

(ii) SAGE-689 Licensed Products. The provisions of this **Section 4.1(b)(ii)** shall apply only to the SAGE-689 Licensed Product. Within 10 days following the occurrence of any or each of the milestone events listed below with respect to a SAGE-689 Licensed Product, Sage shall provide written notice to CyDex of the achievement of such milestone event, and within 20 days after the occurrence of such milestone event, pay to CyDex the applicable non-refundable milestone fee listed next to each such event in further consideration of the rights granted Sage hereunder. The milestone payments (each payable only one time for the SAGE-689 Licensed Products, regardless of the number of times achieved by any SAGE-689 Licensed Product; and in no event shall the maximum payment under this **Section 4.1(b)(ii)** exceed $[…***…]) are as follows. If any such milestone is achieved by the SAGE-689 Licensed Product before all prior sequential milestones have been actually achieved by the SAGE-689 Licensed Product, then any and all prior sequential milestones which were not previously actually achieved by the SAGE-689 Licensed Product shall be deemed to have thereby been achieved by the SAGE-689 Licensed Product, and the milestone payments for such deemed-achieved milestones shall also be payable with respect to the SAGE-689 Licensed Product within such 20 days.

	MILESTONE ACHIEVED BY SAGE-689 LICENSED PRODUCT	MILESTONE PAYMENT
(i)	[…***…]	$[…***…]
(ii)	[…***…]	$[…***…]
(iii)	[…***…]	$[…***…]
(iv)	[…***…]	$[…***…]
(v)	[…***…]	$[…***…]

(c) Royalties. In addition to amounts payable pursuant to **Sections 4.1(a)** and **4.1(b)** above, Sage shall make royalty payments to CyDex on a Licensed Product-by-Licensed Product basis and calendar quarterly basis, in amounts equal to the applicable Royalty Rate(s) (as defined below for the relevant Licensed Products) times the Net Sales for the relevant Licensed Product during such quarter arising from the sale of such Licensed Product in the Territory in the Field during the Term.

LICENSED PRODUCTS	ROYALTY RATE
[…***…]	[…***…]%

LICENSED PRODUCTS	ROYALTY RATE
[…***…]	• […***…]% for the portion of the Net Sales of […***…] during the relevant calendar year which is less than or equal to $[…***…] • […***…]% for the portion of the Net Sales of […***…] during the relevant calendar year which is greater than $[…***…]

All royalties payable to CyDex pursuant to this **Section 4.1(c)** shall be due and payable within 60 days after the conclusion of each calendar quarter. For avoidance of doubt, Net Sales under any other agreements entered into between the parties shall not be accumulated with Net Sales under this Agreement for any purposes under this Agreement.

Notwithstanding the foregoing, on a Licensed Product-by-Licensed Product and country-by-country basis, as a method of implementing a royalty-rate step-down, the otherwise-applicable royalty rate pursuant to the first paragraph of this **Section 4.1(c)** shall be reduced by […***…]% if (i) all Licensed Patents Covering the manufacture, use or sale of the relevant Licensed Product in, or the importation of the relevant Licensed Product into, the relevant country of sale have expired, been irrevocably abandoned or held to be invalid or unenforceable by a non-appealed or unappealable decision of a court or other authority of competent jurisdiction, or admitted to be invalid through disclaimer or dedication to the public, at the time of sale of a particular unit of a Licensed Product, and/or (ii) for the calendar quarter in which such sale occurs any generic version of such Licensed Product is legally sold in a bona fide commercial sale within such country in the calendar quarter in question.

For avoidance of doubt, the parties confirm that only the royalty rate applicable to Net Sales of a particular unit of Licensed Product in the country of sale shall apply to such unit of Licensed Product.

In establishing the royalty structure hereunder, the parties recognize, and Sage acknowledges, the substantial value of the various obligations being undertaken by CyDex under this Agreement, in addition to the grant of the licenses under the Captisol Data Package as well as under the Licensed Patents, to enable the rapid and effective market introduction of the Licensed Products. The parties have agreed to the payment structure set forth herein as a convenient and fair mechanism to compensate CyDex for these obligations.

4.2 Currency. All amounts due hereunder are stated in, and shall be paid in, U.S. dollars. Net Sales based on foreign revenue will be converted to U.S. dollars at the rate of exchange published in The Wall Street Journal, Eastern U.S. Edition on the last day of each calendar quarter (or the last previous publication date if such day is not a publication date). Sage shall provide CyDex, together with each royalty payment owed pursuant to **Section 4.1(c)** above, a schedule detailing the calculation of Net Sales resulting from the conversion of foreign revenue to U.S. dollars as set forth herein.

4.3 Taxes. All amounts due hereunder exclude all applicable sales, use, and other taxes, and Sage will be responsible for payment of all such taxes (other than taxes based on CyDex's income), fees, duties, and charges, and any related penalties and interest, arising from the payment of amounts due under this Agreement or the sublicense or license, as the case may be, under the Licensed Patents and Captisol Data Package under this Agreement. The parties agree to cooperate with one another and use reasonable efforts to avoid or reduce tax withholding or similar obligations in respect of royalties, milestone payments, and other payments made by Sage to CyDex under this Agreement. To the extent Sage, or any of its Affiliates or Sublicensees, is required to withhold taxes on any payment to CyDex, Sage shall pay the amounts of such taxes to the proper governmental authority in a timely manner and promptly transmit to CyDex official receipts issued by the appropriate taxing authority and/or an official tax certificate, or such other evidence as CyDex may reasonably request, to establish that such taxes have been paid. CyDex shall provide Sage any tax forms that may be reasonably necessary in order for Sage to not withhold tax or to withhold tax at a reduced rate under an applicable bilateral income tax treaty. CyDex shall use reasonable efforts to provide any such tax forms to Sage at least 30 days before the due date for any payment for which CyDex desires that Sage apply a reduced withholding rate. Each party shall provide the other with reasonable assistance to enable the recovery, as permitted by applicable law, of withholding taxes, value added taxes, or similar obligations resulting from payments made under this Agreement, such recovery to be for the benefit of the party bearing such withholding tax or value added tax.

4.4 Late Payments. Payments that are not made when due hereunder shall accrue interest, from due date until paid, at an annual rate equal to the prime rate, as reported in The Wall Street Journal, Eastern U.S. Edition, on the date such payment is due (or the last previous publication date if such day is not a publication date), plus an additional 200 basis points.

5. RECORDS; REPORTS; AUDIT.

5.1 Records. For a period of seven (7) years after completion of each Study of the Licensed Products, Sage shall, and shall require its Affiliates and Sublicensees to, maintain accurate records relating to clinical study subject enrollment for such Study of the Licensed Products. Sage shall, and shall require its Affiliates and Sublicensees to, maintain accurate records, on a Licensed Product-by-Licensed Product and country-by-country basis, of Net Sales of the Licensed Products for three (3) years after the year in which the applicable sales occur.

5.2 Reports.

(a) Quarterly Reports. Within 30 calendar days following the conclusion of each calendar quarter during the Term, Sage shall provide CyDex with written reports with respect to such calendar quarter that describe in reasonable detail Sage's progress made toward achievement of the milestones specified in **Section 4.1(b)** above during such calendar quarter, including without limitation Sage's then-current best estimate for the dates to achieve such milestones and the number of human subjects enrolled during such calendar quarter in a clinical study conducted by or on behalf of Sage, its Affiliates and Sublicensees to support Marketing Approval for any of the Licensed Products during such calendar quarter. Within 60 calendar days following the conclusion of each calendar quarter during the Term, Sage shall provide CyDex with a written report with respect to such calendar quarter (with a monthly breakdown)

that sets forth in reasonable detail, on a Licensed Product-by-Licensed Product and country-by-country basis, complete and accurate records of Sage's, its Affiliates' and Sublicensees' Net Sales of each of the Licensed Products during such calendar quarter.

(b) Annual Reports. Annually, by February 1st of each calendar year during the Term, Sage shall provide CyDex with written reports that: (i) update CyDex regarding development and commercial activities with respect to the Licensed Products, (ii) describe in reasonable detail Sage's progress made toward achievement of the milestones specified in **Section 4.1(b)** above and the requirements set forth in *Exhibit D* hereto during the preceding calendar year; (iii) provide a non-binding estimate by kilograms of Branded Captisol for Sage's anticipated preclinical and clinical use of Branded Captisol in the Licensed Products for the then-current calendar year; (iv) provide CyDex with Sage's non-binding, reasonable, estimated rolling projection for sales of each of the Licensed Products, in terms of volume quantities and Net Sales values, for the then-current and the next two succeeding calendar years; and (v) set forth such other information regarding Captisol as mutually agreed upon by the parties.

5.3 Audit. Upon reasonable prior notice, such **Section 5.1** records shall be available during regular business hours for examination and audit at the expense of CyDex, and not more often than once each calendar year, by an independent certified public accountant selected by CyDex and reasonably acceptable to Sage, for the sole purpose of verifying the accuracy of the financial reports furnished by Sage pursuant to this Agreement. Any amounts shown to be owed but unpaid shall be paid within 30 days from the accountant's report from the original due date, plus interest accrued thereon (from the applicable original due date) at the rate set forth in **Section 4.4** above. Any amounts shown to have been overpaid shall be refunded within 30 days CyDex shall bear the full cost of such audit unless such audit discloses failure by Sage to pay any applicable milestone payment due or an underpayment by Sage of more than 5% of the amount due or any other material inaccuracies in a Sage report, in which case Sage shall bear the full cost of such audit, plus (as in all cases of underpayment) the underpayment amount and interest at the rate set forth in **Section 4.4** above. All information learned in the course of any audit or inspection under this **Section 5.3** shall be deemed to be Confidential Information of Sage, subject to the terms and provisions of **Section 8** below, except to the extent necessary for CyDex to enforce its rights under this Agreement.

6. DEVELOPMENT AND COMMERCIALIZATION BYSAGE.

6.1 Diligence.

(a) Sage shall (i) use at least Commercially Reasonable Efforts, and shall further require its Affiliates and Sublicensees to use at least Commercially Reasonable Efforts, to develop each of the Licensed Products, to seek Regulatory Approval of each of the Licensed Products in all countries and regions where it is commercially reasonable to so seek, and to commercialize each of the Licensed Products in each respective country and region following Regulatory Approval of such Licensed Product in such respective country/region, and (ii) subject to **Section 6.1(b)**, comply with the requirements set forth in *Exhibit D* hereto. If Sage is unable to comply with the requirements set forth in *Exhibit D* hereto (as may be extended pursuant to **Section 6.1(b))** due to unanticipated events or changed circumstances that are beyond the reasonable control of Sage, including delays caused by changes to the development plan that are

required in the exercise of sound scientific or commercial judgment due to new information regarding the development of product candidates or changes to the applicable regulatory requirements, then the parties shall meet and make reasonable extensions to the deadlines provided on *Exhibit D*. For clarity, Sage may meet the requirements of this **Section 6.1** through its or through its Affiliates' or Sublicensees' activities, which, with respect to the Allo Licensed Products, may be in just one of the Subfields. In the event that Sage fails to meet the requirements of this **Section 6.1(a)** (as may be extended pursuant to Section 6.1(b)) with respect to the Allo Licensed Products or the SAGE-689 Licensed Products, as applicable, CyDex shall have the right to terminate this Agreement with respect to all Allo Licensed Products or all SAGE-689 Licensed Products, respectively, pursuant to **Section 13.2** hereof.

(b) Diligence Milestone Extensions. With respect to each Diligence Milestone, Sage may elect, on one or more occasions, to extend the Achievement Date Deadline set forth in *Exhibit D* for such Diligence Milestone by one or more extension periods of […***…] months by making a $[…***…] payment (a "**Diligence Extension Payment**") to CyDex for each such […***…]-month extension; *provided, however*, that Sage may not extend any Diligence Milestone by more than a total of […***…] ([…***…]) months from the date set forth in *Exhibit D* by making such Diligence Extension Payments. If a specific Diligence Milestone for a Licensed Product is so extended, then the subsequent Diligence Milestones for such Licensed Product shall be extended automatically by […***…] months without requiring an additional payment.

6.2 Costs and Expenses. Other than those specified in this Agreement, Sage shall be solely responsible for all costs and expenses related to its development and commercialization of the Licensed Products, including without limitation, all Sage's costs and expenses associated with all preclinical activities and clinical trials, and all regulatory filings and proceedings relating to the Licensed Products.

6.3 In Vivo Studies. If Sage wishes to conduct any in vivo study […***…] (each a "**Study**"), then the following provisions shall apply;

(a) Dosing. Sage shall not exceed the dosing matrix levels of Captisol indicated by *Exhibit E* hereto without the written consent of CyDex.

(b) [Intentionally Omitted].

(c) Compliance with Laws. Sage represents and warrants that each such Study will be performed in accordance with all applicable laws, regulations and requirements. Sage will provide or cause to be provided all appropriate warnings to participants enrolled in each such Study and obtain or cause to be obtained appropriate documentation of informed consent from all participants in each such Study.

(d) Adverse Events. Sage agrees to immediately inform CyDex if any adverse effects are observed and ascribed to Captisol in any Study in accordance with **Section 7.3** hereof if applicable and in a reasonable and prompt manner if **Section 7.3** hereof is not applicable. To accurately track adverse events and preserve the validity of each such Study, […***…].

(e) Review of Regulatory Filings and Publications. At least seven (7) days before a submission of any proposed written publication material or regulatory submission (which shall be subject to the restrictions of **Section 8** hereof), Sage shall provide to CyDex for CyDex's review and comment a copy of any portion of a proposed written publication, material or regulatory submission reporting results of a Study of a Licensed Product where such portion of such publication material refers to […***…]. Sage shall give due consideration and reasonably incorporate any input that CyDex provides regarding […***…].

6.4 Right of Reference. Sage, and its Affiliates and Sublicensees, shall have the right to reference the […***…] in connection with obtaining Regulatory Approval for each of the Licensed Products. If requested by Sage, CyDex shall provide Sage with a right of reference for Drug Master File equivalents outside of the United States or equivalent CMC data for Captisol as required in connection with regulatory filings for Licensed Products outside the United States.

6.5 Access to Sage's Data. […***…], its Sublicensees or Affiliates as required by applicable laws relating to adverse event reporting and/or in connection with development and commercialization of Captisol or for fulfilling its obligations under this Agreement, all at no cost to CyDex. […***…].

7. REGULATORY MATTERS.

7.1 Captisol Information Submitted for Regulatory Review. Except as otherwise set forth herein, Sage shall be solely responsible for all communications with regulatory agencies in connection with any of the Licensed Products. Sage shall provide CyDex with copies of the portions of all regulatory submissions containing Captisol data alone (and not in conjunction with any product formulation) 10 days before submission and shall allow CyDex to review and comment upon said submissions during such 10 day period. The contents of each such submission shall be deemed to be Confidential Information of Sage, subject to the terms and provisions of **Section 8** below. If Sage submits written responses to the FDA that include data on Captisol alone, CyDex shall be permitted to review the portion of such written materials containing such Captisol data alone, before submission. If CyDex reasonably objects to the contents of such written responses relating to Captisol, the parties agree to cooperate in working toward a reasonable and mutually agreeable response, provided that Sage shall be entitled to in good faith and with full regard for CyDex's interests and concerns make the final determination as to the contents of any such materials.

7.2 Material Safety. CyDex shall provide Sage, in writing, from time to time or at Sage's request, with (a) relevant material information then-currently known to it regarding handling precautions, toxicity and hazards with respect to Captisol, including adverse event information, and (b) the then-current material safety data sheet for Captisol. CyDex warrants that all such information shall to CyDex's knowledge be complete and accurate. Notwithstanding the foregoing or anything in this Agreement to the contrary, with respect to any information that is provided in accordance with this Agreement by CyDex, Sage is solely responsible for (i) use of such documentation, including without limitation, use in any regulatory submission to the FDA or any other regulatory agency, (ii) document control and retention, and (iii) determining the suitability of any such documentation for use in any regulatory submission.

7.3 Adverse Event Reporting. Sage shall adhere, and shall require that its Affiliates, Sublicensees, co-marketers and distributors adhere, to all requirements of applicable law and regulations that relate to the reporting and investigation of any adverse event, including without limitation an unfavorable and unintended diagnosis, symptom, sign (including an abnormal laboratory finding), syndrome or disease, whether or not considered Captisol-related or Licensed Product-related, which occurs or worsens following administration of Captisol, including if contained in a Licensed Product. Sage shall provide CyDex with copies of all reports of any such adverse event which is serious (*i.e.*, any such adverse event involving Captisol, including if contained in a Licensed Product, that results in death, is life-threatening, requires or prolongs inpatient hospitalization, results in disability, congenital anomaly or is medically important (*i.e.*, may require other medical or surgical intervention to prevent other serious criteria from occurring)) which Sage has reason to believe are associated with Captisol within 10 business days following (i) Sage's submission of any such report to any regulatory agency, or (ii) receipt from Sage's Sublicensee, co-marketer or distributor of any such report to any regulatory agency. Sage shall also advise CyDex regarding any proposed labeling or registration dossier changes affecting Captisol. Reports from Sage shall be delivered to the attention of Chief Scientific Officer, CyDex, with a copy to General Counsel, Ligand, at the address set forth in **Section 14.7**. The parties shall mutually cooperate with regard to investigation of any such serious adverse event, whether experienced by Sage, CyDex or any other Affiliate, Sublicensee, co-marketer or distributor of CyDex or Sage.

7.4 Product Recalls. If any CyDex-supplied Captisol should be alleged or proven not to meet the Specifications, Sage shall notify CyDex immediately, and both parties shall cooperate fully regarding the investigation and disposition of any such matter. In the event that a dispute arises between the parties as to whether or not CyDex-supplied Captisol purchased by Sage meets the Specifications, such dispute shall be immediately resolved by submitting it to an independent quality control laboratory mutually agreed upon by the parties. The findings of such independent laboratory shall be binding upon the parties. The cost of the independent quality control laboratory shall be borne by the party whose results are shown by such laboratory to have been incorrect. If (i) Sage and CyDex agree in writing that it is appropriate to recall any Licensed Product, or (ii) the FDA or other relevant governmental authority requires the recall of any Licensed Product, and in either case, to the extent that such recall is due to issues relating to CyDex-supplied Captisol, then CyDex agrees, upon substantiation thereof, to bear a proportionate share (based on the extent to which the recall was caused by issues relating to CyDex-supplied Captisol) of the reasonable direct costs associated with said recall, including a proportionate share of the actual cost of conducting the recall in accordance with the recall guidelines of the applicable governmental authority, including without limitation, a proportionate share of the cost of the Licensed Product subject to the recall. Sage shall in all events be responsible for conducting any such recalls with respect to the Licensed Products, including the sole right to determine whether to conduct any such recall (although it is understood that a unilateral decision by Sage, not required by the FDA or other relevant governmental authority, to conduct a recall would negate CyDex's agreement under the preceding sentence with respect to such recall), and shall maintain records of all sales of Licensed Products and customers sufficient to adequately administer any such recall, for a period of five years after termination of this Agreement.

