UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2022

☐ **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: 001-38938

Stoke Therapeutics, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**47-1144582**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
45 Wiggins Ave **Bedford, Massachusetts**	**01730**
(Address of principal executive offices)	**(Zip Code)**

(781) 430-8200

(Registrant's telephone number, including area code)

Not applicable

(Former name, former address and former fiscal year, if changed since last report)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.0001 par value per share	STOK	Nasdaq Global Select Market

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 every Interactive Data File required to be submitted 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 such files). Yes ☒ No ☐

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
Emerging growth company	☒		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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 May 2, 2022 the registrant had 39,189,720 shares of common stock, $0.0001 par value per share, outstanding.

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FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements within the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements other than statements of present and historical facts contained in this Quarterly Report on Form 10-Q, including statements regarding our future results of operations and financial position, business strategy, prospective products, planned preclinical studies and clinical or field trials, regulatory approvals, research and development costs, and timing and likelihood of success, as well as plans and objectives of management for future operations, may be forward-looking statements. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "potential" or "continue" or the negative of these terms or other similar expressions, although not all forward-looking statements contain these words.

Forward-looking statements are based on our management's beliefs and assumptions and on information currently available to us. Such statements are subject to a number of known and unknown risks, uncertainties and assumptions, and actual results may differ materially from those expressed or implied in the forward-looking statements due to various factors, including, but not limited to, those identified in Part I. Item 2. "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Part II. Item 1A "Risk Factors." These risks and uncertainties include, but are not limited to:

- our ability to become profitable;
- our ability to procure sufficient funding;
- our limited operating history;
- our ability to develop, obtain regulatory approval for and commercialize STK-001, STK-002 and our future product candidates;
- the direct and indirect impact of COVID-19 on our business, financial condition and operations, including on our expenses, supply chain, strategic partners, research and development costs, clinical trials and employees;
- our success in early preclinical studies or clinical trials, which may not be indicative of results obtained in later studies or trials;
- our ability to obtain regulatory approval to commercialize STK-001, STK-002 or any other future product candidate;
- the success of our collaboration with Acadia Pharmaceuticals and our ability to enter into successful collaborations in the future;
- our ability to identify patients with the diseases treated by STK-001, STK-002 or our future product candidates, and to enroll patients in trials;
- the success of our efforts to use TANGO to expand our pipeline of product candidates and develop marketable products;
- our ability to obtain, maintain and protect our intellectual property;
- our reliance upon intellectual property licensed from third parties;
- our ability to identify, recruit and retain key personnel;
- our financial performance; and
- developments or projections relating to our competitors or our industry.

You should read this Quarterly Report on Form 10-Q and the documents that we reference herein completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

Item 1. Financial Statements.

Stoke Therapeutics, Inc.
Condensed consolidated balance sheets
(in thousands, except share and per share amounts)
(unaudited)

	March 31, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 84,111	$ 144,895
Marketable Securities	209,105	74,915
Prepaid expenses and other current assets	12,290	9,159
Deferred financing costs	—	117
Interest receivable	265	132
Total current assets	$ 305,771	$ 229,218
Restricted cash	569	569
Operating lease right-of-use assets	4,563	4,939
Property and equipment, net	5,035	4,139
Total assets	$ 315,938	$ 238,865
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 3,328	$ 2,385
Accrued and other current liabilities	11,108	14,754
Deferred revenue - current portion	8,469	—
Total current liabilities	$ 22,905	$ 17,139
Deferred revenue - net of current portion	49,545	—
Other long term liabilities	3,511	3,949
Total long term liabilities	53,056	3,949
Total liabilities	$ 75,961	$ 21,088
Commitments and contingencies (Note 6)		
Stockholders' equity		
Common stock, par value of $0.0001 per share; 300,000,000 shares authorized, 39,044,669 and 36,902,499 shares issued and outstanding as of March 31, 2022 and December 31, 2021, respectively	4	4
Additional paid-in capital	461,389	414,024
Accumulated other comprehensive loss	(684)	(168)
Accumulated deficit	(220,732)	(196,083)
Total stockholders' equity	$ 239,977	$ 217,777
Total liabilities and stockholders' equity	$ 315,938	$ 238,865

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

Stoke Therapeutics, Inc.
Condensed consolidated statements of operations and comprehensive loss
(in thousands, except share and per share amounts)
(unaudited)

	Three Months Ended March 31,	
	2022	2021
Revenue	$ 3,000	$ —
Operating expenses:		
Research and development	18,309	9,913
General and administrative	9,486	6,914
Total operating expenses	27,795	16,827
Loss from operations	(24,795)	(16,827)
Other income:		
Interest income (expense), net	104	6
Other income (expense), net	42	28
Total other income	146	34
Net loss	$ (24,649)	$ (16,793)
Net loss per share, basic and diluted	$ (0.66)	$ (0.46)
Weighted-average common shares outstanding, basic and diluted	37,448,301	36,643,205
Comprehensive loss:		
Net loss	$ (24,649)	$ (16,793)
Other comprehensive loss:		
Unrealized gain (loss) on marketable securities	(516)	—
Total other comprehensive loss	$ (516)	$ —
Comprehensive loss	$ (25,165)	$ (16,793)

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

Stoke Therapeutics, Inc.
Condensed consolidated statements of stockholders' equity
(in thousands, except share and per share amounts)
(unaudited)

	Common Stock		Additional paid-in capital	Accumulated other comprehensive loss	Accumulated deficit	Stockholders' equity
	Shares	Amount	Amount	Amount	Amount	Amount
Balance as of December 31, 2020	**36,577,149**	**$ 4**	**$ 396,352**	$ —	**$ (110,278)**	**$ 286,078**
Net loss	—	—	—	—	(16,793)	(16,793)
Stock-based compensation	—	—	2,698	—	—	2,698
Issuance of common stock upon exercise of stock options	111,858	—	371	—	—	371
Issuance of common stock upon follow-on offering, net of underwriting discounts and offering costs	—	—	(64)	—	—	(64)
Issuance of common stock related to employee stock purchase plan	8,801	—	175	—	—	175
Balance as of March 31, 2021	**36,697,808**	**$ 4**	**$ 399,532**	$ —	**$ (127,071)**	**$ 272,465**
Balance as of December 31, 2021	**36,902,499**	**$ 4**	**$ 414,024**	**$ (168)**	**$ (196,083)**	**$ 217,777**
Net loss	—	—	—	—	(24,649)	(24,649)
Stock-based compensation	—	—	4,975	—	—	4,975
Unrealized loss on marketable securities	—	—	—	(516)	—	(516)
Issuance of common stock upon exercise of stock options	53,377	—	93	—	—	93
Shares sold as part of controlled equity offering sales agreement	2,080,486	—	42,128	—	—	42,128
Issuance of common stock related to employee stock purchase plan	8,307	—	169	—	—	169
Balance as of March 31, 2022	**39,044,669**	**$ 4**	**$ 461,389**	**$ (684)**	**$ (220,732)**	**$ 239,977**

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

Stoke Therapeutics, Inc.
Condensed consolidated statements of cash flows
(in thousands)
(unaudited)

	Three Months Ended March 31,	
	2022	2021
Cash flows from operating activities:		
Net loss	$ (24,649)	$ (16,793)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation	247	236
Amortization and accretion of marketable securities	235	—
Stock-based compensation	4,975	2,698
Loss on disposal of property and equipment	—	29
Reduction in the carrying amount of right of use assets	377	271
Changes in assets and liabilities:		
Prepaid expenses and other current assets	(3,265)	(1,078)
Accounts payable and accrued liabilities	(3,443)	(5,499)
Deferred revenue	58,014	—
Net cash provided by (used in) operating activities	$ 32,491	$ (20,136)
Cash flows from investing activities:		
Purchases of marketable securities	(143,941)	—
Purchases of property and equipment	(841)	(204)
Sales of marketable securities	9,000	—
Net cash used in investing activities	$ (135,782)	$ (204)
Cash flows from financing activities:		
Proceeds from Employee Stock Purchase Plan	169	175
Proceeds from issuance of common stock upon exercise of stock options	93	371
Proceeds from controlled equity offering sales agreement	42,245	—
Net cash provided by financing activities	$ 42,507	$ 546
Net decrease in cash, cash equivalents and restricted cash	$ (60,784)	$ (19,794)
Cash, cash equivalents and restricted cash—beginning of period	$ 145,464	$ 287,513
Cash, cash equivalents and restricted cash—end of period	$ 84,680	$ 267,719
Property and equipment included in accrued expense and accounts payable	$ 301	$ 97

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

1. Nature of the business and basis of presentation

Organization

Stoke Therapeutics, Inc. (the "Company") was founded in June 2014 and was incorporated under the laws of the State of Delaware. The Company is a biotechnology company dedicated to addressing the underlying cause of severe diseases by upregulating protein expression with RNA-based medicines.

Shelf Registration

In July 2020, the Company filed a universal Shelf Registration statement on Form S-3 (the "Registration Statement") with the Securities and Exchange Commission (the "SEC"). The Registration Statement was declared effective by the SEC on July 20, 2020, and contains two prospectuses: a base prospectus, which covers the offering, issuance and sale by the Company of up to a maximum aggregate offering price of $400,000,000 of our common stock, preferred stock, debt securities, warrants to purchase our common stock, preferred stock or debt securities, subscription rights to purchase our common stock, preferred stock or debt securities and/or units consisting of some or all of these securities; and a sales agreement prospectus covering the offering, issuance and sale by us of up to a maximum aggregate offering price of $150,000,000 of our common stock that may be issued and sold under a Controlled Equity Offering Sales Agreement ("Sales Agreement"). The specific terms of any securities to be offered pursuant to the base prospectus will be specified in a prospectus supplement to the base prospectus. The $150,000,000 of common stock that may be offered, issued and sold under the sales agreement prospectus is included in the $400,000,000 of securities that may be offered, issued and sold by the Company under the base prospectus. As of March 31, 2022, the Company had issued approximately 2.1 million shares in connection with the Sales Agreement for net proceeds of $42.2 million. Since April 1, 2022, the Company sold approximately 138,000 shares of our common stock and received $3.1 million after deducting commissions related to the Sales Agreement.

Uncertainties

The Company is subject to risks and uncertainties common to early-stage companies in the biotechnology industry including, but not limited to, development by competitors of new technological innovations, dependence on key personnel, protection of proprietary technology, compliance with government regulations and ability to secure additional capital to fund operations. Product candidates currently under development will require significant additional research and development efforts, including extensive preclinical and clinical testing and regulatory approval prior to commercialization. These efforts require significant amounts of additional capital, adequate personnel and infrastructure and extensive compliance-reporting capabilities. Even if the Company's product development efforts are successful, it is uncertain when, if ever, the Company will realize significant revenue from product sales.

Liquidity

The Company expects that its operating losses and negative cash flows will continue for the foreseeable future. As of the issuance date of these unaudited condensed consolidated financial statements, the Company expects that its cash, cash equivalents, marketable securities and restricted cash will be sufficient to fund its operating expenses and capital expenditure requirements through at least twelve months from the issuance date of these unaudited condensed consolidated financial statements.

2. Summary of significant accounting policies and recent accounting pronouncements

Basis of presentation and consolidation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and include the accounts of the Company and its wholly-owned subsidiary. Any reference in these notes to applicable guidance is meant to refer to GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Update ("ASU") of the Financial Accounting Standards Board ("FASB"). All intercompany transactions between and among its consolidated subsidiary have been eliminated.

Unaudited interim financial information

The accompanying interim unaudited condensed consolidated financial statements and related disclosures are unaudited and have been prepared in accordance with GAAP for interim financial information and the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all the information and footnotes required by GAAP for complete financial statements and should be read in conjunction with the Company's consolidated financial statements and related footnotes as of and for the year ended December 31, 2021, which was filed with the SEC on March 10, 2022. The Company's financial information as of March 31, 2022 and for the three months ended March 31, 2022 and 2021 is unaudited, but in the opinion of management, all adjustments, consisting only of normal recurring adjustments, considered necessary for a fair presentation of the financial position, results of operations and

cash flows at the dates and for the periods presented of the results of these interim periods have been included. The balance sheet information as of December 31, 2021 was derived from audited financial statements. The results of the Company's operations for any interim period are not necessarily indicative of the results that may be expected for any other interim period or for a full fiscal year.

Use of estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, equity, expenses and disclosure of contingent assets and liabilities. Estimates are periodically reviewed in light of changes in circumstances, facts and experience. Actual results could differ from those estimates.

Cash, cash equivalents and restricted cash

The Company considers all highly liquid investments with an original maturity of nine months or less at the date of purchase to be cash equivalents. The Company deposits its cash in checking, sweep and money market accounts.

At March 31, 2022, restricted cash consisted of money market accounts collateralizing letters of credit issued as security deposits in connection with the Company's leases of its corporate facilities.

Cash and cash equivalents, and restricted cash in the condensed consolidated statements of cash flows consists of the following (in thousands):

	As of March 31,	
	2022	2021
Cash and cash equivalents	$ 84,111	$ 267,514
Restricted cash - short-term	$ —	$ 147
Restricted cash - long-term	$ 569	$ 58
Total cash, cash equivalents and restricted cash	$ 84,680	$ 267,719

Marketable Securities

Marketable securities consist of government securities and obligations, corporate bonds and commercial paper with original maturities of more than 90 days. Investments are classified as available-for-sale and are recorded on the balance sheet at fair value with unrealized gains or losses reported as a separate component of other comprehensive income/(loss). Management determines the appropriate classification of its investments at the time of purchase and reevaluates such determination at each balance sheet date.

Concentration of credit risk

Financial instruments that potentially expose the Company to concentrations of credit risk primarily consist of cash and cash equivalents. The Company maintains its cash and cash equivalents at an accredited financial institution in amounts that exceed federally insured limits. The Company does not believe that it is subject to unusual credit risk beyond the normal credit risk associated with commercial banking relationships.

Fair value of financial instruments

ASC Topic 820, *Fair Value Measurement* ("ASC 820"), establishes a fair value hierarchy for instruments measured at fair value that distinguishes between assumptions based on market data ("observable inputs") and the Company's own assumptions ("unobservable inputs"). Observable inputs are those that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the asset or liability and are developed based on the best information available in the circumstances. ASC 820 identifies fair value as the exchange price, or exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As a basis for considering market participant assumptions in fair value measurements, ASC 820 establishes a three-tier value hierarchy that distinguishes between the following:

Level 1—Quoted market prices in active markets for identical assets or liabilities.

Level 2—Inputs other than Level 1 inputs that are either directly or indirectly observable, such as quoted market prices, interest rates and yield curves.

Level 3—Unobservable inputs developed using estimates of assumptions developed by the Company, which reflect those that a market participant would use.

To the extent the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair values requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized as Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

Revenue recognition

The Company recognizes revenue in accordance with ASC Topic 606, *Revenue from Contracts with Customers*, or ASC 606. This standard applies to all contracts with customers, except for contracts that are within the scope of other standards. Under ASC 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services.

In January 2022, the Company entered into a collaboration and licensing agreement with Acadia Pharmaceuticals, Inc. ("Acadia") which is within the scope of ASC 606 (see Note 7). In determining the appropriate amount of revenue to be recognized as it fulfills its obligations under this agreement, the Company performs the following steps: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations; and (v) recognition of revenue when (or as) the Company satisfies each performance obligation. As part of the accounting for this arrangements, the Company must use its judgment to determine: (a) the number of performance obligations based on the determination under step (ii) above; (b) the transaction price under step (iii) above; (c) the stand-alone selling price for each performance obligation identified in the contract for the allocation of transaction price in step (iv) above; and (d) the contract term and pattern of satisfaction of the performance obligations under step (v) above. The Company uses judgment to determine whether milestones or other variable consideration, except for royalties, should be included in the transaction price as described. The transaction price is allocated to each performance obligation on a relative stand-alone selling price basis, for which the Company recognizes revenue as or when the performance obligations under the contract are satisfied.

Amounts due to the Company for satisfying the revenue recognition criteria or that are contractually due based upon the terms of the collaboration agreements are recorded as accounts receivable in the Company's condensed consolidated balance sheets. Amounts received prior to satisfying the revenue recognition criteria are recorded as deferred revenue in the Company's condensed consolidated balance sheets. Amounts expected to be recognized as revenue within the 12 months following the balance sheet date are classified as current deferred revenue. Amounts not expected to be recognized as revenue within the 12 months following the balance sheet date are classified as deferred revenue, net of current portion.

Upfront license fees

The licenses of the Company's intellectual property granted to Acadia was not determined to be distinct from the other promises or performance obligations identified in the arrangement. Accordingly, such licenses are therefore combined with other promises in the arrangement. The Company exercises judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition.

Customer options

If an arrangement is determined to contain customer options that allow the customer to acquire additional goods or services, the goods and services underlying the customer options are not considered to be performance obligations at the outset of the arrangement, as they are contingent upon option exercise. The Company evaluates the customer options for material rights or options to acquire additional goods or services for free or at a discount. If the customer options are determined to represent a material right, the material right is recognized as a separate performance obligation at the outset of the arrangement. No such material rights were identified in the arrangement with Acadia. If such material rights were identified, then the Company would allocate the transaction price to material rights based on the relative standalone selling price, which is determined based on the identified discount and the probability that the customer will exercise the option. Amounts allocated to a material right are not recognized or begin to be recognized as revenue until, at the earliest, the option is exercised.

Research and development services

The promises under the Company's collaboration agreement with Acadia includes research and development services to be performed by the Company for or on behalf of the customer. Payments or reimbursements resulting from the Company's research and development efforts are recognized as the services are performed and presented on a gross basis because the Company is the principal for such efforts.

Milestone payments

At the inception of the Acadia arrangement that includes development milestone payments, the Company evaluates whether the milestones are considered probable of being achieved and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the control of the Company or the licensee, such as regulatory approvals, are not considered probable of being achieved until those approvals are received. The Company evaluates factors such as the scientific, clinical, regulatory, commercial and other risks that must be overcome to achieve the particular milestone in making this assessment. There is judgment involved in determining whether it is probable that a significant revenue reversal would not occur. At the end of each subsequent reporting period, the Company reevaluates the probability of achievement of all milestones subject to constraint and, if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect revenues and earnings in the period of adjustment. The development milestones in the Acadia arrangement are not considered probable of achievement at the outset of the arrangement.

Emerging growth company and smaller reporting company status

The Company is an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act, until such time as those standards apply to private companies.

The Company has elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that it is (i) no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, the Company's unaudited condensed consolidated financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

The Company will remain an emerging growth company until the earliest of (1) the last day of its first fiscal year (a) in which the Company has total annual gross revenues of at least $1.07 billion, or (b) in which the Company is deemed to be a large accelerated filer, which means the market value of its common stock that is held by non-affiliates exceeds $700.0 million as of the prior June 30th, (2) the date on which it has issued more than $1.0 billion in non-convertible debt securities during the prior three-year period and (3) December 31, 2024.

The Company is also a "smaller reporting company," meaning that, the market value of its stock held by non-affiliates is less than $700 million and our annual revenue is less than $100 million during the most recently completed fiscal year. The Company may continue to be a smaller reporting company as long as either (i) the market value of its stock held by non-affiliates is less than $250 million or (ii) its annual revenue is less than $100 million during the most recently completed fiscal year and the market value of its stock held by non-affiliates is less than $700 million. If the Company is a smaller reporting company at the time it ceases to be an emerging growth company, the Company may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company, the Company may choose to present only the two most recent fiscal years of audited financial statements in its Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Recently adopted accounting pronouncements

In December 2019, the FASB issued ASU 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes. This guidance removes certain exceptions for recognizing deferred taxes for investments, performing intraperiod allocation and calculating income taxes in interim periods. It also adds guidance to reduce complexity in certain areas, including recognizing deferred taxes for tax goodwill and allocating taxes to members of a consolidated group. This ASU is effective for interim and annual periods beginning after December 15, 2020, and early adoption is permitted. The Company adopted this standard on January 1, 2021 and the adoption of this update did not have a material impact on its condensed consolidated financial statements.

3. Fair value measurements

The following tables present information about the Company's financial assets measured at fair value on a recurring basis and indicate the level of the fair value hierarchy utilized to determine such fair values (in thousands):

	Fair value measurements as of March 31, 2022			
	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market funds	$ 84,111	$ —	$ —	$ 84,111
Total	$ 84,111	$ —	$ —	$ 84,111
Marketable Securities:				
Corporate bonds	$ —	$ 17,277	$ —	$ 17,277
Commercial paper	—	22,479	—	22,479
US Government debt securities	—	169,349	—	169,349
Total	$ —	$ 209,105	$ —	$ 209,105

	Fair value measurements as of December 31, 2021			
	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market funds	$ 144,897	$ —	$ —	$ 144,897
Total	$ 144,897	$ —	$ —	$ 144,897
Marketable Securities:				
Corporate bonds	$ —	$ 17,524	$ —	$ 17,524
Commercial paper	—	27,487	—	27,487
US Government debt securities	—	29,904	—	29,904
Total	$ —	$ 74,915	$ —	$ 74,915

The Company's cash equivalents and marketable securities are carried at fair value, determined according to the fair value hierarchy described in Note 2. The carrying value of the Company's accounts payable and accrued expenses approximate their fair values due to the short-term nature of these liabilities.

The Company's assets with fair value categorized as Level 1 within the fair value hierarchy include money market funds. Money market funds are publicly traded mutual funds and are presented as cash equivalents on the condensed consolidated balance sheets as of March 31, 2022 and December 31, 2021.

The Company measures its marketable securities at fair value on a recurring basis and classifies those instruments within Level 2 of the fair value hierarchy. Marketable securities are valued using models or other valuation methodologies that use Level 2 inputs. These models are primarily industry-standard models that consider various assumptions, including time value, yield curve, volatility factors, default rates, current market and contractual prices for the underlying financial instruments, as well as other economic measures. Substantially all of these assumptions are observable in the marketplace, can be derived from observable data or are supported by observable levels at which transactions are executed in the marketplace.

There were no transfers to Level 3 in the periods presented.

4. Marketable Securities

The following table summarizes the Company's marketable securities as of March 31, 2022 (in thousands):

	March 31, 2022			
	Amortized Cost	Unrealized Gains	Unrealized Loss	Fair Value
Marketable securities:				
Corporate bonds	$ 17,524	$ —	$ (247)	$ 17,277
Commercial paper	22,479	—	—	22,479
US Government debt securities	169,786	—	(437)	169,349
Total	$ 209,789	$ —	$ (684)	$ 209,105

The following table summarizes the Company's marketable securities as of December 31, 2021 (in thousands):

	December 31, 2021			
	Amortized Cost	Unrealized Gains	Unrealized Loss	Fair Value
Marketable securities:				
Corporate bonds	$ 17,598	$ —	$ (74)	$ 17,524
Commercial paper	27,487	—	—	27,487
US Government debt securities	29,998	—	(94)	29,904
Total	$ 75,083	$ —	$ (168)	$ 74,915

The weighted average maturity of the Company's marketable securities as of March 31, 2022 ranged from approximately 0.3 years to 0.9 years. As of December 31, 2021 the weighted average maturity of the Company's marketable securities ranged from approximately 0.2 years to 1.1 years.

The Company did not record an allowance for credit losses as of March 31, 2022 related to its marketable securities. Further, given the lack of significant change in the credit risk of these investments, the Company did not recognize any other-than-temporary impairment losses.

5. Accrued and other current liabilities

Accrued and other current liabilities consisted of the following (in thousands):

	March 31, 2022	December 31, 2021
Accrued employee compensation costs	$ 1,345	$ 5,383
Accrued professional costs	1,450	523
Accrued research and development costs	6,255	6,801
Current portion of operating lease liabilities	1,535	1,507
Other current liabilities	523	540
	$ 11,108	$ 14,754

6. Commitments and contingencies

Operating lease

The Company determines whether an arrangement is a lease at inception. The Company accounts for a lease when it has the right to control the leased asset for a period of time while obtaining substantially all of the assets' economic benefits. Operating lease right-of-use assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at the lease commencement date. The discount rate used to determine the present value of the lease payments is the Company's incremental borrowing rate based on the information available at lease inception, as the Company did not have information to determine the rate implicit in the leases. Lease expense for operating leases is recognized on a straight-line basis over the reasonably assured lease term based on the total lease payments (which include initial direct costs and lease incentives). The expense is included in operating expenses in the condensed consolidated statements of operations and comprehensive loss. The Company's lease agreements also contain variable payments, primarily maintenance-related costs, which are expensed as incurred and not included in the measurement of the right-of-use assets and lease liabilities.

In August 2018, the Company entered into an agreement to lease approximately 23,000 square feet of space for a term of three years. Lease terms are triple net lease commencing at $0.9 million per year, then with 3% annual base rent increases plus operating expenses, real estate taxes, utilities and janitorial fees. The lease commencement date was December 10, 2018.