8. CONFIDENTIALITY.

8.1 Definition. Sage and CyDex each recognizes that, from the 2012 Effective Date and during the Term of this Agreement, it may be necessary for a party (the "**Disclosing Party**") to provide Confidential Information (as defined herein) to the other party (the "**Receiving Party**") that is highly valuable, the disclosure of which would be highly prejudicial to the Disclosing Party. The disclosure and use of Confidential Information will be governed by the provisions of this **Section 8**. Neither Sage nor CyDex shall use the other's Confidential Information except as expressly permitted in this Agreement. For purposes of this Agreement, "**Confidential Information**" means all information disclosed by the Disclosing Party to the Receiving Party or its Affiliate which is obviously Confidential Information, or which is designated in writing by the Disclosing Party as "Confidential" (or equivalent), or which when disclosed orally is declared to be confidential by the Disclosing Party and confirmed in a writing delivered to the Receiving Party within 30 days of such disclosure, including but not limited to product specifications, data, know-how, formulations, product concepts, sample materials, business and technical information, financial data, batch records, trade secrets, processes, techniques, algorithms, programs, designs, drawings, and any other information related to a party's present or future products, sales, suppliers, customers, employees, investors or business. Without limiting the generality of the foregoing, CyDex's Confidential Information includes all materials provided as part of the Captisol Data Package, and Sage's Confidential Information includes Sage Patents and Sage Know-How. For clarity, any Confidential Information disclosed under the Original Agreement or this Agreement shall be deemed Confidential Information hereunder.

8.2 Obligation. CyDex and Sage agree that they will disclose the other's Confidential Information to its (or its respective parent's) own directors, officers, employees, consultants and agents (or, in the case of Sage, to Sage's Affiliates and to Sublicensees and Contract Manufacturers), in each case only if and to the extent necessary to carry out their respective responsibilities under or as contemplated by this Agreement or in accordance with the exercise of their rights under this Agreement, and such disclosure shall be limited to the maximum extent possible consistent with such responsibilities and rights. Neither party shall disclose Confidential information of the other to any other Third Party or any Affiliate without the other's prior written consent, and any such disclosure to a Third Party shall be pursuant to the terms of a non-disclosure agreement no less restrictive than this **Section 8**. The party which disclosed Confidential Information of the other to any Third Party or Affiliate shall be responsible and liable for any disclosure or use by such Third Party or Affiliate (or its disclosees) which would have violated this Agreement if committed by the party itself. Neither party shall use Confidential Information of the other except as expressly allowed by and for the purposes of this Agreement or the Supply Agreement. Each party shall take such action to preserve the confidentiality of each other's Confidential Information as it would customarily take to preserve the confidentiality of its own Confidential Information (but in no event less than a reasonable standard of care). Unless otherwise specified in this Agreement and subject to terms and conditions in this Agreement, if so requested by the other party a party shall promptly return all relevant records and materials in its possession or control containing or embodying the other party's Confidential Information (including all copies and extracts of documents); provided, however, that each party may retain one archival copy (and such electronic copies that exist as part of the party's computer systems, network storage systems and electronic backup systems) of such records and materials solely to be able to monitor its obligations that survive under this Agreement.

8.3 Exceptions. The use and non-disclosure obligations set forth in this **Section 8** shall not apply to any Confidential Information, or portion thereof, that the Receiving Party can demonstrate by appropriate documentation:

(i) at the time of disclosure is in the public domain or generally known to the public;

(ii) after disclosure, becomes part of the public domain or generally known to the public, by publication or otherwise, through no fault of the Receiving Party or its disclosees;

(iii) is independently developed by Receiving Party personnel with no reference or access to the Disclosing Party's Confidential Information; or

(iv) is made available to the Receiving Party by an independent third party without obligation of confidentiality, provided, however, that, to the Receiving Party's knowledge, such information was not obtained by said third party, directly or indirectly, from the Disclosing Party hereunder.

In addition, the Receiving Party may disclose the Disclosing Party's Confidential Information that is required to be disclosed by law, by a valid order of a court or by order or regulation of a governmental agency, including but not limited to, regulations of the Securities and Exchange Commission, or the rules of NASDAQ or in the course of litigation; *provided* that in all cases the Receiving Party shall, to the extent permitted, give the Disclosing Party prompt notice of the pending disclosure and make a reasonable effort to obtain, or to assist the Disclosing Party in obtaining, a protective order or confidential-treatment order preventing or limiting (to the greatest possible extent and for the longest possible period) the disclosure and. or requiring that the Confidential Information so disclosed be used only for the purposes for which the law or regulation required, or for which the order was issued.

8.4 Injunction. Each party agrees that should it breach or threaten to breach any provisions of this **Section 8**, the Disclosing Party will suffer irreparable damages and its remedy at law will be inadequate. Upon any breach or threatened breach by the Receiving Party of this **Section 8**, the Disclosing Party shall be entitled to seek temporary, preliminary and/or permanent injunctive relief in addition to any other remedy which it may have, without need to post any bond or security, in addition to any and all other legal and equitable rights and remedies available to the Disclosing Party.

8.5 Third Party Information. The parties acknowledge that the defined term "Confidential Information" shall include not only a Disclosing Party's own Confidential Information but also Confidential Information of an Affiliate or of a Third Party which is in the possession of such Disclosing Party.

Sage acknowledges that CyDex's Confidential Information includes information developed by Pfizer that is confidential to both CyDex and Pfizer. In so far as Confidential

Information of Pfizer is disclosed, Pfizer is a third-party beneficiary of this **Section 8** of this Agreement and may enforce it or seek remedies pursuant to it in accordance with its terms. CyDex agrees not to disclose to Sage any Confidential Information of any other Third Party, or any CyDex Affiliate, who is combining or formulating Captisol with an active ingredient, which Confidential Information is in the possession of CyDex, unless Sage has given an express prior written consent (which specifies the owner of such Confidential Information) to receive such particular Confidential Information.

Sage agrees not to disclose to CyDex any Confidential Information of a Third Party which is in the possession of Sage, unless CyDex has given an express prior written consent (which specifies the owner of such Confidential Information) to receive such particular Confidential Information. If CyDex refuses to provide such consent, then any obligation of Sage to provide such information to CyDex under this Agreement shall be deemed waived by CyDex.

For clarity and without limitation, CyDex agrees not to disclose any of Sage's Confidential Information to any CyDex Affiliate or Third Party who is combining or formulating Captisol with an active ingredient. The preceding sentence does not apply to Captisol Improvements.

8.6 Public Announcements. The parties will mutually agree on a press release to be issued reasonably soon after the 2015 Date. Neither party shall make any subsequent public announcement concerning this Agreement or the terms hereof not previously made public without the prior written approval of the other party with regard to the form, content, and precise timing of such announcement, except as may be required to be made by either party in order to comply with applicable law, regulations, court orders, or tax or securities filing requirements or the rules of NASDAQ. Such consent shall not be unreasonably withheld, conditioned or delayed by such other party. Before any such public announcement, the party wishing to make the announcement will (unless there is a legal or regulatory need to make the public announcement sooner) submit a draft of the proposed announcement to the other party at least two (2) business days before such announcement to enable such other party to consider and comment thereon, and shall consider all reasonable comments of the other party regarding such disclosure. When making any such public announcement, either party may use the name of the other party or any of its Affiliates and/or the name of any Licensed Product, but may not use any other trademark of such other party or any of its Affiliates, except as may be required by law, regulations, court orders, or tax or securities filing requirements or the rules of NASDAQ or except with the prior express written permission of such other party, such permission not to be unreasonably withheld, conditioned or delayed. Notwithstanding the above, once a public disclosure has been made, either party shall be free to disclose to Third Parties any information contained in said public disclosure, without further pre-review or pre-approval; except that (i) a party that breached this **Section 8** with respect to said public announcement may not rely on this sentence with respect to said public announcement and (ii) CyDex shall not disclose or comment on the status or results of any Study or other Sage activity regarding any Licensed Product without Sage's prior written consent, even if already disclosed by Sage, except that CyDex may post complete copies of Sage releases on CyDex's website or any other CyDex forum.

9. REPRESENTATIONS AND WARRANTIES.

9.1 Mutual Representations and Warranties. Each party represents and warrants to the other (as of each of the 2012 Effective Date, the 2013 Effective Date, the 2014 Effective Date and the 2015 Date) as follows:

(i) it is a corporation duly organized and validly existing under the laws of the state or country of its incorporation;

(ii) it has the power and right to enter into this Agreement (and the stated amendments thereof) and to perform its obligations hereunder;

(iii) this Agreement (and the stated amendments thereof) has been duly authorized, executed and delivered by such party and constitutes a legal, valid and binding obligation of such party enforceable against such party in accordance with its terms except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, receivership, moratorium, fraudulent transfer, or other similar laws affecting the rights and remedies of creditors generally and by general principles of equity;

(iv) the execution, delivery and performance of this Agreement (and the stated amendments thereof) by such party do not conflict with any agreement, instrument or understanding, oral or written, to which such party is a party or by which such party may be bound, nor violate any law or regulation of any court, governmental body or administrative or other agency having authority over such party:

(v) all consents, approvals and authorizations from all governmental authorities or other third parties required to be obtained by such party in connection with the execution and delivery of this Agreement (and the stated amendments thereof) have been obtained;

(vi) no person or entity has or will have, as a result of the transactions contemplated by this Agreement (and the stated amendments thereof), any right, interest or valid claim against or upon such party for any commission, fee or other compensation as a finder or broker because of any act by such party or its agents; and

(vii) neither it nor any of its Affiliates has entered into any agreement with any third party that is in conflict with the rights granted to the other party pursuant to this Agreement (and the stated amendments thereof).

9.2 CyDex Representations.

(a) CyDex represents and warrants to Sage (as of the 2015 Date) that CyDex owns all right, title and interest in and to, or in-licenses with the right to sublicense, the Captisol Patents listed on *Exhibit A* attached to this Agreement as in effect on the 2015 Date.

(b) CyDex represents and warrants to Sage (as of the 2015 Date) that neither CyDex nor any of its Affiliates has granted any Affiliate of CyDex or any Third Party any currently outstanding rights to develop or commercialize any pharmaceutical composition comprising a Compound combined with or formulated using Captisol.

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 24B-2 PROMULGATED UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

9.3 Disclaimer. THE WARRANTIES SET FORTH IN THIS **SECTION 9** AND IN THE SUPPLY AGREEMENT ARE PROVIDED IN LIEU OF, AND EACH PARTY HEREBY DISCLAIMS, ALL OTHER WARRANTIES, EXPRESS AND IMPLIED, RELATING TO THE SUBJECT MATTER OF THIS AGREEMENT, CAPTISOL, THE LICENSED PRODUCTS, THE LICENSED PATENTS OR THE CAPTISOL DATA PACKAGE, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS.

10. INDEMNIFICATION.

10.1 By CyDex. CyDex shall defend, indemnify and hold Sage and its Affiliates and Sublicensees, and each of their respective directors, officers, agents and employees, harmless from and against any and all losses, judgments, damages, liabilities, settlements, penalties, fines, costs and expenses (including the reasonable costs and expenses of attorneys and other professionals) (collectively "**Losses**") incurred by Sage as a result of any claim, demand, action or other proceeding (each, a "**Claim**") by a Third Party, to the extent such Losses arise out of: (a) the manufacture, use, handling, promotion, marketing, distribution, importation, sale or offering for sale of Captisol by CyDex and its Affiliates (including without limitation, the sale of Captisol by CyDex to Sage under the Supply Agreement); (b) infringement of any person's intellectual property rights in Captisol per se; (c) CyDex's breach of this Agreement, including without limitation any of its representations and warranties set forth in **Sections 9.1** and **9.2** of this Agreement, or (d) CyDex's negligence or misconduct.

10.2 By Sage. Sage shall defend, indemnify and hold CyDex and its Affiliates, and each of their respective directors, officers, agents and employees, harmless from and against any and all Losses incurred by CyDex as a result of any Claim by a Third Party, to the extent such Losses arise out of: (a) the manufacture, use, handling, promotion, marketing, distribution, importation, sale or offering for sale of the Licensed Products by Sage, its Affiliates and Sublicensees (other than to the extent primarily arising out of the manufacture, use, handling, promotion, marketing, distribution, importation, sale or offering for sale of Captisol by CyDex and its Affiliates (including without limitation, the sale of Captisol by CyDex to Sage under the Supply Agreement)); (b) any acts or omissions by Sage, its Affiliates and Sublicensees in connection with pre-clinical studies and clinical studies of actual or potential Licensed Products (other than to the extent primarily arising out of the manufacture, use, handling, promotion, marketing, distribution, importation, sale or offering for sale of Captisol by CyDex and its Affiliates (including without limitation, the sale of Captisol by CyDex to Sage under the Supply Agreement)); (c) infringement of any person's intellectual property rights in connection with the subject matter of this Agreement (other than intellectual property rights in Captisol per se); (d) Sage's breach of this Agreement, including without limitation any of its representations and warranties set forth in **Section 9.1** of this Agreement, or (e) Sage's negligence or misconduct.

10.3 Expenses. As the parties intend complete indemnification, all costs and expenses of enforcing any provision of this **Section 10** shall also be reimbursed by the Indemnifying Party.

10.4 Procedure.

(a) The person intending to claim indemnification under this Section 10 (an "**Indemnified Party**") shall promptly notify the other party (the "**Indemnifying Party**") of any Claim in respect of which the Indemnified Party intends to claim such indemnification, and a reasonable explanation of the basis for the Claim and the amount of alleged Losses to the extent of the facts then known by the Indemnified Party. (Notwithstanding the foregoing, no delay or deficiency on the part of the Indemnified Party in so notifying the Indemnifying Party will relieve the Indemnifying Party of any liability or obligation under this Agreement except to the extent the Indemnifying Party has suffered actual prejudice directly caused by the delay or other deficiency.) The Indemnifying Party shall assume the defense thereof whether or not such Claim is rightfully brought; *provided*, *however*, that if the Indemnifying Party assumes the defense, the Indemnified Party shall have the right to employ counsel separate from counsel employed by the Indemnifying Party in any such action and to participate in the defense thereof, but the fees and expenses of such counsel employed by the Indemnified Party shall be at the sole cost and expense of the Indemnified Party unless the Indemnifying Party consents to the retention of such counsel or unless the named parties to any action or proceeding include both the Indemnifying Party and the Indemnified Party and a representation of both the Indemnifying Party and the Indemnified Party by the same counsel would be inappropriate due to the actual or potential differing interests between them. And provided further that, if the Indemnifying Party shall fail to assume the defense of and reasonably defend such Claim, the Indemnified Party shall have the right to retain or assume control of such defense and the Indemnifying Party shall pay (as incurred and on demand) the fees and expenses of counsel retained by the Indemnified Party.

(b) The Indemnifying Party shall not be liable for the indemnification of any Claim settled (or resolved by consent to the entry of judgment) without the written consent of the Indemnifying Party. Also, if the Indemnifying Party shall control the defense of any such Claim, the Indemnifying Party shall have the right to settle such Claim; *provided*, that the Indemnifying Party shall obtain the prior written consent (which shall not be unreasonably withheld or delayed) of the Indemnified Party before entering into any settlement of (or resolving by consent to the entry of judgment upon) such Claim unless (A) there is no finding or admission of any violation of law or any violation of the rights of any Person by an Indemnified Party, no requirement that the Indemnified Party admit fault or culpability, and no adverse effect on any other claims that may be made by or against the Indemnified Party and (B) the sole relief provided is monetary damages that are paid in full by the Indemnifying Party and such settlement does not require the Indemnified Party to take (or refrain from taking) any action.

(c) Regardless of who controls the defense, the other party hereto shall reasonably cooperate in the defense as may be requested. Without limitation, the Indemnified Party, and its directors, officers, advisers, agents and employees, shall cooperate fully with the Indemnifying Party and its legal representatives in the investigations of any Claim.

11. LIMITATION OF LIABILITY. EXCEPT FOR DAMAGES FOR WHICH A PARTY IS RESPONSIBLE PURSUANT TO (A) ITS BREACH OF **SECTION 8** ABOVE, OR (B) ITS INDEMNIFICATION OBLIGATIONS SET FORTH IN **SECTION 10** ABOVE, EACH PARTY SPECIFICALLY DISCLAIMS ALL LIABILITY FOR AND SHALL IN NO EVENT BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL

DAMAGES, EXPENSES, LOST PROFITS, LOST SAVINGS, INTERRUPTIONS OF BUSINESS OR OTHER DAMAGES OF ANY KIND OR CHARACTER WHATSOEVER ARISING OUT OF OR RELATED TO THIS AGREEMENT OR RESULTING FROM THE MANUFACTURE, HANDLING, MARKETING, SALE, DISTRIBUTION OR USE OF LICENSED PRODUCTS OR USE (PURSUANT TO OR IN CONNECTION WITH THE RIGHTS GRANTED UNDER THIS AGREEMENT) OF THE LICENSED PATENTS AND CAPTISOL DATA PACKAGE, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, STRICT LIABILITY OR OTHERWISE, EVEN IF SUCH PARTY WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. EXCEPT WITH RESPECT TO (A) RECALL COSTS UNDER **SECTION 7.4**, (B) A PARTY'S BREACH OF **SECTION 8**, OR (C) THE INDEMNIFICATION SPECIFICALLY PROVIDED IN **SECTION 10** ABOVE, IN NO EVENT SHALL EITHER PARTY'S TOTAL AGGREGATE LIABILITY FOR ALL CLAIMS ARISING OUT OF OR RELATED TO THIS AGREEMENT OR RESULTING FROM THE MANUFACTURE, HANDLING, MARKETING, SALE, DISTRIBUTION OR USE OF LICENSED PRODUCTS OR USE OF THE LICENSED PATENTS AND CAPTISOL DATA PACKAGE PURSUANT TO OR IN CONNECTION WITH THE RIGHTS GRANTED UNDER THIS AGREEMENT EXCEED THE GREATER OF (I) $250,000 AND (II) THE TOTAL AMOUNTS ACTUALLY PAID UNDER THIS AGREEMENT BY SAGE TO CYDEX AS OF THE DATE SUCH CLAIM ARISES. PROVIDED, THAT THE FOREGOING LIMITATIONS SHALL NOT LIMIT CYDEX'S RIGHT TO TAKE ACTION TO ENFORCE THIS AGREEMENT TO COLLECT AMOUNTS THAT ARE PROPERLY DUE AND OWING UNDER **ARTICLE 4** HEREOF. NO ACTION, REGARDLESS OF FORM, ARISING OUT OF OR RELATED TO THIS AGREEMENT MAY BE BROUGHT BY EITHER PARTY MORE THAN TWO YEARS AFTER SUCH PARTY HAS KNOWLEDGE OF THE LEGAL AND FACTUAL BASIS FOR SUCH CAUSE OF ACTION OR AFTER EXPIRATION OF THE APPLICABLE STATUTORY LIMITATIONS PERIOD, WHICHEVER IS SOONER. FOR AVOIDANCE OF DOUBT, THE PARTIES* RESPECTIVE RIGHTS AND OBLIGATIONS WITH RESPECT TO ANY LIABILITY THAT MAY ACCRUE UNDER THE LICENSE AGREEMENT, ANY COMMERCIAL LICENSE AGREEMENT (OTHER THAN THIS AGREEMENT) OR ANY SUPPLY AGREEMENT OR IN CONNECTION WITH ACTIVITIES CONDUCTED PURSUANT TO OR CONTEMPLATED BY ANY SUCH AGREEMENTS SHALL BE DETERMINED PURSUANT TO THE TERMS OF THOSE AGREEMENTS AND NOT BY THE TERMS AND CONDITIONS SET FORTH IN THIS AGREEMENT.

12. MANAGEMENT OF LICENSED PATENTS.

12.1 Prosecution and Maintenance.

(a) CyDex Patents. CyDex shall maintain, at its sole cost and expense and using reasonable discretion, the Captisol Patents. CyDex shall have the sole right to control the prosecution and maintenance of patent applications and the selection of countries where patent applications are filed related to the Captisol Patents. CyDex agrees that, during the Term, it will use Commercially Reasonable Efforts to prosecute, obtain and maintain the Captisol Patents in the United States, China, Japan and the European Union. In the event that CyDex decides not to prosecute and maintain the Captisol Patents in a country or countries which is not a major market, CyDex shall provide not less than 30 days' prior written notice of such decision, and Sage shall have the option to take over the prosecution and maintenance in such country or countries,

(b) Licensed Product Patents. Sage shall have the right to maintain, at its sole cost and expense and using reasonable discretion, the Licensed Product Patents. Sage shall have the sole right to control the prosecution and maintenance of patent applications and the selection of countries where patent applications are filed related to the Licensed Product Patents, *provided* that CyDex shall be provided with the right and opportunity to give comments and recommendations as to the overall strategy regarding the filing, prosecution and maintenance of the Licensed Product Patents. In the event that Sage decides not to prosecute and maintain the Licensed Product Patents in a country or countries, Sage shall provide not less than 30 days prior written notice of such decision, and CyDex shall have the option to take over the prosecution and maintenance in such country or countries.

(c) Sage Patents and Sage Know-How. Sage shall be the sole and exclusive owner of Sage Patents and Sage Know-How. Sage, at its own cost and expense and in its sole discretion, shall be solely responsible for prosecuting and maintaining Sage Patents.

12.2 Infringement of Captisol Patents by Third Parties.

(a) If Sage becomes aware that a third party may be infringing a Captisol Patent, it will promptly notify CyDex in writing, providing all information available to Sage regarding the potential infringement. CyDex shall take whatever, if any, action it deems appropriate, in its sole discretion, against the alleged infringer. If CyDex elects to take action, Sage shall, at CyDex's request and expense, cooperate and shall cause its employees and advisers to cooperate with CyDex in taking any such action, including but not limited to, cooperating with the prosecution of any infringement suit by CyDex related to a Captisol Patent. Sage shall not take any such action against the alleged infringer related to a Captisol Patent without the written consent of CyDex.

(b) If Sage becomes aware that a third party may be infringing a Licensed Product Patent, it will promptly notify CyDex in writing, providing all information available to Sage regarding the potential infringement. Sage shall take whatever, if any, action it deems appropriate, in its sole discretion, against the alleged infringer if such infringement affects any of Sage's rights with respect to a Licensed Product. If Sage elects to take action, CyDex shall, at Sage's request and expense, cooperate and shall cause its employees and advisers to cooperate with Sage in taking any such action, including but not limited to, cooperating with the prosecution of any infringement suit by Sage related to a Licensed Product Patent. CyDex shall not take any such action against the alleged infringer related to a Licensed Product Patent without the written consent of Sage.

13. TERM AND TERMINATION.

13.1 Term. The term of this Agreement (the "**Term**") shall commence on the 2013 Effective Date and shall continue in effect unless and until terminated as set forth herein. Upon the expiration or termination of the Term, this Agreement, and the rights, licenses and obligations granted hereunder, shall terminate, subject only to **Section 13.5**.

13.2 Termination for Breach.

(a) Notice. If either party believes that the other is in material breach of this Agreement, then the party holding such belief (the "**Non-breaching Party**") may deliver notice of such breach to the other party (the "**Notified Party**"). The Notified Party shall have [...***...] days to cure such breach to the extent involving non-payment of amounts due hereunder, and [...***...] days to either cure such breach for all other material breaches, or, if cure of such breach other than non-payment cannot reasonably be effected within such [...***...]-day period, to deliver to the Nonbreaching Party a plan reasonably calculated to cure such breach within a timeframe that is reasonably prompt in light of the circumstances then prevailing but in no event in excess of an additional [...***...]-day period. Following delivery of such a plan, the Notified Party shall diligently carry out the plan and cure the breach and the cure period shall be extended by the time period provided in such plan but in no event to exceed [...***...] days from the date of any initial breach notice delivered under this **Section 13.2(a)**. A party's material breach of the Original Agreement during the term of the Original Agreement shall be deemed to be a material breach of this Agreement that is subject to this **Section 13.2**, in the same manner as a material breach of this Agreement is subject to this **Section 13.2**.

(b) Failure to Cure. If the Notified Party fails to cure a material breach of this Agreement as provided for in **Section 13.2(a)**, then the Non-breaching Party may terminate this Agreement upon written notice to the Notified Party; *provided*, *however*, that, to the extent that such breach relates only to one or more of the Licensed Products, then the Non-breaching Party may in its sole discretion so terminate this Agreement either (i) only with respect to such Licensed Product(s) such that this Agreement shall remain in effect with respect to the other Licensed Products as to which such breach did not relate, or (ii) in its entirety (it being expressly understood that if such breach by Sage is only of **Section 6.1(a)** of this Agreement and only for particular Licensed Product(s), then CyDex shall not be so entitled to terminate this Agreement in its entirety but merely with respect to the particular Licensed Product(s) to which such breach of **Section 6.1(a)** related, such that this Agreement would remain in effect with respect to the other Licensed Product(s) as to which such breach did not relate).

13.3 Sage Right to Terminate. Sage shall have the right to terminate this Agreement, in its entirety or with respect to one or more of the Licensed Products, without cause, on 180 days' prior written notice to CyDex.

13.4 Termination of the Supply Agreement. This Agreement shall terminate if the Supply Agreement is rightfully terminated by either party.

13.5 Survival. Notwithstanding any other provisions of this Agreement, any liability or obligation of either party to the other for acts or omissions before the termination of this Agreement shall survive the termination of this Agreement. And, such termination shall not relieve either party from obligations that are expressly indicated to survive termination of this Agreement, nor shall any termination of this Agreement relieve Sage of its obligation to pay CyDex royalties for all Licensed Product sold by Sage, its Affiliates or Sublicensees before the effective date of such termination. For clarity, if this Agreement is terminated with respect to one or more of the Licensed Products and not in its entirety, then this Agreement shall terminate only with respect to such terminated Licensed Products and shall remain in effect with respect to

the other Licensed Products. **Sections 2.2** (Grant of License from Sage to CyDex), **4.1** (Payments and Royalties for Licenses) (to the extent owed but unpaid as of the date of termination of this Agreement), **4.2** (Currency), **4.3** (Taxes), **4.4** (Late Payments), **5** (Records; Reports; Audits), **6.5** (Access to Sage's Data), **7.3** (Adverse Event Reporting), **7.4** (Product Recalls), **8** (Confidentiality), **9.3** (Disclaimer), **10** (Indemnification), **11** (Limitation of Liability), **13.5** (Survival), and **14** (General Provisions) shall survive termination of this Agreement.

14. GENERAL PROVISIONS.

14.1 [Intentionally Omitted.]

14.2 Relationship of Parties. Each of the parties hereto is an independent contractor and nothing in this Agreement is intended or shall be deemed to constitute a partnership, agency, employer-employee or joint venture relationship between the parties. No party shall have the right to, and each party agrees not to purport to, incur any debts or make any commitments or contracts for the other.

14.3 Compliance with Law. Each of the parties shall comply with all applicable international, federal, state and local laws, rules and regulations, including, but not limited to, import/export restrictions, laws, rules and regulations governing product quality and safety and patent, copyright and trade secret protection, in connection with activities contemplated by this Agreement.

14.4 Arbitration.

(a) Procedure. Except as otherwise expressly set forth in this Agreement, any and all disputes or controversies arising out of or relating to this Agreement shall be exclusively and finally resolved by binding arbitration in accordance with the commercial arbitration rules of the American Arbitration Association then in effect, in Boston, Massachusetts. The arbitration shall be conducted by an arbitrator reasonably knowledgeable about the pharmaceutical industry and acceptable to CyDex and Sage. If CyDex and Sage cannot agree on a single arbitrator within 30 days after a demand for arbitration has been made, CyDex shall appoint an arbitrator, Sage shall appoint an arbitrator, the two arbitrators shall appoint a third arbitrator, and the three arbitrators shall hear and decide the issue in controversy. If either party fails to appoint an arbitrator within 45 days after service of the demand for arbitration, then the arbitrator appointed by the other party shall arbitrate any controversy in accordance with this **Section 14.4(a)**. Except as to the selection of arbitrators, the arbitration proceedings shall be conducted promptly and in accordance with the rules of the American Arbitration Association then in effect. The expenses of any arbitration, including the reasonable attorney fees of the prevailing party, shall be borne by the party deemed to be at fault or on a pro-rata basis should the arbitration conclude in a finding of mutual fault.

(b) Confidentiality of Proceedings. All arbitration proceedings hereunder shall be confidential and the arbitrators) shall issue appropriate protective orders to safeguard each party's Confidential Information. Except as required by law, no party shall make (or instruct the arbitrators) to make) any public announcement with respect to the arbitration proceedings or decision of the arbitrators) without prior written consent of the other party.

(c) Interim Equitable Relief. Notwithstanding **Section 14.4(a)**, but subject to the limitations set forth in **Article 11**, each party shall not be precluded from seeking equitable relief (including but not limited to interim injunctive relief) in any court having jurisdiction to protect its interests.

(d) Binding Effect. The provisions of this **Section 14.4** shall survive any termination of this Agreement, and shall be severable and binding on the parties hereto, notwithstanding that any other provision of this Agreement may be held or declared to be invalid, illegal or unenforceable.

14.5 Costs and Expenses. Except as otherwise expressly provided in this Agreement, each party shall bear all costs and expenses associated with the performance of such party's obligations under this Agreement.

14.6 Force Majeure. Neither party shall be liable for failure to perform, or delay in the performance of, its obligations under this Agreement (other than payment obligations) when such failure or delay is caused by an event of force majeure. For purposes of this Agreement, an event of force majeure means any event or circumstance beyond the reasonable control of the affected party, including but not limited to, war, insurrection, riot, fire, flood or other unusual weather condition, explosion, act of God, peril of the sea, strike, lockout or other industrial disturbance, sabotage, accident, embargo, breakage of machinery or apparatus, injunction, act of governmental authority, compliance with governmental order or national defense requirements, or inability to obtain fuel, power, raw materials, labor or transportation facilities. If, due to any event of force majeure, either party shall be unable to fulfill its obligations under this Agreement (other than payment obligations), the affected party shall immediately notify the other party of such inability and of the period during which such inability is expected to continue and the time for performance shall be extended for a number of days equal to the duration of the force majeure.

14.7 Notices. Any notice, request, or communication under this Agreement shall be effective only if it is in writing and personally delivered, or sent by certified mail, postage pre-paid, or by nationally recognized overnight courier (for next-business-day delivery) with signature required, in each case addressed to the applicable party at the addresses stated below or such other persons and/or addresses as shall be furnished in writing by any party in accordance with this Section 10.7. Unless otherwise provided, all notices shall be sent:

If to CyDex, to:

CyDex Pharmaceuticals, Inc.
11119 North Torrey Pines Road
Suite 200
La Jolla, CA 92037
Attention: President

With a copy to:

General Counsel
Ligand Pharmaceuticals Incorporated
11119 North Torrey Pines Road
Suite 200
La Jolla, CA 92037

If to Sage, to:

Sage Therapeutics, Inc.
215 First Street
Cambridge, Massachusetts 02142
Attention: President

With a copy to:

Sage Therapeutics, Inc.
215 First Street
Cambridge, Massachusetts 02142
Attention: Senior Vice President, General Counsel

If sent by overnight courier, the next business day after the date of deposit with such courier (by the courier's stated time for enabling next-business-day delivery) shall be deemed to be the date on which such notice, request or communication was given. If sent by certified mail, the third business day after the date of mailing shall be deemed the date on which such notice, request or communication was given."

14.8 [Intentionally Omitted.)

14.9 Governing Law. This Agreement shall be governed by and construed in accordance with the internal laws of the State of California (without giving effect to any conflicts of law principles that require the application of the law of a different state). The parties agree that the United Nations Convention on Contracts for the International Sale of Goods shall be inapplicable to this Agreement and the Supply Agreement and transactions hereunder and thereunder.

14.10 Entire Agreement; Amendment. This Agreement and all Exhibits attached hereto contain the entire agreement of the parties relating to the subject matter hereof and thereof and supersede any and all prior agreements, written or oral, or oral contemporaneous agreements between CyDex (and/or any of its Affiliates) and Sage (and/or any of its Affiliates) relating to the subject matter hereof and thereof; provided, however, that (a) any confidentiality/nonuse provisions of any pre-2012-Effective Date agreement are not superseded and will remain in effect in addition to the confidentiality, nonuse provisions hereof, and (b) the Supply Agreement, which is being further amended on the 2015 Date with retroactive effect to the 2014 Effective Date, is not superseded and remains in full force and effect, as so amended. Except where it is obvious that such amendments are intended to have effect ab initio (*i.e.*, as of the 2013 Effective Date; *e.g.*, the "Excluded Fields" concept), the amendments effected by the Amendment to

Commercial License Agreement dated April 30, 2014 and the new amendments effected by the Amended and Restated Commercial License Agreement dated the 2015 Date shall be deemed effective on a prospective-only basis as of the 2014 Effective Date. This Agreement cannot be amended except by way of an express writing signed by both parties.

14.11 Binding Effect. This Agreement shall be binding upon, and the rights and obligations hereof shall apply to, CyDex and Sage and any successor(s) and permitted assigns. The name of a party appearing herein shall be deemed to include the names of such party's successors and permitted assigns to the extent necessary to carry out the intent of this Agreement.

14.12 Waiver. The rights of either party under this Agreement may be exercised from time to time, singularly or in combination, and the exercise of one or more such rights shall not be deemed to be a waiver of any one or more of the others. No waiver of any breach of a term, provision or condition of this Agreement shall be deemed to have been made by either party unless such waiver is addressed in writing and signed by an authorized representative of that party. The failure of either party to insist upon the strict performance of any of the terms, provisions or conditions of this Agreement, or to exercise any option contained in this Agreement, shall not be construed as a waiver or relinquishment for the future of any such term, provision, condition or option or the waiver or relinquishment of any other term, provision, condition or option.

14.13 Severability. If any provision of this Agreement is determined by a final and binding court or arbitration judgment to be invalid, illegal or unenforceable to any extent, such provision shall not be not affected or impaired up to the limits of such invalidity, illegality or unenforceability; the validity, legality and enforceability of the remaining provisions of this Agreement shall not be affected or impaired in any way; and the parties agree to negotiate in good faith to replace such invalid, illegal and unenforceable provision (or portion of provision) with a valid, legal and enforceable provision that achieves, to the greatest lawful extent under this Agreement, the economic, business and other purposes of such invalid, illegal or unenforceable provision (or portion of provision). This Agreement shall not be invalidated by any future determination that any or all of the Licensed Patents have expired or been invalidated.

14.14 Assignment. Sage may not assign its rights or delegate its obligations under this Agreement in whole or in part, by operation of law or otherwise, to any third party without the prior written consent of CyDex, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, Sage may assign its rights and delegate its obligations under this Agreement to an Affiliate or to a third party successor, whether by way of merger, sale of all or substantially all of its assets, sale of stock or otherwise, without CyDex's prior written consent. As a condition to any permitted assignment hereunder, if such assignment is (a) to an Affiliate, the assignor must guarantee the performance of any assignee to the terms and obligations of this Agreement or (b) to a Third Party successor, such successor shall agree for the express benefit of CyDex to comply with the terms and conditions of this Agreement. Any assignment by Sage not in accordance with this **Section 14.14** shall be void. CyDex has the right to assign its rights or delegate its obligations under this Agreement, in whole or in part, by operation of law or otherwise, to any third party, either (y) without any requirement for consent of Sage; *provided* that (i) CyDex also assigns all of its right, title and interest in all operating assets, including

without limitation, intellectual property rights, pertaining to its Captisol business to the same third party contemporaneous with the assignment of this Agreement, and (ii) if such assignment is (A) to an Affiliate, the assignor must guarantee the performance of any assignee to the terms and obligations of this Agreement or (B) to a Third Party successor, such successor shall agree for the express benefit of Sage to comply with the terms and conditions of this Agreement; or (z) with the prior written consent of Sage, which consent shall not be unreasonably withheld. Any assignment by CyDex not in accordance with this Section 14.14 shall be void. For clarity, each party may sublicense its rights, and use its Affiliates and Third Parties to perform its obligations or exercise its rights, under this Agreement to the extent permitted by and in accordance with the express terms and conditions of this Agreement.

14.15 Third Party Beneficiaries. Except for the rights of Indemnified Parties pursuant to Section 10 hereof, and subject to Section 8.5 hereof, the terms and provisions of this Agreement are intended solely for the benefit of each party hereto and their respective successors or permitted assigns and it is not the intention of the parties to confer third-party beneficiary rights upon any other person, including without limitation Sublicensees. The enforcement of any obligation of CyDex under this Agreement shall only be pursued by Sage or such Indemnified Party, and not Sublicensees.

14.16 Remedies Cumulative. Except as provided in **Section 11**, any enumeration of a party's rights and remedies in this Agreement is not intended to be exclusive, and a party's rights and remedies are intended to be cumulative to the extent permitted by law and include any rights and remedies authorized in law or in equity.

14.17 Headings. The descriptive headings of this Agreement are for convenience only, and shall be of no force or effect in construing or interpreting any of the provisions of this Agreement.

14.18 Interpretation. The language used in this Agreement is the language chosen by the parties to express their mutual intent, and no provision of this Agreement will be interpreted for or against any party because that party or its attorney drafted the provision. Except as the context otherwise requires, (a) the word "including" or correlatives thereof, means "including without limitation," and (b) the word "or" means "and/or."

14.19 Counterparts. This Agreement may be executed in counterparts, each of which shall constitute an original document, but both of which shall constitute one and the same instrument.