In September 2021, the Company entered into an agreement to extend the initial term of the 23,000 square foot lease for a period of three years commencing on December 15, 2021 and ending December 31, 2024. In addition, this lease provides for the lease of an additional 15,000 square feet of rentable space beginning on April 1, 2022 and ending on December 31, 2024. The Company recognized a right-of-use asset and operating lease liability of $3.5 million for the 23,000 square feet. As the Company did not have access to the additional 15,000 square feet of space, a right of use asset was not recognized as of March 31, 2022.

In December 2018, the Company entered into an agreement to lease 2,485 square feet of space for an initial term of three years. The lease includes one renewal option for an additional two years, however, any time after the initial term the landlord may relocate the Company from the premises to a space reasonably comparable in size and utility. As the Company does not have the right to control the use of the identified asset after the initial term, the renewal option was excluded from the lease liability calculation. Lease terms commence at $0.2 million per annum, with 2.5% annual base rent increases plus operating expenses, real estate taxes, utilities and janitorial fees. The lease commencement date was May 1, 2019.

In June 2021, the Company amended the agreement to extend the initial term of the 2,485 square foot lease for a period of three years commencing May 1, 2022 and ending April 30, 2025. In addition, the amendment provided for the lease of an additional 2,357 square feet of rentable space beginning on July 6, 2021 and ending on April 30, 2025. The amended lease provides the Company with the option to extend the term of the lease for an additional two years. The Company recognized a right-of-use asset and operating lease liabilities of $0.7 million for the extension of the lease to April 30, 2025 and a right-of-use asset and operating lease liabilities of $0.8 million for the additional 2,357 square feet of rentable space.

Future minimum lease payments under non-cancellable leases as of March 31, 2022, including leases entered into where access has yet to be granted, were as follows (in thousands):

2022	$	1,707
2023		2,532
2024		2,608
2025		173
Total lease payments	$	7,020
Less imputed interest		(437)
Present value of lease liabilities	$	6,583

Lease balances as of March 31, 2022 were as follows (in thousands):

Operating right-of-use assets	$	4,563
Current Portion of operating lease liabilities	$	1,535
Non-current portion of operating lease liabilities		3,135
Total operating lease liabilities	$	4,670

The weighted average remaining lease term and weighted average discount rate of our operating leases as of March 31, 2022 were as follows:

Weighted average remaining lease term in years	2.9
Weighted average discount rate	4.15%

In accordance with Topic 842, lease expense incurred under operating leases was approximately $0.4 million for the three months ended March 31, 2022, and $0.3 million for three months ended March 31, 2021.

Scientific Advisory Board Agreement

In June 2020, the Company entered into a scientific advisory board agreement with a member of the Company's board of directors, who is also an employee of Cold Spring Harbor Laboratory ("CSHL"), to provide scientific advisory services related to the Company's Targeted Augmentation of Nuclear Gene Output ("TANGO") antisense oligonucleotide technology and other antisense oligonucleotide technologies, as well as current and future therapeutic targets and programs. Following the expiration of the initial scientific agreement in June 2021, the parties entered into a subsequent scientific board agreement on substantially the same terms. The Company recognized expense of $0.01 million each for the three months ended March 31, 2022 and 2021 for such scientific advisory services. The term of this agreement is 12 months.

License and research agreements

In July 2015, the Company entered into a worldwide license agreement with CSHL (the "CSHL Agreement") with respect to TANGO patents. Under the CSHL Agreement, the Company receives an exclusive (except with respect to certain government rights and non-exclusive licenses), worldwide license under certain patents and applications relating to TANGO. The CSHL Agreement obligates the Company to make payments that are contingent upon certain milestones being achieved. The Company is also required to pay royalties, tiered based on the scope of patent coverage for each licensed product, ranging from a low-single digit percentage to a mid-single digit percentage on annual net sales. These royalty obligations apply on a licensed product-by-licensed product and country-by-country basis until the latest of (i) the expiration of the last valid claim of a CSHL patent covering the applicable licensed product or (ii) the expiration of any regulatory exclusivity for the applicable licensed product. In addition, if the Company sublicenses the rights

under the CSHL Agreement, the Company is required to pay a maximum of twenty percent of the sublicense revenue to CSHL, which may be reduced to a mid-teens or a mid-single digit percentage upon achievement of certain clinical milestones for the applicable licensed product. Finally, the Company is required to pay an annual license maintenance fee of $0.01 million, which amount is creditable against any owed royalty or milestone payments. The maximum aggregate potential milestone payments payable total approximately $0.9 million. Additionally, certain licenses under the CSHL Agreement require the Company to reimburse CSHL for certain past and ongoing patent related expenses, however, there were no expenses related to these reimbursable patent costs during the three months ended March 31, 2022 and 2021.

In April 2016, the Company entered into an exclusive, worldwide license agreement with the University of Southampton (the "Southampton Agreement"), whereby the Company acquired rights to foundational technologies related to the Company's TANGO technology. Under the Southampton Agreement, the Company receives an exclusive, worldwide license under certain licensed patents and applications relating to TANGO. Under the Southampton Agreement, the Company may be obligated to make additional payments that are contingent upon certain milestones being achieved, as well as royalties on future product sales. These royalty obligations survive until the latest of (i) the expiration of the last valid claim of a licensed patent covering a subject product or (ii) the expiration of any regulatory exclusivity for the subject product in a country. In addition, if the Company sublicenses its rights under the Southampton Agreement, the Company is required to pay a mid-single digit percentage of the sublicense revenue to the University of Southampton. As of March 31, 2022, the Company has recorded a liability of $0.5 million under the Southampton Agreement due to the Acadia Pharmaceuticals Inc. license and collaboration agreement (see Note 7) and had no recorded liability as of March 31, 2021. Additionally, certain licenses under the Southampton Agreement require the Company to reimburse the University of Southampton for certain past and ongoing patent related expenses. For the three months ended March 31, 2022 these expenses were $0.08 million compared to $0.01 million for the three months ended March 31, 2021.

7. License and Collaboration Agreement with Acadia Pharmaceuticals Inc.

In January 2022, the Company entered into a license and collaboration agreement with Acadia Pharmaceuticals Inc. ("Acadia") for the discovery, development and commercialization of novel RNA-based medicines for the treatment of severe and rare genetic neurodevelopmental diseases of the central nervous system (CNS). The agreement focuses on the targets SYNGAP1, MECP2 (Rett syndrome), and an undisclosed neurodevelopmental target of mutual interest. In connection with each target, the Company will collaborate with Acadia to identify potential treatments for further development and commercialization as licensed products. With respect to SYNGAP1, the Company has agreed with Acadia to co-develop and co-commercialize licensed products for such target globally, and in connection therewith the Company granted to Acadia worldwide, co-exclusive (with Stoke) licenses for such licensed products. With respect to MECP2 and the neurodevelopmental target, the Company granted to Acadia worldwide, exclusive licenses to develop and commercialize licensed products for such targets.

Pursuant to the terms of the agreement, the Company received an upfront payment of $60 million from Acadia. Acadia agreed to fund the research to identify potential licensed products for MECP2 and the neurodevelopmental target, and the Company will equally fund with Acadia the research to identify potential licensed products for SYNGAP1. The Company is eligible to receive up to $907,500,000 in potential total milestone payments based upon the achievement of certain development, regulatory, first commercial sales and sales milestone events across the programs for the three targets, assuming each milestone were achieved at least once. With respect to licensed products for MECP2 and the neurodevelopmental target, the Company is also eligible to receive tiered royalties at percentages ranging from the mid-single digits to the mid-teens on future net sales by Acadia of licensed products worldwide. Royalties payable under the agreement are subject to standard royalty reductions. For SYNGAP1 licensed products that the Company is co-developing and co-commercializing, the Company will be responsible for 50% of the development and commercialization costs and will receive 50% of the profits from global commercialization. The Company is provided with a co-development and co-commercialization opt out option relating to the SYNGAP1 target indication at the Company's discretion. Such opt-out would reduce development and commercialization milestones but would provide the Company with royalties on an escalating basis attributable to net sales milestones.

Acadia Agreement Accounting

At the commencement of the Acadia agreement the Company identified three performance obligations consisting of pre-clinical research activities for each of the three targets, SYNGAP1, MECP2, and the undisclosed neurodevelopmental target. The exclusive or co-exclusive licenses granted to Acadia to conduct pre-clinical research activities on each of the three targets, and participation on each of the respective joint research committees were identified as promised services. However, the licenses granted to Acadia and the research activities were determined to be not distinct from each other, and therefore are considered a combined performance obligation for each of the three targets. Participation on each of the joint research committees was determined to be quantitatively and qualitatively immaterial in the context of the arrangement with Acadia.

The Company is recognizing the transaction price for the pre-clinical research activities for each of the three targets over time as the research services are provided. The transfer of control to Acadia occurs over this time period, and in management's judgment, is the best measure of progress towards satisfying the performance obligation. An input method is used that measures the cost incurred to date in satisfying each of the three research activities in relation to the estimated total projected cost of each of the research activities to fulfill the respective obligations. The cumulative effect of revisions to estimated costs and/or the transaction price to complete the research performance obligations will be recorded in the period in which changes are identified and amounts can be reasonably estimated.

Milestone payments that are not within the control of the Company, such as regulatory approvals, are not considered probable of being achieved until those approvals are received. For other milestones, the Company evaluated factors such as the scientific, clinical, regulatory, commercial, and other risks that must be overcome to achieve the particular milestone in making this assessment. Milestones that are outside of the Company's or Acadia's control will not be recognized until such milestones are achieved. As to the other milestones, to date, no milestone payments have been included in the transaction price due the uncertainty as to whether these milestones will be achieved. The Company will at the end of each reporting period reevaluate the probability of achievement of all milestones subject to constraint and, if necessary, adjust its estimate of the overall transaction price for each of the research activities on the three targets. Any such adjustments will be recorded on a cumulative catch-up basis.

As of March 31, 2022, the Company had $58.0 million in upfront consideration associated with the Acadia agreement relating to performance obligations that are unsatisfied or partially unsatisfied.

8. Equity incentive plans

In June 2019, the Company's board of directors and stockholders approved the 2019 Equity Incentive Plan (the "2019 Plan") which became effective on June 17, 2019 and replaced the Company's 2014 Equity Incentive Plan (the "2014 Plan"). In addition to the shares of common stock reserved for future issuance under the 2014 Plan that were added to the 2019 Plan upon its effective date, the Company initially reserved 2,200,000 shares of common stock for issuance under the 2019 Plan. The number of shares reserved for issuance under the Company's 2019 Plan will increase automatically on January 1 of each of 2020 through 2029 by the number of shares equal to 4% of the aggregate number of outstanding shares of the Company's common stock as of the immediately preceding December 31, or a lesser number as may be determined by the Company's board of directors.

As of March 31, 2022, there were no shares available for future issuance under the 2014 Plan and 2,076,273 shares were available under the 2019 Plan.

During the three months ended March 31, 2022, the Company granted options to purchase 2,061,975 shares of common stock to certain of its employees. The options vest up to four years and are exercisable at a per share price equal to the fair value of the common stock on the grant date.

Stock-based compensation

As of March 31, 2022, there was $66.5 million of unrecognized compensation cost related to unvested stock-based compensation arrangements granted under the 2014 and 2019 Plans. The compensation is expected to be recognized over a weighted average period of 2.96 years as of March 31, 2022.

Stock-based compensation expense recorded as research and development and general and administrative expenses in the accompanying condensed consolidated statements of operations and comprehensive loss is as follows (in thousands):

	Three Months Ended March 31,	
	2022	2021
Research and development	$ 1,895	$ 1,034
General and administrative	3,080	1,664
	$ 4,975	$ 2,698

2019 Employee stock purchase plan

In June 2019, the Company adopted the 2019 Employee Stock Purchase Plan ("ESPP"), which became effective on June 18, 2019. The Company initially reserved 315,000 shares of common stock for sale under the ESPP. At March 31, 2022, the Company had 995,298 shares available for issuance under the plan. The average grant date fair value per share under the plan was $23.01 for 2022. The total ESPP stock-based compensation expense for the three months ended March 31, 2022 was $0.1 million and for the three months ended March 31, 2021 was $0.1 million. The number of shares reserved for issuance under the ESPP will increase

automatically on January 1st of each of the first ten calendar years following the first offering date by the number of shares equal to the lesser of 1% of the total outstanding shares of the Company's common stock as of the immediately preceding December 31 or a lower amount determined by the Company's board of directors. The aggregate number of shares issued over the term of the ESPP will not exceed 3,150,000 shares of the Company's common stock.

9. Net loss per share

The following table summarizes the computation of basic and diluted net loss per share of the Company (in thousands except share and per share amounts):

	Three Months Ended March 31,	
	2022	2021
Numerator:		
Net loss	$ (24,649)	$ (16,793)
Denominator:		
Weighted-average number of common shares, basic and diluted	37,448,301	36,643,205
Net loss per share, basic and diluted	$ (0.66)	$ (0.46)

The Company's potential dilutive securities, which include common stock options and ESPP purchase rights, have been excluded from the computation of diluted net loss per share as the effect would be anti-dilutive. Therefore, the weighted average number of common shares outstanding used to calculate both basic and diluted net loss per share is the same.

The Company excluded the following potential common shares, presented based on amounts outstanding at period end, from the computation of diluted net loss per share indicated because including them would have had an anti-dilutive effect:

	March 31,	
	2022	2021
Outstanding options to purchase common stock	7,408,942	5,375,811

10. Income taxes

The Company did not record an income tax benefit in its condensed consolidated statement of operations and comprehensive loss for the three months ended March 31, 2022 and 2021 as it is more likely than not that the Company will not recognize the federal and state deferred tax benefits generated by its losses. The Company had net deferred tax assets and liabilities of $66.0 million at December 31, 2021. The Company has provided a valuation allowance for the full amount of its net deferred tax assets and liabilities as of March 31, 2022 and December 31, 2021, as management has determined it is more likely than not that any future benefit from deductible temporary differences and net operating loss and tax credit carryforwards would not be realized.

The Company did not record any amounts for unrecognized tax benefits as of March 31, 2022 or December 31, 2021.

11. Subsequent events

Since April 1, 2022, the Company sold approximately 138,000 shares of our common stock and received $3.1 million after deducting commissions related to the Sales Agreement.

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

You should read the following discussion and analysis of our financial condition and consolidated results of operations together with the section entitled "Risk Factors" and our interim condensed consolidated financial statements and related notes appearing elsewhere in this Quarterly Report. Some of the information contained in this discussion and analysis or set forth elsewhere in this Quarterly Report, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. You should carefully read the sections entitled "Special Note Regarding Forward-Looking Statements" and "Risk Factors" to gain an understanding of the important factors that could cause actual results to differ materially from our forward-looking statements.

Overview

We are dedicated to addressing the underlying causes of severe diseases by upregulating protein expression with RNA-based medicines. Using our proprietary TANGO (Targeted Augmentation of Nuclear Gene Output) approach, we are developing antisense oligonucleotides ("ASOs") to selectively restore protein levels. Our initial focus is haploinsufficiencies and diseases of the central nervous system and the eye, although proof of concept has been demonstrated in other organs, tissues, and systems, supporting our belief in the broad potential for our proprietary approach.

Our first compound, STK-001, is in clinical testing for the treatment of Dravet syndrome, a severe and progressive genetic epilepsy. Dravet syndrome is characterized by frequent, prolonged and refractory seizures beginning within the first year of life. The disease is classified as a developmental and epileptic encephalopathy due to the developmental delays and cognitive impairment associated with it. Dravet syndrome is one of many diseases caused by a haploinsufficiency, in which a loss of approximately 50% of normal protein levels leads to disease. We have two ongoing Phase 1/2a open-label studies of STK-001, MONARCH in the United States and ADMIRAL in the United Kingdom. We also have SWALLOWTAIL which is an Open Label Extension (OLE) study of STK-001 for children and adolescents with Dravet syndrome in the United States. Patients who participated in the MONARCH study and meet study entry criteria are eligible to continue treatment in SWALLOWTAIL which is designed to evaluate the long-term safety and tolerability of repeated doses of STK-001.

We are also pursuing treatment for a second haploinsufficient disease, autosomal dominant optic atrophy ("ADOA"), the most common inherited optic nerve disorder. STK-002 is our lead clinical candidate for the treatment of ADOA. STK-002 is designed to upregulate OPA1 protein expression by leveraging the non-mutant (wild-type) copy of the *OPA1* gene to restore OPA1 protein expression with the aim to stop or slow vision loss in patients with ADOA.

In July 2020, we filed a universal Shelf Registration statement on Form S-3 (the "Registration Statement") with the Securities and Exchange Commission (the "SEC"). The Registration Statement was declared effective by the SEC on July 20, 2020, and contains two prospectuses: a base prospectus, which covers the offering, issuance and sale by us of up to a maximum aggregate offering price of $400,000,000 of our common stock, preferred stock, debt securities, warrants to purchase our common stock, preferred stock or debt securities, subscription rights to purchase our common stock, preferred stock or debt securities and/or units consisting of some or all of these securities; and a sales agreement prospectus covering the offering, issuance and sale by us of up to a maximum aggregate offering price of $150,000,000 of our common stock that may be issued and sold under a Controlled Equity Offering Sales Agreement ("Sales Agreement"), which amount is included in the $400,000,000 base prospectus. As of March 31, 2022, we had issued approximately 2,086,000 shares of common stock at a weighted average price of $20.77 resulting in net proceeds of $42.2 million under the Sales Agreement. Since April 1, 2022, we sold approximately 138,000 shares of our common stock and received net proceeds of $3.1 million under the Sales Agreement. We may terminate this at-the-market program at any time, pursuant to its terms.

As of March 31, 2022 and December 31, 2021 we had $293.8 million and $220.4 million, respectively, in cash, cash equivalents, marketable securities and restricted cash.

Since inception, we have had operating losses, the majority of which are attributable to research and development activities. Our net losses were $24.6 million and $16.8 million for the three months ended March 31, 2022 and 2021, respectively. As of March 31, 2022, we had an accumulated deficit of $220.7 million.

Our primary use of cash is to fund operating expenses, which consist primarily of research and development expenditures, and to a lesser extent, general and administrative expenditures. Cash used to fund operating expenses is impacted by the timing of when we pay these expenses, as reflected in the change in our outstanding accounts payable and accrued expenses. We expect to continue to incur net losses for the foreseeable future, and we expect our research and development expenses, general and administrative expenses, and capital expenditures will continue to increase. In particular, we expect our expenses and losses to increase as we continue our development of, and seek regulatory approvals for, our product candidates, and begin to commercialize any approved products, as well as hire additional personnel, develop commercial infrastructure, pay fees to outside consultants, lawyers and accountants, and incur increased costs associated with being a public company such as expenses related to services associated with maintaining compliance with Nasdaq listing rules and SEC requirements, insurance and investor relations costs. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on the timing of our clinical trials and our expenditures on other research and development activities.

Based upon our current operating plan, we believe that our existing cash, cash equivalents, marketable securities and restricted cash as of March 31, 2022, will enable us to fund our operating expenses and capital expenditure requirements into 2025. To date, we have not had any products approved for sale and have not generated any product sales. We do not expect to generate any revenues from product sales unless and until we successfully complete development and obtain regulatory approval for one or more of our product candidates, which we expect will take a number of years. If we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. As a result, until such time, if ever, as we can generate substantial product revenue, we expect to finance our cash needs through equity offerings, debt financings or other capital sources, including potentially collaborations, licenses and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. Any failure to raise capital as and when needed could have a negative impact on our financial condition and on our ability to pursue our business plans and strategies. If we are unable to raise capital, we will need to delay, reduce or terminate planned activities to reduce costs.

License and Collaboration Agreement with Acadia Pharmaceuticals Inc.

In January 2022, we entered into a license and collaboration agreement with Acadia Pharmaceuticals Inc. ("Acadia") for the discovery, development and commercialization of novel RNA-based medicines for the treatment of severe and rare genetic neurodevelopmental diseases of the central nervous system (CNS). The agreement focuses on the targets SYNGAP1, MECP2 (Rett syndrome), and an undisclosed neurodevelopmental target of mutual interest. In connection with each target, we will collaborate with Acadia to identify potential treatments for further development and commercialization as licensed products. With respect to SYNGAP1, we have agreed with Acadia to co-develop and co-commercialize licensed products for such target globally, and in connection therewith we granted to Acadia worldwide, co-exclusive (with us) licenses for such licensed products. With respect to MECP2 and the neurodevelopmental target, we granted to Acadia worldwide, exclusive licenses to develop and commercialize licensed products for such targets.

Pursuant to the terms of the agreement, we received an upfront payment of $60 million from Acadia. Acadia agreed to fund the research to identify potential licensed products for MECP2 and the neurodevelopmental target, and we will equally fund with Acadia the research to identify potential licensed products for SYNGAP1. We are eligible to receive up to $907,500,000 in potential total milestone payments based upon the achievement of certain development, regulatory, first commercial sales and sales milestone events across the programs for the three targets, assuming each milestone were achieved at least once. With respect to licensed products for MECP2 and the neurodevelopmental target, we are also eligible to receive tiered royalties at percentages ranging from the mid-single digits to the mid-teens on future net sales by Acadia of licensed products worldwide. Royalties payable under the agreement are subject to standard royalty reductions. For SYNGAP1 licensed products that we are co-developing and co-commercializing, we will be responsible for 50% of the development and commercialization costs and will receive 50% of the profits from global commercialization. The Company is provided with a co-development and co-commercialization opt out option relating to the SYNGAP1 target indication at the Company's discretion. Such opt-out would reduce development and commercialization milestones but would provide the Company with royalties on an escalating basis attributable to net sales milestones.

Business Update Regarding COVID-19

The current COVID-19 pandemic, including variants thereof, continues to present a substantial public health and economic challenge around the world and is affecting our employees, patients, communities and business operations, as well as the U.S. economy and financial markets. The full extent to which the COVID-19 pandemic will directly or indirectly impact our business, results of operations, liquidity and financial condition will depend on future developments that are highly uncertain and cannot be accurately predicted, including the timing and effectiveness of global efforts to roll out vaccines, new information that may emerge concerning COVID-19 and COVID-19 variants, the actions taken to contain it or treat its impact and the economic impact on local, regional, national and international markets.

To date, our third party contract research organizations ("CROs"), contract manufacturing organizations ("CMOs"), and other third party vendors have been able to continue to provide services and supply reagents, materials, and products and currently do not anticipate any significant disruption in services or interruptions in supply. We have pursued mitigation strategies to keep key research activities on track. Our third-party CMOs continue to operate their manufacturing facilities at or near normal levels. While we currently do not anticipate any significant interruptions in our manufacturing processes, it is possible that the COVID-19 pandemic and response efforts may have an impact in the future on our third-party suppliers and CMO's ability to manufacture reagents, materials, or products that we need to use in our research and clinical trial. However, we are continuing to assess the potential impact of the COVID-19 pandemic on our business and operations, including our expenses, our observational study, our clinical trials, and our ability to hire and retain employees.

Our ability to continue our clinical trials and our observational study may be adversely affected, directly or indirectly, by the COVID-19 pandemic. Currently we are monitoring patient enrollment and participation in our clinical trials and our observational study, including the duration and degree to which we may see declines in enrollment, delays in conducting in-person follow-ups, and disruptions in our ability to monitor patients due to hospitals closing sites or diverting the resources that are necessary to conduct our clinical trials and our observational study. While we continue to enroll and dose patients in our clinical trials at sites across the United States and the United Kingdom, we take into consideration that COVID-19 precautions may directly or indirectly impact the timeline

for some of our clinical trial activities due to hospitals closing sites and/or diverting the resources that are necessary to conduct clinical trials. We are pursuing approaches to help mitigate the impact to our clinical trials. Currently we have not experienced any significant delays in our clinical trials due to COVID-19.

The COVID-19 pandemic has caused us to modify our business practices including but not limited to curtailing or modifying employee travel, moving to partial remote work, and minimizing some physical participation in meetings, events and conferences. We continue to monitor our operations and applicable governmental recommendations, and we may take further actions as may be required by government authorities or that we determine are in the best interests of our employees, patients and business partners.

Our office-based employees had been primarily working from home from early March 2020 through early September 2021. Since then, our office-based staff have been working in a hybrid-model fluctuating between work from home and work from the office. Throughout the pandemic, we continue to ensure that essential staffing levels in our operations remain in place, including maintaining key personnel in our laboratories

For additional information on the various risks posed by the COVID-19 pandemic, please read Item 1A. Risk Factors included in this quarterly report Form 10-Q.

Financial operations overview

Revenue

We currently do not have any products approved for sale and have not generated any revenue since inception through December 2021. If we are able to successfully develop, receive regulatory approval for and commercialize any of our current or future product candidates alone or in collaboration with third parties, we may generate revenue from the sales of these product candidates.

In January 2022, the Company entered into a license and collaboration agreement with Acadia Pharmaceuticals Inc. (“Acadia”) for the discovery, development and commercialization of novel RNA-based medicines for the treatment of severe and rare genetic neurodevelopmental diseases of the central nervous system (the “CNS”). The agreement focuses on the targets SYNGAP1, MECP2 (Rett syndrome), and an undisclosed neurodevelopmental target of mutual interest. In connection with each target, the Company will collaborate with Acadia to identify potential treatments for further development and commercialization as licensed products. With respect to SYNGAP1, the Company has agreed with Acadia to co-develop and co-commercialize licensed products for such target globally, and in connection therewith the Company granted to Acadia worldwide, co-exclusive (with the Company) licenses for such licensed products. With respect to MECP2 and the neurodevelopmental target, the Company granted to Acadia worldwide, exclusive licenses to develop and commercialize licensed products for such targets.