14.20 Effect on and of Amended Supply Agreement. The parties intend (a) that except as expressly set forth herein and to the extent of the separate written amendment of the Supply Agreement being entered into on the 2015 Date with retroactive effect to the 2014 Effective Date, the Supply Agreement remains unchanged and in full force and effect; (b) that every reference in the Supply Agreement to the "Commercial License Agreement" shall mean the Original Agreement or this Agreement, in each with regard to its respective applicable term; and (c) that for acts and omissions after the 2014 Effective Date, every reference in this Agreement to the Supply Agreement shall mean the Supply Agreement as amended by the separate written amendments of the Supply Agreement being entered into on the 2015 Date with retroactive effect to the 2014 Effective Date and heretofore entered into.

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 24B-2 PROMULGATED UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

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IN WITNESS WHEREOF, the parties have executed this Amended and Restated Commercial License Agreement as of the 2015 Date.

CYDEX PHARMACEUTICALS, INC.

By: /s/ Charles Berkman
Charles Berkman
Vice President and Secretary

SAGE THERAPEUTICS, INC.

By: /s/ Anne Marie Cook
Anne Marie Cook
Senior Vice President, General Counsel

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EXHIBIT A: CAPTISOL PATENTS [Exhibit A consists of 10 pages]

[…***…]

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EXHIBIT B: LICENSED PRODUCT PATENTS

[…***…]

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EXHIBIT C: SPECIFICATIONS

[…***…]

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EXHIBIT D: SPECIFIED DILIGENCE REQUIREMENTS

Sage is required to achieve the following milestones by the following respective deadline dates for an Allo Licensed Product:

Milestone	Achievement Date Deadline
[…***…]	[…***…]
[…***…]	[…***…]
[…***…]	[…***…]
[…***…]	[…***…]
[…***…]	[…***…]

Sage is required to achieve the following milestones by the following respective deadline dates for a SAGE-689 Licensed Product:

Milestone	Achievement Date Deadline
[…***…]	[…***…]
[…***…]	[…***…]
[…***…]	[…***…]
[…***…]	[…***…]
[…***…]	[…***…]

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EXHIBIT E: DOSING

Dosing Matrix (Animals)

[…***…]

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EXHIBIT F: ALLOPREGNANOLONE

[…***…]

Exhibit 10.2

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AMENDMENT NO. 3 TO SUPPLY AGREEMENT

THIS AMENDMENT NO. 3 TO SUPPLY AGREEMENT (this "**Amendment**") is entered into on this 25th day of September, 2015 (the "**2015 Date**"), with retroactive effect to April 30, 2014 (the "**Amendment Effective Date**") between:

CYDEX PHARMACEUTICALS, INC., a Delaware corporation ("**CyDex**"); and

SAGE THERAPEUTICS, INC., a Delaware corporation ("**Sage**").

RECITALS

WHEREAS, CyDex and Sage entered into a Supply Agreement as of December 13, 2012, as amended on August 21, 2013 and April 30, 2014 (as so amended, the "**Agreement**" or, in certain contexts, this "**Supply Agreement**");

WHEREAS, CyDex and Sage wish to amend the Agreement in accordance with Section 10.10 thereof; and

WHEREAS, CyDex and Sage were also parties to a Commercial License Agreement dated December 13, 2012 (the "**Original Agreement**") and are parties to a Commercial License Agreement dated August 21, 2013, as amended on April 30, 2014, and as now further amended and restated by an Amended and Restated Commercial License Agreement, dated on the 2015 Date with retroactive effect to April 30, 2014 (the "**2013-2015 Agreement**"; the Original Agreement and the 2013-2015 Agreement are hereinafter referred to together in the singular (but each with regard to its respective applicable term) as the "**Commercial License Agreement**").

NOW, THEREFORE, in consideration of the following mutual promises and other good and valuable consideration, the receipt and sufficiency of which are acknowledged, the parties, intending to be legally bound, agree as follows:

1. DEFINITIONS. All terms used, but not defined, in this Amendment shall have the meaning set forth in the Agreement or (if not defined in the Agreement) in the Commercial License Agreement.

2. LICENSED PRODUCTS. The parties agree and acknowledge that, except as expressly set forth in the Agreement, as hereby amended, (a) the Agreement, as hereby amended, shall apply to any and all of the Licensed Products, (b) the Agreement, as hereby amended, shall permit Sage to order and purchase Clinical Grade Captisol and Commercial Grade Captisol for use in the formulation of any of the Licensed Products and (c) such Captisol orders and purchases shall be aggregated for purposes of the Agreement, including Section 3.2(c), Section 3.5(b) and Exhibit A of the Agreement.

3. COMMERCIAL LAUNCH DATE. The reference to "Commercial Launch Date" in Sections 3.2 and 4.1(a) of the Agreement shall mean the "first Commercial Launch Date of any Licensed Product" (*e.g.*, if the Commercial Launch Date of an Allo Licensed Product is earlier

than the Commercial Launch Date of the SAGE-689 Licensed Products, then the Commercial Launch Date of such Allo Licensed Product will be used to measure the timeframes in Sections 3.2 and 4.1(a) of the Agreement).

4. SUPPLY AND PURCHASE OBLIGATIONS.

4.1 Section 2.2 of the Agreement is amended to read:

"**2.2 Purchase Commitment**. Subject to the provisions of this Agreement and during the Term of this Agreement, Sage agrees that Sage and its Affiliates and Sublicensees and their Contract Manufacturers shall purchase exclusively from CyDex 100% of their requirements for Captisol for use in the preparation, formulation and production of Licensed Products. Sage shall not itself, and will not permit its Affiliates and Sublicensees to, make, sell or offer to sell bulk Captisol during the Term of this Agreement (provided, that Sage and its Affiliates, Sublicensees and Contract Manufacturers may re-sell any Captisol purchased pursuant to this Agreement to Sage's Affiliates or Sublicensees for or as incorporated into the Licensed Products in and for the Field), and shall not use any Captisol purchased pursuant to this Agreement except in connection with the Licensed Products in and for the Field; provided, however, that Sage may transfer any Captisol purchased pursuant to this Agreement to any Sublicensee, or any researcher or research institution solely for research or development of a Licensed Product, including for any investigator-initiated study of any Licensed Product. This Agreement and the Commercial License Agreement do not grant Sage, its Affiliates or Sublicensees or their Contract Manufacturers the right to manufacture (or have manufactured on their behalf) Captisol, without CyDex's prior written consent. Before entering into an agreement with any Sublicensees or Contract Manufacturers, Sage shall advise such Sublicensee or Contract Manufacturer of the foregoing restrictions and shall obtain such Sublicensee's or Contract Manufacturer's written agreement to observe and be bound thereby. Sage shall be responsible and liable for any actions by its Affiliates, Sublicensees and Contract Manufacturers which would have violated this Section 2.2 if committed by Sage itself."

4.2 Section 2.3 of the Agreement is hereby amended by adding the following sentence to the end of such Section; "CyDex shall supply only Branded Captisol to Sage, its Affiliates and Sublicensees and their Contract Manufacturers to fulfill the orders for Captisol placed with CyDex hereunder."

4.3 The following sentence is added to the end of Section 4.1(b) of the Agreement: "This Section 4.1(b) shall not apply with respect to the period of any Supply Interruption or (to the extent it causes a shortfall) other CyDex inability to supply Captisol."

5. WARRANTIES. The following provision is added to the end of Section 5.2 of the Agreement: "CyDex hereby represents and warrants that neither it, nor any of its past or present employees or suppliers, is debarred under subsections 306(a) or (b) of the Federal Food, Drug, and Cosmetic Act and covenants that it shall notify Sage if it becomes aware that it or any of its past or present employees or suppliers becomes debarred."

6. CONFIDENTIALITY. The provisions of Section 6 of the Agreement are hereby amended to conform with the provisions of Section 8 of the Commercial License Agreement,

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with references to the "Agreement" meaning this Supply Agreement as hereby amended, not the Commercial License Agreement, and with references to Section 8 or subsection thereof meaning Section 6 of this Supply Agreement as hereby amended, not Section 8 of the Commercial License Agreement.

7. INDEMNIFICATION. The word "and" between clauses (c) and (d) of Section 7.1 of the Agreement and between clauses (d) and (e) of Section 7.2 of the Agreement is hereby changed to the word "or". The clause "(other than to the extent arising primarily from the manufacture, use, handling, promotion, marketing, distribution, importation, sale or offering for sale of Captisol by CyDex and its Affiliates (including without limitation, the sale of Captisol by CyDex to Sage hereunder))" is hereby added to the end of clauses (a) and (b) of Section 7.2 of the Agreement.

8. LIMITATION OF LIABILITY. Section 8 of the Agreement is amended to read:

"EXCEPT FOR DAMAGES FOR WHICH A PARTY IS RESPONSIBLE PURSUANT TO (A) ITS BREACH OF SECTION 6 ABOVE, OR (B) ITS INDEMNIFICATION OBLIGATIONS SET FORTH IN SECTION 7 ABOVE, EACH PARTY SPECIFICALLY DISCLAIMS ALL LIABILITY FOR AND SHALL IN NO EVENT BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, EXPENSES, LOST PROFITS, LOST SAVINGS, INTERRUPTIONS OF BUSINESS OR OTHER DAMAGES OF ANY KIND OR CHARACTER WHATSOEVER ARISING OUT OF OR RELATED TO THIS AGREEMENT OR RESULTING FROM THE MANUFACTURE, HANDLING, MARKETING, SALE, DISTRIBUTION OR USE OF ANY LICENSED PRODUCT OR USE (PURSUANT TO OR IN CONNECTION WITH THE RIGHTS GRANTED UNDER THIS AGREEMENT) OF THE LICENSED PATENTS AND CAPTISOL DATA PACKAGE, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, STRICT LIABILITY OR OTHERWISE, EVEN IF SUCH PARTY WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. EXCEPT WITH RESPECT TO (A) A PARTY'S BREACH OF SECTION 6 ABOVE, OR (B) THE INDEMNIFICATION SPECIFICALLY PROVIDED IN SECTION 7 ABOVE, TN NO EVENT SHALL EITHER PARTY'S TOTAL AGGREGATE LIABILITY FOR ALL CLAIMS ARISING OUT OF OR RELATED TO THIS SUPPLY AGREEMENT, OR RESULTING FROM THE MANUFACTURE, HANDLING, MARKETING, SALE, DISTRIBUTION OR USE OF ANY LICENSED PRODUCT OR USE OF THE LICENSED PATENTS AND CAPTISOL DATA PACKAGE PURSUANT TO OR IN CONNECTION WITH THE RIGHTS GRANTED UNDER THIS AGREEMENT, EXCEED THE GREATER OF (I) $250,000 AND (II) THE TOTAL AMOUNTS ACTUALLY PAID BY SAGE TO CYDEX UNDER THIS AGREEMENT AS OF THE DATE SUCH CLAIMS ARISE; PROVIDED, THAT THE FOREGOING LIMITATIONS SHALL NOT LIMIT CYDEX'S RIGHT TO TAKE ACTION TO ENFORCE THIS SUPPLY AGREEMENT TO COLLECT AMOUNTS THAT ARE PROPERLY DUE AND OWING UNDER ARTICLE 4 HEREOF. NO ACTION, REGARDLESS OF FORM, ARISING OUT OF OR RELATED TO THIS AGREEMENT MAY BE BROUGHT BY EITHER PARTY MORE THAN TWO YEARS AFTER SUCH PARTY HAS KNOWLEDGE OF THE LEGAL AND FACTUAL BASIS FOR SUCH CAUSE OF ACTION OR AFTER EXPIRATION OF THE APPLICABLE STATUTORY LIMITATIONS PERIOD, WHICHEVER IS SOONER. FOR AVOIDANCE OF DOUBT, THE PARTIES' RESPECTIVE RIGHTS AND OBLIGATIONS WITH RESPECT TO

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ANY LIABILITY THAT MAY ACCRUE UNDER THE LICENSE AGREEMENT, THE COMMERCIAL LICENSE AGREEMENT OR ANY SUPPLY AGREEMENT (OTHER THAN THIS AGREEMENT) OR IN CONNECTION WITH ACTIVITIES CONDUCTED PURSUANT TO OR CONTEMPLATED BY ANY SUCH AGREEMENTS SHALL BE DETERMINED PURSUANT TO THE TERMS OF THOSE AGREEMENTS AND NOT BY THE TERMS AND CONDITIONS SET FORTH IN THIS AGREEMENT."

9. TERMINATION WITH COMMERCIAL LICENSE AGREEMENT. Section 9.3 of the Agreement is hereby amended to read: "This Agreement shall automatically terminate upon the termination, for whatever reason, of the Commercial License Agreement in its entirety. For clarity, if the Commercial License Agreement is permissibly terminated with respect to one or more of the Licensed Products and not in its entirety, then this Agreement shall remain in effect with respect to the other Licensed Products."

10. SURVIVAL. Section 9.4 of the Agreement is hereby amended to read: "**SURVIVAL**. Notwithstanding any other provisions of this Agreement, any liability or obligation of either party to the other for acts or omissions before the termination of this Agreement shall survive the termination of this Agreement, including Sage's obligation to pay CyDex sums due in respect of Captisol shipped before termination of this Agreement. And, such termination shall not relieve either party from obligations that are expressly indicated to survive termination of this Agreement. Sections 2.2 (Purchase Commitment) (final two sentences only), 3.4 (Modified Specifications) (final two sentences only, with respect to Specifications modified during the Term), 3.6 (Control; Acceptance and Rejection), 4.1(b) (Shortfall Reimbursement (Take or Pay)) (with respect to Shortfalls during the Term, prior to a Failure to Supply, for which the relevant payment in Section 4.1(b) was not made prior to termination), 4.3 (Payments) (to the extent owed but unpaid as of the date of termination of this Agreement), 4.4 (Taxes), 5.3 (Disclaimer), 6 (Confidentiality), 7 (Indemnification), 8 (Limitation of Liability), 9.4 (Survival), and 10 (General Provisions) shall survive termination of this Agreement. […***…]. For clarity, if this Agreement is terminated with respect to one or more of the Licensed Products and not in its entirety, then this Agreement shall terminate only with respect to such terminated Licensed Products and shall remain in effect with respect to the other Licensed Products and all outstanding Captisol orders properly made before and pending at the time of termination shall remain in full force and effect."

11. NON-SOLICITATION. Section 10.1 of the Agreement is hereby deleted in its entirety and replaced with "[Intentionally Omitted.]".

12. CONFIDENTIALITY OF PROCEEDINGS. The second sentence of Section 10.4(b) of the Agreement is amended to read: "Except as required by law, no party shall make (or instruct the arbitrator(s) to make) any public announcement with respect to the arbitration proceedings or decision of the arbitrators) without prior written consent of the other party."

13. NOTICES. Section 10.7 is hereby amended to read:

"**Notices**. Any notice, request, or communication under this Agreement shall be effective only if it is in writing and personally delivered, or sent by certified mail, postage pre-paid, or by nationally recognized overnight courier (for next-business-day delivery) with signature required,

in each case addressed to the applicable party at the addresses stated below or such other persons and/or addresses as shall be furnished in writing by any party in accordance with this Section 10.7. Unless otherwise provided, all notices shall be sent:

If to CyDex, to:

CyDex Pharmaceuticals, Inc.
11119 North Torrey Pines Road
Suite 200
La Jolla, CA 92037
Attention: President

With a copy to:

General Counsel
Ligand Pharmaceuticals Incorporated
11119 North Torrey Pines Road
Suite 200
La Jolla, CA 92037

If to Sage, to:

Sage Therapeutics, Inc.
215 First Street
Cambridge, Massachusetts 02142
Attention: President

With a copy to:

Sage Therapeutics, Inc.
215 First Street
Cambridge, Massachusetts 02142
Attention: Senior Vice President, General Counsel

If sent by overnight courier, the next business day after the date of deposit with such courier (by the courier's stated time for enabling next-business-day delivery) shall be deemed to be the date on which such notice, request or communication was given. If sent by certified mail, the third business day after the date of mailing shall be deemed the date on which such notice, request or communication was given."

14. USE OF NAME; PUBLICITY. Section 10.8 of the Agreement is hereby deleted in its entirety and replaced with "[Intentionally Omitted.]".

15. GOVERNING LAW. The following sentence is added to the end of Section 10.9 of the Agreement: "The parties agree that the United Nations Convention on Contracts for the International Sale of Goods shall be inapplicable to this Agreement and the Commercial License Agreement and transactions hereunder and thereunder."

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 24B-2 PROMULGATED UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

16. ASSIGNMENT. Section 10.14 of the Agreement is amended to read:

"Sage may not assign its rights or delegate its obligations under this Agreement, in whole or in part, by operation of law or otherwise, to any third party without the prior written consent of CyDex, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, Sage may assign its rights and delegate its obligations under this Agreement to an Affiliate or to a third party successor, whether by way of merger, sale of all or substantially all of its assets, sale of stock or otherwise, without CyDex's prior written consent. As a condition to any permitted assignment hereunder, if such assignment is (a) to an Affiliate, the assignor must guarantee the performance of any assignee to the terms and obligations of this Agreement or (b) to a Third Party successor, such successor shall agree for the express benefit of CyDex to comply with the terms and conditions of this Agreement. Any assignment by Sage not in accordance with this Section 10.14 shall be void. CyDex has the right to assign its rights or delegate its obligations under this Agreement, in whole or in part, by operation of law or otherwise, to any third party, either (y) without any requirement for consent of Sage; provided that (i) CyDex also assigns all of its right, title and interest in all operating assets, including without limitation, intellectual property rights, pertaining to its Captisol business to the same third party contemporaneous with the assignment of this Agreement, and (ii) if such assignment is (A) to an Affiliate, the assignor must guarantee the performance of any assignee to the terms and obligations of this Agreement or (B) to a Third Party successor, such successor shall agree for the express benefit of Sage to comply with the terms and conditions of this Agreement; or (z) with the prior written consent of Sage, which consent shall not be unreasonably withheld. Any assignment by CyDex not in accordance with this Section 10.14 shall be void. For clarity, each party may sublicense its rights, and use its Affiliates and Third Parties to perform its obligations or exercise its rights, under this Agreement to the extent permitted by and in accordance with the express terms and conditions of this Agreement."

17. ENTIRE AGREEMENT. This Agreement as amended hereby contains the entire agreement of the parties relating to the subject matter hereof and supersede any and all prior or contemporaneous agreements, written or oral, between CyDex (and/or any of its Affiliates) and Sage (and/or any of its Affiliates) relating to the subject matter thereof and hereof. Provided, that (a) any confidentiality nonuse provisions of any pre-Agreement agreement are not superseded and will remain in effect in addition to the confidentiality/nonuse provisions hereof, and (b) the Commercial License Agreement, as amended through and including the 2015 Date, is not superseded and remains in full force and effect as so amended.

18. COUNTERPARTS. This Amendment may be executed in counterparts, each of which shall constitute an original document, but both of which shall constitute one and the same instrument.

19. EFFECT ON AND OF SUPPLY AGREEMENT. The parties intend (a) that the changes made to the Commercial License Agreement by the 2015 Date-dated Amended and Restated Commercial License Agreement (*i.e*., in definitions) shall flow through to and thereby be deemed to amend, as of the Amendment Effective Date, the Agreement; (b) that except as expressly set forth in this Amendment and to the extent of such express flow-through, the Agreement remains unchanged and in full force and effect; (c) that every reference in the Agreement to the "Commercial License Agreement" shall mean the Commercial License

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 24B-2 PROMULGATED UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

Agreement (as defined in the recitals of this Amendment); (d) that for acts and omissions after the Amendment Effective Date, every reference in the Agreement to the Agreement (*i.e.*, the Supply Agreement) shall mean the Agreement as amended by this Amendment and as deemed to be amended by such express flow-through; and (e) that after the Amendment Effective Date, every reference in the Commercial License Agreement to the Agreement (*i.e.*, the Supply Agreement) shall mean the Agreement as amended by this Amendment and as deemed to be amended by such express flow-through.

[Remainder of this page left blank intentionally]

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT PURSUANT TO RULE 24B-2 PROMULGATED UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

IN WITNESS WHEREOF, the parties have executed this Amendment No. 3 to Supply Agreement as of the 2015 Date.

CYDEX PHARMACEUTICALS, INC.

By: /s/ Charles Berkman
Charles Berkman
Vice President and Secretary

SAGE THERAPEUTICS, INC.

By: /s/ Anne Marie Cook
Anne Marie Cook
Senior Vice President, General Counsel

THIRD AMENDMENT TO LEASE

THIS THIRD AMENDMENT TO LEASE (this "**Third Amendment**") is made as of September 9, 2015, by and between **ARE-MA REGION NO. 38, LLC**, a Delaware limited liability company ("**Landlord**"), and **SAGE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**").

RECITALS

A. Landlord and Tenant are now parties to that certain Lease Agreement dated as of December 21, 2011, as amended by that certain First Amendment to Lease dated as of October 26, 2012, and as further amended by that certain Second Amendment to Lease dated as of May 9, 2013 (as amended, the "**Lease**"). Pursuant to the Lease, Tenant leases certain premises consisting of approximately 10,600 rentable square feet of space ("**Current Premises**") in a building located at 215 First Street, Cambridge, Massachusetts ("**Building**"). The Current Premises are more particularly described in the Lease. Capitalized terms used herein without definition shall have the meanings defined for such terms in the Lease.

B. Landlord and Tenant desire, subject to the terms and conditions set forth below, to amend the Lease to, among other things, expand the size of the Current Premises by adding approximately 7,962 rentable square feet of space on the second floor of the Building, as shown on **Exhibit A** attached hereto (the "**Third Expansion Premises**").

NOW, THEREFORE, in consideration of the foregoing Recitals, which are incorporated herein by this reference, the mutual promises and conditions contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. **Third Expansion Premises**. In addition to the Current Premises, commencing on the Third Expansion Premises Commencement Date (as defined below), Landlord leases to Tenant, and Tenant leases from Landlord, the Third Expansion Premises.

2. **Delivery**. Landlord shall use reasonable efforts to deliver the Third Expansion Premises to Tenant on or before the Target Third Expansion Premises Commencement Date with Landlord's Work Substantially Completed ("**Delivery**" or "**Deliver**"). If Landlord fails to timely Deliver the Third Expansion Premises, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and the Lease with respect to the Third Expansion Premises shall not be void or voidable. As used herein, the terms "**Landlord's Work**," "**Tenant Delays**" and "**Substantially Completed**" shall have the meanings set forth for such terms in the work letter attached to this Third Amendment as **Exhibit B** ("**Third Expansion Premises Work Letter**").

   The "**Third Expansion Premises Commencement Date**" shall be the earlier to occur of: (i) the date that Landlord delivers the Third Expansion Premises to Tenant, or (ii) the date that Landlord could have delivered to Third Expansion Premises to Tenant but for Tenant Delays. The "**Target Third Expansion Premises Commencement Date**" shall be January 1, 2016. Upon request of Landlord, Tenant shall execute and deliver a written acknowledgment of the Third Expansion Premises Commencement Date in a form substantially similar to the form of the "Acknowledgement of Commencement Date" attached to the Lease as **Exhibit G**; provided, however, Tenant's failure to execute and deliver such acknowledgment shall not affect Landlord's rights hereunder.

   Except as set forth in the Third Expansion Premises Work Letter: (i) Tenant shall accept the Third Expansion Premises in their condition as of the Third Expansion Premises Commencement Date, subject to all applicable Legal Requirements; (ii) Landlord shall have no obligation for any defects in the Third Expansion Premises; and (iii) Tenant's taking possession of the Third Expansion Premises shall be conclusive evidence that Tenant accepts the Third Expansion Premises and that the Third Expansion Premises were in good condition at the time possession was taken. The Third Expansion Premises shall be delivered to Tenant without any furniture.

Tenant agrees and acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of all or any portion of the Third Expansion Premises, and/or the suitability of the Third Expansion Premises for the conduct of Tenant's business, and Tenant waives any implied warranty that the Third Expansion Premises are suitable for the Permitted Use.

3. **Definition of Premises**. Commencing on the Third Expansion Premises Commencement Date, the defined term "**Premises**" on Page 1 of the Lease is deleted in its entirety and replaced with the following:

"**Premises:** That portion of the second floor of the Building (as defined below) containing approximately 18,562 rentable square feet, consisting of (i) approximately 5,900 rentable square feet ("**Original Premises**"), (ii) approximately 600 rentable square feet ("**Expansion Premises**"), (iii) approximately 4,100 rentable square feet ("**Second Expansion Premises**"), and (iv) approximately 7,962 rentable square feet ("**Third Expansion Premises**"), all as determined by Landlord, as shown on **Exhibit A**."

Exhibit A attached to the Lease is amended as of the Third Expansion Premises Commencement Date to include **Exhibit A** attached to this Third Amendment.

4. **Base Rent**.

a. Current Premises. Tenant shall continue to pay Base Rent for the Current Premises as provided for in the Lease through August 31, 2015. For the period commencing on September 1, 2015, through February 28, 2016, Tenant shall pay Base Rent for the Current Premises in the amount of $47.50 per rentable square foot of the Current Premises per year. For the period commencing March 1, 2016, through February 28, 2017, Tenant shall pay Base Rent for the Current Premises in the amount of $48.50 per rentable square foot of the Current Premises per year. Commencing on March 1, 2017, Tenant shall commence paying Base Rent for the Current Premises at the same Base Rent per rentable square foot that Tenant is then paying for the Third Expansion Premises, as adjusted pursuant to Section 4(b) below.

b. Third Expansion Premises. Commencing on the Third Premises Commencement Date, Tenant shall pay Base Rent for the Third Expansion Premises in the amount of $50.00 per rentable square foot of the Third Expansion Premises per year. Base Rent for the Third Expansion Premises shall be increased on each annual anniversary of Third Expansion Premises Commencement Date by $1.00 per rentable square foot of the Third Expansion Premises per year. Base Rent for the Third Expansion Premises, as so adjusted, shall thereafter be due as provided herein.

5. **Tenant's Share**. Commencing on the Third Expansion Premises Commencement Date, the defined term "**Tenant's Share**" on page 1 of the Lease is deleted in its entirety and replaced with the following:

"**Tenant's Share for Original Premises and Expansion Premises:** 1.77%

Tenant's Share for Second Expansion Premises: 1.12%

Tenant's Share of Third Expansion Premises: 2.17%"

Notwithstanding anything to the contrary contained in the Lease, (i) neither Operating Expenses nor Taxes payable by Tenant with respect to the Third Expansion Premises shall be subject to a

Base Year, and (ii) commencing on the Third Expansion Premises Commencement Date, Operating Expenses for the entire Premises shall include the costs of Landlord's third party manager (which shall not exceed 3.0% of Base Rent) or, if there is no third party property manager, administration rent in the amount of 3.0% of Base Rent.

6. **Base Term**. Commencing on the Third Expansion Premises Commencement Date, the defined term "**Base Term**" on page 1 of the Lease is deleted in its entirety and replaced with the following:

"**Base Term:** Beginning (i) with respect to the Original Premises, on the Commencement Date, (ii) with respect to the Expansion Premises, on the Expansion Premises Commencement Date, (iii) with respect to the Second Expansion Premises, on the Second Expansion Premises Commencement Date, and (iv) with respect to the Third Expansion Premises, on the Third Expansion Premises Commencement Date, and ending with respect to the entire Premises on February 28, 2022 ("**Expiration Date**")."

7. **Rentable Area of Premises**. Commencing on the Third Expansion Premises Commencement Date, the defined term "**Rentable Area of Premises**" on page 1 of the Lease is deleted in its entirety and replaced with the following:

"**Rentable Area:** Approximately 18,562 square feet"

8. **Parking**.

a. As of the Third Expansion Premises Commencement Date, Section 8 of the Lease is hereby deleted in its entirety and replaced with the following:

"8. **Parking**. Subject to all matters of record, Force Majeure, a casualty or Taking (as defined in Section 15 below) and the exercise by Landlord of its rights hereunder, Landlord shall make available to Tenant, at then-current market rates from time to time, 19 parking spaces in a parking lot or garage at an offsite location within a 10-minute walk of the Building, all of such parking spaces to be on a non-reserved basis. As of the Third Expansion Premises Commencement Date, such parking spaces shall be located in the parking garage serving the 303 3rd Square Apartments. As of the Third Expansion Premises Commencement Date, the market parking rate for the parking spaces is $275 per parking space per month. Tenant shall notify Landlord prior to the Third Expansion Premises Commencement Date as to how many parking spaces (not to exceed 19) that Tenant will license hereunder. If Tenant does not elect to license all of the parking spaces to which it is entitled pursuant to this Section 8 as of the Third Expansion Premises Commencement Date, Tenant shall give Landlord 30 days' notice if it wishes to license additional spaces during the Term, not to exceed 19 parking spaces in the aggregate hereunder. If Landlord determines that any additional spaces are available for use by Tenant, Landlord shall notify Tenant in writing and Tenant shall commence using and paying for the additional spaces licensed by Tenant on the date that is 30 days after Tenant's delivery of notice to Landlord. Landlord shall not be responsible for enforcing Tenant's parking rights against any third parties, including without limitation other tenants of the Project. Notwithstanding anything to the contrary contained in this Section 8, Landlord shall relocate the parking spaces licensed by Tenant to that certain parking garage serving 50-60 Binney Street, Cambridge, Massachusetts, when such parking spaces become available for use by tenants of the Project."

b. As of the date following the Third Expansion Premises Commencement Date on which Landlord makes available to Tenant parking space in the Binney Parking Garage, Section 8 of the Lease is hereby deleted in its entirety and replaced with the following:

"8. **Parking**. Subject to all matters of record, Force Majeure, a Taking (as defined in Section 15 below) and the exercise by Landlord of its rights hereunder, Landlord shall make available to

Tenant at then-current market rates from time to time a license for a number of parking spaces equal to the number of parking spaces Tenant was licensing from Landlord (not to exceed 19 parking spaces) immediately prior to date (the "**Binney Parking Garage Commencement Date**") on which Landlord made the parking spaces available for use by Tenant in the parking garage serving 50-60 Binney Street, Cambridge, Massachusetts (the "**Binney Parking Garage**"), all of such parking spaces to be on a non-reserved basis. Tenant shall be required to pay the parking charges set forth below with respect to all of the parking spaces licensed to Tenant (not to exceed 19). Commencing on the Third Expansion Premises Commencement Date, Tenant shall pay the then-current market parking rates from time to time for the parking spaces in such Binney Parking Garage. Tenant shall also pay, commencing on the Binney Parking Garage Commencement Date, and continuing thereafter on the first day of each month of the Term (and in addition to the parking charges provided for in the immediately preceding sentence), Tenant's pro rata share of the operating expenses (as reasonably determined by the owner of Binney Parking Garage) incurred by such owner of the Binney Parking Garage with respect to the Binney Parking Garage. Tenant's pro rata share of the Binney Parking Garage shall be determined by dividing the number of parking spaces licensed by Tenant (not to exceed 19) by the total of 899 parking spaces in the Binney Parking Garage. For example, if Tenant licenses 19 parking spaces in the Binney Parking Garage, Tenant's pro rata share of the Binney Parking Garage shall be 2.11%. If, as of the Binney Parking Garage Commencement Date, Tenant is not licensing all of the parking spaces to which it is entitled pursuant to this Section 8, Tenant shall give Landlord 30 days' notice if it wishes to license additional spaces during the Term, not to exceed 19 parking spaces in the aggregate hereunder. If Landlord determines that any additional spaces are available for use by Tenant, Landlord shall notify Tenant in writing and Tenant shall commence using and paying for (and Tenant's pro rata share of the Binney Parking Garage shall be adjusted to include) the additional spaces licensed by Tenant on the date that is 30 days after Tenant's delivery of notice to Landlord. Landlord shall not be responsible for enforcing Tenant's parking rights against any third parties, including other tenants of the Project.

Tenant shall, at Tenant's sole expense, for so long as the Parking and Traffic Demand Management Plan dated February 9, 2010 (revised April 15, 2010), as approved by the City of Cambridge on April 22, 2010, including the conditions set forth in such approval (as amended from time to time, the "**PTDM**"), remains applicable to the Project, comply with the PTDM as applicable to the Project, including without limitation, (i) offer to subsidize mass transit monthly passes for all of its employees who work in the Premises in accordance with the terms set forth in the PTDM; (ii) implement a Commuter Choice Program and the MBTA's Corporate Pass Plan; (iii) discourage single-occupant vehicle ("**SOV**") use by its employees; (iv) promote alternative modes of transportation and use of alternative work hours; (v) at Landlord's request, meet with Landlord and/or its representatives no more frequently than quarterly to discuss transportation programs and initiatives; (vi) participate in annual surveys, monitoring transportation programs and initiatives at the Project, and, without limitation, achieve a sixty (60%) percent response rate for patron surveys; (vii) cooperate with Landlord in connection with transportation programs and initiatives promulgated pursuant to the PTDM; (viii) provide alternative work programs (such as telecommuting, flex-time and compressed work weeks) to its employees in order to reduce traffic impacts in Cambridge during peak commuter hours; (ix) offer an emergency ride home ("**ERH**") through the Charles River Transportation Management Association ("**CRTMA**"), or have its own ERH program, for all employees who commute by non-SOV mode at least 3 days a week and who are eligible to park in Binney Garage Spaces which Tenant is entitled to use pursuant to this first paragraph of this Section 8; (x) cooperate with the Cambridge Office of Workforce Development to expand employment opportunities for Cambridge residents; (xi) in the event that the single occupancy vehicle and traffic generation modal split limits of the PTDM are exceeded, charge each user of a parking space the market rate for parking in Kendall Square/East Cambridge therefor; (xii) comply with the requirements of any other Parking and Traffic Demand Management Plan to which Tenant may be a party from time to time; (xiii) designate an employee transportation coordinator for the Building; and (xiii) otherwise cooperate with Landlord in encouraging employees to seek alternate modes of transportation."

9. **Right to Extend Term**. As of the date of this Third Amendment, Section 34(a) of the Lease is hereby deleted and replaced with the following:

"34. **Right to Extend Term**. Tenant shall have the right to extend the Term of the Lease upon the following terms and conditions:

(a) **Extension Rights**. Tenant shall have 1 right (the "**Extension Right**") to extend the term of this Lease for 5 years (the "**Extension Term**") on the same terms and conditions as this Lease (other than with respect to Base Rent and any work letters including, without limitation, the Third Expansion Premises Work Letter) by giving Landlord written notice of its election to exercise the Extension Right at least 12 months prior to the expiration of the Base Term of the Lease.

Upon the commencement of the Extension Term, Base Rent shall be payable at the Market Rate (as defined below). Base Rent shall thereafter be adjusted on each annual anniversary of the commencement of such Extension Term by a percentage as determined by Landlord and agreed to by Tenant at the time Market Rate is determined. As used herein, "**Market Rate**" shall mean the rate that comparable landlords of comparable buildings have accepted in current transactions from non-equity (i.e., not being offered equity in the buildings) and nonaffiliated tenants of similar financial strength for space of comparable size, quality (including all Tenant Improvements, Alterations and other improvements) in comparable Class A lab/office buildings in East Cambridge for a comparable term, with the determination of the Market Rate to take into account all relevant factors, including tenant inducements, parking costs, proximity to amenities and public transit, leasing commissions, allowances or concessions, if any. In no event shall the Market Rate be less than the Base Rent payable immediately preceding the commencement of the Extension Term.

If, on or before the date which is 270 days prior to the expiration of the Base Term of this Lease, Tenant has not agreed with Landlord's determination of the Market Rate and the rent escalations during the Extension Term after negotiating in good faith, Tenant shall be deemed to have elected arbitration as described in Section 34(b). Tenant acknowledges and agrees that, if Tenant has elected to exercise the Extension Right by delivering notice to Landlord as required in this Section 34(a), Tenant shall have no right thereafter to rescind or elect not to extend the term of the Lease for the Extension Term."

10. **Third Expansion Premises Utilities**. The Third Expansion Premises are separately submetered and electricity to the Third Expansion Premises shall be charged directly to Tenant by Landlord. The Third Expansion Premises shall be subject to the terms of Section 9(a) of the original Lease with respect to Utilities.

11. **Condition Precedent**. Notwithstanding anything to the contrary contained in this Third Amendment, Tenant and Landlord acknowledge and agree that the effectiveness of this Third Amendment shall be subject to the following condition precedent ("**Condition Precedent**") having been satisfied: Landlord shall have entered into a lease termination agreement ("**Termination Agreement**") on or before September 15, 2015, with the tenant currently leasing a portion of the Third Expansion Premises pursuant to which such existing tenant agrees to terminate its lease with respect to such portion of the Third Expansion Premises, which Termination Agreement shall be on terms and conditions acceptable to Landlord, in Landlord's sole and absolute discretion. In the event that the Condition Precedent is not satisfied, Landlord shall have the right to terminate this Third Amendment upon delivery of written notice to Tenant. Landlord shall have no liability whatsoever to Tenant relating to or arising from Landlord's inability or failure to cause the Condition Precedent to be satisfied.

12. **Brokers**. Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "**Broker**") in connection with the transaction reflected in this Third Amendment and that no Broker brought about this transaction, other than

Transwestern RBJ and Cushman & Wakefield. Landlord and Tenant each hereby agrees to indemnify and hold the other harmless from and against any claims by any Broker claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this leasing transaction.

13. Miscellaneous.

a. This Third Amendment is the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral and written agreements and discussions. This Third Amendment may be amended only by an agreement in writing, signed by the parties hereto.

b. This Third Amendment is binding upon and shall inure to the benefit of the parties hereto, their respective successors and assigns.

c. This Third Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument. The signature page of any counterpart may be detached therefrom without impairing the legal effect of the signature(s) thereon provided such signature page is attached to any other counterpart identical thereto except having additional signature pages executed by other parties to this Third Amendment attached thereto.

d. Except as amended and/or modified by this Third Amendment, the Lease is hereby ratified and confirmed and all other terms of the Lease shall remain in full force and effect, unaltered and unchanged by this Third Amendment. In the event of any conflict between the provisions of this Third Amendment and the provisions of the Lease, the provisions of this Third Amendment shall prevail. Whether or not specifically amended by this Third Amendment, all of the terms and provisions of the Lease are hereby amended to the extent necessary to give effect to the purpose and intent of this Third Amendment.