Pursuant to the terms of the agreement, the Company received an upfront payment of $60 million from Acadia. Acadia agreed to fund the research to identify potential licensed products for MECP2 and the neurodevelopmental target, and the Company will equally fund with Acadia the research to identify potential licensed products for SYNGAP1. The Company is eligible to receive up to $907.5 million in potential total milestone payments based upon the achievement of certain development, regulatory, first commercial sales and sales milestone events across the programs for the three targets, assuming each milestone were achieved at least once. With respect to licensed products for MECP2 and the neurodevelopmental target, the Company is also eligible to receive tiered royalties at percentages ranging from the mid-single digits to the mid-teens on future net sales by Acadia of licensed products worldwide. Royalties payable under the agreement are subject to standard royalty reductions. For SYNGAP1 licensed products that the Company is co-developing and co-commercializing, the Company will be responsible for 50% of the development and commercialization costs and will receive 50% of the profits from global commercialization. The Company is provided with a co-development and co-commercialization opt out option relating to the SYNGAP1 target indication at the Company’s discretion. Such opt-out would reduce development and commercialization milestones but would provide the Company with royalties on an escalating basis attributable to net sales milestones.

See Note 7 License and Collaboration Agreement with Acadia Pharmaceuticals, Inc. in our unaudited condensed consolidated financial statements included elsewhere in this Form 10Q.

Operating expenses

Research and development

Research and development expenses consist primarily of costs incurred for the development of our discovery work and preclinical programs, which include:

- personnel costs, which include salaries, benefits and stock-based compensation expense;
- expenses incurred under agreements with consultants, third-party contract organizations that conduct research and development activities on our behalf, costs related to production of preclinical material and laboratory and vendor expenses related to the execution of preclinical studies;
- scientific consulting, collaboration and licensing fees;
- laboratory equipment and supplies; and
- facilities costs, depreciation and other expenses related to internal research and development activities.

We use our personnel and infrastructure resources across multiple research and development programs directed toward identifying and developing product candidates. Our direct research and development expenses are tracked on a program-by-program basis from the point a program becomes a clinical candidate for us and consists primarily of external costs, such as fees paid to consultants, central laboratories and contractors in connection with our preclinical activities. We do not allocate employee costs, costs associated with our technology or facility expenses, including depreciation or other indirect costs, to specific programs because these costs are currently deployed across multiple product development programs and, as such, are not separately classified. We use internal resources to manage our development activities and our employees work across multiple development programs and, therefore, we do not track their costs by program.

The table below summarizes our research and development expenses incurred by development program (in thousands):

	Three Months Ended March 31,	
	2022	2021
STK-001	$ 6,091	$ 3,124
STK-002	1,989	78
SYNGAP1	143	103
MECP2	49	78
Non-program specific and unallocated research and development expenses	10,037	6,530
Total research and development expenses	$ 18,309	$ 9,913

We expense all research and development costs in the periods in which they are incurred. 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 third-party service providers.

We expect that our expenses will increase substantially in connection with our planned discovery work, preclinical and clinical development activities in the near term and our planned clinical trials in the future. At this time, we cannot reasonably estimate the costs for completing the preclinical and clinical development of any of our other product candidates. We expect our research and development expenses to increase substantially for the foreseeable future as we continue to invest in research and development activities related to developing our product candidates, including investments in manufacturing, as our programs advance into later stages of development and we conduct clinical trials. The process of conducting the necessary clinical research to obtain regulatory approval is costly and time-consuming, and the successful development of our product candidates is highly uncertain. As a result, we are unable to determine the duration and completion costs of our research and development projects or when and to what extent we will generate revenue from the commercialization and sale of any of our product candidates.

Because of the numerous risks and uncertainties associated with product development, we cannot determine with certainty the duration and completion costs of the current or future preclinical studies and clinical trials or if, when, or to what extent we will generate revenues from the commercialization and sale of our product candidates. We may never succeed in achieving regulatory approval for our product candidates. The duration, costs and timing of preclinical studies and clinical trials and development of our product candidates will depend on a variety of factors, which may be directly or indirectly impacted by the COVID-19 pandemic, including:

- successful completion of preclinical studies and investigational new drug-enabling studies;

- successful enrollment in, and completion of, clinical trials;
- receipt of regulatory approvals from applicable regulatory authorities;
- furthering our commercial manufacturing capabilities and arrangements with third-party manufacturers;
- obtaining and maintaining patent and trade secret protection and non-patent exclusivity;
- launching commercial sales of our product candidates, if and when approved, whether alone or in collaboration with others;
- acceptance of our product candidates, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies and treatment options;
- a continued acceptable safety profile following approval;
- enforcing and defending intellectual property and proprietary rights and claims; and
- achieving desirable medicinal properties for the intended indications.

A change in the outcome of any of these factors could mean a significant change in the costs and timing associated with the development of our current and future preclinical and clinical product candidates. 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, or if we experience significant delays in execution of or enrollment in any of our preclinical studies or clinical trials, we could be required to expend significant additional financial resources and time on the completion of preclinical and clinical development. We expect our research and development expenses to increase for the foreseeable future as we continue the development of product candidates.

General and administrative expenses

General and administrative expenses consist primarily of personnel costs, costs related to maintenance and filing of intellectual property, expenses for outside professional services, including legal, human resources, information technology, audit and accounting services, and facilities and other expenses. Personnel costs consist of salaries, benefits and stock-based compensation expense. We expect our general and administrative expenses to increase over the next several years to support our continued research and development activities, manufacturing activities, increased costs of operating as a public company and the potential commercialization of our product candidates. These increases are anticipated to include increased costs related to the hiring of additional personnel, developing commercial infrastructure, fees to outside consultants, lawyers and accountants, and increased costs associated with being a public company such as expenses related to services associated with maintaining compliance with Nasdaq listing rules and SEC requirements, insurance and investor relations costs.

Other income (expense)

Our other income (expense), includes (i) interest income earned on cash reserves in our operating money market fund investment accounts and on our marketable securities investments and (ii) other items of income (expense), net.

Results of operations for the three months ended March 31, 2022 and 2021

The following table sets forth our results of operations:

	Three Months Ended March 31,	
	2022	2021
	(in thousands)	
Condensed consolidated statements of operations:		
Revenue	$ 3,000	$ —
Operating expenses:		
Research and development	18,309	9,913
General and administrative	9,486	6,914
Total operating expenses	$ 27,795	$ 16,827
Loss from operations	$ (24,795)	$ (16,827)
Other income:		
Interest income (expense), net	104	6
Other income (expense), net	42	28
Total other income	$ 146	$ 34
Net loss	$ (24,649)	$ (16,793)

Research and development expenses

Research and development expenses were $18.3 million for the three months ended March 31, 2022 as compared to $9.9 million for the three months ended March 31, 2021, an increase of $8.4 million. The table below summarizes our research and development expenses (in thousands):

	Three Months Ended March 31,	
	2022	2021
STK-001	$ 6,091	$ 3,124
STK-002	1,989	78
SYNGAP1	143	103
MECP2	49	78
Personnel-related expenses	6,610	4,635
Third-party services	899	365
Scientific consulting	300	99
Facilities and other research and development expenses	2,228	1,431
Total research and development expenses	$ 18,309	$ 9,913

The increase in research and development expenses were primarily attributable to an increase of $2.0 million in personnel costs resulting from an increase in headcount, an increase of $3.0 million in expenses related to our STK-001 program and $1.9 million related to our STK-002 program, which is comprised of third-party services and scientific consulting fees and an increase of $1.5 million in external third party expense related to SYNGAP1, MECP2, facilities and other costs and non-project specific consulting and third-party services, materials and other costs. The increases in expense reflect the accelerating pace of research and development activities and the increases in personnel, facilities and, third party services to support those activities.

General and administrative expenses

General and administrative expenses were $9.5 million for the three months ended March 31, 2022 as compared to $6.9 million for the three months ended March 31, 2021, an increase of $2.6 million.

The increase in general and administrative expenses were primarily attributable to an increase of $2.1 million in personnel costs resulting from an increase in headcount, and an increase of $0.5 million in third-party services to support our in-house personnel in various aspects of developing and supporting the business including human resources, information technology, audit, tax, public relations, communications and other general and administrative activities.

Other income (expense)

The change in our other income (expense) for the three months ended March 31, 2022 as compared to the three months ended March 31, 2021 primarily reflects an increase in marketable securities balances.

Liquidity and capital resources

Since our inception through March 31, 2022, our operations have been financed by net proceeds of $487.4 million from the sale of convertible notes payable and our convertible preferred stock, our initial public offering, follow-on offering, proceeds from the controlled equity offering sales agreement and the upfront payment from Acadia. As of March 31, 2022, we had $293.8 million in cash, cash equivalents, marketable securities, and restricted cash. Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with a view to liquidity and capital preservation.

We have incurred losses since our inception in June 2014 and, as of March 31, 2022 and 2021, we had accumulated deficits of $220.7 million and $127.1 million, respectively. Our primary use of cash is to fund operating expenses, which consist primarily of research and development expenditures, and to a lesser extent, general and administrative expenditures. Cash used to fund operating expenses is impacted by the timing of when we pay these expenses, as reflected in the change in our outstanding accounts payable and accrued expenses.

Pursuant to our license and collaboration agreement with Acadia, we are eligible to receive up to $907,500,000 in potential total milestone payments based upon the achievement of certain development, regulatory, first commercial sales and sales milestone events. With respect to certain licensed products, we are also eligible to receive tiered royalties at percentages ranging from the mid-single digits to the mid-teens on future net sales by Acadia of licensed products worldwide. We are also responsible for 50% of the development and commercialization costs for certain licensed products and will receive 50% of the profits from global commercialization.

Our product candidates may never achieve commercialization and we anticipate that we will continue to incur losses for the foreseeable future. We expect that our research and development expenses, general and administrative expenses, and capital expenditures will continue to increase. As a result, 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 or other capital sources, including potentially collaborations, licenses and other similar arrangements. Our primary uses of capital are, and we expect will continue to be, compensation and related expenses, third-party clinical research and development services, costs relating to the build-out of our headquarters and manufacturing facility, license payments or milestone obligations that may arise, laboratory and related supplies, clinical costs, manufacturing costs, legal and other regulatory expenses and general overhead costs.

Based upon our current operating plan, we believe that our existing cash, cash equivalents, marketable securities, and restricted cash as of March 31, 2022, will enable us to fund our operating expenses and capital expenditure requirements into 2025. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. We will continue to require additional financing to advance our current product candidates through clinical development, to develop, acquire or in-license other potential product candidates and to fund operations for the foreseeable future. We will continue to seek funds through equity offerings, debt financings or other capital sources, including potentially collaborations, licenses and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. If we do raise additional capital through public or private equity offerings, the ownership interest of our existing stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect our stockholders' rights. If we raise additional capital through debt financing, we may be subject to covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. Any failure to raise capital as and when needed could have a negative impact on our financial condition and on our ability to pursue our business plans and strategies. If we are unable to raise capital, we will need to delay, reduce or terminate planned activities to reduce costs.

Because of the numerous risks and uncertainties associated with research, development and commercialization of pharmaceutical products, we are unable to estimate the exact amount of our operating capital requirements. Our future funding requirements will depend on many factors, including, but not limited to:

- the scope, progress, results and costs of researching and developing our lead product candidates or any future product candidates, and conducting nonclinical studies and clinical trials;
- the timing of, and the costs involved in, obtaining regulatory approvals or clearances for our lead product candidates or any future product candidates;
- the number and characteristics of any additional product candidates we develop or acquire;
- the timing of any cash milestone payments if we successfully achieve certain predetermined milestones;

- the cost of manufacturing our lead product candidates or any future product candidates and any products we successfully commercialize, including costs associated with building-out our manufacturing capabilities;
- our ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of any such agreements that we may enter into;
- the expenses needed to attract and retain skilled personnel;
- the costs associated with being a public company; and
- the timing, receipt and amount of sales of any future approved or cleared products, if any.

Further, our operating plans may change, and we may need additional funds to meet operational needs and capital requirements for clinical trials and other research and development activities. We currently have no credit facility or committed sources of capital. 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 associated with our current and anticipated product development programs.

Cash flows

The following table summarizes our cash flows:

	Three Months Ended March 31,	
	2022	2021
	(in thousands)	
Net cash provided by (used in):		
Operating activities	$ 32,491	$ (20,136)
Investing activities	(135,782)	(204)
Financing activities	42,507	546
Net decrease in cash, cash equivalents and restricted cash	$ (60,784)	$ (19,794)

Operating activities

During the three months ended March 31, 2022, cash provided by operating activities was $32.5 million. This was primarily attributable to $58.0 million in deferred revenue received as part of the Acadia collaboration and to non-cash charges of $5.8 million for share-based compensation, depreciation, amortization and accretion of marketable securities, and reduction in the carrying amount of right of use assets, offset by a net loss of $24.6 million and by a net change of $6.7 million in our net operating assets and liabilities.

During the three months ended March 31, 2021, cash used in operating activities was $20.1 million and was primarily attributable to a net loss of $16.8 million, partially offset by non-cash charges of $3.2 million for share-based compensation, depreciation, and reduction in the carrying amount of right of use assets, and a net change of $6.6 million in our net operating assets and liabilities.

Investing activities

Our investing activities during the three months ended March 31, 2022 and 2021 have consisted of purchases of property and equipment as well as purchases and sales of marketable securities.

Financing activities

Our financing activities during the three months ended March 31, 2022 consisted of $0.1 million from the exercise of stock options and $0.2 million in proceeds from our Employee Stock Purchase Plan and $42.2 million of proceeds from the controlled equity offering sales agreement.

Our financing activities during the three months ended March 31, 2021 consisted of $0.4 million from the exercise of stock options and $0.2 million in proceeds from our Employee Stock Purchase Plan.

Contractual obligations and commitments

The following table summarizes our contractual obligations as of March 31, 2022 and the effects that such obligations are expected to have on our liquidity and cash flows in future fiscal periods:

	Payments Due by Fiscal Period				
	Total	Less Than 1 Year	1 to 3 Years	4 to 5 Years	More than 5 Years
	(in thousands)				
Operating lease obligations	$ 7,020	$ 1,707	$ 5,313	$ —	$ —
Total	$ 7,020	$ 1,707	$ 5,313	$ —	$ —

In August 2018, we entered into an agreement to lease approximately 23,000 square feet of space for a term of three years. Lease terms are triple net lease commencing at $0.9 million per year, then with 3% annual base rent increases plus operating expenses, real estate taxes, utilities and janitorial fees. The lease commencement date was December 10, 2018.

In September 2021, we entered into an agreement to extend the initial term of the 23,000 square foot lease for a period of three years ending December 31, 2024. In addition, this agreement provides for the lease of an additional 15,000 square feet of rentable space beginning on April 1, 2022 and ending on December 31, 2024. Initial monthly lease payments are approximately $0.1 million with respect to the 23,000 square feet space, and $0.1 million with respect to the 15,000 square feet space, and in each case subject to annual rent escalations.

In December 2018, we entered into an agreement to lease 2,485 square feet of space for a term of three years. The lease includes one renewal option for an additional two years. Lease terms commence at $0.2 million per year, with 2.5% annual base rent increases plus operating expenses, real estate taxes, utilities and janitorial fees. We occupied this space in May 2019.

In June 2021, we amended the agreement to extend the initial term of the 2,485 square foot lease for a period of three years ending April 30, 2025. In addition, the amendment provided for the lease of an additional 2,357 square feet of rentable space beginning on July 6, 2021 and ending on April 30, 2025. The amended lease provides us with the option to extend the term of the lease for an additional two years with a base annual rent increase of 3%.

Commitments

Our commitments primarily consist of obligations under our agreements with CSHL and the University of Southampton. As of March 31, 2022, we were unable to estimate the timing or likelihood of achieving the milestones or making future product sales. For additional information regarding our agreements, see *Note 6—Commitments and Contingencies* of the notes to our condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

Additionally, we have entered into agreements with third-party contract manufacturers for the manufacture and processing of certain of our product candidates for preclinical testing purposes, and we have entered and will enter into other contracts in the normal course of business with contract research organizations for clinical trials and other vendors for other services and products for operating purposes. These agreements generally provide for termination or cancellation, other than for costs already incurred.

Off-balance sheet arrangements

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

Critical accounting policies and significant judgments and estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our condensed consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles ("GAAP"). The preparation of these condensed consolidated financial statements requires us 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 condensed consolidated financial statements, as well as the reported expenses incurred during the reporting periods. Our estimates are based on our 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 may differ from these estimates under different assumptions or conditions. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

There have been no significant changes in our critical accounting policies and estimates as compared to the critical accounting policies and estimates disclosed in the section titled “Management’s Discussion and Analysis of Financial Condition and Operations” included in our Annual Report on Form 10-K filed with the SEC on March 10, 2022, other than revenue recognition discussed below.

Revenue Recognition

The Company recognizes revenue in accordance with Accounting Standards Codification (“ASC”) Topic 606, *Revenue from Contracts with Customers* (“ASC 606”). This standard applies to all contracts with customers, except for contracts that are within the scope of other standards, such as leases, insurance, and financial instruments. Under ASC 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration that the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, the entity performs the following five-step analysis: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. The Company only applies the five-step analysis to contracts when it is probable that the entity will collect the consideration to which it is entitled in exchange for the goods or services it transfers to the customer. As part of the accounting for these arrangements, the Company must use significant judgment to determine: (a) the number of performance obligations based on the determination under step (ii) above; (b) the transaction price under step (iii) above; and (c) the timing of satisfaction of performance obligations as a measure of progress in step (v) above.

For contracts determined to be within the scope of ASC 606, the Company assesses whether the goods or services promised within each contract are distinct to identify those that are performance obligations. This assessment involves subjective determinations and requires management to make judgments about the individual promised goods or services and whether such are separable from the other aspects of the contractual relationship. Promised goods and services are considered distinct provided that: (i) the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer, and (ii) the entity’s promise to transfer the good or service to the customer is separately identifiable from other promises in the contract. In assessing whether a promise or performance obligation is distinct from the other promises, the Company considers factors such as the research, development, manufacturing and commercialization capabilities of the customer and the availability of the associated expertise in the general marketplace. In addition, the Company considers whether the customer can benefit from a promise for its intended purpose without the receipt of the remaining promise, whether the value of the promise is dependent on the unsatisfied promise, whether there are other vendors that could provide the remaining promise, and whether it is separately identifiable from the remaining promise. For licenses that are combined with other promises, the Company utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue.

The licenses of the Company’s intellectual property granted to Acadia was not determined to be distinct from the other promises or performance obligations, i.e., research and development services, identified in the arrangement. Accordingly, such licenses are therefore combined with research and development services in the arrangement. Payments or reimbursements resulting from the Company’s research and development efforts are recognized as the services are performed and presented on a gross basis because the Company is the principal for such efforts.

The transaction price (the amount of consideration the Company expects to be entitled to from a customer in exchange for the promised good or services) is determined and allocated to the identified performance obligations in proportion to their standalone selling prices (“SSP”) on a relative SSP basis. SSP is determined at contract inception and is not updated to reflect changes between contract inception and when the performance obligations are satisfied.

The Company uses significant judgment to determine whether milestone payments or other variable consideration, except for royalties, should be included in the transaction price. The transaction price is allocated to each performance obligation based on the relative standalone selling prices of each performance obligation in the contract, and the Company recognizes revenue based on those amounts when, or as, the performance obligations under the contract are satisfied. Any variable consideration is constrained, and therefore, the cumulative revenue associated with this consideration is not recognized until it is deemed not to be at significant risk of reversal.

The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation(s) when (or as) each performance obligation is satisfied, either at a point in time or over time, and if over time recognition is based on the appropriate method of measuring progress for purposes of recognizing revenue. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition. Amounts received prior to being recognized as revenue are recorded as deferred revenue. Amounts expected to be recognized as revenue within the 12 months following the balance sheet date are classified as current portion of deferred revenue in the accompanying consolidated

balance sheets. Amounts not expected to be recognized as revenue within the 12 months following the balance sheet date are classified as deferred revenue, net of current portion.

Customer options: If an arrangement is determined to contain customer options that allow the customer to acquire additional goods or services, the goods and services underlying the customer options are not considered to be performance obligations at the outset of the arrangement, as they are contingent upon option exercise. The Company evaluates the customer options for material rights, that is, the option to acquire additional goods or services for free or at a discount. If the customer options are determined to represent a material right, the material right is recognized as a separate performance obligation at the outset of the arrangement. The Company allocates the transaction price to material rights based on the standalone selling price. As a practical alternative to estimating the standalone selling price when the goods or services are both (i) similar to the original goods and services in the contract and (ii) provided in accordance with the terms of the original contract, the Company allocates the total amount of consideration expected to be received from the customer to the total goods or services expected to be provided to the customer. Amounts allocated to any material right are not recognized as revenue until the option is exercised and the performance obligation is satisfied.

No such material rights were identified in the arrangement with Acadia. If such material rights were identified, then the Company would allocate the transaction price to material rights based on the relative standalone selling price, which is determined based on the identified discount and the probability that the customer will exercise the option. Amounts allocated to a material right are not recognized or begin to be recognized as revenue until, at the earliest, the option is exercised.

Milestone payments: At the inception of each arrangement that includes milestone payments, the Company evaluates whether a significant reversal of cumulative revenue provided in conjunction with achieving the milestones is probable, and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant reversal of cumulative revenue would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the control of the Company or the licensee, such as regulatory approvals, are not considered probable of being achieved until those approvals are received. For other milestones, the Company evaluates factors such as the scientific, clinical, regulatory, commercial, and other risks that must be overcome to achieve the particular milestone in making this assessment. There is considerable judgment involved in determining whether it is probable that a significant reversal of cumulative revenue would not occur. At the end of each subsequent reporting period, the Company reevaluates the probability of achievement of all milestones subject to constraint and, if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect revenues and earnings in the period of adjustment.

The development milestones in the Acadia arrangement are not considered probable of achievement at the outset of the arrangement. For additional discussion of accounting for collaboration revenues, see Note 7 of our condensed consolidated financial statements.

Emerging growth company and smaller reporting company status

We are an “emerging growth company,” as defined in the Jumpstart our Business Startups Act of 2012 (the “JOBS Act”). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies.

We have elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act.

As a result, our condensed consolidated financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

We will remain an emerging growth company until the earliest of (1) the last day of our first fiscal year (a) in which we have total annual gross revenues of at least $1.07 billion, or (b) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700.0 million as of the prior June 30th, (2) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period and (3) December 31, 2024.

We are also a “smaller reporting company,” meaning that the market value of our stock held by non-affiliates was less than $700 million and its annual revenue is less than $100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company as long as either (i) the market value of our stock held by non-affiliates is less than $250 million or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial

statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Recently adopted and recently issued accounting pronouncements

See *Note 2—Summary of significant accounting policies and recent accounting pronouncements* of the notes to our unaudited condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for more information.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Interest rate risk

We are exposed to market risks in the ordinary course, primarily including interest sensitivities. As of March 31, 2022, we had cash, cash equivalents, marketable securities, and restricted cash of $293.8 million and $220.4 million as of December 31, 2021. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates. A hypothetical 100 basis point change in interest rates would affect the fair market value of our cash equivalents and marketable securities by approximately $2.9 million.

Inflation Risk

Inflation generally affects us by increasing our clinical trial costs. We do not believe that inflation has had a material effect on our business, financial condition or results of operations during the periods ended March 31, 2022 or 2021.

Item 4. Controls and Procedures.

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Financial Officer and Chief Executive Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act") as of March 31, 2022. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on our management's evaluation (with the participation of our Chief Executive Officer and our Chief Financial Officer), as of the end of the period covered by this report, our Chief Executive Officer and our Chief Financial Officer have concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) during the period covered by this report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. We have not experienced any material impact to our internal controls over financial reporting despite the fact that most of our employees are working remotely due to the COVID-19 pandemic. We are continually monitoring and assessing the COVID-19 situation on our internal controls to minimize the impact on their design and operating effectiveness.

Inherent Limitations on Effectiveness of Controls

Internal control over financial reporting may not prevent or detect all errors and all fraud. Any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objective and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings.

From time to time, we may be involved in legal proceedings arising in the ordinary course of our business. We are not presently a party to any legal proceedings that, in the opinion of management, would have a material adverse effect on our business. Regardless of outcome, litigation can have an adverse impact on us due to defense and settlement costs, diversion of management resources, negative publicity and reputation harm, and other factors.

Item 1A. Risk Factors.