IN WITNESS WHEREOF, the parties hereto have executed this Third Amendment as of the day and year first above written.

TENANT:

SAGE THERAPEUTICS, INC.,
a Delaware corporation

By: 
Its: Kimi Iguchi, CFO

LANDLORD:

ARE-MA REGION NO. 38, LLC,
a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, L.P.,
a Delaware limited partnership, managing member

By: ARE-QRS CORP.,
a Maryland corporation,
general partner

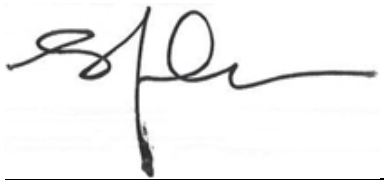
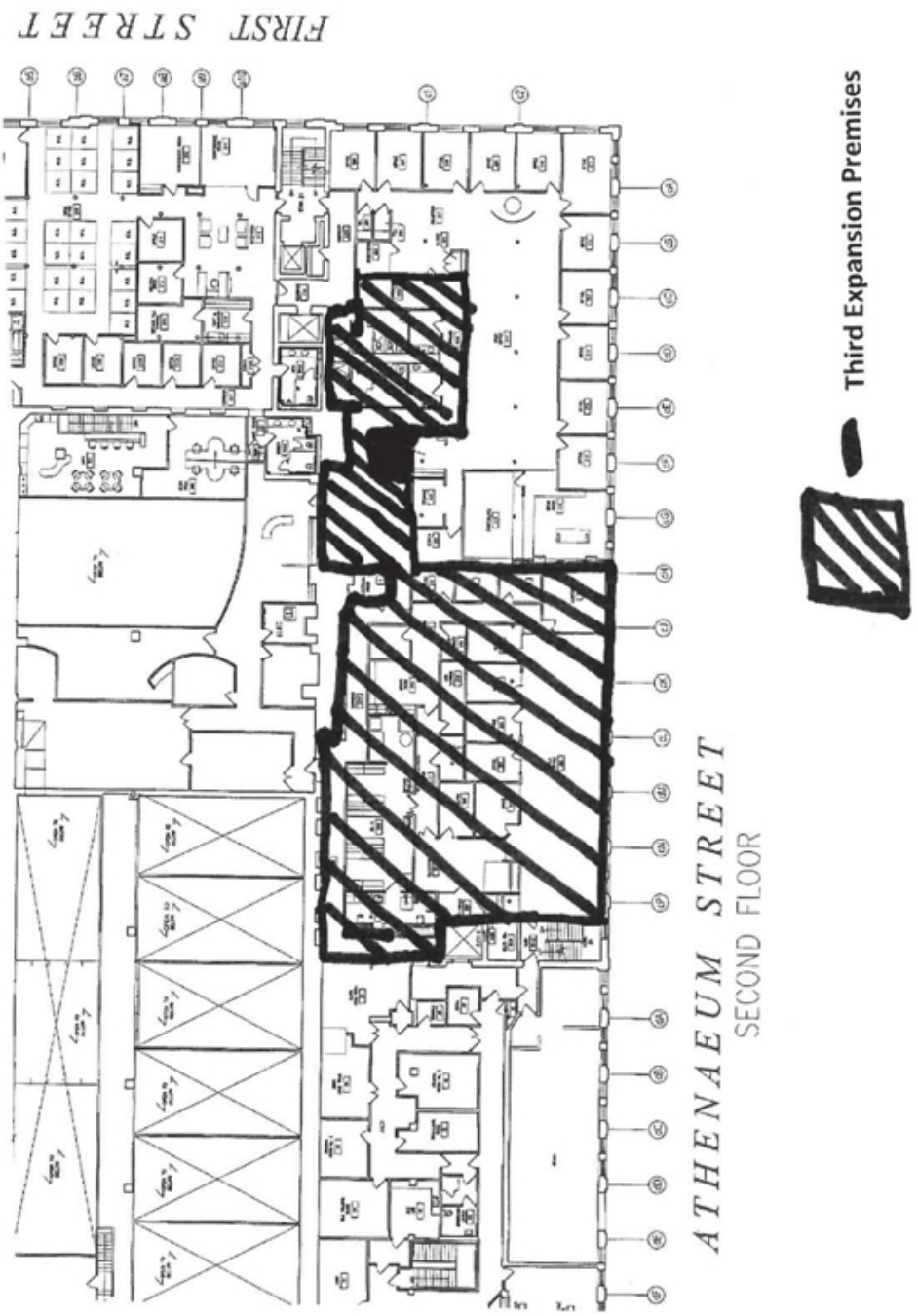
By: 
Its: Eric S. Johnson
Senior Vice President
RE Legal Affairs

EXHIBIT A

The Third Expansion Premises



ALEXANDRIA.

EXHIBIT B

Third Expansion Premises Work Letter

THIS THIRD EXPANSION PREMISES WORK LETTER dated September 9, 2015 (this "**Third Expansion Premises Work Letter**") is made and entered into by and between **ARE-MA REGION NO. 38, LLC**, a Delaware limited liability company ("**Landlord**"), and **SAGE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**"), and is attached to and made a part of that certain Lease Agreement dated as of December 21, 2011, as amended by that certain First Amendment to Lease dated as of October 26, 2012, as further amended by that certain Second Amendment to Lease dated as of May 9, 2013, and as further amended by that certain Third Amendment to Lease dated of even date herewith (the "**Third Amendment**") (as amended, the "**Lease**"), by and between Landlord and Tenant. Any initially capitalized terms used but not defined herein shall have the meanings given them in the Lease.

1. **General Requirements**.

(a) **Tenant's Authorized Representative**. Tenant designates Kelly Linehan and Kimi Iguchi (either such individual acting alone, "**Tenant's Representative**") as the only persons authorized to act for Tenant pursuant to this Third Expansion Premises Work Letter. Landlord shall not be obligated to respond to or act upon any request, approval, inquiry or other communication ("**Communication**") from or on behalf of Tenant in connection with this Third Expansion Premises Work Letter unless such Communication is in writing from Tenant's Representative. Tenant may change either Tenant's Representative at any time upon not less than 5 business days advance written notice to Landlord. Neither Tenant nor Tenant's Representative shall be authorized to direct Landlord's contractors in the performance of Landlord's Work (as hereinafter defined).

(b) **Landlord's Authorized Representative**. Landlord designates Jeff McComish and Bill DePippo (either such individual acting alone, "**Landlord's Representative**") as the only persons authorized to act for Landlord pursuant to this Third Expansion Premises Work Letter. Tenant shall not be obligated to respond to or act upon any request, approval, inquiry or other Communication from or on behalf of Landlord in connection with this Third Expansion Premises Work Letter unless such Communication is in writing from Landlord's Representative. Landlord may change either Landlord's Representative at any time upon not less than 5 business days advance written notice to Tenant. Landlord's Representative shall be the sole persons authorized to direct Landlord's contractors in the performance of Landlord's Work.

(c) **Architects, Consultants and Contractors**. Landlord and Tenant hereby acknowledge and agree that: (i) the general contractor and any subcontractors for the Tenant Improvements shall be selected by Landlord, subject to Tenant's approval, which approval shall not be unreasonably withheld, conditioned or delayed, and (ii) R.E. Dineen shall be the architect (the "**TI Architect**") for the Tenant Improvements.

2. **Tenant Improvements**.

(a) **Tenant Improvements Defined**. As used herein, "**Tenant Improvements**" shall mean all improvements to the Third Expansion Premises of a fixed and permanent nature as shown on the TI Construction Drawings, as defined in Section 2(c) below. The quality of the Tenant Improvements shall be consistent with the quality of the improvements existing in the Premises as of the date of the Third Amendment. Other than Landlord's Work (as defined in Section 3(a) below, Landlord shall not have any obligation whatsoever with respect to the finishing of the Third Expansion Premises for Tenant's use and occupancy.

(b) **Tenant's Space Plans**. Tenant shall deliver to Landlord and the TI Architect schematic drawings and outline specifications (the "**Space Plan**") detailing Tenant's requirements for the Tenant

Improvements within 5 business days of the date hereof. Not more than 5 days thereafter, Landlord shall deliver to Tenant the written objections, questions or comments of Landlord and the TI Architect with regard to the Space Plan. Tenant shall cause the TI Design Drawings to be revised to address such written comments and shall resubmit said drawings to Landlord for approval within 5 days thereafter. Such process shall continue until Landlord has approved the TI Design Drawings.

(c) **Working Drawings**. Landlord shall cause the TI Architect to prepare and deliver to Tenant for review and comment construction plans, specifications and drawings for the Tenant Improvements ("**TI Construction Drawings**"), which TI Construction Drawings shall be prepared substantially in accordance with the Space Plan. Tenant shall be solely responsible for ensuring that the TI Construction Drawings reflect Tenant's requirements for the Tenant Improvements. Tenant shall deliver its written comments on the TI Construction Drawings to Landlord not later than 10 business days after Tenant's receipt of the same; provided, however, that Tenant may not disapprove any matter that is consistent with the Space Plan without submitting a Change Request. Landlord and the TI Architect shall consider all such comments in good faith and shall, within 10 business days after receipt, notify Tenant how Landlord proposes to respond to such comments, but Tenant's review rights pursuant to the foregoing sentence shall not delay the design or construction schedule for the Tenant Improvements. Any disputes in connection with such comments shall be resolved in accordance with Section 2(d) hereof. Provided that the design reflected in the TI Construction Drawings is consistent with the Space Plan, Tenant shall approve the TI Construction Drawings submitted by Landlord, unless Tenant submits a Change Request. Once approved by Tenant, subject to the provisions of Section 4 below, Landlord shall not materially modify the TI Construction Drawings except as may be reasonably required in connection with the issuance of the TI Permit (as defined in Section 3(b) below).

(d) **Approval and Completion**. It is hereby acknowledged by Landlord and Tenant that the TI Construction Drawings must be completed and approved no later than October 1, 2015, in order for the Landlord's Work to be Substantially Complete by the Target Third Expansion Premises Commencement Date (as defined in the Third Amendment). Upon any dispute regarding the design of the Tenant Improvements, which is not settled within 10 business days after notice of such dispute is delivered by one party to the other, Tenant may make the final decision regarding the design of the Tenant Improvements, provided (i) Tenant acts reasonably and such final decision is either consistent with or a compromise between Landlord's and Tenant's positions with respect to such dispute, (ii) that all increases in costs and expenses resulting from any such decision by Tenant shall be payable by Tenant, and (iii) Tenant's decision will not affect the base Building, structural components of the Building or any Building systems. Any changes to the TI Construction Drawings following Landlord's and Tenant's approval of same requested by Tenant shall be processed as provided in Section 4 hereof.

3. **Performance of Landlord's Work**.

(a) **Definition of Landlord's Work**. As used herein, "**Landlord's Work**" shall mean the work of constructing the Tenant Improvements.

(b) **Commencement and Permitting**. Landlord shall commence construction of the Tenant Improvements upon obtaining a building permit (the "**TI Permit**") authorizing the construction of the Tenant Improvements consistent with the TI Construction Drawings approved by Tenant. The cost of obtaining the TI Permit shall be payable by Landlord. Tenant shall assist Landlord in obtaining the TI Permit. If any Governmental Authority having jurisdiction over the construction of Landlord's Work or any portion thereof shall impose terms or conditions upon the construction thereof that: (i) are inconsistent with Landlord's obligations hereunder, (ii) increase the cost of constructing Landlord's Work, or (iii) will materially delay the construction of Landlord's Work, Landlord and Tenant shall reasonably and in good faith seek means by which to mitigate or eliminate any such adverse terms and conditions.

(c) **Completion of Landlord's Work**. Landlord shall (i) substantially complete or cause to be substantially completed Landlord's Work in a good and workmanlike manner, in accordance with the

TI Permit subject, in each case, to Minor Variations and normal "punch list" items of a non-material nature that do not interfere with the use of the Third Expansion Premises, and (ii) obtain a certificate or temporary certificate of occupancy (or an equivalent approval) for the Third Expansion Premises permitting lawful occupancy of the Third Expansion Premises (but specifically excluding any permits, licenses or other governmental approvals required to be obtained in connection with Tenant's operations in the Third Expansion Premises)("**Substantial Completion**" or "**Substantially Complete**"). Upon Substantial Completion of Landlord's Work, Landlord shall require the TI Architect and the general contractor to execute and deliver, for the benefit of Tenant and Landlord, a Certificate of Substantial Completion in the form of the American Institute of Architects ("**AIA**") document G704. For purposes of this Third Expansion Premises Work Letter, "**Minor Variations**" shall mean any modifications reasonably required: (i) to comply with all applicable Legal Requirements and/or to obtain or to comply with any required permit (including the TI Permit); (ii) to comply with any request by Tenant for modifications to Landlord's Work; (iii) to comport with good design, engineering, and construction practices that are not material; or (iv) to make reasonable adjustments for field deviations or conditions encountered during the construction of Landlord's Work.

(d) **Selection of Materials**. Where more than one type of material or structure is indicated on the TI Construction Drawings approved by Landlord and Tenant, the option will be selected at Landlord's sole and absolute subjective discretion. As to all building materials and equipment that Landlord is obligated to supply under this Third Expansion Premises Work Letter, Landlord shall select the manufacturer thereof in its sole and absolute subjective discretion.

(e) **Delivery of the Third Expansion Premises**. When Landlord's Work is Substantially Complete, subject to the remaining terms and provisions of this Section 3(e). Tenant shall accept the Third Expansion Premises. Tenant's taking possession and acceptance of the Third Expansion Premises shall not constitute a waiver of: (i) any warranty with respect to workmanship (including installation of equipment) or material (exclusive of equipment provided directly by manufacturers), (ii) any non-compliance of Landlord's Work with applicable Legal Requirements, or (iii) any claim that Landlord's Work was not completed substantially in accordance with the TI Construction Drawings (subject to Minor Variations and such other changes as are permitted hereunder) (collectively, a "**Construction Defect**"). Tenant shall have one year after Substantial Completion within which to notify Landlord of any such Construction Defect discovered by Tenant, and Landlord shall use reasonable efforts to remedy or cause the responsible contractor to remedy any such Construction Defect within 30 days thereafter. Notwithstanding the foregoing, Landlord shall not be in default under the Lease if the applicable contractor, despite Landlord's reasonable efforts, fails to remedy such Construction Defect within such 30-day period, in which case Landlord shall have no further obligation with respect to such Construction Defect other than to cooperate, at no cost to Landlord, with Tenant should Tenant elect to pursue a claim against such contractor.

(f) Tenant shall be entitled to receive the benefit of all construction warranties and manufacturer's equipment warranties relating to equipment installed in the Third Expansion Premises. If requested by Tenant, Landlord shall attempt to obtain extended warranties from manufacturers and suppliers of such equipment, but the cost of any such extended warranties shall be borne solely by Tenant. Landlord shall promptly undertake and complete, or cause to be completed, all punch list items.

(g) **Third Expansion Premises Commencement Date Delay**. Except as otherwise provided in the Lease, Delivery of the Third Expansion Premises shall occur when Landlord's Work has been Substantially Completed, except to the extent that completion of Landlord's Work shall have been actually delayed by any one or more of the following causes ("**Tenant Delay**"):

(i) Tenant's Representative was not available within 2 business day to give or receive any Communication or to take any other action required to be taken by Tenant hereunder;

(ii) Tenant's request for Change Requests (as defined in Section 4(a) below) whether or not any such Change Requests are actually performed;

(iii) Construction of any Change Requests;

(iv) Tenant's request for materials, finishes or installations requiring unusually long lead times, provided that promptly after Landlord learns of such long lead times, Landlord informs Tenant that the requested items will require unusually long lead times;

(v) Tenant's delay in reviewing, revising or approving plans and specifications beyond the periods set forth herein;

(vi) Tenant's delay in providing information critical to the normal progression of the Project. Tenant shall provide such information as soon as reasonably possible, but in no event longer than one week after receipt of any request for such information from Landlord;

(vii) Tenant's delay in making payments to Landlord for Excess TI Costs (as defined in Section 5(b) below); or

(viii) Any other act or omission by Tenant or any Tenant Party (as defined in the Lease), or persons employed by any of such persons.

If Delivery is delayed for any of the foregoing reasons, then Landlord shall cause the TI Architect to certify the date on which the Tenant Improvements would have been completed but for such Tenant Delay and such certified date shall be the date of Delivery.

4. **Changes**. Any changes requested by Tenant to the Tenant Improvements after the delivery and approval by Landlord of the Space Plan shall be requested and instituted in accordance with the provisions of this Section 4 and shall be subject to the written approval of Landlord and the TI Architect, such approval not to be unreasonably withheld, conditioned or delayed.

(a) **Tenant's Request For Changes**. If Tenant shall request changes to the Tenant Improvements ("**Changes**"), Tenant shall request such Changes by notifying Landlord in writing in substantially the same form as the AIA standard change order form (a "**Change Request**"), which Change Request shall detail the nature and extent of any such Change. Such Change Request must be signed by Tenant's Representative. Landlord shall, before proceeding with any Change, respond to Tenant as soon as is reasonably possible with an estimate of: (i) the time it will take, and (ii) the architectural and engineering fees and costs that will be incurred, to analyze such Change Request (which costs shall be paid by Tenant to the extent actually incurred, whether or not such change is implemented). Landlord shall thereafter submit to Tenant in writing, within 5 business days of receipt of the Change Request (or such longer period of time as is reasonably required depending on the extent of the Change Request), an analysis of the additional cost or savings involved, including, without limitation, architectural and engineering costs and the period of time, if any, that the Change will extend the date on which Landlord's Work will be Substantially Complete. Any such delay in the completion of Landlord's Work caused by a Change, including any reasonable suspension of Landlord's Work while any such Change is being evaluated and/or designed, shall be Tenant Delay.

(b) **Implementation of Changes**. If Tenant: (i) approves in writing the cost or savings and the estimated extension in the time for completion of Landlord's Work, if any, and (ii) deposits with Landlord any Excess TI Costs required pursuant to Section 5(b) below in connection with such Change, Landlord shall cause the approved Change to be instituted. Notwithstanding any approval or disapproval by Tenant of any estimate of the delay caused by such proposed Change, the TI Architect's determination of the amount of Tenant Delay in connection with such Change shall be final and binding on Landlord and Tenant.

5. **Costs**.

(a) **TI Costs**. Landlord shall be responsible for all hard and soft costs and expenses for the design and performance of Landlord's Work including, without limitation, design, permits and construction costs in connection with the construction of the Tenant Improvements, including, without limitation, the cost of preparing the TI Construction Drawings and the Space Plan and Landlord's out-of-pocket expenses, up to $35.00 per rentable square foot of the Current Premises and the Third Expansion Premises, or $649,670 in the aggregate (collectively, "**TI Costs**"). Notwithstanding anything to the contrary contained herein, in no event shall Landlord be required to pay for any furniture, personal property or other non-Building system materials or equipment, including, but not limited to, Tenant's voice or data cabling, not incorporated into the Tenant Improvements.