Summary of Risk Factors

An investment in our common stock involves various risks, and prospective investors are urged to carefully consider the matters discussed in the section titled “Risk Factors” prior to making an investment in our common stock. These risks include, but are not limited to, the following:

- We are early in our development efforts. If we or our collaborators are unable to develop, obtain regulatory approval for and commercialize STK-001, STK-002 and our future product candidates, or if we experience significant delays in doing so, our business will be materially harmed.
- Success in early preclinical studies or clinical trials may not be indicative of results obtained in later preclinical studies and clinical trials, including in our Dravet syndrome program or our ADOA program.
- Even if we complete the necessary preclinical studies and clinical trials, we cannot predict when, or if, we will obtain regulatory approval to commercialize a product candidate and the approval may be for a narrower indication than we seek.
- The ongoing COVID-19 pandemic may, directly or indirectly, adversely affect our business, results of operations and financial condition.
- Certain of the diseases we seek to treat have low prevalence, and it may be difficult to identify patients with these diseases, which may lead to delays in enrollment for our trials or slower commercial revenue growth if STK-001, STK-002 or our future product candidates are approved.
- If clinical trials of STK-001, STK-002 or any other product candidate that we develop fail to demonstrate safety and efficacy to the satisfaction of FDA or foreign regulatory authorities or do not otherwise produce favorable results, we may incur additional costs or experience delays in completing, or ultimately may be unable to complete, the development and commercialization of such product candidate.
- We may not be successful in our efforts to use TANGO to expand our pipeline of product candidates and develop marketable products.
- Any product candidate for which we obtain marketing approval will be subject to extensive post-marketing regulatory requirements and could be subject to post-marketing restrictions or withdrawal from the market, and we may be subject to penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our product candidates, when and if any of them are approved.
- Our failure to obtain regulatory approval in international jurisdictions would prevent us from marketing our product candidates outside the United States.
- STK-001, STK-002 or our future product candidates may cause undesirable and unforeseen side effects or be perceived by the public as unsafe, which could delay or prevent their advancement into clinical trials or regulatory approval, limit the commercial potential or result in significant negative consequences.
- A Fast Track Designation by the FDA, even if granted for any of our future product candidates, may not lead to a faster development or regulatory review or approval process, and does not increase the likelihood that our product candidates will receive marketing approval.
- A Breakthrough Therapy Designation by the FDA for STK-001, STK-002 or our future product candidates may not lead to a faster development or regulatory review or approval process, and it would not increase the likelihood that the product candidate will receive marketing approval.
- Enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and may affect the prices we may set.
- The commercial success of our product candidates, including STK-001 and STK-002 will depend upon their degree of market acceptance by providers, patients, patient advocacy groups, third-party payors and the general medical community.

- The pricing, insurance coverage and reimbursement status of newly approved products is uncertain. Failure to obtain or maintain adequate coverage and reimbursement for our product candidates, if approved, could limit our ability to market those products and decrease our ability to generate product revenue.
- Current and potential future healthcare reforms may adversely impact pricing, insurance coverage and reimbursement status of newly approved products.
- We have a history of operating losses, and we may not achieve or sustain profitability. We anticipate that we will continue to incur losses for the foreseeable future. If we fail to obtain additional funding to conduct our planned research and development effort, we could be forced to delay, reduce or eliminate our product development programs or commercial development efforts.
- We expect that we will need to raise additional funding before we can expect to become profitable from any potential future sales of STK-001, STK-002 or our future product candidates. This additional financing 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.
- Our limited operating history may make it difficult for you to evaluate the success of our business to date and to assess our future viability.
- Our success depends in part on our ability to obtain, maintain and protect our intellectual property. It is difficult and costly to protect our proprietary rights and technology, and we may not be able to ensure their protection.
- The market price of our stock may be volatile, and you could lose all or part of your investment.

Risks related to product development and regulatory approval

We are early in our development efforts. If we are unable to develop, obtain regulatory approval for and commercialize STK-001, STK-002 and our future product candidates, or if we experience significant delays in doing so, our business will be materially harmed.

We have invested substantially all of our efforts and financial resources in the development of our Targeted Augmentation of Nuclear Gene Output ("TANGO") technology and our current lead product candidate, STK-001, for the treatment of Dravet syndrome. We submitted an investigational new drug application ("IND") for STK-001 to the U.S. Food and Drug Administration (the "FDA") in late 2019. In August 2020, we dosed the first patient with STK-001 in the single ascending dose portion of the MONARCH Phase 1/2a Study at the 10mg dose level.

In addition, in November 2020, we announced the nomination of OPA1 as our next target for preclinical development to treat Autosomal Dominant Optic Atrophy ("ADOA"). In November 2021, we announced the nomination of STK-002 as the lead product candidate for the treatment of ADOA and intend to invest significant efforts and financial resources in its development. Our ability to generate product revenue, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of TANGO and our product candidates, which may never occur. We currently generate no revenue from sales of any product and we may never be able to develop or commercialize a marketable product.

Each of our programs and product candidates will require preclinical and clinical development, regulatory approval in multiple jurisdictions, obtaining preclinical, clinical and commercial manufacturing supply, capacity and expertise, building of a commercial organization, substantial investment and significant marketing efforts before we generate any revenue from product sales. STK-001, STK-002 and our future product candidates must be authorized for marketing by the FDA or certain other foreign regulatory agencies, such as the European Medicines Agency (the "EMA") or the United Kingdom Medicines and Healthcare products Regulatory Agency (the "MHRA"), before we may commercialize any of our product candidates.

The success of STK-001, STK-002 and our future product candidates depends on multiple factors, including:

- effective INDs and Clinical Trial Authorizations ("CTAs") that allow commencement of our planned clinical trials or future clinical trials for our product candidates in relevant territories;
- our ability to obtain approval from institutional review boards ("IRBs") or ethics committees to conduct clinical trials at their respective sites;
- potential delays in enrollment, site visits, evaluations, or dosing of patients participating in clinical trials as hospitals prioritize the treatment of COVID-19 patients or patients decide not to enroll in the study as a result of the COVID-19 pandemic;
- the direct and indirect impact of COVID-19 on our business and operations, third party vendors, supply chain, and regulatory approvals;

- successful completion of preclinical studies, including those compliant with Good Laboratory Practices ("GLP") or GLP toxicology studies, biodistribution studies and minimum effective dose studies in animals;
- our ability to reach agreements on acceptable terms with prospective third-party contract research organizations ("CROs") and trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among CROs and trial sites;
- successful enrollment and completion of clinical trials compliant with current Good Clinical Practices ("GCPs");
- positive results from our clinical programs that are supportive of safety and efficacy and provide an acceptable risk-benefit profile for our product candidates in the intended patient populations;
- receipt of regulatory approvals from applicable regulatory authorities;
- establishment of arrangements with third-party contract manufacturing organizations ("CMOs") for key materials used in our manufacturing processes and to establish backup sources for clinical and large-scale commercial supply;
- establishment and maintenance of patent and trade secret protection and regulatory exclusivity for our product candidates;
- commercial launch of our product candidates, if and when approved, whether alone or in collaboration with others;
- acceptance of our product candidates, if and when approved, by patients, patient advocacy groups, third-party payors and the general medical community;
- our effective competition against other therapies available in the market;
- establishment and maintenance of adequate reimbursement from third-party payors for our product candidates;
- our ability to acquire or in-license additional product candidates;
- prosecution, maintenance, enforcement and defense of intellectual property rights and claims; and
- maintenance of a continued acceptable safety profile of our product candidates following approval.

If we do not succeed in one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize our product candidates, which would materially harm our business. If we do not receive regulatory approvals for our product candidates, we may not be able to continue our operations.

Success in early preclinical studies or clinical trials may not be indicative of results obtained in later preclinical studies and clinical trials, including in our Dravet syndrome program or our ADOA program.

STK-001 is currently being evaluated in human clinical trials, and we may experience unexpected or negative results in the future. We will be required to demonstrate through adequate and well-controlled clinical trials that our product candidates are safe and effective, with a favorable benefit-risk profile, for use in their target indications before we can seek regulatory approvals for their commercial sale. The positive results we have observed for our product candidates in preclinical animal models may not be predictive of our future clinical trials in humans, as mouse models carry inherent limitations relevant to all preclinical studies. In particular, the Dravet syndrome mouse model is more severe than the human disease and provides a shorter post-symptomatic observation period. Trial designs and results from early-phase trials are not necessarily predictive of future clinical trial designs or results, and initial positive results we may observe may not be confirmed in later-phase clinical trials. Our product candidates may also fail to show the desired safety and efficacy in later stages of clinical development even if they successfully advance through initial clinical trials. We may not be able to demonstrate a disease-modifying effect of STK-001 in our clinical trials in Dravet syndrome patients, even if we are able to demonstrate efficacy on seizure reduction, and we may be similarly unable to demonstrate the efficacy of STK-002 in our ADOA program or other future programs. In addition, our clinical trials to date have necessarily involved relatively small numbers of participants. Therefore, conclusions we draw based upon trial results to date may not be repeatable across larger cohorts of participants or patients with different characteristics. Moreover, even if our clinical trials demonstrate acceptable safety and efficacy of STK-001, STK-002 or our future product candidates, the labeling we obtain through negotiations with the FDA or foreign regulatory authorities may not include data on secondary endpoints and may not provide us with a competitive advantage over other products approved for the same or similar indications.

Many companies in the biotechnology industry have suffered significant setbacks in late-stage clinical trials after achieving positive results in early-stage development and there is a high failure rate for product candidates proceeding through clinical trials. In addition, different methodologies, assumptions and applications we utilize to assess particular safety or efficacy parameters may yield different statistical results. Even if we believe the data collected from clinical trials of our product candidates are promising, these data may not be sufficient to support approval by the FDA or foreign regulatory authorities. Preclinical and clinical data can be interpreted in different ways. Accordingly, the FDA or foreign regulatory authorities could interpret these data in different ways from us or our partners, which could delay, limit or prevent regulatory approval. If our study data do not consistently or sufficiently demonstrate the

safety or efficacy of any of our product candidates, including STK-001 for Dravet syndrome or STK-002 for ADOA, then the regulatory approvals for such product candidates could be significantly delayed as we work to meet approval requirements, or, if we are not able to meet these requirements, such approvals could be withheld or withdrawn. Regulatory delays or rejections may be encountered as a result of many factors, including changes in regulatory policy during the period of product development. We cannot be certain that we will not face similar setbacks. While currently we are not experiencing any significant delays or disruptions to our clinical trial a result of the global COVID-19 pandemic, we take into consideration that the COVID-19 pandemic may directly or indirectly impact our clinical trial enrollment, dosing, and regulatory approval timelines.

If clinical trials of STK-001, STK-002 or any other product candidate that we develop fail to demonstrate safety and efficacy to the satisfaction of FDA or foreign regulatory authorities or do not otherwise produce favorable results, we may incur additional costs or experience delays in completing, or ultimately may be unable to complete, the development and commercialization of such product candidate.

Before obtaining marketing approval from regulatory authorities for the sale of any product candidate, including STK-001 and STK-002, we must complete preclinical development and then conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more clinical trials can occur at any stage of testing.

Clinical trials may be placed on a full or partial clinical hold by the FDA, foreign regulatory authorities, or us for various reasons, including but not limited to: deficiencies in the conduct of the clinical trials, including failure to conduct the clinical trial in accordance with regulatory requirements or clinical protocols; deficiencies in the clinical trial operations or trial sites; deficiencies in the trial designs necessary to demonstrate efficacy; fatalities or other adverse effects arising during a clinical trial due to medical problems that may or may not be related to clinical trial treatments; the product candidates may not appear to be more effective than current therapies; the quality or stability of the product candidates may fall below acceptable standards; or the data from animal studies are not sufficient to support the anticipated exposure (dose, route of administration, and duration) for the proposed clinical trial. For example, in March 2020, we announced that the FDA had placed a partial clinical hold on doses of STK-001 above 20 mg in our Phase 1/2a clinical trial (the "MONARCH Study") based on observations of adverse hind limb paresis in non-human primates, pending additional preclinical testing to determine the safety profile of doses higher than the current no observed adverse effect level. The partial clinical hold remains in place in the MONARCH Study for dosing above 45 mg. If the partial clinical hold is not lifted, our ability to successfully conclude the MONARCH Study or other studies related to STK-001, and our business, results of operations and financial condition, may be adversely affected.

Even if we complete the necessary preclinical studies and clinical trials, we cannot predict when, or if, we will obtain regulatory approval to commercialize a product candidate and the approval may be for a narrower indication than we seek.

Prior to commercialization, STK-001, STK-002, and our other future product candidates must be approved by the FDA pursuant to a new drug application ("NDA") in the United States and pursuant to similar marketing applications by the EMA and similar regulatory authorities outside the United States. The process of obtaining marketing approvals, both in the United States and abroad, is expensive and takes many years, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate. We have not received approval to market STK-001, STK-002 or any of our other future product candidates from regulatory authorities in any jurisdiction. We have no experience in submitting and supporting the applications necessary to gain marketing approvals, and, in the event regulatory authorities indicate that we may submit such applications, we may be unable to do so as quickly and efficiently as desired. Securing marketing approval requires the submission of extensive preclinical and clinical data and supporting information to regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy. Securing marketing approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the regulatory authorities. Our product candidates may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining marketing approval or prevent or limit commercial use. Regulatory authorities have substantial discretion in the approval process and may refuse to accept or file any application or may decide that our data are insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent marketing approval of a product candidate.

Approval of STK-001, STK-002 and our other future product candidates may be delayed or refused for many reasons, including:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may be unable to demonstrate, to the satisfaction of the FDA or comparable foreign regulatory authorities, that our product candidates are safe and effective for any of their proposed indications;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that our product candidates' clinical and other benefits outweigh their safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical programs or clinical trials;
- the data collected from clinical trials of our product candidates may not be sufficient to support the submission of an NDA or other comparable submission in foreign jurisdictions or to obtain regulatory approval in the United States or elsewhere;
- the facilities of third-party manufacturers with which we contract or procure certain service or raw materials, may not be adequate to support approval of our product candidates;
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval;
- potential delays in enrollment, site visits, evaluations, or dosing of patients participating in the clinical trial as hospitals prioritize the treatment of COVID-19 patients or patients decide to not enroll in the study as a result of the COVID-19 pandemic; and
- government regulations that may be imposed in response to the COVID-19 pandemic may restrict the movement of our global supply chain, divert hospital resources that are necessary to administer STK-001, STK-002 or our future product candidates.

Even if our product candidates meet their safety and efficacy endpoints in clinical trials, the regulatory authorities may not complete their review processes in a timely manner, or we may not be able to obtain regulatory approval. Additional delays may result if an FDA Advisory Committee or other regulatory authority recommends non-approval or restrictions on approval. In addition, we may experience delays or rejections based upon additional government regulation from future legislation or administrative action, or changes in regulatory authority policy during the period of product development, clinical trials and the review process.

Regulatory authorities also may approve a product candidate for more limited indications than requested or they may impose significant limitations in the form of narrow indications, warnings or Risk Evaluation and Mitigation Strategies. These regulatory authorities may require precautions or contra-indications with respect to conditions of use or they may grant approval subject to the performance of costly post-marketing clinical trials. In addition, regulatory authorities may not approve the labeling claims that are necessary or desirable for the successful commercialization of our product candidates. Any of the foregoing scenarios could materially harm the commercial prospects for our product candidates and adversely affect our business, financial condition, results of operations and prospects. While currently we are not experiencing any significant delays or disruptions to our clinical trial a result of the global COVID-19 pandemic, we take into consideration that the COVID-19 pandemic may directly or indirectly impact our clinical trial enrollment, dosing, and regulatory approval timelines.

The ongoing COVID-19 pandemic may, directly or indirectly, adversely affect our business, results of operations and financial condition.

Our business could be materially adversely affected, directly or indirectly, by the widespread outbreak of contagious disease, including the ongoing COVID-19 pandemic and variants of COVID-19, which have spread to each of the countries in which we and our suppliers do business. National, state and local governments in affected regions have implemented and may continue to implement safety precautions, including quarantines, border closures, increased border controls, travel restrictions, shelter in place orders and shutdowns, business closures, cancellations of public gatherings and other measures. Organizations and individuals are taking additional steps to avoid or reduce infection, including limiting travel and staying home from work. These measures are disrupting normal business operations both in and outside of affected areas and have had significant negative impacts on businesses and financial markets worldwide.

The COVID-19 pandemic has caused us to modify our business practices including, but not limited to, curtailing or modifying employee travel, moving to partial remote work, and minimizing some physical participation in meetings, events and conferences. Our office-based employees had been working from home from early March 2020 through early September 2021. Since then, our office-based staff have been working in a hybrid-model fluctuating between work from home and work from the office. Throughout the pandemic, we continue to ensure that ensuring essential staffing levels in our operations remain in place, including maintaining key personnel in our laboratories.

Notwithstanding these measures, the COVID-19 pandemic could affect the health and availability of our workforce as well as those of the third parties we rely on taking similar measures. If members of our management and other key personnel in critical functions across our organization are unable to perform their duties or have limited availability due to COVID-19, we may not be able to execute on our business strategy and/or our operations may be negatively impacted. We may also experience limitations in employee resources, including because of sickness of employees or their families or the desire of employees to avoid contact with individuals or large groups of people. In addition, we have experienced and will continue to experience disruptions to our business operations resulting from quarantines, self-isolations and other restrictions on the ability of our employees to perform their jobs.

The COVID-19 pandemic has disrupted business operations. The extent and severity of the impact on our business and clinical trial will be determined largely by the extent of disruptions in the supply chains for STK-001, STK-002 and our future product candidates in other indications, and delays in the conduct of current and future clinical trials. Our ability to continue our observational study may be adversely affected, directly or indirectly, by the COVID-19 pandemic. Currently we are monitoring patient participation in our observational study, including delays in conducting in-person follow-ups and disruptions in our ability to monitor patients due to hospitals closing sites or diverting the resources that are necessary to conduct our observational study to care for COVID-19 patients. For these reasons we expect that COVID-19 precautions may directly or indirectly impact the timeline for some of our clinical trial activities. In addition, the impact of the COVID-19 pandemic on the operations of the FDA and other health authorities may delay potential approvals of STK-001, STK-002 and our future product candidates.

While it is not possible at this time to estimate the entirety of the impact that the COVID-19 pandemic will have on our business, operations, employees, customers, or our suppliers, continued spread of COVID-19, measures taken by governments, actions taken to protect employees and the broad impact of the pandemic on all business activities may materially and adversely affect our business, results of operations and financial condition.

Certain of the diseases we seek to treat have low prevalence, and it may be difficult to identify patients with these diseases, which may lead to delays in enrollment for our trials or slower commercial revenue growth if STK-001, STK-002 or our future product candidates are approved.

Genetically defined diseases generally, and especially those for which our product candidates are targeted, have low incidence and prevalence. We estimate that the worldwide incidence of Dravet syndrome is approximately one in 16,000 births, and the incidence of ADOA is approximately one in 30,000 births. This could pose obstacles to the timely recruitment and enrollment of a sufficient number of eligible patients into our trials or limit a product candidate's commercial potential. Patient enrollment may be affected by other factors including:

- the ability to identify and enroll patients that meet study eligibility criteria in a timely manner for clinical trials;
- the severity of the disease under investigation;
- design of the study protocol;
- the perceived risks, benefits and convenience of administration of the product candidate being studied;
- the patient referral practices of providers; and
- the proximity and availability of clinical trial sites to prospective patients.

Any inability to enroll a sufficient number of patients with these diseases for our planned clinical trials would result in significant delays and could cause us to not initiate or abandon one or more clinical trials altogether. Enrollment delays in our clinical trials may result in increased development costs for our product candidate, which would cause the value of our company to decline and limit our ability to obtain additional financing.

Additionally, our projections of both the number of people who have Dravet syndrome or ADOA, as well as the people with this disease who have the potential to benefit from treatment with our product candidate, are based on estimates derived from a market research study that we commissioned, which may not accurately identify the size of the market for our product candidates. The total addressable market opportunity for STK-001, STK-002 and our future product candidates will ultimately depend upon, among other things, the final labeling for our product candidates, if our product candidates are approved for sale in our target indications, acceptance by the medical community and patient access, drug pricing and reimbursement. The number of patients globally may turn out to be lower than expected, patients may not be otherwise amenable to treatment with our product candidates, or new patients may become increasingly difficult to identify or gain access to, all of which would adversely affect our results of operations and our business.

Moreover, in light of the limited number of potential patients impacted by Dravet syndrome and ADOA, our per-patient therapy pricing of STK-001, STK-002 and our future product candidates, if approved, must be high in order to recover our development and manufacturing costs, fund additional research and achieve profitability. We may also need to fund patient support programs upon the marketing of a product candidate, which would negatively affect our product revenue. We may be unable to maintain or obtain sufficient therapy sales volumes at a price high enough to justify our development efforts and our sales, marketing and manufacturing expenses. While currently we are not experiencing any significant delays or disruptions to our clinical trial as a result of the global COVID-19 pandemic, we take into consideration that the COVID-19 pandemic may directly or indirectly impact our clinical trial enrollment, dosing, and regulatory approval timelines.

We may not be successful in our efforts to use TANGO to expand our pipeline of product candidates and develop marketable products.

Because we have limited financial and managerial resources, we focus on research programs and product candidates that we identify for specific indications. Our business depends on our successful development and commercialization of the limited number of internal product candidates we are researching or have in preclinical development. Even if we are successful in continuing to build our pipeline, development of the potential product candidates that we identify will require substantial investment in additional clinical development, management of clinical, preclinical and manufacturing activities, regulatory approval in multiple jurisdictions, obtaining manufacturing supply capability, building a commercial organization, and significant marketing efforts before we generate any revenue from product sales. Furthermore, such product candidates may not be suitable for clinical development, including as a result of their harmful side effects, limited efficacy or other characteristics that indicate that they are unlikely to be products that will receive marketing approval and achieve market acceptance. If we cannot validate TANGO by successfully developing and commercializing product candidates based upon our technological approach, we may not be able to obtain product revenue in future periods, which would adversely affect our business, prospects, financial condition and results of operations.

In November 2021, we announced the nomination of STK-002 as our lead product candidate for in the treatment of ADOA; however, we are primarily focused on our lead product candidate for Dravet syndrome, STK-001, and 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 products 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 products. Our understanding and evaluation of biological targets for the discovery and development of new product candidates may fail to identify challenges encountered in subsequent preclinical and clinical development. 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 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.

Any product candidate for which we obtain marketing approval will be subject to extensive post-marketing regulatory requirements and could be subject to post-marketing restrictions or withdrawal from the market, and we may be subject to penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our product candidates, when and if any of them are approved.

Our product candidates and the activities associated with their development and potential commercialization, including their testing, manufacturing, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the FDA and other U.S. and international regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, requirements relating to manufacturing, including current Good Manufacturing Practices (“GMPs”), quality control, quality assurance and corresponding maintenance of records and documents, including periodic inspections by the FDA and other regulatory authorities and requirements regarding the distribution of samples to providers and recordkeeping.

The FDA may also impose requirements for costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of any approved product. The FDA closely regulates the post-approval marketing and promotion of drugs and biologics to ensure they are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA imposes stringent restrictions on manufacturers’ communications regarding use of their products. If we promote our product candidates in a manner inconsistent with FDA-approved labeling or otherwise not in compliance with FDA regulations, we may be subject to enforcement action. Moreover, while we believe our product candidates may provide improved safety profiles over existing products, unless we conduct head-to-head studies, we will not be able to make comparative claims for products, if approved. Violations of the Federal Food, Drug, and Cosmetic Act (the “FDCA”) relating to the promotion of prescription drugs may lead to investigations alleging violations of federal and state healthcare fraud and abuse laws, as well as state consumer protection laws and similar laws in international jurisdictions.

In addition, later discovery of previously unknown adverse events or other problems with our product candidates, manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may yield various results, including:

- restrictions on such product candidates, manufacturers or manufacturing processes;
- restrictions on the labeling or marketing of a product;
- restrictions on product distribution or use;
- requirements to conduct post-marketing studies or clinical trials;
- warning or untitled letters;
- withdrawal of any approved product from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of product candidates;
- fines, restitution or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- refusal to permit the import or export of our product candidates;
- product seizure; or
- injunctions or the imposition of civil or criminal penalties.

Non-compliance with European requirements regarding safety monitoring or pharmacovigilance, and with requirements related to the development of products for the pediatric population, can also result in significant financial penalties. Similarly, failure to comply with Europe's requirements regarding the protection of personal information can also lead to significant penalties and sanctions.

Our failure to obtain regulatory approval in international jurisdictions would prevent us from marketing our product candidates outside the United States.