(b) **Excess TI Costs**. Notwithstanding anything to the contrary contained herein, Tenant acknowledges and agrees that Landlord shall have no responsibility for any costs arising from or related to Tenant's changes to the Space Plan or TI Construction Drawings, Tenant Delays, the cost of Changes and Change Requests and any TI Costs in excess of to $35.00 per rentable square foot of the Third Expansion Premises (collectively, "**Excess TI Costs**"). Tenant shall deposit with Landlord 50% of the Excess TI Costs as a condition precedent to Landlord's obligation to complete the Tenant Improvements and the remaining 50% of the Excess TI Costs upon Substantial Completion of the Tenant Improvements. If Tenant fails to deposit any Excess TI Costs with Landlord, Landlord shall have all of the rights and remedies set forth in the Lease for nonpayment of Rent (including, but not limited to, the right to interest at the Default Rate and the right to assess a late charge). For purposes of any litigation instituted with regard to such amounts, those amounts will be deemed Rent under the Lease.

6. **Tenant Access**.

(a) **Tenant's Access Rights**. Landlord hereby agrees to permit Tenant access, at Tenant's sole risk and expense, to the Third Expansion Premises (i) 14 days prior to the **Third Expansion Premises Commencement Date** to perform any work ("**Tenant's Work**") required by Tenant other than Landlord's Work, provided that such Tenant's Work is coordinated with the TI Architect and the general contractor, and complies with the Lease and all other reasonable restrictions and conditions Landlord may impose (except the obligation to pay Base Rent or Operating Expenses with respect to the Third Expansion Premises), and (ii) prior to the completion of Landlord's Work, to inspect and observe work in process; all such access shall be during normal business hours or at such other times as are reasonably designated by Landlord. Any entry by Tenant shall comply with all established safety practices of Landlord's contractor and Landlord until completion of Landlord's Work and acceptance thereof by Tenant.

(b) **No Interference**. Neither Tenant nor any Tenant Party (as defined in the Lease) shall interfere with the performance of Landlord's Work, nor with any inspections or issuance of final approvals by applicable Governmental Authorities, and upon any such interference, Landlord shall have the right to exclude Tenant and any Tenant Party from the Third Expansion Premises until Substantial Completion of Landlord's Work.

(c) **No Acceptance of Third Expansion Premises**. The fact that Tenant may, with Landlord's consent, enter into the Third Expansion Premises prior to the date Landlord's Work is Substantially Complete for the purpose of performing Tenant's Work shall not be deemed an acceptance by Tenant of possession of the Third Expansion Premises, but in such event Tenant shall defend with counsel reasonably acceptable by Landlord, indemnify and hold Landlord harmless from and against any loss of or damage to Tenant's property, completed work, fixtures, equipment, materials or merchandise, and from liability for death of, or injury to, any person, caused by the act or omission of Tenant or any Tenant Party.

7. **Miscellaneous**.

(a) **Consents**. Whenever consent or approval of either party is required under this Third Expansion Premises Work Letter, that party shall not unreasonably withhold, condition or delay such consent or approval, unless expressly set forth herein to the contrary.

(b) **Modification**. No modification, waiver or amendment of this Third Expansion Premises Work Letter or of any of its conditions or provisions shall be binding upon Landlord or Tenant unless in writing signed by Landlord and Tenant.

(c) **Default**. Notwithstanding anything set forth herein or in the Lease to the contrary, Landlord shall not have any obligation to perform any work hereunder or to fund any portion of the TI Costs during any period that there is a Default by Tenant under the Lease.

FOURTH AMENDMENT TO LEASE

THIS FOURTH AMENDMENT TO LEASE (this "**Fourth Amendment**") is made as of October 27, 2015, by and between **ARE-MA REGION NO. 38, LLC**, a Delaware limited liability company ("**Landlord**"), and **SAGE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**").

RECITALS

A. Landlord and Tenant are now parties to that certain Lease Agreement dated as of December 21, 2011, as amended by that certain First Amendment to Lease dated as of October 26, 2012, as further amended by that certain Second Amendment to Lease dated as of May 9, 2013, and as further amended by that certain Third Amendment to Lease dated as of September 9, 2015 (the "**Third Amendment**")(as amended, the "**Lease**"). Pursuant to the Lease, Tenant leases certain premises consisting of approximately 18,562 rentable square feet of space ("**Current Premises**") in a building located at 215 First Street, Cambridge, Massachusetts ("**Building**"). The Current Premises are more particularly described in the Lease. Capitalized terms used herein without definition shall have the meanings defined for such terms in the Lease.

B. Landlord and Tenant desire, subject to the terms and conditions set forth below, to amend the Lease to, among other things, expand the size of the Current Premises by adding approximately 3,505 rentable square feet of space on the first floor of the Building, as shown on **Exhibit A** attached hereto (the "**Fourth Expansion Premises**").

NOW, THEREFORE, in consideration of the foregoing Recitals, which are incorporated herein by this reference, the mutual promises and conditions contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. **Fourth Expansion Premises**. In addition to the Current Premises, commencing on the Fourth Expansion Premises Commencement Date (as defined below), Landlord leases to Tenant, and Tenant leases from Landlord, the Fourth Expansion Premises.

2. **Delivery**. Landlord shall use reasonable efforts to deliver the Fourth Expansion Premises to Tenant on or before the Target Fourth Expansion Premises Commencement Date with Landlord's Work Substantially Completed ("**Delivery**" or "**Deliver**"). If Landlord fails to timely Deliver the Fourth Expansion Premises, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and the Lease with respect to the Fourth Expansion Premises shall not be void or voidable. As used herein, the terms "**Landlord's Work**," "**Tenant Delays**" and "**Substantially Completed**" shall have the meanings set forth for such terms in the work letter attached to this Fourth Amendment as **Exhibit B** ("**Fourth Expansion Premises Work Letter**").

   The "**Fourth Expansion Premises Commencement Date**" shall be the earlier to occur of: (i) the date that Landlord delivers the Fourth Expansion Premises to Tenant, or (ii) the date that Landlord could have delivered to Fourth Expansion Premises to Tenant but for Tenant Delays. The "**Target Fourth Expansion Premises Commencement Date**" shall be March 1, 2016. The "**Fourth Expansion Premises Rent Commencement Date**" shall be the date that is 3 months after the Fourth Expansion Premises Commencement Date. Upon request of Landlord, Tenant shall execute and deliver a written acknowledgment of the Fourth Expansion Premises Commencement Date and the Fourth Expansion Premises Rent Commencement Date in a form substantially similar to the form of the "Acknowledgement of Commencement Date" attached to the Lease as **Exhibit G**; provided, however, Tenant's failure to execute and deliver such acknowledgment shall not affect Landlord's rights hereunder.

Except as set forth in the Fourth Expansion Premises Work Letter: (i) Tenant shall accept the Fourth Expansion Premises in their condition as of the Fourth Expansion Premises Commencement Date, subject to all applicable Legal Requirements; (ii) Landlord shall have no obligation for any defects in the Fourth Expansion Premises; and (iii) Tenant's taking possession of the Fourth Expansion Premises shall be conclusive evidence that Tenant accepts the Fourth Expansion Premises and that the Fourth Expansion Premises were in good condition at the time possession was taken. The Fourth Expansion Premises shall be delivered to Tenant without any furniture.

Tenant agrees and acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of all or any portion of the Fourth Expansion Premises, and/or the suitability of the Fourth Expansion Premises for the conduct of Tenant's business, and Tenant waives any implied warranty that the Fourth Expansion Premises are suitable for the Permitted Use.

3. **Definition of Premises**. Commencing on the Fourth Expansion Premises Commencement Date, the defined term "**Premises**" on Page 1 of the Lease is deleted in its entirety and replaced with the following:

"**Premises:** That portion of the Building (as defined below) containing approximately 22,067 rentable square feet, consisting of (i) approximately 5,900 rentable square feet on the second floor ("**Original Premises**"), (ii) approximately 600 rentable square feet on the second floor ("**Expansion Premises**"), (iii) approximately 4,100 rentable square feet on the second floor ("**Second Expansion Premises**"), (iv) approximately 7,962 rentable square feet on the second floor ("**Third Expansion Premises**"), and (v) approximately 3,505 rentable square feet on the first floor ("**Fourth Expansion Premises**"), all as determined by Landlord, as shown on **Exhibit A**."

Exhibit A attached to the Lease is amended as of the Fourth Expansion Premises Commencement Date to include **Exhibit A** attached to this Fourth Amendment.

4. **Base Rent**.

a. Current Premises. Tenant shall continue to pay Base Rent for the Current Premises as provided for in the Lease.

b. Fourth Expansion Premises. Commencing on the Fourth Expansion Premises Rent Commencement Date through July 31, 2017, Tenant shall pay Base Rent for the Fourth Expansion Premises in the amount of $37.60 per rentable square foot of the Fourth Expansion Premises per year. Commencing on August 1, 2017, Tenant shall pay Base Rent for the Fourth Expansion Premises in the amount of $48.00 per rentable square foot of the Fourth Expansion Premises per year. Commencing on August 1, 2018, and continuing thereafter on each August 1st during the Base Term, Base Rent for the Fourth Expansion Premises shall be increased by $1.00 per rentable square foot of the Fourth Expansion Premises per year. Base Rent for the Fourth Expansion Premises, as so adjusted, shall thereafter be due as provided herein.

5. **Tenant's Share**. Commencing on the Fourth Expansion Premises Commencement Date, the defined term "**Tenant's Share**" on page 1 of the Lease is deleted in its entirety and replaced with the following:

"**Tenant's Share for Original Premises and Expansion Premises:** 1.77%

Tenant's Share for Second Expansion Premises: 1.12%

Tenant's Share of Third Expansion Premises: 2.17%

Tenant's Share of Fourth Expansion Premises: 0.96%"

Notwithstanding anything to the contrary contained in the Lease, (i) neither Operating Expenses nor Taxes payable by Tenant with respect to the Fourth Expansion Premises shall be subject to a Base Year, and (ii) Tenant shall not be required to pay Operating Expenses or Taxes with respect to the Fourth Expansion Premises for the period commencing on the Fourth Expansion Premises Commencement Date through July 31, 2017 (for the avoidance of doubt, Tenant shall be required to pay for electricity to the Fourth Expansion Premises during such period). Tenant shall commence paying Operating Expenses and Taxes with respect to the Fourth Expansion Premises on August 1, 2017.

6. **Base Term**. Commencing on the Fourth Expansion Premises Commencement Date, the defined term "**Base Term**" on page 1 of the Lease is deleted in its entirety and replaced with the following:

"**Base Term:** Beginning (i) with respect to the Original Premises, on the Commencement Date, (ii) with respect to the Expansion Premises, on the Expansion Premises Commencement Date, (iii) with respect to the Second Expansion Premises, on the Second Expansion Premises Commencement Date, (iv) with respect to the Third Expansion Premises, on the Third Expansion Premises Commencement Date, and (v) with respect to the Fourth Expansion Premises, on the Fourth Expansion Premises Commencement Date, and ending with respect to the entire Premises on February 28, 2022 ("**Expiration Date**")."

7. **Rentable Area of Premises**. Commencing on the Fourth Expansion Premises Commencement Date, the defined term "**Rentable Area of Premises**" on page 1 of the Lease is deleted in its entirety and replaced with the following:

"**Rentable Area:** Approximately 22,067 square feet"

8. **Parking**. Notwithstanding anything to the contrary contained herein, commencing on the Fourth Expansion Premises Commencement Date, the number of parking spaces that Tenant is entitled to license pursuant to Section 8 of the Lease (as amended by Section 11 of the Third Amendment) shall be increased from 19 to 22 parking spaces and all references to "19" contained in Section 8 of the Lease (as amended by Section 11 of the Third Amendment) shall be deleted and replaced with "22."

9. **Fourth Expansion Premises Utilities**. The Fourth Expansion Premises shall be separately submetered and electricity to the Fourth Expansion Premises shall be charged directly to Tenant by Landlord. The Fourth Expansion Premises shall be subject to the terms of Section 9(a) of the original Lease with respect to Utilities.

10. **Brokers**. Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "**Broker**") in connection with the transaction reflected in this Fourth Amendment and that no Broker brought about this transaction, other than Transwestern RBJ and Cushman & Wakefield. Landlord and Tenant each hereby agrees to indemnify and hold the other harmless from and against any claims by any Broker claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this Fourth Amendment.

11. **OFAC**. Tenant and Landlord are currently (a) in compliance with and shall at all times during the Term of the Lease remain in compliance with the regulations of the Office of Foreign Assets Control ("**OFAC**") of the U.S. Department of Treasury and any statute, executive order, or regulation relating thereto (collectively, the "**OFAC Rules**"), (b) not listed on, and shall not during the term of the Lease be listed on, the Specially Designated Nationals and Blocked Persons List, Foreign Sanctions Evaders List or the Sectoral Sanctions Identifications List, which are all

maintained by OFAC and/or on any other similar list maintained by OFAC or other governmental authority pursuant to any authorizing statute, executive order, or regulation, and (c) not a person or entity with whom a U.S. person is prohibited from conducting business under the OFAC Rules.

12. **Miscellaneous**.

a. This Fourth Amendment is the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral and written agreements and discussions. This Fourth Amendment may be amended only by an agreement in writing, signed by the parties hereto.

b. This Fourth Amendment is binding upon and shall inure to the benefit of the parties hereto, their respective successors and assigns.

c. This Fourth Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument. The signature page of any counterpart may be detached therefrom without impairing the legal effect of the signature(s) thereon provided such signature page is attached to any other counterpart identical thereto except having additional signature pages executed by other parties to this Fourth Amendment attached thereto.

d. Except as amended and/or modified by this Fourth Amendment, the Lease is hereby ratified and confirmed and all other terms of the Lease shall remain in full force and effect, unaltered and unchanged by this Fourth Amendment. In the event of any conflict between the provisions of this Fourth Amendment and the provisions of the Lease, the provisions of this Fourth Amendment shall prevail. Whether or not specifically amended by this Fourth Amendment, all of the terms and provisions of the Lease are hereby amended to the extent necessary to give effect to the purpose and intent of this Fourth Amendment.

IN WITNESS WHEREOF, the parties hereto have executed this Fourth Amendment as of the day and year first above written.

TENANT:

SAGE THERAPEUTICS, INC.,
a Delaware corporation

By: /s/ Kimi Iguchi
Its: _____

LANDLORD:

ARE-MA REGION NO. 38, LLC,
a Delaware limited liability company

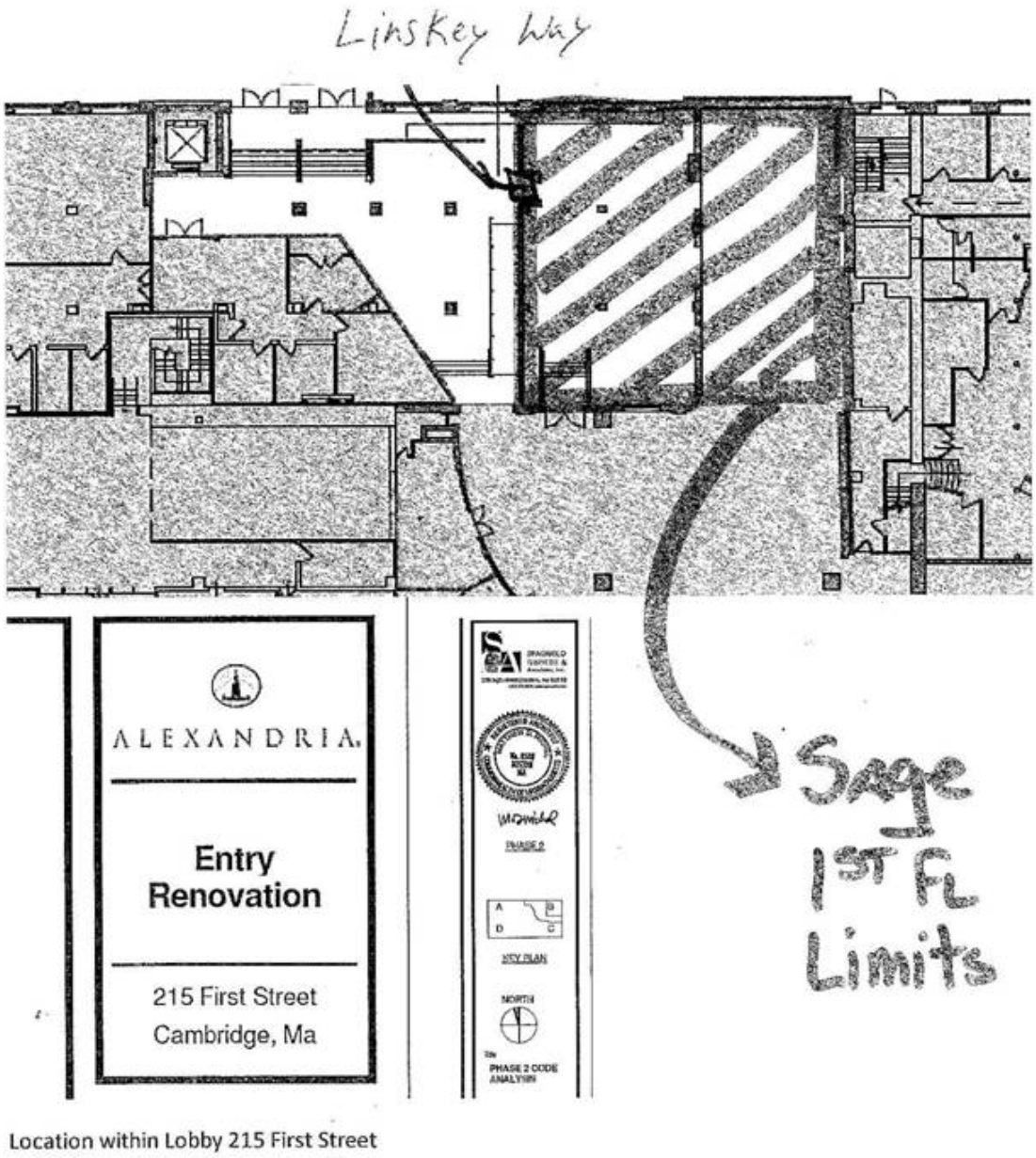
By: Alexandria Real Estate Equities, L.P.,
a Delaware limited partnership, managing member

By: ARE-QRS CORP.,
a Maryland corporation,
general partner

By: /s/ Eric S. Johnson
Its: Eric S. Johnson
Senior Vice President
RE Legal Affaires

EXHIBIT A

The Fourth Expansion Premises



Location within Lobby 215 First Street

EXHIBIT B

Fourth Expansion Premises Work Letter

THIS FOURTH EXPANSION PREMISES WORK LETTER dated October 27, 2015 (this "**Fourth Expansion Premises Work Letter**") is made and entered into by and between **ARE-MA REGION NO. 38, LLC**, a Delaware limited liability company ("**Landlord**"), and **SAGE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**"), and is attached to and made a part of that certain Lease Agreement dated as of December 21, 2011, as amended by that certain First Amendment to Lease dated as of October 26, 2012, as further amended by that certain Second Amendment to Lease dated as of May 9, 2013, as amended by that certain Third Amendment to Lease dated as of September 9, 2015, and as further amended by that certain Fourth Amendment to Lease dated of even date herewith (the "**Fourth Amendment**") (as amended, the "**Lease**"), by and between Landlord and Tenant. Any initially capitalized terms used but not defined herein shall have the meanings given them in the Lease.