To market and sell STK-001, STK-002 and our future product candidates, we must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside the United States, we must secure product reimbursement approvals before regulatory authorities will approve the product for sale in that country. Failure to obtain foreign regulatory approvals or non-compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our product candidates in certain countries. The United Kingdom's exit from the European Union (the "EU"), which is referred to as "Brexit," became fully effective on December 31, 2020. Brexit continues to create political and economic uncertainty, particularly in the United Kingdom and the EU. Prior to Brexit, a significant proportion of the regulatory framework in the United Kingdom was derived from EU directives and regulations. Following Brexit, the United Kingdom retained the EU regulatory regime with certain modifications as standalone UK legislation. Therefore, the UK regulatory regime is currently similar to EU regulations, but the United Kingdom has enacted new legislation, the Medicines and Medical Devices Act. Under this legislation, the UK may adopt changed regulations that may diverge from the EU legislative regime for medicines, including their research, development and commercialization and has issued a consultation document with respect to future changes. Brexit may lead to additional regulatory costs and could materially impact the regulatory regime with respect to the approval of our product candidates in the United Kingdom or the EU.

If we fail to comply with the regulatory requirements in international markets and receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of our product candidates will be harmed and our business will be adversely affected. We may not obtain foreign regulatory approvals on a timely basis, if at all. Our failure to obtain approval of any of our product candidates by regulatory authorities in another country may significantly diminish the commercial prospects of that product candidate and our business prospects could decline.

STK-001, STK-002 or our future product candidates may cause undesirable and unforeseen side effects or be perceived by the public as unsafe, which could delay or prevent their advancement into clinical trials or regulatory approval, limit the commercial potential or result in significant negative consequences.

Although other ASOs have received regulatory approval, our method of seeking to upregulate protein expression by targeting the underlying genetic causes of haploinsufficiencies presents a new approach to disease treatment, which means there is uncertainty associated with the safety profile of STK-001, STK-002 or our future product candidates and drugs in the antisense oligonucleotide class.

In addition to side effects caused by our product candidates, the intrathecal or intravitreal administration process or related procedures also can cause adverse side effects. If any such adverse events occur, our clinical trials could be suspended or terminated. If we are unable to demonstrate that any adverse events were caused by the administration process or related procedures, the FDA, the European Commission, the EMA, the UK MHRA or other regulatory authorities could order us to cease further development of, or deny approval of, our product candidates for any or all targeted indications. Even if we can demonstrate that all future serious adverse events are not product-related, such occurrences could affect patient recruitment or the ability of enrolled patients to complete the trial. Moreover, if we elect, or are required, to not initiate, delay, suspend or terminate any future clinical trial of any of our product candidates, the commercial prospects of such product candidates may be harmed and our ability to generate product revenues from any of these product candidates may be delayed or eliminated. Any of these occurrences may harm our ability to develop other product candidates, and may adversely affect our business, financial condition, results of operations and prospects significantly. Finally, SPINRAZA, which is produced by Biogen Inc., is an ASO therapy utilizing intrathecal delivery, and if SPINRAZA is found to cause undesirable side effects or to be unsafe due to a potential class effect, it may adversely affect demand for STK-001 and our other future product candidates. Other ASOs in clinical development utilizing intrathecal delivery could also generate data that could adversely affect the clinical, regulatory or commercial perception of STK-001 and our other future product candidates.

Additionally, if any of our product candidates receives marketing approval, the FDA could require us to adopt a Risk Evaluation and Mitigation Strategy to ensure that the benefits of the product outweigh its risks, which may include, for example, a Medication Guide outlining the risks of the product for distribution to patients and a communication plan to health care practitioners, or other elements to assure safe use of the product. Furthermore, if we or others later identify undesirable side effects caused by our product candidate, several potentially significant negative consequences could result, including:

- regulatory authorities may suspend or withdraw approvals of such product candidate;
- regulatory authorities may require additional warnings in the labeling;
- we may be required to change the way a product candidate is administered or conduct additional clinical trials;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these occurrences may harm our business, financial condition, results of operations and prospects significantly.

A Fast Track Designation by the FDA, even if granted for any of our future product candidates, or any use of the accelerated approval pathway, may not lead to a faster development or regulatory review or approval process, and would not increase the likelihood that our product candidates will receive marketing approval.

If a drug is intended for the treatment of a serious or life-threatening condition and the drug demonstrates the potential to address unmet medical needs for this condition, the drug sponsor may apply to the FDA for Fast Track Designation. The FDA has broad discretion whether to grant this designation. Even if we believe a particular product candidate is eligible for this designation, we cannot assure you that the FDA would decide to grant it. Even if we do receive Fast Track Designation for any of our product candidates, we may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may withdraw Fast Track Designation if it believes that the designation is no longer supported by data from our clinical development program. Many drugs that have received Fast Track Designation have failed to obtain approval.

We may also seek accelerated approval for our product candidates. Under the FDA's accelerated approval program, the FDA may approve a drug for a serious or life-threatening illness that provides meaningful therapeutic benefit to patients over existing treatments based upon a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. Full approval of another product for the same indication as any of our product candidates for which we are seeking accelerated approval may make accelerated approval of our product candidates more difficult. For drugs granted accelerated approval, post-marketing confirmatory trials are required to describe the anticipated effect on irreversible morbidity or mortality or other clinical

benefit. These confirmatory trials must be completed with due diligence and in general the FDA may require that the trial be designed and/or initiated prior to approval. All promotional materials for product candidates approved via accelerated approval are subject to prior review by the FDA. Moreover, the FDA may withdraw approval of any product candidate or indication approved under the accelerated approval pathway if, for example:

- the trial or trials required to verify the predicted clinical benefit of the product candidate fail to verify such benefit or do not demonstrate sufficient clinical benefit to justify the risks associated with the drug;
- other evidence demonstrates that the product candidate is not shown to be safe or effective under the conditions of use;
- we fail to conduct any required post-approval trial of the product candidate with due diligence; or
- we disseminate false or misleading promotional materials relating to the product candidate.

A Breakthrough Therapy Designation by the FDA for STK-001, STK-002 or our future product candidates may not lead to a faster development or regulatory review or approval process, and it would not increase the likelihood that the product candidate will receive marketing approval.

We may seek a Breakthrough Therapy Designation for STK-001, STK-002 or one or more of our future product candidates. A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For drugs that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Drugs designated as breakthrough therapies by the FDA are also eligible for priority review if supported by clinical data at the time of the submission of the NDA.

Designation as a breakthrough therapy is at the discretion of the FDA. Accordingly, even if we believe that one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a Breakthrough Therapy Designation for a drug may not result in a faster development process, review, or approval compared to drugs considered for approval under conventional FDA procedures and it would not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that the product candidate no longer meets the conditions for qualification or it may decide that the time period for FDA review or approval will not be shortened.

Enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and may affect the prices we may set.

Existing regulatory policies may change, and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. The pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives. For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (collectively, the “ACA”) was enacted, which was intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for health care and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. The ACA substantially changed the way healthcare is financed by both governmental and private insurers, and significantly impacts the U.S. pharmaceutical industry. On June 17, 2021, the U.S. Supreme Court dismissed a challenge on procedural grounds that argued the ACA is unconstitutional in its entirety because the “individual mandate” was repealed by Congress. Thus, the ACA will remain in effect in its current form at this time. Further, prior to the U.S. Supreme Court ruling, on January 28, 2021, President Biden issued an executive order that initiated a special enrollment period for purposes of obtaining health insurance coverage through the ACA marketplace, which began on February 15, 2021, and closed on August 15, 2021. The executive order also instructed certain governmental agencies to review and reconsider their existing policies and rules that limit access to healthcare, including among others, reexamining Medicaid demonstration projects and waiver programs that include work requirements, and policies that create unnecessary barriers to obtaining access to health insurance coverage through Medicaid or the ACA. It is possible that the ACA will be subject to judicial or Congressional challenges in the future. It is uncertain how any such challenges and the healthcare measures of the Biden administration will impact the ACA and our business.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. These changes included aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect on April 1, 2013, and will remain in effect through 2030 with the exception of a temporary suspension from May 1, 2020, through March 31, 2022, due to the COVID-19 pandemic, unless additional Congressional action is taken. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, reduced Medicare payments to several providers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on customers for our drugs, if approved, and accordingly, our financial operations. Additionally, on May 30, 2018, the Trickett Wendler, Frank Mongiello, Jordan McLinn, and Matthew Bellina Right to Try Act of 2017 was signed into law. The law, among other things, provides a federal framework for certain patients to access certain investigational new drug products that have completed a Phase 1 clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA authorization under an FDA expanded access program; however, manufacturers are not obligated to provide investigational new drug products under the current federal right to try law. We may choose to seek an expanded access program for our product candidates, or to utilize comparable rules in other countries that allow the use of a drug, on a named patient basis or under a compassionate use program.

We expect that the ACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our product candidates.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will be enacted, or whether FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements.

We may be unsuccessful in obtaining Orphan Drug Designation or transfer of designations obtained by others for future product candidates. And, even if we obtain such designation, we may be unable to maintain the benefits associated with Orphan Drug Designation, including the potential for market exclusivity, for STK-001, STK-002 or our future product candidates.

As part of our business strategy for STK-001, we received Orphan Drug Designation in the United States in 2019, and also in the EU, in the first quarter of 2022. We may seek such designation in other countries. However, Orphan Drug Designation does not guarantee future orphan drug marketing exclusivity, and there is no guarantee that we will be successful in obtaining such designation for our future product candidates.

Regulatory authorities in some jurisdictions, including the United States and Europe, may designate drugs intended to treat relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a drug as an orphan drug if it is intended to treat a rare disease or condition, which is defined as a patient population of fewer than 200,000 individuals in the United States. In the United States, Orphan Drug Designation entitles a party to financial incentives such as opportunities for tax credits for qualified clinical research costs and exemption from prescription drug user fees. Similarly, in the EU, the European Commission grants Orphan Drug Designation after receiving the opinion of the EMA's Committee for Orphan Medicinal Products on an Orphan Drug Designation application. In the EU, Orphan Drug Designation is intended to promote the development of drug that are intended for the diagnosis, prevention or treatment of life-threatening or chronically debilitating conditions affecting not more than five in 10,000 persons in the EU and for which no satisfactory method of diagnosis, prevention or treatment has been authorized (or the product would be a significant benefit to those affected). In the EU, Orphan Drug Designation entitles a party to financial incentives such as reduction of fees or fee waivers.

Generally, if a drug with an Orphan Drug Designation subsequently receives the first marketing approval for the indication for which it has such designation, the drug is entitled to a period of marketing exclusivity, which precludes EMA or the FDA from approving another marketing application for the same drug and indication for that time period, except in limited circumstances. If a competitor is able to obtain orphan drug exclusivity prior to us for a product that constitutes the same active moiety and treats the same indications as our product candidates, we may not be able to obtain approval of our drug by the applicable regulatory authority for a significant period of time unless we are able to show that our drug is clinically superior to the approved drug. The applicable period is seven years in the United States and ten years in the EU. The EU exclusivity period can be reduced to six years if a drug no longer meets the criteria for Orphan Drug Designation or if the drug is sufficiently profitable so that market exclusivity is no longer justified.

Even after an orphan drug is approved, the FDA can also subsequently approve a later application for the same drug for the same condition if the FDA concludes that the later drug is clinically superior in that it is shown to be safer in a substantial portion of the target populations, more effective or 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.

Moreover, 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 we are unable to manufacture sufficient quantities of the product to meet the needs of patients with the rare disease or condition. Orphan Drug Designation neither shortens the development time or regulatory review time of a drug nor gives the drug any advantage in the regulatory review or approval process.

The orphan drug exclusivity contained in the Orphan Drug Act has been the subject of recent scrutiny from the press, from some members of Congress and from some in the medical community. Furthermore, the FDA's interpretations of the Orphan Drug Act have not been successfully challenged in court and future court decisions could continue that trend. There can be no assurances that the exclusivity granted to orphan drugs approved by the FDA will not be modified in the future, or as to how any such changes might affect our products, if approved.

A Rare Pediatric Disease designation by the FDA does not guarantee that the NDA for the product will qualify for a priority review voucher upon approval, and it does not lead to a faster development or regulatory review process, or increase the likelihood that STK-001, STK-002 or our future product candidates will receive marketing approval.

Under the Rare Pediatric Disease Priority Review Voucher program, upon the approval of a qualifying NDA for the treatment of a rare pediatric disease, the sponsor of such an application would be eligible for a rare pediatric disease priority review voucher that can be used to obtain priority review for a subsequent Biologics License Application or NDA. We may seek Rare Pediatric Disease designations for STK-001 or any future product candidates. If a product candidate is designated before September 30, 2024, it is eligible to receive a voucher if it is approved before September 30, 2026. However, there is no expectation that STK-001, STK-002 or our future product candidates will be designated or approved by those dates, or at all, or that the program will be further extended, and, therefore, we may not be in a position to obtain any priority review vouchers. Additionally, designation of a drug for a rare pediatric disease does not guarantee that an NDA will meet the eligibility criteria for a rare pediatric disease priority review voucher at the time the application is approved. Finally, a Rare Pediatric Disease Designation does not lead to faster development or regulatory review of the product or increase the likelihood that it will receive marketing approval.

The FDA's ability to review and approve new products may be hindered by a variety of factors, including budget and funding levels, ability to hire and retain key personnel, and statutory, regulatory and policy changes.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including budget and funding levels, ability to hire and retain key personnel, and statutory, regulatory, and policy changes. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable.

The ability of the FDA and other government agencies to properly administer their functions is highly dependent on the levels of government funding and the ability to fill key leadership appointments, among various factors. Delays in filling or replacing key positions could significantly impact the ability of the FDA and other agencies to fulfill their functions, and could greatly impact healthcare and the pharmaceutical industry.

In December 2016, the 21st Century Cures Act was signed into law, and was designed to advance medical innovation and empower the FDA with the authority to directly hire positions related to drug and device development and review. In the past, the FDA was often unable to offer key leadership candidates (including scientists) competitive compensation packages as compared to those offered by private industry. The 21st Century Cures Act is designed to streamline the agency's hiring process and enable the FDA to compete for leadership talent by expanding the narrow ranges that are provided in the existing compensation structures.

Disruptions at the FDA and other governmental agencies may also slow the time necessary for new drugs to be reviewed or approved by necessary government agencies, which would adversely affect our operating results and business.

Our operations and relationships with future customers, providers and third-party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to penalties including criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers and third-party payors will play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our future arrangements with providers, third-party payors and customers will subject 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 any product candidates for which we obtain marketing approval.

Restrictions under applicable U.S. federal and state healthcare laws and regulations include the following:

- the federal Anti-Kickback Statute prohibits, among other things, persons and entities 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;
- federal false claims laws, including the federal False Claims Act, imposes criminal and civil penalties, including through 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, or HIPAA, imposes criminal and civil liability for, among other things, knowingly and willfully executing or attempting to execute a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, also imposes obligations, including mandatory contractual terms, on certain types of people and entities with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal Physician Payment Sunshine Act requires applicable manufacturers of covered drugs, devices, biologics, and medical supplies for which payment is available under Medicare, Medicaid, or the Children's Health Insurance Program, with specific exceptions, to report annually payments and other transfers of value to physicians, physician assistants, certain types of advance practice nurses and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, such providers, and to report annually certain ownership and investment interests held by physicians and their immediate family, which includes annual data collection and reporting obligations; and
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims 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.

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 and may require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers, marketing expenditures or pricing. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may 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 are 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, imprisonment, exclusion of product candidates from government-funded healthcare programs, such as Medicare and Medicaid, disgorgement, contractual damages, reputational harm, diminished profits and future earnings, and the curtailment or restructuring of our operations. If any of the physicians or other healthcare providers or entities with whom we expect to do business is found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government-funded healthcare programs.

Risks related to commercialization and manufacturing

The commercial success of our product candidates, including STK-001 and STK-002, will depend upon their degree of market acceptance by providers, patients, patient advocacy groups, third-party payors and the general medical community.

Ethical, social and legal concerns about genetic treatments generally could result in additional regulations restricting or prohibiting our product candidates. Even with the requisite approvals from the FDA, the EMA and other regulatory authorities internationally, the commercial success of our product candidates will depend, in part, on the acceptance of providers, patients and third-party payors of drugs designed to increase protein expression in general, and our product candidates in particular, as medically necessary, cost-effective and safe. In addition, we may face challenges in seeking to establish and grow sales of STK-001, STK-002 and any future product candidates, including acceptance of intravitreal injection, the lumbar puncture and intrathecal administration, which carries risks of infection or other complications. Any product that we commercialize may not gain acceptance by providers, patients, patient advocacy groups, third-party payors and the general medical community. If these products do not achieve an adequate level of acceptance, we may not generate significant product revenue and may not become profitable. The degree of market acceptance of genetic medicines and, in particular, STK-001, STK-002 and our future product candidates, if approved for commercial sale, will depend on several factors, including:

- the efficacy, durability and safety of such product candidates as demonstrated in clinical trials;
- the potential and perceived advantages of product candidates over alternative treatments;
- the cost of treatment relative to alternative treatments;
- the clinical indications for which the product candidate is approved by the FDA or the European Commission;
- the willingness of providers to prescribe new therapies;
- the willingness of the target patient population to try new therapies;
- the prevalence and severity of any side effects;
- product labeling or product insert requirements of the FDA, EMA or other regulatory authorities, including any limitations or warnings contained in a product's approved labeling;
- the willingness of providers to prescribe, and of patients to receive, intrathecal injections;
- the strength of marketing and distribution support;
- the timing of market introduction of competitive products;
- the quality of our relationships with patient advocacy groups;
- publicity concerning our product candidates or competing products and treatments; and
- sufficient third-party payor coverage and adequate reimbursement.

Even if a potential product displays a favorable efficacy and safety profile in preclinical studies and clinical trials, market acceptance of the product will not be fully known until after it is launched.

We have entered into a collaboration with Acadia Pharmaceuticals and may, in the future, seek to enter into collaborations with other third parties for the discovery, development and commercialization of our product candidates. If our collaborators cease development efforts under our collaboration agreements, or if any of those agreements are terminated, these collaborations may fail to lead to commercial products and we may never receive milestone payments or future royalties under these agreements.

We have entered into a collaboration with Acadia Pharmaceuticals Inc. ("Acadia") to discover or develop certain novel RNA-based medicines for the potential treatment of severe and rare genetic neurodevelopmental diseases of the central nervous system (CNS). The collaboration includes SYNGAP1 syndrome, Rett syndrome (MECP2), and an undisclosed neurodevelopmental target of mutual interest, and such collaboration could represent a significant portion of our product pipeline. We have derived substantially all of our revenue to date from this collaboration agreement, and we may derive a significant portion of our future revenue from these agreements or other similar agreements into which we may enter in the future. Revenue from research and development collaborations depends upon continuation of the collaborations, payments for research and development services and resulting options to acquire any licenses of successful product candidates, and the achievement of milestones, contingent payments and royalties, if any, derived from future products developed from our research

Collaborations involving our product candidates currently pose, and will continue to pose, the following risks to us:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations;

- collaborators may not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization programs based on preclinical studies or clinical trial results, changes in the collaborators' strategic focus or available funding, or external factors such as an acquisition that diverts resources or creates competing priorities;

- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;

- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our product candidates if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;

- collaborators with marketing and distribution rights to one or more products may not commit sufficient resources to the marketing and distribution of such product or products;

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

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

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

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

As a result of the foregoing, our current and any future collaboration agreements may not lead to development or commercialization of our product candidates in the most efficient manner or at all. If a collaborator of ours were to be involved in a business combination, the continued pursuit and emphasis on our product development or commercialization program could be delayed, diminished or terminated. Any failure to successfully develop or commercialize our product candidates pursuant to our current or any future collaboration agreements could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Moreover, to the extent that any of our existing or future collaborators were to terminate a collaboration agreement, we may be forced to independently develop these product candidates, including funding preclinical studies or clinical trials, assuming marketing and distribution costs and defending intellectual property rights, or, in certain instances, abandon product candidates altogether, any of which could result in a change to our business plan and have a material adverse effect on our business, financial condition, results of operations and prospects.

The pricing, insurance coverage and reimbursement status of newly approved products is uncertain. Failure to obtain or maintain adequate coverage and reimbursement for our product candidates, if approved, could limit our ability to market those products and decrease our ability to generate product revenue.

Our target indications, including Dravet syndrome and ADOA, are indications with small patient populations. For product candidates that are designed to treat smaller patient populations to be commercially viable, the reimbursement for such product candidates must be higher, on a relative basis, to account for the lack of volume. Accordingly, we will need to implement a coverage and reimbursement strategy for any approved product candidate that accounts for the smaller potential market size. If we are unable to establish or sustain coverage and adequate reimbursement for any future product candidates from third-party payors, the adoption of those product candidates and sales revenue will be adversely affected, which, in turn, could adversely affect the ability to market or sell those product candidates, if approved.

We expect that coverage and reimbursement by third-party payors will be essential for most patients to be able to afford these treatments. Accordingly, sales of STK-001, STK-002 and our future product candidates will depend substantially, both domestically and internationally, on the extent to which the costs of our product candidates will be paid by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or will be reimbursed by government authorities, private health coverage insurers and other third-party payors. Even if coverage is provided, the approved reimbursement amount may not be high enough to allow us to establish or maintain pricing sufficient to realize a sufficient return on our investment.

There is significant uncertainty related to the insurance coverage and reimbursement of newly approved products. In the United States, the principal decisions about reimbursement by government authorities for new products are typically made by the Centers for Medicare & Medicaid Services (“CMS”) since CMS decides whether and to what extent a new product will be covered and reimbursed under Medicare. Private payors tend to follow CMS to a substantial degree. However, one payor’s determination to provide coverage for a drug product does not assure that other payors will also provide coverage for the drug product. Further, a payor’s decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Reimbursement agencies in Europe may be more conservative than CMS. For example, a number of cancer drugs have been approved for reimbursement in the United States and have not been approved for reimbursement in certain European countries

Outside the United States, international operations are generally subject to extensive governmental price controls and other market regulations, and we believe the increasing emphasis on cost-containment initiatives in Europe, Canada and other countries has and will continue to put pressure on the pricing and usage of therapeutics such as our product candidates. In many countries, particularly the countries of the EU, the prices of medical products are subject to varying price control mechanisms as part of national health systems. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. In general, the prices of products under such systems are substantially lower than in the United States. Other countries allow companies to fix their own prices for products, but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amount that we are able to charge for our product candidates. Accordingly, in markets outside the United States, the reimbursement for our product candidates may be reduced compared with the United States and may be insufficient to generate commercially reasonable revenues and profits.

Moreover, increasing efforts by governmental and third-party payors, in the United States and internationally, to cap or reduce healthcare costs may cause such organizations to limit both coverage and level of reimbursement for new products approved and, as a result, they may not cover or provide adequate payment for our product candidates. We expect to experience pricing pressures in connection with the sale of any of our product candidates due to the trend toward managed healthcare, the increasing influence of certain third-party payors, such as health maintenance organizations, and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs and surgical procedures and other treatments, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products into the healthcare market. Recently there have been instances in which third-party payors have refused to reimburse treatments for patients for whom the treatment is indicated in the FDA-approved product label. Even if we are successful in obtaining FDA approvals to commercialize our product candidates, we cannot guarantee that we will be able to secure reimbursement for all patients for whom treatment with our product candidates is indicated.

In addition to CMS and private payors, professional organizations such as the American Medical Association (the “AMA”) can influence decisions about reimbursement for new products by determining standards for care. In addition, many private payors contract with commercial vendors who sell software that provide guidelines that attempt to limit utilization of, and therefore reimbursement for, certain products deemed to provide limited benefit to existing alternatives. Such organizations may set guidelines that limit reimbursement or utilization of our product candidates. Even if favorable coverage and reimbursement status is attained for one or more product candidates for which we or our collaborators receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

The CARES Act, and other potential future healthcare reforms may adversely impact pricing, insurance coverage and reimbursement status of newly approved products.

In response to the COVID-19 pandemic, the Coronavirus Aid, Relief and Economic Security Act (the “CARES Act") was signed into law in March 2020. The CARES Act is aimed at providing emergency assistance and health care for individuals, families and businesses affected by the COVID-19 pandemic and generally supporting the U.S. economy. Due to the recent enactment of the CARES Act, there is a high degree of uncertainty around its implementation. We expect that additional state and federal healthcare reform measures may be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our future products or additional pricing pressures.

If third parties on which we depend to conduct our planned preclinical studies, any future clinical trials, or manufacturing of our product candidates do not perform as contractually required, fail to satisfy regulatory or legal requirements or miss expected deadlines, our development program could be delayed with adverse effects on our business, financial condition, results of operations and prospects.

We rely on third parties for genetic testing, and on third party CROs, CMOs, consultants and others to design, conduct, supervise and monitor key activities relating to, discovery, manufacturing, preclinical studies and clinical trials of our product candidates, and we intend to do the same for future activities relating to existing and future programs. Because we rely on third parties and do not have the ability to conduct all required testing, discovery, manufacturing, preclinical studies or clinical trials independently, we have less control over the timing, quality and other aspects of discovery, manufacturing, preclinical studies and clinical trials than we would if

we conducted them on our own. These investigators, CROs, CMOs and consultants are not our employees and we have limited control over the amount of time and resources that they dedicate to our programs. These third parties may have contractual relationships with other entities, some of which may be our competitors, which may draw time and resources from our programs. The third parties we contract with might not be diligent, careful or timely in conducting our discovery, manufacturing, preclinical studies or clinical trials, resulting in testing, discovery, manufacturing, preclinical studies or clinical trials being delayed or unsuccessful, in whole or in part.

If we cannot contract with acceptable third parties on commercially reasonable terms, or at all, or if these third parties do not carry out their contractual duties, satisfy legal and regulatory requirements for the conduct of preclinical studies or clinical trials or meet expected deadlines, our clinical development programs could be delayed and otherwise adversely affected. In all events, we are responsible for ensuring that each of our preclinical studies and clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. Our reliance on third parties that we do not control does not relieve us of these responsibilities and requirements. Any such event could have an adverse effect on our business, financial condition, results of operations and prospects.

We face significant competition in an environment of rapid technological change and it is possible that our competitors may achieve regulatory approval before us or develop therapies that are more advanced or effective than ours, which may harm our business, financial condition and our ability to successfully market or commercialize STK-001, STK-002 and our future product candidates.

The biotechnology and pharmaceutical industries, including the genetic medicine and antisense oligonucleotide fields, are characterized by rapidly changing technologies, competition and a strong emphasis on intellectual property. We are aware of several companies focused on developing RNA-based treatments in various indications as well as several companies addressing other methods for modifying genes and regulating protein expression. We may also face competition from large and specialty pharmaceutical and biotechnology companies, academic research institutions, government agencies and public and private research institutions.

Numerous treatments for epilepsy exist, including 5-HT agonists, such as Zogenix's Fintepla, cannabidiols, such as Jazz Pharmaceuticals' Epidiolex, GABA receptor agonists, such as clobazam and stiripentol, and glutamate blockers, such as topiramate. In addition, numerous compounds are in clinical development for treatment of epilepsy. We believe the clinical development pipeline includes cannabinoids, 5-HT release stimulants, cholesterol 24-hydroxylase inhibitors, and sodium channel agonists from a variety of companies. In addition to competition from these small molecule drugs, any products we may develop may also face competition from other types of therapies, such as gene therapy, gene editing, modified mRNA therapies or other ASO approaches.

Many of our potential competitors, alone or with their strategic partners, have substantially greater financial, technical and other resources than we do, such as larger research and development, clinical, marketing and manufacturing organizations. Mergers and acquisitions in the biotechnology and pharmaceutical industries may result in even more resources being concentrated among a smaller number of competitors. Our commercial opportunity could be reduced or eliminated if 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 product candidates that we may develop. 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, if ever. Additionally, new or advanced technologies developed by our competitors may render our current or future product candidates uneconomical or obsolete, and we may not be successful in marketing our product candidates against competitors.

To become and remain profitable, we must develop and eventually commercialize product candidates with significant market potential, which will require us to be successful in a range of challenging activities. These activities include, among other things, completing preclinical studies and initiating and completing clinical trials of our product candidates, obtaining marketing approval for these product candidates, manufacturing, marketing and selling those products that are approved and satisfying any post marketing requirements. We may never succeed in any or all of these activities and, even if we do, we may never generate revenues that are significant or large enough to achieve profitability. If we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would decrease the value of our company and could impair our ability to raise capital, maintain our research and development efforts, expand our business or continue our operations. A decline in the value of our company also could cause you to lose all or part of your investment.

The manufacture of drugs is complex and our third-party manufacturers may encounter difficulties in production. If any of our third-party manufacturers encounter such difficulties, our ability to provide supply of STK-001, STK-002 or our future product candidates for clinical trials, our ability to obtain marketing approval, or our ability to provide supply of our product candidates for patients, if approved, could be delayed or stopped.

We have established manufacturing relationships with a limited number of suppliers to manufacture raw materials and the drug substance of any product candidate for which we are responsible for preclinical or clinical development. Each supplier may require licenses to manufacture such components if such processes are not owned by the supplier or in the public domain. As part of any marketing approval, a manufacturer and its processes are required to be qualified by the FDA prior to commercialization. If supply from the approved vendor is interrupted, there could be a significant disruption in commercial supply. An alternative vendor would need to be qualified through an NDA supplement which could result in further delay. The FDA or other regulatory agencies outside of the United States may also require additional studies if a new supplier is relied upon for commercial production. Switching vendors may involve substantial costs and is likely to result in a delay in our desired clinical and commercial timelines.

The process of manufacturing drugs is complex, highly-regulated and subject to multiple risks. Manufacturing drugs is highly susceptible to product loss due to contamination, equipment failure, improper installation or operation of equipment, vendor or operator error, inconsistency in yields, variability in product characteristics and difficulties in scaling the production process. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. If microbial, viral or other contaminations are discovered at the facilities of our manufacturers, such facilities may need to be closed for an extended period of time to investigate and remedy the contamination, which could delay clinical trials and adversely harm our business. Moreover, if the FDA determines that our manufacturers are not in compliance with FDA laws and regulations, including those governing cGMPs, the FDA may deny NDA approval until the deficiencies are corrected or we replace the manufacturer in our NDA with a manufacturer that is in compliance.

In addition, there are risks associated with large scale manufacturing for clinical trials or commercial scale including, among others, cost overruns, potential problems with process scale-up, process reproducibility, stability issues, compliance with good manufacturing practices, lot consistency and timely availability of raw materials. Even if we or our collaborators obtain regulatory approval for any of our product candidates, there is no assurance that manufacturers will be able to manufacture the approved product to specifications acceptable to the FDA or other regulatory authorities, to produce it in sufficient quantities to meet the requirements for the potential launch of the product or to meet potential future demand. If our manufacturers are unable to produce sufficient quantities for clinical trials or for commercialization, research and commercialization efforts would be impaired, which would have an adverse effect on our business, financial condition, results of operations and prospects.

Our reliance on a limited number of manufacturers, the complexity of drug manufacturing and the difficulty of scaling up a manufacturing process could cause the delay of clinical trials, regulatory submissions, required approvals or commercialization of our product candidates, cause us to incur higher costs and prevent us from commercializing our product candidates successfully. Furthermore, if our suppliers fail to deliver the required commercial quantities of materials on a timely basis and at commercially reasonable prices, and we are unable to secure one or more replacement suppliers capable of production in a timely manner at a substantially equivalent cost, our clinical trials may be delayed or we could lose potential revenue.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell STK-001, STK-002 and our future product candidates, we may be unable to generate any revenues.

We currently do not have an organization for the sales, marketing and distribution of STK-001, STK-002 and our future product candidates and the cost of establishing and maintaining such an organization may exceed the cost-effectiveness of doing so. To market any products that may be approved, we must build our sales, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. With respect to certain of our current programs as well as future programs, we may rely completely on an alliance partner for sales and marketing. In addition, although we intend to establish a sales organization if we are able to obtain approval to market any product candidates, we may enter into strategic alliances with third parties to develop and commercialize STK-001, STK-002 and other future product candidates, including in markets outside of the United States or for other large markets that are beyond our resources. This will reduce the revenue generated from the sales of these products.

Any future strategic alliance partners may not dedicate sufficient resources to the commercialization of our product candidates or may otherwise fail in their commercialization due to factors beyond our control. If we are unable to establish effective alliances to enable the sale of our product candidates to healthcare professionals and in geographical regions, including the United States, that will not be covered by our own marketing and sales force, or if our potential future strategic alliance partners do not successfully commercialize the product candidates, our ability to generate revenues from product sales will be adversely affected.

If we are unable to establish adequate sales, marketing and distribution capabilities, whether independently or with third parties, we may not be able to generate sufficient product revenue and may not become profitable. We will be competing with many companies

that currently have extensive and well-funded marketing and sales operations. Without an internal team or the support of a third party to perform marketing and sales functions, we may be unable to compete successfully against these more established companies.

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.

Because we have limited financial and managerial resources, we focus on research programs and product candidates that we identify for specific indications. 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 timely capitalize on viable commercial products 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 products. 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 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.

We may not be successful in finding strategic collaborators for continuing development of certain of our future product candidates or successfully commercializing or competing in the market for certain indications.

In the future, we may decide to collaborate with non-profit organizations, universities, pharmaceutical and biotechnology companies for the development and potential commercialization of existing and new 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 drugs, 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 a collaboration could be more attractive than the one with us for our product candidate. The terms of any additional collaborations or other arrangements that we may establish may not be favorable to us. 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.

The success of any potential 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 such collaboration arrangements. 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.

Risks related to our financial position

We have a history of operating losses, and we may not achieve or sustain profitability. We anticipate that we will continue to incur losses for the foreseeable future. If we fail to obtain additional funding to conduct our planned research and development effort, we could be forced to delay, reduce or eliminate our product development programs or commercial development efforts.

We are an early-stage biotechnology company with a limited operating history on which to base your investment decision. Biotechnology product development is a highly speculative undertaking and involves a substantial degree of risk. Our operations to date have been limited primarily to organizing and staffing our company, business planning, raising capital, acquiring and developing product and technology rights, manufacturing, 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, and have funded our operations to date through proceeds from sales of our preferred stock and common stock.

We have incurred net losses in each year since our inception. We incurred net losses of $24.6 million and $16.8 million, for the three months ended March 31, 2022 and 2021, respectively. As of March 31, 2022, we had an accumulated deficit of $220.7 million. 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 continue to incur significant expenses and operating losses over the next several years and for the foreseeable future as we intend to continue to conduct research and development, clinical testing, regulatory compliance activities, manufacturing activities, and, if any of our product candidates is approved, sales and marketing activities that, together with anticipated general and administrative expenses, will likely result in us incurring significant losses 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' equity and working capital.

We expect that we will need to raise additional funding before we can expect to become profitable from any potential future sales of STK-001, STK-002 or our future product candidates. This additional financing 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 will require substantial future capital in order to complete planned and future preclinical and clinical development for STK-001, STK-002 and other future product candidates, if any, and potentially commercialize these product candidates. Based upon our current operating plan, we believe that our cash, cash equivalents, marketable securities, and restricted cash of $293.8 million as of March 31, 2022, will enable us to fund our operating expenses and capital expenditure requirements into 2025. We expect our spending levels to increase in connection with our preclinical studies and clinical trials of our product candidates. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant expenses related to commercial launch, product sales, medical affairs, marketing, manufacturing and distribution. Furthermore, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate certain of our licensing activities, our research and development programs or other operations.

Additional capital might not be available when we need it and our actual cash requirements might be greater than anticipated. If we require additional capital at a time when investment in our industry or in the marketplace in general is limited, we might not be able to raise funding on favorable terms if at all. If we are not able to obtain financing on terms favorable to us, we may need to cease or reduce development or commercialization activities, sell some or all of our assets or merge with another entity, which could result in a loss of all or part of your investment.

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

- the costs associated with the scope, progress and results of discovery, preclinical development, laboratory testing and clinical trials for our product candidates;
- the costs associated with the development of our internal manufacturing facility and processes;
- the costs related to the extent to which we enter into partnerships or other arrangements with third parties to further develop our product candidates;
- the costs and fees associated with the discovery, acquisition or in-license of product candidates or technologies;
- our ability to establish collaborations on favorable terms, if at all;
- the costs of future commercialization activities, if any, including product sales, marketing, manufacturing and distribution, for any of our product candidates for which we receive marketing approval;
- revenue, if any, received from commercial sales of our product candidates, should any of our product candidates receive marketing approval; and
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims.

Our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of product candidates that we do not expect to be commercially available for many years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives, which may not be available to us on acceptable terms, or at all.

Our limited operating history may make it difficult for you to evaluate the success of our business to date and to assess our future viability.

We are a clinical stage biotechnology company formed in June 2014. Our operations to date have been limited to organizing and staffing our company, business planning, raising capital, acquiring our technology, identifying potential product candidates,

undertaking research, preclinical and clinical development of our product candidates, manufacturing, and establishing licensing arrangements. We have not yet demonstrated the ability to complete clinical trials of our product candidates, obtain marketing approvals, manufacture a commercial scale product or conduct sales and marketing activities necessary for successful commercialization. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history.

In addition, as a new business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. We will need to transition from a company with a licensing and research focus to a company that is also capable of supporting clinical development and commercial activities. We may not be successful in such a transition.

Our ability to utilize our net operating loss carryforwards may be subject to limitations.

We have incurred substantial losses during our history and do not expect to become profitable in the near future and we may never achieve profitability. As of December 31, 2021, we had federal and state net operating loss carryforwards, or NOLs, of approximately $191.1 million and $191.4 million, respectively, and as of December 31, 2020, we had federal and state NOLs of approximately $116.9 million and $118.8 million, respectively. Our NOLs expire at various dates beginning in 2034, for those net operating loss carryforwards generated prior to 2018. Net operating losses generated in 2018 and beyond have no expiration. To the extent that we continue to generate taxable losses, unused losses will carry forward to offset future taxable income, if any, until such unused losses expire. Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended (the "Code"), if a corporation undergoes an "ownership change," generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period, the corporation's ability to use its pre-change NOLs and other pre-change tax attributes (such as research tax credits) to offset its post-change income may be limited. We may have experienced one or more ownership changes in prior years, and we may experience ownership changes in the future as a result of subsequent shifts in our stock ownership. As a result, if we earn net taxable income, our ability to use our pre-change NOLs to offset U.S. federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us. In addition, at the state level, there may be periods during which the use of NOLs is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed.

U.S. federal income tax reform and changes in other tax laws could adversely affect us.

In December 2017, U.S. federal tax legislation, commonly referred to as the Tax Cuts and Jobs Act (the "TCJA") was signed into law, significantly reforming the Code. The TCJA, among other things, includes changes to U.S. federal tax rates, imposes significant additional limitations on the deductibility of business interest, allows for the expensing of capital expenditures, puts into effect the migration from a "worldwide" system of taxation to a partial "territorial" system, and modifies or repeals many business deductions and credits.

We continue to examine the impact the TCJA may have on our business. The TCJA is a far-reaching and complex revision to the U.S. federal income tax laws with disparate and, in some cases, countervailing impacts on different categories of taxpayers and industries, and will require subsequent rulemaking and interpretation in a number of areas. The long-term impact of the TCJA on the overall economy, the industries in which we operate and our and our partners' businesses cannot be reliably predicted at this early stage of the new law's implementation. There can be no assurance that the TCJA will not negatively impact our operating results, financial condition, and future business operations. The estimated impact of the TCJA is based on our management's current knowledge and assumptions, following consultation with our tax advisors. Because of our valuation allowance in the U.S., ongoing tax effects of the Act are not expected to materially change our effective tax rate in future periods.

In addition, the CARES Act temporarily repealed the 80% taxable income limitation for tax years beginning before January 1, 2021. Federal NOL carry forwards generated from 2018 or later and Federal NOL carryforwards to taxable years beginning after December 31, 2020 will be subject to the 80% limitation. Also, under the CARES Act, federal NOLs arising in 2018, 2019 and 2020 can be carried back 5 years. New legislation or regulation which could affect our tax burden could be enacted by any governmental authority. We cannot predict the timing or extent of such tax related developments which could have a negative impact on our financial results. Additionally, we use our best judgment in attempting to quantify and reserve for these tax obligations. However, a challenge by a taxing authority, our ability to utilize tax benefits such as carryforwards or tax credits, or a deviation from other tax-related assumptions could have a material adverse effect on our business, results of operations, or financial condition.

Risks related to our intellectual property

Our success depends in part on our ability to obtain, maintain and protect our intellectual property. It is difficult and costly to protect our proprietary rights and technology, and we may not be able to ensure their protection.

Our commercial success will depend in large part on obtaining and maintaining patent, trademark, trade secret and other intellectual property protection of our proprietary technologies and product candidates, which include TANGO, STK-001, STK-002 and the additional gene targets identified by TANGO, their respective components, formulations, combination therapies, methods used to manufacture them and methods of treatment, as well as successfully defending our patents and other intellectual property rights against third-party challenges. Our ability to stop unauthorized third parties from making, using, selling, offering to sell, importing or

otherwise commercializing our product candidates is dependent upon the extent to which we have rights under valid and enforceable patents or trade secrets that cover these activities. If we are unable to secure and maintain patent protection for any product or technology we develop, or if the scope of the patent protection secured is not sufficiently broad, our competitors could develop and commercialize products and technology similar or identical to ours, and our ability to commercialize any product candidates we may develop may be adversely affected. The patenting process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. In addition, we may not pursue or obtain patent protection in all relevant markets. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that we license from or license to third parties and are reliant on our licensors or licensees to do so. Our pending and future patent applications may not result in issued patents. Even if patent applications we license or own currently or in the future issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors or other third parties from competing with us, or otherwise provide us with any competitive advantage. Any patents that we hold or in-license may be challenged, narrowed, circumvented, or invalidated by third parties. Consequently, we do not know whether any of our platform advances and product candidates will be protectable or remain protected by valid and enforceable patents. In addition, our existing patents and any future patents we obtain may not be sufficiently broad to prevent others from using our technology or from developing competing products and technologies.

We depend on intellectual property licensed from third parties, and our licensors may not always act in our best interest. If we fail to comply with our obligations under our intellectual property licenses, if the licenses are terminated, or if disputes regarding these licenses arise, we could lose significant rights that are important to our business.

We are dependent on patents, know-how and proprietary technology licensed from others. Our licenses to such patents, know-how and proprietary technology may not provide exclusive rights in all relevant fields of use and in all territories in which we may wish to develop or commercialize our products in the future. The agreements under which we license patents, know-how and proprietary technology from others are complex, and certain provisions in such agreements may be susceptible to multiple interpretations.

For example, we are a party to license agreements with Cold Spring Harbor Laboratory and the University of Southampton, pursuant to which we in-license key patent and patent applications for our TANGO platform, STK-001, STK-002 and future product candidates. For more information regarding these agreements, please see “Business—License and research agreements.” These agreements impose various diligence, milestone payment, royalty, insurance and other obligations on us. If we fail to comply with these obligations, our licensors may have the right to terminate our license, in which event we would not be able to develop or market our TANGO platform, STK-001, STK-002 or any other technology or product candidates covered by the intellectual property licensed under these agreements. In addition, we may need to obtain additional licenses from our existing licensors and others to advance our research or allow commercialization of product candidates we may develop. It is possible that we may be unable to obtain any additional licenses at a reasonable cost or on reasonable terms, if at all. In either event, we may be required to expend significant time and resources to redesign our technology, product candidates, or the methods for manufacturing them or to develop or license replacement technology, all of which may not be feasible on a technical or commercial basis. If we are unable to do so, we may be unable to develop or commercialize the affected technology or product candidates.

If we or our licensors fail to adequately protect our licensed intellectual property, our ability to commercialize product candidates could suffer. We do not have complete control over the maintenance, prosecution and litigation of our in-licensed patents and patent applications and may have limited control over future intellectual property that may be in-licensed. For example, we cannot be certain that activities such as the maintenance and prosecution by our licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents and other intellectual property rights. It is possible that our licensors’ infringement proceedings or defense activities may be less vigorous than had we conducted them ourselves, or may not be conducted in accordance with our best interests.

Furthermore, inventions contained within some of our in-licensed patents and patent applications were made using U.S. government funding or other non-governmental funding. We rely on our licensors to ensure compliance with applicable obligations arising from such funding, such as timely reporting, an obligation associated with in-licensed patents and patent applications. The failure of our licensors to meet their obligations may lead to a loss of rights or the unenforceability of relevant patents. For example, the government could have certain rights in such in-licensed patents, including a non-exclusive license authorizing the government to use the invention or to have others use the invention on its behalf for non-commercial purposes. If the U.S. government then decides to exercise these rights, it is not required to engage us as its contractor in connection with doing so. These rights may also permit the government to exercise march-in rights to use or allow third parties to use the technology covered by such in-licensed patents. The government may also exercise its march-in rights if it determines that action is necessary because we or our licensors failed to achieve practical application of the government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to U.S. industry. In addition, our rights in such in-licensed government-funded inventions may be subject to certain requirements to manufacture products embodying such inventions in the United States. Any of the foregoing could harm our business, financial condition, results of operations, and prospects significantly.

In addition, the resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant patents, know-how and proprietary technology, or increase what we believe to be our financial or other obligations under the relevant agreement. Disputes that may arise between us and our licensors regarding intellectual property subject to a license agreement could include disputes regarding:

- 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.

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 technology or product candidates. As a result, any termination of or disputes over our intellectual property licenses could result in the loss of our ability to develop and commercialize our TANGO platform, STK-001, or STK-002, or we could lose other significant rights, any of which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

For example, our agreements with certain of our third-party research partners provide that improvements developed in the course of our relationship may be owned solely by either us or our third-party research partner, or jointly between us and the third party. If we determine that rights to such improvements owned solely by a research partner or other third party with whom we collaborate are necessary to commercialize our drug candidates or maintain our competitive advantage, we may need to obtain a license from such third party in order to use the improvements and continue developing, manufacturing or marketing our drug candidates. We may not be able to obtain such a license on an exclusive basis, on commercially reasonable terms, or at all, which could prevent us from commercializing our drug candidates or allow our competitors or others the chance to access technology that is important to our business. We also may need the cooperation of any co-owners of our intellectual property in order to enforce such intellectual property against third parties, and such cooperation may not be provided to us.

Our owned and in-licensed patents and patent applications may not provide sufficient protection of our TANGO platform, our STK-001 and STK-002 product candidates, and our future product candidates or result in any competitive advantage.

We own an issued U.S. patent covering STK-001 and related compositions, an issued U.S. patent covering the mechanism of action of STK-001 and use of STK-001 for treating diseases, and our U.S. patent application and PCT international application covering the mechanism of action of STK-001 and use of STK-001 for treating diseases are currently pending. We have also in-licensed two issued U.S. patents and at least three issued foreign patents that cover the mechanism of action of STK-001, use of the mechanism for treating diseases, and related compositions. We have obtained at least seven issued foreign patents covering STK-001, related compositions and its uses and are currently pursuing patent protection for STK-001, related compositions, and its uses in several economically significant countries. With respect to STK-002, we have applied for and are currently pursuing patent protection for the mechanism of action and methods of treatment in several economically significant countries. We have also filed a PCT international application and foreign patent applications that specifically disclose compositions related to STK-002 and uses of those compositions. Furthermore, our in-licensed issued U.S. patents (mentioned above) cover the mechanism of action of STK-002.We cannot be certain that any of these patent applications will issue as patents, and if they do, that such patents will cover or adequately protect STK-001, STK-002 and other programs or that such patents will not be challenged, narrowed, circumvented, invalidated or held unenforceable.

In addition to claims directed toward the technology underlying our TANGO platform, our owned and in-licensed patents and patent applications contain claims directed to compositions of matter on the active pharmaceutical ingredients (“APIs”) in our product candidates, as well as methods-of-use directed to the use of an API for a specified treatment. Composition-of-matter patents on the active pharmaceutical ingredient in prescription drug products provide protection without regard to any particular method of use of the API used. Method-of-use patents do not prevent a competitor or other third party from developing or marketing an identical product for an indication that is outside the scope of the patented method. Moreover, with respect to method-of-use patents, even if competitors or other third parties do not actively promote their product for our targeted indications or uses for which we may obtain patents, providers may recommend that patients use these products off-label, or patients may do so themselves. Although off-label use may infringe or contribute to the infringement of method-of-use patents, the practice is common and this type of infringement is difficult to prevent or prosecute.

The strength of patents in the biotechnology and pharmaceutical field involves complex legal and scientific questions and can be uncertain. The patent applications that we own or in-license may fail to result in issued patents with claims that cover our product candidates or uses thereof in the United States or in other foreign countries. For example, while our patent applications are pending, we may be subject to a third party preissuance submission of prior art to the United States Patent and Trademark Office (the "USPTO") or become involved in interference or derivation proceedings, or equivalent proceedings in foreign jurisdictions. Even if patents do successfully issue, third parties may challenge their inventorship, validity, enforceability or scope, including through opposition, revocation, reexamination, post-grant and *inter partes* review proceedings. An adverse determination in any such submission, proceeding or litigation may result in loss of patent rights, loss of exclusivity, or in patent claims being narrowed, invalidated, or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and product candidates. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property or prevent others from designing around our claims. Moreover, some of our owned and in-licensed patents and patent applications may be co-owned with third parties. If we are unable to obtain an exclusive license to any such third-party co-owners' interest in such patents or patent applications, such co-owners may be able to license their rights to other third parties, including our competitors, and our competitors could market competing products and technology. In addition, we may need the cooperation of any such co-owners of our patents in order to enforce such patents against third parties, and such cooperation may not be provided to us. If the breadth or strength of protection provided by the patent applications we hold with respect to our product candidates is threatened, it could dissuade companies from collaborating with us to develop, and threaten our ability to commercialize, our product candidates. Further, if we encounter delays in development, testing, and regulatory review of new product candidates, the period of time during which we could market our product candidates under patent protection would be reduced.