1. **General Requirements**.

(a) **Tenant's Authorized Representative**. Tenant designates Kelly Linehan and Kimi Iguchi (either such individual acting alone, "**Tenant's Representative**") as the only persons authorized to act for Tenant pursuant to this Fourth Expansion Premises Work Letter. Landlord shall not be obligated to respond to or act upon any request, approval, inquiry or other communication ("**Communication**") from or on behalf of Tenant in connection with this Fourth Expansion Premises Work Letter unless such Communication is in writing from Tenant's Representative. Tenant may change either Tenant's Representative at any time upon not less than 5 business days advance written notice to Landlord. Neither Tenant nor Tenant's Representative shall be authorized to direct Landlord's contractors in the performance of Landlord's Work (as hereinafter defined).

(b) **Landlord's Authorized Representative**. Landlord designates Jeff McComish and Bill DePippo (either such individual acting alone, "**Landlord's Representative**") as the only persons authorized to act for Landlord pursuant to this Fourth Expansion Premises Work Letter. Tenant shall not be obligated to respond to or act upon any request, approval, inquiry or other Communication from or on behalf of Landlord in connection with this Fourth Expansion Premises Work Letter unless such Communication is in writing from Landlord's Representative. Landlord may change either Landlord's Representative at any time upon not less than 5 business days advance written notice to Tenant. Landlord's Representative shall be the sole persons authorized to direct Landlord's contractors in the performance of Landlord's Work.

(c) **Architects, Consultants and Contractors**. Landlord and Tenant hereby acknowledge and agree that: (i) the general contractor and any subcontractors for the Tenant Improvements shall be selected by Landlord, subject to Tenant's approval, which approval shall not be unreasonably withheld, conditioned or delayed, and (ii) SGA shall be the architect (the "**TI Architect**") for the Tenant Improvements.

2. **Tenant Improvements**.

(a) **Tenant Improvements Defined**. As used herein, "**Tenant Improvements**" shall mean all improvements to the Fourth Expansion Premises of a fixed and permanent nature as shown on the TI Construction Drawings, as defined in Section 2(c) below. The quality of the Tenant Improvements shall be consistent with the quality of the improvements existing in the Premises as of the date of the Fourth Amendment. Other than Landlord's Work (as defined in Section 3(a) below), Landlord shall not have any obligation whatsoever with respect to the finishing of the Fourth Expansion Premises for Tenant's use and occupancy.

(b) **Tenant's Space Plans**. Landlord and Tenant acknowledge and agree that that certain plan attached hereto as **Schedule 1** (the "**Space Plan**") has been approved by Landlord and Tenant.

(c) **Working Drawings**. Landlord shall cause the TI Architect to prepare and deliver to Tenant for review and comment construction plans, specifications and drawings for the Tenant Improvements ("**TI Construction Drawings**"), which TI Construction Drawings shall be prepared substantially in accordance with the Space Plan. Tenant shall be solely responsible for ensuring that the TI Construction Drawings reflect Tenant's requirements for the Tenant Improvements. Tenant shall deliver its written comments on the TI Construction Drawings to Landlord not later than 10 business days after Tenant's receipt of the same; provided, however, that Tenant may not disapprove any matter that is consistent with the Space Plan without submitting a Change Request. Landlord and the TI Architect shall consider all such comments in good faith and shall, within 10 business days after receipt, notify Tenant how Landlord proposes to respond to such comments, but Tenant's review rights pursuant to the foregoing sentence shall not delay the design or construction schedule for the Tenant Improvements. Any disputes in connection with such comments shall be resolved in accordance with Section 2(d) hereof. Provided that the design reflected in the TI Construction Drawings is consistent with the Space Plan, Tenant shall approve the TI Construction Drawings submitted by Landlord, unless Tenant submits a Change Request. Once approved by Tenant, subject to the provisions of Section 4 below, Landlord shall not materially modify the TI Construction Drawings except as may be reasonably required in connection with the issuance of the TI Permit (as defined in Section 3(b) below).

(d) **Approval and Completion**. It is hereby acknowledged by Landlord and Tenant that the TI Construction Drawings must be completed and approved no later than October 30, 2015, in order for the Landlord's Work to be Substantially Complete by the Target Fourth Expansion Premises Commencement Date (as defined in the Third Amendment). Upon any dispute regarding the design of the Tenant Improvements, which is not settled within 10 business days after notice of such dispute is delivered by one party to the other, Tenant may make the final decision regarding the design of the Tenant Improvements, provided (i) Tenant acts reasonably and such final decision is either consistent with or a compromise between Landlord's and Tenant's positions with respect to such dispute, (ii) that all increases in costs and expenses resulting from any such decision by Tenant shall be payable by Tenant, and (iii) Tenant's decision will not affect the base Building, structural components of the Building or any Building systems. Any changes to the TI Construction Drawings following Landlord's and Tenant's approval of same requested by Tenant shall be processed as provided in Section 4 hereof.

3. **Performance of Landlord's Work**.

(a) **Definition of Landlord's Work**. As used herein, "**Landlord's Work**" shall mean the work of constructing the Tenant Improvements.

(b) **Commencement and Permitting**. Landlord shall commence construction of the Tenant Improvements upon obtaining a building permit (the "**TI Permit**") authorizing the construction of the Tenant Improvements consistent with the TI Construction Drawings approved by Tenant. The cost of obtaining the TI Permit shall be payable by Landlord. Tenant shall assist Landlord in obtaining the TI Permit. If any Governmental Authority having jurisdiction over the construction of Landlord's Work or any portion thereof shall impose terms or conditions upon the construction thereof that: (i) are inconsistent with Landlord's obligations hereunder, (ii) increase the cost of constructing Landlord's Work, or (iii) will materially delay the construction of Landlord's Work, Landlord and Tenant shall reasonably and in good faith seek means by which to mitigate or eliminate any such adverse terms and conditions.

(c) **Completion of Landlord's Work**. Landlord shall (i) substantially complete or cause to be substantially completed Landlord's Work in a good and workmanlike manner, in accordance with the TI Permit subject, in each case, to Minor Variations and normal "punch list" items of a non-material nature that do not interfere with the use of the Fourth Expansion Premises, and (ii) obtain a certificate or temporary certificate of occupancy (or an equivalent approval) for the Fourth Expansion Premises

permitting lawful occupancy of the Fourth Expansion Premises (but specifically excluding any permits, licenses or other governmental approvals required to be obtained in connection with Tenant's operations in the Fourth Expansion Premises)("**Substantial Completion**" or "**Substantially Complete**"). Upon Substantial Completion of Landlord's Work, Landlord shall require the TI Architect and the general contractor to execute and deliver, for the benefit of Tenant and Landlord, a Certificate of Substantial Completion in the form of the American Institute of Architects ("**AIA**") document G704. For purposes of this Fourth Expansion Premises Work Letter, "**Minor Variations**" shall mean any modifications reasonably required: (i) to comply with all applicable Legal Requirements and/or to obtain or to comply with any required permit (including the TI Permit); (ii) to comply with any request by Tenant for modifications to Landlord's Work; (iii) to comport with good design, engineering, and construction practices that are not material; or (iv) to make reasonable adjustments for field deviations or conditions encountered during the construction of Landlord's Work.

(d) **Selection of Materials**. Where more than one type of material or structure is indicated on the TI Construction Drawings approved by Landlord and Tenant, the option will be selected at Landlord's sole and absolute subjective discretion. As to all building materials and equipment that Landlord is obligated to supply under this Fourth Expansion Premises Work Letter, Landlord shall select the manufacturer thereof in its sole and absolute subjective discretion.

(e) **Delivery of the Fourth Expansion Premises**. When Landlord's Work is Substantially Complete, subject to the remaining terms and provisions of this Section 3(e), Tenant shall accept the Fourth Expansion Premises. Tenant's taking possession and acceptance of the Fourth Expansion Premises shall not constitute a waiver of: (i) any warranty with respect to workmanship (including installation of equipment) or material (exclusive of equipment provided directly by manufacturers), (ii) any non-compliance of Landlord's Work with applicable Legal Requirements, or (iii) any claim that Landlord's Work was not completed substantially in accordance with the TI Construction Drawings (subject to Minor Variations and such other changes as are permitted hereunder) (collectively, a "**Construction Defect**"). Tenant shall have one year after Substantial Completion within which to notify Landlord of any such Construction Defect discovered by Tenant, and Landlord shall use reasonable efforts to remedy or cause the responsible contractor to remedy any such Construction Defect within 30 days thereafter. Notwithstanding the foregoing, Landlord shall not be in default under the Lease if the applicable contractor, despite Landlord's reasonable efforts, fails to remedy such Construction Defect within such 30-day period, in which case Landlord shall have no further obligation with respect to such Construction Defect other than to cooperate, at no cost to Landlord, with Tenant should Tenant elect to pursue a claim against such contractor.

(f) Tenant shall be entitled to receive the benefit of all construction warranties and manufacturer's equipment warranties relating to equipment installed in the Fourth Expansion Premises. If requested by Tenant, Landlord shall attempt to obtain extended warranties from manufacturers and suppliers of such equipment, but the cost of any such extended warranties shall be borne solely by Tenant. Landlord shall promptly undertake and complete, or cause to be completed, all punch list items.

(g) **Fourth Expansion Premises Commencement Date Delay**. Except as otherwise provided in the Lease, Delivery of the Fourth Expansion Premises shall occur when Landlord's Work has been Substantially Completed, except to the extent that completion of Landlord's Work shall have been actually delayed by any one or more of the following causes ("**Tenant Delay**"):

(i) Tenant's Representative was not available within 2 business day to give or receive any Communication or to take any other action required to be taken by Tenant hereunder;

(ii) Tenant's request for Change Requests (as defined in Section 4(a) below) whether or not any such Change Requests are actually performed;

(iii) Construction of any Change Requests;

(iv) Tenant's request for materials, finishes or installations requiring unusually long lead times, provided that promptly after Landlord learns of such long lead times, Landlord informs Tenant that the requested items will require unusually long lead times;

(v) Tenant's delay in reviewing, revising or approving plans and specifications beyond the periods set forth herein;

(vi) Tenant's delay in providing information critical to the normal progression of the Project. Tenant shall provide such information as soon as reasonably possible, but in no event longer than one week after receipt of any request for such information from Landlord;

(vii) Tenant's delay in making payments to Landlord for Excess TI Costs (as defined in Section 5(b) below); or

(viii) Any other act or omission by Tenant or any Tenant Party (as defined in the Lease), or persons employed by any of such persons.

If Delivery is delayed for any of the foregoing reasons, then Landlord shall cause the TI Architect to certify the date on which the Tenant Improvements would have been completed but for such Tenant Delay and such certified date shall be the date of Delivery.

4. **Changes**. Any changes requested by Tenant to the Tenant Improvements after the delivery and approval by Landlord of the Space Plan shall be requested and instituted in accordance with the provisions of this Section 4 and shall be subject to the written approval of Landlord and the TI Architect, such approval not to be unreasonably withheld, conditioned or delayed.

(a) **Tenant's Request For Changes**. If Tenant shall request changes to the Tenant Improvements ("**Changes**"), Tenant shall request such Changes by notifying Landlord in writing in substantially the same form as the AIA standard change order form (a "**Change Request**"), which Change Request shall detail the nature and extent of any such Change. Such Change Request must be signed by Tenant's Representative. Landlord shall, before proceeding with any Change, respond to Tenant as soon as is reasonably possible with an estimate of: (i) the time it will take, and (ii) the architectural and engineering fees and costs that will be incurred, to analyze such Change Request (which costs shall be paid by Tenant to the extent actually incurred, whether or not such change is implemented). Landlord shall thereafter submit to Tenant in writing, within 5 business days of receipt of the Change Request (or such longer period of time as is reasonably required depending on the extent of the Change Request), an analysis of the additional cost or savings involved, including, without limitation, architectural and engineering costs and the period of time, if any, that the Change will extend the date on which Landlord's Work will be Substantially Complete. Any such delay in the completion of Landlord's Work caused by a Change, including any reasonable suspension of Landlord's Work while any such Change is being evaluated and/or designed, shall be Tenant Delay.

(b) **Implementation of Changes**. If Tenant: (i) approves in writing the cost or savings and the estimated extension in the time for completion of Landlord's Work, if any, and (ii) deposits with Landlord any Excess TI Costs required pursuant to Section 5(b) below in connection with such Change, Landlord shall cause the approved Change to be instituted. Notwithstanding any approval or disapproval by Tenant of any estimate of the delay caused by such proposed Change, the TI Architect's determination of the amount of Tenant Delay in connection with such Change shall be final and binding on Landlord and Tenant.

5. **Costs**.

(a) **TI Costs**. Landlord shall be responsible for all hard and soft costs and expenses for the design and performance of Landlord's Work including, without limitation, design, permits and construction costs in connection with the construction of the Tenant Improvements, including, without limitation, the cost of preparing the TI Construction Drawings and the Space Plan and Landlord's out-of-pocket expenses, up to $60.00 per rentable square foot of the Fourth Expansion Premises, or $210,300 in the aggregate (collectively, "**TI Costs**"). Notwithstanding anything to the contrary contained herein, in no event shall Landlord be required to pay for any furniture, personal property or other non-Building system materials or equipment, including, but not limited to, Tenant's voice or data cabling, not incorporated into the Tenant Improvements.

(b) **Excess TI Costs**. Notwithstanding anything to the contrary contained herein, Tenant acknowledges and agrees that Landlord shall have no responsibility for any costs arising from or related to Tenant's changes to the Space Plan or TI Construction Drawings, Tenant Delays, the cost of Changes and Change Requests and any TI Costs in excess of to $60.00 per rentable square foot of the Fourth Expansion Premises (collectively, "**Excess TI Costs**"). Tenant shall deposit with Landlord 50% of the Excess TI Costs as a condition precedent to Landlord's obligation to complete the Tenant Improvements and the remaining 50% of the Excess TI Costs upon Substantial Completion of the Tenant Improvements. If Tenant fails to deposit any Excess TI Costs with Landlord, Landlord shall have all of the rights and remedies set forth in the Lease for nonpayment of Rent (including, but not limited to, the right to interest at the Default Rate and the right to assess a late charge). For purposes of any litigation instituted with regard to such amounts, those amounts will be deemed Rent under the Lease.

6. **Tenant Access**.

(a) **Tenant's Access Rights**. Landlord hereby agrees to permit Tenant access, at Tenant's sole risk and expense, to the Fourth Expansion Premises (i) 14 days prior to the Fourth Expansion Premises Commencement Date to perform any work ("**Tenant's Work**") required by Tenant other than Landlord's Work, provided that such Tenant's Work is coordinated with the TI Architect and the general contractor, and complies with the Lease and all other reasonable restrictions and conditions Landlord may impose (except the obligation to pay Base Rent or Operating Expenses with respect to the Fourth Expansion Premises), and (ii) prior to the completion of Landlord's Work, to inspect and observe work in process; all such access shall be during normal business hours or at such other times as are reasonably designated by Landlord. Any entry by Tenant shall comply with all established safety practices of Landlord's contractor and Landlord until completion of Landlord's Work and acceptance thereof by Tenant.

(b) **No Interference**. Neither Tenant nor any Tenant Party (as defined in the Lease) shall interfere with the performance of Landlord's Work, nor with any inspections or issuance of final approvals by applicable Governmental Authorities, and upon any such interference, Landlord shall have the right to exclude Tenant and any Tenant Party from the Fourth Expansion Premises until Substantial Completion of Landlord's Work.

(c) **No Acceptance of Fourth Expansion Premises**. The fact that Tenant may, with Landlord's consent, enter into the Fourth Expansion Premises prior to the date Landlord's Work is Substantially Complete for the purpose of performing Tenant's Work shall not be deemed an acceptance by Tenant of possession of the Fourth Expansion Premises, but in such event Tenant shall defend with counsel reasonably acceptable by Landlord, indemnify and hold Landlord harmless from and against any loss of or damage to Tenant's property, completed work, fixtures, equipment, materials or merchandise, and from liability for death of, or injury to, any person, caused by the act or omission of Tenant or any Tenant Party.

7. **Miscellaneous**.

(a) **Consents**. Whenever consent or approval of either party is required under this Fourth Expansion Premises Work Letter, that party shall not unreasonably withhold, condition or delay such consent or approval, unless expressly set forth herein to the contrary.

(b) **Modification**. No modification, waiver or amendment of this Fourth Expansion Premises Work Letter or of any of its conditions or provisions shall be binding upon Landlord or Tenant unless in writing signed by Landlord and Tenant.

(c) **Default**. Notwithstanding anything set forth herein or in the Lease to the contrary, Landlord shall not have any obligation to perform any work hereunder or to fund any portion of the TI Costs during any period that there is a Default by Tenant under the Lease.

Schedule 1

Space Plan

Exhibit 31.1

Certification

I, Jeffrey M. Jonas, M.D., certify that:

1. I have reviewed this quarterly report on Form 10-Q for the period ended September 30, 2015 of Sage Therapeutics, 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(s) 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)) 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. (Paragraph omitted pursuant to SEC Release Nos. 33-8238/34-47986 and 33-8392/34-49313);

   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(s) and I have disclosed, based on my 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 6, 2015

/s/ Jeffrey M. Jonas

Jeffrey M. Jonas, M.D.
Chief Executive Officer, President and Director
(Principal Executive Officer)

Exhibit 31.2

Certification

I, Kimi Iguchi, certify that:

1. I have reviewed this quarterly report on Form 10-Q for the period ended September 30, 2015 of Sage Therapeutics, 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(s) 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)) 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. (Paragraph omitted pursuant to SEC Release Nos. 33-8238/34-47986 and 33-8392/34-49313);

   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(s) and I have disclosed, based on my 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 6, 2015

/s/ Kimi Iguchi

Kimi Iguchi
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

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 Sage Therapeutics, Inc. (the "Company") for the period ended September 30, 2015, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers hereby certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that to his or her knowledge:

1) the Report which this statement accompanies fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 6, 2015

/s/ Jeffrey M. Jonas

Jeffrey M. Jonas, M.D.
Chief Executive Officer, President and Director
(Principal Executive Officer)

Date: November 6, 2015

/s/ Kimi Iguchi

Kimi Iguchi
Chief Financial Officer
(Principal Financial and Accounting Officer)