Since patent applications in the United States and other countries are confidential for a period of time after filing, at any moment in time, we cannot be certain that we were in the past or will be in the future the first to file any patent application related to our product candidates. In addition, some patent applications in the United States may be maintained in secrecy until the patents are issued. As a result, there may be prior art of which we are not aware that may affect the validity or enforceability of a patent claim, and we may be subject to priority disputes. We may be required to disclaim part or all of the term of certain patents or all of the term of certain patent applications. There may be prior art of which we are not aware that may affect the validity or enforceability of a patent claim. There also may be prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim, which may, nonetheless, ultimately be found to affect the validity or enforceability of a claim. No assurance can be given that, if challenged, our patents would be declared by a court, patent office or other governmental authority to be valid or enforceable or that even if found valid and enforceable, a competitor's technology or product would be found by a court to infringe our patents. We may analyze patents or patent applications of our competitors that we believe are relevant to our activities, and consider that we are free to operate in relation to our product candidates, but our competitors may achieve issued claims, including in patents we consider to be unrelated, that block our efforts or potentially result in our product candidates or our activities infringing such claims. It is possible that our competitors may have filed, and may in the future file, patent applications covering our products or technology similar to ours. Those patent applications may have priority over our owned and in-licensed patent applications or patents, which could require us to obtain rights to issued patents covering such technologies. The possibility also exists that others will develop products that have the same effect as our product candidates on an independent basis that do not infringe our patents or other intellectual property rights, or will design around the claims of patents that we have had issued that cover our product candidates.

Likewise, our currently owned and in-licensed patents and patent applications, if issued as patents, directed to our proprietary technologies and our product candidates are expected to expire from 2035 through 2042, without taking into account any possible patent term adjustments or extensions. Our earliest in-licensed patents may expire before, or soon after, our first product achieves marketing approval in the United States or foreign jurisdictions. Additionally, we cannot be assured that the USPTO or relevant foreign patent offices will grant any of the pending patent applications we own or in-license currently or in the future. Upon the expiration of our current patents, we may lose the right to exclude others from practicing these inventions. The expiration of these patents could also have a similar material adverse effect on our business, financial condition, results of operations and prospects.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- others may be able to make or use compounds that are similar to the active compositions of our product candidates but that are not covered by the claims of our patents;
- the active pharmaceutical ingredients in our current product candidates will eventually become commercially available in generic drug products, and no patent protection may be available with regard to formulation or method of use;
- we or our licensors, as the case may be, may fail to meet our obligations to the U.S. government regarding any in-licensed patents and patent applications funded by U.S. government grants, leading to the loss or unenforceability of patent rights;
- we or our licensors, as the case may be, might not have been the first to file patent applications for certain inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies;
- it is possible that our pending patent applications will not result in issued patents;
- it is possible that there are prior public disclosures that could invalidate our owned or in-licensed patents, as the case may be, or parts of our owned or in-licensed patents;
- it is possible that others may circumvent our owned or in-licensed patents;
- it is possible that there are unpublished applications or patent applications maintained in secrecy that may later issue with claims covering our product candidates or technology similar to ours;
- the laws of foreign countries may not protect our or our licensors', as the case may be, proprietary rights to the same extent as the laws of the United States;
- the claims of our owned or in-licensed issued patents or patent applications, if and when issued, may not cover our product candidates;
- our owned or in-licensed issued patents may not provide us with any competitive advantages, may be narrowed in scope, or be held invalid or unenforceable as a result of legal challenges by third parties;
- the inventors of our owned or in-licensed patents or patent applications may become involved with competitors, develop products or processes that design around our patents, or become hostile to us or the patents or patent applications on which they are named as inventors;
- it is possible that our owned or in-licensed patents or patent applications omit individual(s) that should be listed as inventor(s) or include individual(s) that should not be listed as inventor(s), which may cause these patents or patents issuing from these patent applications to be held invalid or unenforceable;
- we have engaged in scientific collaborations in the past and will continue to do so in the future and our collaborators may develop adjacent or competing products that are outside the scope of our patents;
- we may not develop additional proprietary technologies for which we can obtain patent protection;
- it is possible that product candidates or diagnostic tests we develop may be covered by third parties' patents or other exclusive rights; or
- the patents of others may have an adverse effect on our business. Any of the foregoing could have a material adverse effect on our business, financial conditions, results of operations and prospects.

Our strategy of obtaining rights to key technologies through in-licenses may not be successful.

We seek to expand our product candidate pipeline in part by in-licensing the rights to key technologies, including those related to specific gene targets which may be upregulated by TANGO. The future growth of our business will depend in part on our ability to in-license or otherwise acquire the rights to additional product candidates and technologies. Although we have succeeded in licensing technologies from Cold Spring Harbor Laboratory and the University of Southampton in the past, we cannot assure you that we will be able to in-license or acquire the rights to any product candidates or technologies from third parties on acceptable terms or at all.

For example, our agreements with certain of our third-party research partners provide that improvements developed in the course of our relationship may be owned solely by either us or our third-party research partner, or jointly between us and the third party. If we determine that exclusive rights to such improvements owned solely by a research partner or other third party with whom we collaborate are necessary to commercialize our drug candidates or maintain our competitive advantage, we may need to obtain an exclusive license from such third party in order to use the improvements and continue developing, manufacturing or marketing our

drug candidates. We may not be able to obtain such a license on an exclusive basis, on commercially reasonable terms, or at all, which could prevent us from commercializing our drug candidates or allow our competitors or others the opportunity to access technology that is important to our business. We also may need the cooperation of any co-owners of our intellectual property in order to enforce such intellectual property against third parties, and such cooperation may not be provided to us.

In addition, the in-licensing and acquisition of these technologies is a highly competitive area, and a number of more established companies are also pursuing strategies to license or acquire product candidates or technologies that we may consider attractive. These established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to license rights to us. Furthermore, we may be unable to identify suitable product candidates or technologies within our area of focus. If we are unable to successfully obtain rights to suitable product candidates or technologies, our business and prospects could be materially and adversely affected.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to patent protection, we rely upon know-how and trade secret protection, as well as non-disclosure agreements and invention assignment agreements with our employees, consultants and third-parties, to protect our confidential and proprietary information, especially where we do not believe patent protection is appropriate or obtainable.

It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information concerning our business or financial affairs developed or made known to the individual or entity during the course of the party's relationship with us is to be kept confidential and not disclosed to third parties, except in certain specified circumstances. In the case of employees, the agreements provide that all inventions conceived by the individual, and that are related to our current or planned business or research and development or made during normal working hours, on our premises or using our equipment or proprietary information, are our exclusive property. In the case of consultants and other third parties, the agreements provide that all inventions conceived in connection with the services provided are our exclusive property. However, we cannot guarantee that we have entered into such agreements with each party that may have or have had access to our trade secrets or proprietary technology and processes. We have also adopted policies and conduct training that provides guidance on our expectations, and our advice for best practices, in protecting our trade secrets. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches.

In addition to contractual measures, we try to protect the confidential nature of our proprietary information through other appropriate precautions, such as physical and technological security measures. However, trade secrets and know-how can be difficult to protect. These measures may not, for example, in the case of misappropriation of a trade secret by an employee or third party with authorized access, provide adequate protection for our proprietary information. Our security measures may not prevent an employee or consultant from misappropriating our trade secrets and providing them to a competitor, and any recourse we might take against this type of misconduct may not provide an adequate remedy to protect our interests fully. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret can be difficult, expensive, and time-consuming, and the outcome is unpredictable. In addition, trade secrets may be independently developed by others in a manner that could prevent us from receiving legal recourse. If any of our confidential or proprietary information, such as our trade secrets, were to be disclosed or misappropriated, or if any of that information was independently developed by a competitor, our competitive position could be harmed.

In addition, courts outside the United States are sometimes less willing to protect trade secrets. If we choose to go to court to stop a third party from using any of our trade secrets, we may incur substantial costs. Even if we are successful, these types of lawsuits may consume our time and other resources. Although we take steps to protect our proprietary information and trade secrets, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology. As a result, we may not be able to meaningfully protect our trade secrets. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

Third-party claims of intellectual property infringement may prevent, delay or otherwise interfere with our product discovery and development efforts.

Our commercial success depends in part on our ability to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing, misappropriating or otherwise violating the intellectual property or proprietary rights of third parties. There is a substantial amount of litigation involving patents and other intellectual property rights in the biotechnology and pharmaceutical industries, as well as administrative proceedings for challenging patents, including interference, derivation, *inter partes* review, post grant review, and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. We may be exposed to, or threatened with, future litigation by third parties having patent or other intellectual property rights alleging that our product candidates and/or proprietary technologies infringe, misappropriate or otherwise violate their

intellectual property rights. Numerous U.S. and foreign issued patents and pending patent applications that are owned by third parties exist in the fields in which we are developing our product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may give rise to claims of infringement of the patent rights of others. Moreover, it is not always clear to industry participants, including us, which patents cover various types of drugs, products or their methods of use or manufacture. Thus, because of the large number of patents issued and patent applications filed in our field, third parties may allege they have patent rights encompassing our product candidates, technologies or methods.

If a third party claims that we infringe, misappropriate or otherwise violate its intellectual property rights, we may face a number of issues, including, but not limited to:

- infringement and other intellectual property claims that, regardless of merit, may be expensive and time-consuming to litigate and may divert our management's attention from our core business;
- substantial damages for infringement, which we may have to pay if a court decides that the product candidate or technology at issue infringes on or violates the third party's rights, and, if the court finds that the infringement was willful, we could be ordered to pay treble damages plus the patent owner's attorneys' fees;
- a court prohibiting us from developing, manufacturing, marketing or selling our product candidates, or from using our proprietary technologies, unless the third party licenses its product rights to us, which it is not required to do, on commercially reasonable terms or at all;
- if a license is available from a third party, we may have to pay substantial royalties, upfront fees and other amounts, and/or grant cross-licenses to intellectual property rights for our product candidates;
- the requirement that we redesign our product candidates or processes so they do not infringe, which may not be possible or may require substantial monetary expenditures and time; and
- there could be public announcements of the results of hearings, motions, or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations or could otherwise have a material adverse effect on our business, financial condition, results of operations and prospects.

Third parties may assert that we are employing their proprietary technology without authorization, including by enforcing its patents against us by filing a patent infringement lawsuit against us. In this regard, patents issued in the United States by law enjoy a presumption of validity that can be rebutted only with evidence that is "clear and convincing," a heightened standard of proof.

There may be third-party patents of which we are currently unaware 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, there may be currently pending patent applications that may later result in issued patents that our product candidates may infringe. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents.

If any third-party patents were held by a court of competent jurisdiction to cover the manufacturing process of our product candidates, or materials used in or formed during the manufacturing process, or any final product itself, the holders of those patents may be able to block our ability to commercialize our product candidate unless we obtain a license under the applicable patents, or until those patents were to expire or those patents are finally determined to be invalid or unenforceable. Similarly, if any third-party patent were held by a court of competent jurisdiction to cover aspects of our formulations, processes for manufacture or methods of use, including combination therapy or patient selection methods, the holders of that patent may be able to block our ability to develop and commercialize the product candidate unless we obtain a license or until such patent expires or is finally determined to be invalid or unenforceable. In either case, a license may not be available on commercially reasonable terms, or at all, particularly if such patent is owned or controlled by one of our primary competitors. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, or at all, our ability to commercialize our product candidates may be impaired or delayed, which could significantly harm our business. Even if we obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

Parties making claims against us may seek and obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize our product candidates. Defense of these claims, regardless of their merit, would involve

substantial litigation expense and would be a substantial diversion of employee time and resources from our business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign our infringing products, which may be impossible or require substantial time and monetary expenditure. We cannot predict whether any license of this nature would be available at all or whether it would be available on commercially reasonable terms. Furthermore, even in the absence of litigation, we may need to obtain licenses from third parties to advance our research or allow commercialization of our product candidates and we may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we would be unable to further develop and commercialize our product candidates, which could significantly harm our business.

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 and could result in a finding that such patents are unenforceable or invalid.

Competitors may infringe our patents or the patents of our licensors. 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 one or more of our patents is not valid or is unenforceable, 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.

In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace, and there are numerous grounds upon which a third party can assert invalidity or unenforceability of a patent. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. These types of mechanisms include re-examination, post-grant review, *inter partes* review, interference proceedings, derivation proceedings, and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). These types of proceedings could result in revocation or amendment to our patents such that they no longer cover our product candidates. The outcome for any particular patent following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we, our patent counsel and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, or if we are otherwise unable to adequately protect our rights, we would lose at least part, and perhaps all, of the patent protection on our product candidates. Defense of these types of claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business.

Conversely, we may choose to challenge the patentability of claims in a third party's U.S. patent by requesting that the USPTO review the patent claims in re-examination, post-grant review, *inter partes* review, interference proceedings, derivation proceedings, and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings), or we may choose to challenge a third party's patent in patent opposition proceedings in the European Patent Office (the "EPO") or another foreign patent office. Even if successful, the costs of these opposition proceedings could be substantial, and may consume our time or other resources. If we fail to obtain a favorable result at the USPTO, the EPO or other patent office then we may be exposed to litigation by a third party alleging that the patent may be infringed by our product candidates or proprietary technologies.

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. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, that perception could have a substantial adverse effect on the price of our common stock. Any of the foregoing could have a material adverse effect on our business financial condition, results of operations and prospects.

We have limited foreign intellectual property rights and may not be able to protect our intellectual property rights throughout the world.

We have limited intellectual property rights outside the United States. Filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those 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. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection but where enforcement is not as strong as that in the United States. These products may compete with our product candidates in jurisdictions where we do not have any issued patents and our patent claims or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to biopharmaceutical products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products against third parties in violation of our proprietary rights generally. The initiation of proceedings by third parties to challenge the scope or validity of our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business. 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 and 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.

Geopolitical actions in the United States and in foreign countries could increase the uncertainties and costs surrounding the prosecution or maintenance of our patent applications or those of any current or future licensors and the maintenance, enforcement or defense of our issued patents or those of any current or future licensors. For example, the United States and foreign government actions related to Russia's invasion of Ukraine may limit or prevent filing, prosecution and maintenance of patent applications in Russia. Government actions may also prevent maintenance of issued patents in Russia. These actions could result in abandonment or lapse of our patents or patent applications, resulting in partial or complete loss of patent rights in Russia. If such an event were to occur, it could have a material adverse effect on our business. In addition, a decree was adopted by the Russian government in March 2022, allowing Russian companies and individuals to exploit inventions owned by patentees that have citizenship or nationality in, are registered in, or have predominately primary place of business or profit-making activities in the United States and other countries that Russia has deemed unfriendly without consent or compensation. Consequently, we would not be able to prevent third parties from practicing our inventions in Russia or from selling or importing products made using our inventions in and into Russia. Accordingly, our competitive position may be impaired, and our business, financial condition, results of operations and prospects may be adversely affected.

Our use of open source software could impose limitations on our ability to commercialize our product candidates.

Our use of open source software could impose limitations on our ability to commercialize our product candidates. Our technology utilizes open source software that contains modules licensed for use from third-party authors under open source licenses. In particular, some of the software that powers TANGO may be provided under license arrangements that allow use of the software for research or other non-commercial purposes. As a result, in the future, as we seek to use our platform in connection with commercially available products, we may be required to license that software under different license terms, which may not be possible on commercially reasonable terms, if at all. If we are unable to license software components on terms that permit its use for commercial purposes, we may be required to replace those software components, which could result in delays, additional cost and additional regulatory approvals.

Use and distribution of open source software may entail greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the software code. Some open source licenses contain requirements that we make available source code for modifications or derivative works we create based upon the type of open source software we use. If we combine our proprietary software with open source software in a certain manner, we could, under certain of the open source licenses, be required to release the source code of our proprietary software to the public. This could allow our competitors to create similar products with lower development effort and time, and ultimately could result in a loss of product sales for us. Although we monitor our use of open source software, the terms of many open source licenses have not been interpreted by U.S. courts, and there is a risk that those licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our product candidates. We could be required to seek licenses from third parties in order to continue offering our product candidates, to re-engineer our product candidates or to discontinue the sale of our product candidates in the event re-engineering cannot be accomplished on a timely basis, any of which could materially and adversely affect our business, financial condition, results of operations and prospects.

Third parties may assert that our employees or consultants have wrongfully used or disclosed confidential information or misappropriated trade secrets.

As is common in the biotechnology and pharmaceutical industries, we employ individuals who were previously employed at universities or other biopharmaceutical or pharmaceutical companies, including our competitors or potential competitors. Although no misappropriation or improper disclosure claims against us are currently pending, and although we try to ensure that our employees and consultants do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of a former employer or other third parties. We may then have to pursue litigation to defend against these claims. If we fail in defending any claims of this nature in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against these types of claims,

litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and, if securities analysts or investors perceive these results to be negative, that perception could have a substantial adverse effect on the price of our common stock. This type of litigation or proceeding could substantially increase our operating losses and reduce our resources available for development activities, and we may not have sufficient financial or other resources to adequately conduct this type of litigation or proceedings. For example, some of our competitors may be able to sustain the costs of this type of litigation or proceedings more effectively than we can because of their substantially greater financial resources. In any case, uncertainties resulting from the initiation and continuation of intellectual property litigation or other intellectual property related proceedings could adversely affect our ability to compete in the marketplace.

We may not be successful in obtaining or maintaining necessary rights to product components and processes for our development pipeline through acquisitions and in-licenses.

The growth of our business may depend in part on our ability to acquire, in-license or use third-party proprietary rights. For example, our product candidates may require specific formulations to work effectively and efficiently, we may develop product candidates containing our compounds and pre-existing pharmaceutical compounds, or we may be required by the FDA or comparable foreign regulatory authorities to provide a companion diagnostic test or tests with our product candidates, any of which could require us to obtain rights to use intellectual property held by third parties. In addition, with respect to any patents we may co-own with third parties, we may require licenses to such co-owners interest to such patents. We may be unable to acquire or in-license any compositions, methods of use, processes or other third-party intellectual property rights from third parties that we identify as necessary or important to our business operations. In addition, we may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. Were that to happen, we may need to cease use of the compositions or methods covered by those third-party intellectual property rights, and may need to seek to develop alternative approaches that do not infringe on those intellectual property rights, which may entail additional costs and development delays, even if we were able to develop such alternatives, which may not be feasible. Even if we are able to obtain a license, it may be non-exclusive, which means that our competitors may also receive 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.

Additionally, we sometimes collaborate with academic institutions to accelerate our preclinical research or development under written agreements with these institutions. In certain cases, these institutions provide us with an option to negotiate a license to any of the institution's rights in technology resulting from the collaboration. Even if we hold such an option, we may be unable to negotiate a license from the institution within the specified timeframe or under terms that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to others, potentially blocking our ability to pursue our program.

The licensing and acquisition of third-party intellectual property rights is a competitive area, and companies that may be more established or have greater resources than we do may also be pursuing strategies to license or acquire third-party intellectual property rights that we may consider necessary or attractive in order to commercialize our product candidates. More established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. There can be no assurance that we will be able to successfully complete these types of negotiations and ultimately acquire the rights to the intellectual property surrounding the additional product candidates that we may seek to develop or market. If we are unable to successfully obtain rights to required third-party intellectual property or to maintain the existing intellectual property rights we have, we may have to abandon development of certain programs and our business financial condition, results of operations and prospects could suffer.

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.

Periodic maintenance fees on any issued patent are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent. The USPTO and various foreign patent agencies also require compliance with a number of procedural, documentary, fee payment and other provisions during the patent application process and following the issuance of a patent. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Noncompliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. Were a noncompliance event to occur, our competitors might be able to enter the market, which would have a material adverse effect on our business financial condition, results of operations and prospects.

Changes in patent law in the United States and in non-U.S. jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our product candidates.

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involve both technological and legal complexity, and is therefore costly, time-consuming and inherently uncertain.

Past or future patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. For example, in March 2013, under the Leahy-Smith America Invents Act (the "America Invents Act") the United States moved from a "first to invent" to a "first-to-file" patent system. Under a "first-to-file" system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to a patent on the invention regardless of whether another inventor had made the invention earlier. The America Invents Act includes a number of other significant changes to U.S. patent law, including provisions that affect the way patent applications are prosecuted, redefine prior art and establish a new post-grant review system. The effects of these changes are currently unclear as the USPTO continues to promulgate new regulations and procedures in connection with the America Invents Act and many of the substantive changes to patent law, including the "first-to-file" provisions, only became effective in March 2013. In addition, the courts have yet to address many of these provisions and the applicability of the act and new regulations on the specific patents discussed in this filing have not been determined and would need to be reviewed. 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 our issued patents.

Additionally, 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. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future. For example, in the case, *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, the U.S. Supreme Court held that certain claims to DNA molecules are not patentable. While we do not believe that any of our owned or in-licensed patents will be found invalid based on this decision, we cannot predict how future decisions by the courts, the U.S. Congress or the USPTO may impact the value of our patents. Any similar adverse changes in the patent laws of other jurisdictions could also have a material adverse effect on our business, financial condition, results of operations and prospects.

Additionally, no earlier that October 1, 2022, European applications will soon have the option, upon grant of a patent, of becoming a Unitary Patent which will be subject to the jurisdiction of the Unitary Patent Court ("UPC"). This will be a significant change in European patent practice. As the UPC is a new court system, there is no precedent for the court, increasing the uncertainty of any litigation.

Patent terms may be inadequate to protect our competitive position on our product candidates for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates are obtained, once the patent life has expired, we may be open to competition from competitive products, including generics. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting our product candidates might expire before or shortly after we or our partners commercialize those candidates. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

If we do not obtain patent term extension for any product candidates we may develop, our business may be materially harmed.

Depending upon the timing, duration and specifics of any FDA marketing approval of any product candidates we may develop, one or more of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984 (the "Hatch-Waxman Amendments"). The Hatch-Waxman Amendments permit a patent extension term of up to five years as compensation for patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent per product may be extended and only those claims covering the approved drug, a method for using it, or a method for manufacturing it may be extended. However, even if we were to seek a patent term extension, it may not be granted because of, for example, the failure to exercise due diligence during the testing phase or regulatory review process, the failure to apply within applicable deadlines, the failure to apply prior to expiration of relevant patents, or any other failure to satisfy applicable requirements. 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 term of any such extension is less than we request, our competitors may obtain approval of competing products following our patent expiration, and our business, financial condition, results of operations, and prospects could be materially harmed.

We are subject to a variety of privacy and data security laws, and our failure to comply with them could harm our business.

We maintain a large quantity of sensitive information, including confidential business and patient health information in connection with our preclinical studies, and are subject to laws and regulations governing the privacy and security of such information. In the United States, there are numerous federal and state privacy and data security laws and regulations governing the collection, use, disclosure and protection of personal information, including federal and state health information privacy laws, federal and state security breach notification laws, and federal and state consumer protection laws. Each of these laws is subject to varying interpretations and constantly evolving. In May 2018, a new privacy regime, the General Data Protection Regulation (the "GDPR") took effect in the European Economic Area (the "EEA") and the United Kingdom. The GDPR governs the collection, use, disclosure, transfer or other processing of personal data of European and United Kingdom persons. The GDPR continues to form part of law in the United Kingdom with some amendments following Brexit ("UK GDPR"), although there is a risk of divergence in the future which may increase our overall data protection compliance cost. Among other things, the GDPR and UK GDPR impose new requirements regarding the security of personal data and notification of data processing obligations to the competent national data processing authorities, changes the lawful bases on which personal data can be processed, expands the definition of personal data and requires changes to informed consent practices, as well as more detailed notices for clinical trial subjects and investigators. In addition, the GDPR and UK GDPR increase the scrutiny of transfers of personal data from clinical trial sites located in the EEA and the United Kingdom to the United States and other jurisdictions that the European Commission or the United Kingdom do not recognize as having "adequate" data protection laws, and imposes substantial fines for breaches and violations (up to the greater of €20 million or 4% of our consolidated annual worldwide gross revenue). The GDPR and UK GDPR also confer a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies and obtain compensation for damages resulting from violations of the GDPR or UK GDPR. Compliance with these and any other applicable privacy and data security laws and regulations is a rigorous and time-intensive process, and we may be required to put in place additional mechanisms ensuring compliance with the new data protection rules. If we fail to comply with any such laws or regulations, we may face significant fines and penalties that could adversely affect our business, financial condition and results of operations.

Risks related to employee matters, managing growth and other risks related to our business

We expect to expand our development and regulatory capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of product candidate development and growing our capability to conduct clinical trials. To manage our anticipated future growth, 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. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

We must attract and retain highly skilled employees to succeed.

To succeed, we must recruit, retain, manage and motivate qualified clinical, scientific, technical and management personnel, and we face significant competition for experienced personnel. If we do not succeed in attracting and retaining qualified personnel, particularly at the management level, it could adversely affect our ability to execute our business plan, harm our results of operations and increase our capabilities to successfully commercialize STK-001, STK-002 and our future product candidates. In particular, we believe that our future success is highly dependent upon the contributions of our senior management, including Edward M. Kaye, our Chief Executive Officer, as well as our senior scientists and other members of our senior management team. The loss of services of one or more of these individuals, who all have at-will employment arrangements with us, could delay or prevent the successful development of our product pipeline, completion of our planned clinical trials or the commercialization of our product candidates, if approved. The competition for qualified personnel in the biotechnology field is intense and as a result, we may be unable to continue to attract and retain qualified personnel necessary for the development of our business or to recruit suitable replacement personnel.

Many of the other biotechnology companies that we compete against for qualified personnel have greater financial and other resources, different risk profiles and a longer history in the industry than we do. They also may provide more diverse opportunities and better chances for career advancement. Some of these characteristics may be more appealing to high-quality candidates than what we have to offer. If we are unable to continue to attract and retain high-quality personnel, the rate and success at which we can discover and develop product candidates and our business will be limited.

If members of our management and other key personnel in critical functions across our organization are unable to perform their duties or have limited availability due to the COVID-19 pandemic, we may not be able to execute on our business strategy and/or our operations may be negatively impacted. Our success is dependent upon our ability to attract and retain qualified management and key personnel in a highly competitive environment. Qualified individuals are in high demand, and we may incur significant costs to attract them, particularly at the executive level. We may face difficulty in attracting and retaining key talent for a number of reasons,

including management changes, the underperformance or discontinuation of our clinical stage program, recruitment by competitors or delays in the recruiting and hiring process as a result of the COVID-19 pandemic. We cannot ensure that we will be able to hire or retain the personnel necessary for our operations or that the loss of any such personnel will not have a material impact on our financial condition and results of operations.

Future acquisitions or strategic alliances could disrupt our business and harm our financial condition and results of operations.

We may acquire additional businesses or drugs, 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 drugs 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. The risks we face in connection with acquisitions, include:

- diversion of management time and focus from operating our business to addressing acquisition integration challenges;
- coordination of research and development efforts;
- retention of key employees from the acquired company;
- changes in relationships with strategic partners as a result of product acquisitions or strategic positioning resulting from the acquisition;
- cultural challenges associated with integrating employees from the acquired company into our organization;
- the need to implement or improve controls, procedures, and policies at a business that prior to the acquisition may have lacked sufficiently effective controls, procedures and policies;
- liability for activities of the acquired company before the acquisition, including intellectual property infringement claims, violation of laws, commercial disputes, tax liabilities, and other known liabilities;
- unanticipated write-offs or charges; and
- litigation or other claims in connection with the acquired company, including claims from terminated employees, customers, former stockholders or other third parties.

Our failure to address these risks or other problems encountered in connection with our past or future acquisitions or strategic alliances could cause us to fail to realize the anticipated benefits of these transactions, cause us to incur unanticipated liabilities and harm the business generally. There is also a risk that future acquisitions will result in the incurrence of debt, contingent liabilities, amortization expenses or incremental operating expenses, any of which could harm our financial condition or results of operations.

If we fail to comply with environmental, health, and safety laws and regulations, we could become subject to fines or penalties or incur costs that could harm our business.

We will become subject to numerous environmental, health, and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment, and disposal of hazardous materials and wastes. Our operations will involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also may produce hazardous waste products. We generally anticipate contracting with third parties for the disposal of these materials and wastes. We will not be able to eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from any use by us of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities.

In addition, we may incur substantial costs in order to comply with current or future environmental, health, and safety laws and regulations. These current or future laws and regulations may impair our research, development, or production efforts. Our failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

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

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. For example, the global financial crisis of 2007-2008 caused extreme volatility and disruptions in the capital and credit markets. Likewise, the capital and credit markets may be adversely affected by the recent conflict between Russia and Ukraine, and the possibility of a wider European or global conflict, and global sanctions imposed in response thereto. 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. As another example, our financial results may be negatively impacted by the recent COVID-19 outbreak. The extent and duration of such impacts remain largely uncertain and dependent on future developments that cannot be accurately predicted at this time, such as the severity and transmission rate of COVID-19, the extent and effectiveness of containment actions taken and the impact of these and other factors on our operations and the global economy in general. 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 services. If the current equity and credit markets deteriorate, it may make any necessary debt or equity financing more difficult, more costly, and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans. In addition, there is a risk that one or more of our current service providers, manufacturers and other partners may not survive such difficult economic times, which could directly affect our ability to attain our operating goals on schedule and on budget. 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. Furthermore, our stock price may decline due in part to the volatility of the stock market and any general economic downturn.

We, or our third party service providers, face risks related to health epidemics and other outbreaks, which could significantly disrupt our operations.

Our business could be adversely impacted by the effects of COVID-19 or other epidemics. A public health epidemic, including COVID-19, poses the risk that we or our employees, contractors, suppliers, and other partners may be prevented from conducting business activities for an indefinite period of time, including due to shutdowns that may be requested or mandated by governmental authorities. We currently rely, and may continue to rely, on third-party service providers that are located in locals significantly impacted by COVID-19 and/or who source raw materials, samples, components, or other materials and reports from countries significantly impacted by COVID-19. Consequently, supply of research materials and early research activities are susceptible to factors adversely affecting one or more of our third-party service providers who are located in and/or who source from locations significantly impacted by COVID-19. We may also experience impacts to certain of our suppliers as a result of COVID-19 or other health epidemic or outbreak occurring in one or more of these locations, which may materially and adversely affect our business, financial condition and results of operations. In addition, hospitals or other clinical trial sites could also become overwhelmed by COVID-19 and shift resources or attention away from our clinical trials or limit key clinical trial activities, such as clinical trial site monitoring and in-person follow-ups, which may cause delays in our trials or negatively affect enrollment. COVID-19 and mitigation measures may also have an adverse impact on global economic conditions which could have an adverse effect on our business and financial condition. The extent to which COVID-19 impacts our results will depend on future developments that are highly uncertain and cannot be predicted, including new information that may emerge concerning the severity of the virus and the actions to contain its impact.

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, fire, hurricane, 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 our suppliers' manufacturing facilities, 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 and information systems, or those used by our CROs, CMOs or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our development programs.

Despite the implementation of appropriate security measures, our internal computer and information systems and those of our current and any future CROs, CMOs and other contractors or consultants may become vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While we have not experienced any such material system failure, or accident, and are unaware of any 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 development programs and our business operations, whether due to a loss of our trade secrets or other proprietary information or other similar disruptions. For example, the loss of data from completed or future preclinical studies or clinical trials could result in significant 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 were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability, our competitive position could be harmed and the further development and commercialization of our product candidates could be significantly delayed.

A breakdown or breach of our technology systems could subject us to liability or interrupt the operation of our business.

We are increasingly dependent upon technology systems and data to operate our business. In particular, the COVID-19 pandemic has caused us to modify our business practices, including our office-based employees having been primarily working in a hybrid-model fluctuating between work from home and work from office since early September 2021. As a result, we are increasingly dependent upon our technology systems to operate our business and our ability to effectively manage our business depends on the security, reliability and adequacy of our technology systems and data, which includes use of cloud technologies, including Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS). A breakdown, invasion, corruption, destruction or breach of our technology systems, including the cloud technologies that we utilize, and/or unauthorized access to our data and information could subject us to liability or negatively impact the operation of our business. Our technology systems, including the cloud technologies that we utilize, continue to increase in multitude and complexity, making them potentially vulnerable to breakdown, malicious intrusion and random attack. Likewise, data privacy or security breaches by individuals authorized to access our technology systems, including the cloud technologies that we utilize, may pose a risk that sensitive data, including intellectual property, trade secrets or personal information belonging to us, our patients or other business partners, may be exposed to unauthorized persons or to the public.

Cyberattacks are increasing in their frequency, sophistication and intensity, and have become increasingly difficult to detect. They are often carried out by motivated, well-resourced, skilled and persistent actors, including nation states, organized crime groups, “hacktivists” and employees or contractors acting with malicious intent. Cyber-attacks could include the deployment of harmful malware and key loggers, ransomware, a denial-of-service attack, a malicious website, the use of social engineering and other means to affect the confidentiality, integrity and availability of our technology systems and data. Cyber-attacks could also include supply chain attacks, which could cause a delay in the manufacturing of our products or products produced for contract manufacturing. Our key business partners face similar risks and any security breach of their systems could adversely affect our security posture. Cyberattacks could include wrongful conduct by hostile foreign governments, industrial espionage, wire fraud and other forms of cyber fraud, the deployment of harmful malware, denial-of-service, social engineering fraud or other means to threaten data confidentiality, integrity and availability. A successful cyberattack could cause serious negative consequences for us, including, without limitation, the disruption of operations, the misappropriation of confidential business information, including financial information, trade secrets, financial loss and the disclosure of corporate strategic plans. To date, we have not experienced a material compromise of our data or information systems. However, although we devote resources to protect our information systems, we realize that cyberattacks are a threat, and there can be no assurance that our efforts will prevent information security breaches that would result in business, legal, financial or reputational harm to us, or would have a material adverse effect on our results of operations and financial condition.

In addition, the computer systems of various third parties on which we rely, including our CROs, CMOs and other contractors, consultants and law and accounting firms, may sustain damage from computer viruses, unauthorized access, data breaches, phishing attacks, cybercriminals, natural disasters (including hurricanes and earthquakes), terrorism, war (including the conflict in Ukraine) and telecommunication and electrical failures. We rely on our third-party providers to implement effective security measures and identify and correct for any such failures, deficiencies or breaches.

Moreover, our increased use of cloud technologies and remote working arrangements could heighten these and other operational risks, and any failure by cloud technology service providers to adequately safeguard their systems and prevent cyber-attacks could disrupt our operations and result in misappropriation, corruption or loss of confidential or propriety information. Despite the implementation of appropriate security measures, our internal computer and information systems and those of our current and any future CROs, CMOs and other contractors or consultants may become vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While we have not experienced any such material system failure, or

accident, and are unaware of any 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 development programs and our business operations, whether due to a loss of our trade secrets or other proprietary information or other similar disruptions. For example, the loss of data from completed or future preclinical studies or clinical trials could result in significant 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 were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability, our competitive position could be harmed and the further development and commercialization of our product candidates could be significantly delayed. While we continue to build and improve our systems and infrastructure, including our business continuity plans, there can be no assurance that our efforts will prevent breakdowns or breaches in our systems that could adversely affect our business and operations and/or result in the loss of critical or sensitive information, which could result in financial, legal, business, operational or reputational harm to us, or loss of competitive advantage. In addition, our liability insurance may not be sufficient in type or amount to cover us against claims related to security breaches, cyber-attacks and other related breaches.

Our employees, principal investigators, CROs, CMOs and consultants may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading.

We are exposed to the risk of fraud or other misconduct by our employees, principal investigators, consultants and commercial partners. Misconduct by these parties could include intentional failures to comply with the regulations of FDA and non-U.S. regulators, provide accurate information to the FDA and 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 may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Such misconduct could also involve the improper use of information obtained in the course of clinical studies, which could result in regulatory sanctions and cause serious harm to our reputation. We have adopted a code of conduct applicable to all of our employees, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective 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.

Our business entails a significant risk of product liability and our ability to obtain sufficient insurance coverage could have a material and adverse effect on our business, financial condition, results of operations and prospects.

We will face an inherent risk of product liability exposure related to the testing of STK-001, STK-002 and our future product candidates in clinical trials and will face an even greater risk if we commercialize any of our product candidates. If we cannot successfully defend ourselves against claims that our product candidates caused injuries, we could incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates that we may develop;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- significant time and costs to defend the related litigation;
- substantial monetary awards to trial participants or patients;
- loss of revenue; and
- the inability to commercialize any product candidates that we may develop.

While we currently have product liability insurance that we believe is appropriate for our stage of development, we may need to obtain higher levels prior to clinical development or marketing STK-001, STK-002 or any of our future product candidates. Any insurance we have or may obtain may not provide sufficient coverage against potential liabilities. Furthermore, clinical trial and product liability insurance is becoming increasingly expensive. As a result, we may be unable to obtain sufficient insurance at a reasonable cost to protect us against losses caused by product liability claims that could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Risks related to ownership of our common stock

The market price of our stock may be volatile, and you could lose all or part of your investment.

The trading price of our common stock may be highly volatile and subject to wide fluctuations in response to various factors, some of which we cannot control. The market price for our common stock may be influenced by many factors, including the other risks described in this section and elsewhere in this report and the following:

- results of preclinical studies and clinical trials of our product candidates, or those of our competitors or our existing or future collaborators;
- the impact of the COVID-19 pandemic on our employees, trials, collaboration partners, suppliers, our results of operations, liquidity and financial condition;
- regulatory or legal developments in the United States and other countries, especially changes in laws or regulations applicable to our product candidates;
- the success of competitive products or technologies;
- introductions and announcements of new products by us, our future commercialization partners, or our competitors, and the timing of these introductions or announcements;
- actions taken by regulatory agencies with respect to our product candidates, clinical studies, manufacturing process or sales and marketing terms;
- actual or anticipated variations in our financial results or those of companies that are perceived to be similar to us;
- the success of our efforts to acquire or in-license additional technologies, products or product candidates;
- developments concerning any future collaborations, including but not limited to those with our sources of manufacturing supply and our commercialization partners;
- market conditions in the pharmaceutical and biotechnology sectors;
- announcements by us or our competitors of significant acquisitions, strategic collaborations, joint ventures or capital commitments;
- developments or disputes concerning patents or other proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our product candidates and products;
- our ability or inability to raise additional capital and the terms on which we raise it;
- the recruitment or departure of key personnel;
- changes in the structure of healthcare payment systems;
- actual or anticipated changes in earnings estimates or changes in stock market analyst recommendations regarding our common stock, other comparable companies or our industry generally;
- our failure or the failure of our competitors to meet analysts' projections or guidance that we or our competitors may give to the market;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- announcement and expectation of additional financing efforts;
- speculation in the press or investment community;
- trading volume of our common stock;
- sales of our common stock by us or our stockholders;
- the concentrated ownership of our common stock;
- changes in accounting principles;
- terrorist acts, acts of war or periods of widespread civil unrest, including the conflict in Ukraine and actions taken by third parties in response to such conflict;
- natural disasters and other calamities; and
- general economic, industry and market conditions.

In addition, the stock market in general, and the markets for pharmaceutical, biopharmaceutical and biotechnology stocks in particular, have experienced extreme price and volume fluctuations that have been often unrelated or disproportionate to the operating performance of the issuer. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our actual operating performance. The realization of any of the above risks or any of a broad range of other risks, including those described in this "Risk factors" section, could have a dramatic and adverse impact on the market price of our common stock.

Our principal stockholders own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

As of March 31, 2022 entities affiliated with Skorpios Trust beneficially owned 36.99% of the voting power of all outstanding shares of our common stock. As a result, these entities will have considerable influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, amendment of our organizational documents, any merger, consolidation or sale of all or substantially all of our assets and any other significant corporate transaction. The interests of such entities may not be the same as or may even conflict with your interests. For example, these entities could potentially delay or prevent a change of control of our company, even if such a change of control would benefit our other stockholders, which could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company or our assets and might affect the prevailing market price of our common stock.

In addition, Skorpios Trust received its shares from Apple Tree Partners, which previously controlled a majority of the voting power of our common stock. Seth L. Harrison, the chairman of our board of directors, serves as Managing Partner of Apple Tree Partners.

If securities or industry analysts do not publish research or reports about our business, or if they issue an adverse or misleading opinion regarding our stock, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not have any control over the analysts, or the content and opinions included in their reports. If any of the analysts who cover us issue an adverse or misleading opinion regarding us, our business model, our intellectual property or our stock performance, or if our preclinical studies and clinical trials and results of operations fail to meet the expectations of analysts, our stock price would likely decline. If one or more of such analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause a decline in our stock price or trading volume.

We are an "emerging growth company" and a "smaller reporting company" and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies or smaller reporting companies will make our common stock less attractive to investors.

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including (i) not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended (the "Sarbanes-Oxley Act"), (ii) reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and (iii) exemptions from the requirements of holding nonbinding advisory stockholder votes on executive compensation and stockholder approval of any golden parachute payments not approved previously.

We will remain an emerging growth company until the earliest of (i) the last day of the fiscal year (a) in which we have total annual gross revenue of at least $1.07 billion or (b) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30th, (ii) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-year period and (iii) December 31, 2024.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to take advantage of the benefits of this extended transition period. Our consolidated financial statements may therefore not be comparable to those of companies that comply with such new or revised accounting standards. Until the date that we are no longer an "emerging growth company" or affirmatively and irrevocably opt out of the exemption provided by Section 7(a)(2)(B) of the Securities Act, upon issuance of a new or revised accounting standard that applies to our consolidated financial statements and that has a different effective date for public and private companies, we will disclose the date on which adoption is required for non-emerging growth companies and the date on which we will adopt the recently issued accounting standard.

We are also a "smaller reporting company," meaning that the market value of our stock held by non-affiliates was less than $700 million and our annual revenue was less than $100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company as long as either (i) the market value of our stock held by non-affiliates is less than $250 million or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we

may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our share price may be more volatile.

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

Our restated certificate of incorporation and our restated bylaws contain provisions that could delay or prevent a change in control of our company. These provisions could also make it difficult for stockholders to elect directors who are not nominated by current members of our board of directors or take other corporate actions, including effecting changes in our management. These provisions:

- establish a classified board of directors so that not all members of our board are elected at one time;
- permit only the board of directors to establish the number of directors and fill vacancies on the board;
- provide that directors may only be removed "for cause" and only with the approval of two-thirds of our stockholders;
- require super-majority voting to amend some provisions in our restated certificate of incorporation and restated bylaws;
- authorize the issuance of "blank check" preferred stock that our board could use to implement a stockholder rights plan;
- eliminate the ability of our stockholders to call special meetings of stockholders;
- prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;
- prohibit cumulative voting; and
- establish advance notice requirements for nominations for election to our board or for proposing matters that can be acted upon by stockholders at annual stockholder meetings.

The exclusive forum provision in our restated certificate of incorporation may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, or other employees, which may discourage lawsuits with respect to such claims.

Our restated certificate of incorporation, to the fullest extent permitted by law, provides that the Court of Chancery of the State of Delaware is the exclusive forum for: any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law (the "DGCL"), our restated certificate of incorporation, or our restated bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. This exclusive forum provision does not apply to suits brought to enforce a duty or liability created by the Exchange Act. It could apply, however, to a suit that falls within one or more of the categories enumerated in the exclusive forum provision and asserts claims under the Securities Act, inasmuch as Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rule and regulations thereunder. There is uncertainty as to whether a court would enforce such provision with respect to claims under the Securities Act, and our stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder.

This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, or other employees, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provisions contained in our restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, results of operations and financial condition.

In addition, Section 203 of the DGCL may discourage, delay or prevent a change in control of our company. Section 203 imposes certain restrictions on mergers, business combinations and other transactions between us and holders of 15% or more of our common stock.

Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all claims brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. In April 2020, we amended and restated our restated bylaws to provide that the federal district courts of the United States will, to the fullest extent permitted by law, be the exclusive forum

for resolving any complaint asserting a cause of action arising under the Securities Act (such provision, a "Federal Forum Provision"). Our decision to adopt a Federal Forum Provision followed a decision by the Supreme Court of the State of Delaware holding that such provisions are facially valid under Delaware law. While there can be no assurance that federal or state courts will follow the holding of the Delaware Supreme Court or determine that the Federal Forum Provision should be enforced in a particular case, application of the Federal Forum Provision means that suits brought by our stockholders to enforce any duty or liability created by the Securities Act must be brought in federal court and cannot be brought in state court.

Section 27 of the Exchange Act creates exclusive federal jurisdiction over all claims brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. In addition, neither the exclusive forum provision nor the Federal Forum Provision applies to suits brought to enforce any duty or liability created by the Exchange Act. Accordingly, actions by our stockholders to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder must be brought in federal court.

Our stockholders will not be deemed to have waived our compliance with the federal securities laws and the regulations promulgated thereunder.

Any person or entity purchasing or otherwise acquiring or holding any interest in any of our securities shall be deemed to have notice of and consented to our exclusive forum provisions, including the Federal Forum Provision. These provisions may limit a stockholder's ability to bring a claim in a judicial forum of their choosing for disputes with us or our directors, officers, or other employees, which may discourage lawsuits against us and our directors, officers, and other employees.

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

As a public company, and particularly after we are no longer an emerging growth company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. The Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the Nasdaq Global Select Market, or Nasdaq, and other applicable securities rules and regulations impose 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, we expect these rules and regulations to substantially increase our legal and financial compliance costs and to make some activities more time consuming and costly. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers. Moreover, these rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

If we fail to maintain proper and effective internal control over financial reporting in the future, our ability to produce accurate and timely financial statements could be impaired, which could harm our operating results, investors' views of us and, as a result, the value of our common stock.

We previously were not required to independently comply with Section 404(a) of the Sarbanes-Oxley Act. Section 404(a) of the Sarbanes-Oxley Act requires annual management assessments of the effectiveness of our internal control over financial reporting, starting with the second annual report that we file with the SEC. We were required to meet these standards in the course of preparing our financial statements as of and for the year ended December 31, 2021, and our management is required to report on the effectiveness of our internal control over financial reporting for such year and annually thereafter. Additionally, once we are no longer an "emerging growth company," our independent registered public accounting firm will be required pursuant to Section 404(b) of the Sarbanes-Oxley Act to attest to the effectiveness of our internal control over financial reporting on an annual basis. The rules governing the standards that must be met for our management to assess our internal control over financial reporting are complex and require significant documentation, testing, and possible remediation.

To achieve compliance with Section 404(b) 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 we will not be able to conclude, within the prescribed timeframe or at all, that our internal control over financial reporting is effective as required by Section 404. If we identify one or more material weaknesses, it could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our

consolidated financial statements. In addition, if we are not able to continue to meet these requirements, we may not be able to remain listed on Nasdaq.

As we grow, we expect to hire additional personnel and may utilize external temporary resources to implement, document and modify policies and procedures to maintain effective internal controls. However, it is possible that we may identify deficiencies and weaknesses in our internal controls. If material weaknesses or deficiencies in our internal controls exist and go undetected or unremediated, our consolidated financial statements could contain material misstatements that, when discovered in the future, could cause us to fail to meet our future reporting obligations and cause the price of our common stock to decline.

Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

We may be subject to securities litigation, which is expensive and could divert management attention.

The market price of our common stock may be volatile and, in the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

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

Unregistered Sales of Equity Securities

None.

Use of Proceeds

On November 24, 2020, we completed an underwritten public offering, of our common stock and issued and sold 2,875,000 shares of common stock at a public offering price of $39.00 per share, which included 375,000 shares sold upon full exercise of the underwriters' option to purchase additional shares of common stock resulting in net proceeds of $104.9 million after deducting underwriting discounts and commissions and estimated offering expenses. J.P. Morgan Securities LLC, Cowen and Company, LLC and Credit Suisse Securities (USA) LLC acted as joint book-running managers of the offering and as representatives of the underwriters. None of the expenses associated with the offering were paid to directors, officers, persons owning 10% or more of any class of equity securities, or to their associates, or to our affiliates.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not Applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

The exhibits filed or furnished as part of this Quarterly Report on Form 10-Q are set forth on the Exhibit Index below.

Exhibit Number	Description	Form	File No.	Exhibit Filing Date	Exhibit No.	Filed/Furnished Herewith
10.1†	License and Collaboration Agreement, dated as of January 9, 2022, by and between Acadia Pharmaceuticals Inc. and the Registrant.					X
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1*	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2*	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.INS	Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document).					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document.					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.					X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.					X
104	Inline Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101).					X

* This certification is deemed not filed for purposes of section 18 of the Exchange Act or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act of the Exchange Act.

† *Registrant has omitted portions of the exhibit as permitted under Item 601(b)(10) of Regulation S-K.*

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.

STOKE THERAPEUTICS, INC.

Date: May 10, 2022

By: /s/ Edward M. Kaye, M.D.

Edward M. Kaye, M.D.
Chief Executive Officer
(Principal Executive Officer)

Date: May 10, 2022

By: /s/ Stephen J. Tulipano

Stephen J. Tulipano
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

Exhibit 10.1

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF PUBLICLY DISCLOSED

Execution Version

LICENSE AND COLLABORATION AGREEMENT

BY AND BETWEEN

STOKE THERAPEUTICS, INC.

AND

ACADIA PHARMACEUTICALS INC.

JANUARY 9, 2022

LICENSE AND COLLABORATION AGREEMENT

This **License and Collaboration Agreement** (this "**Agreement**") is entered into as of January 9, 2022 (the "**Effective Date**"), by and between Stoke Therapeutics, Inc., a Delaware corporation having offices at 45 Wiggins Avenue, Bedford, MA 01730 ("**Stoke**"), and Acadia Pharmaceuticals Inc. a Delaware corporation having offices at 12830 El Camino Real, Suite 400 San Diego, CA 92130 ("**Acadia**"). Stoke and Acadia are referred to in this Agreement individually as a "**Party**" and collectively as the "**Parties**."

BACKGROUND

WHEREAS, Stoke has developed a proprietary technology platform, TANGO, for identifying antisense oligonucleotides and other compounds for use in treating severe genetic diseases;

WHEREAS, Acadia is a pharmaceutical company engaged in the research, development and commercialization of novel biopharmaceutical products;

WHEREAS, the Parties desire to collaborate to identify one or more Products (as defined herein) for modulating the genes SYNGAP1, MECP2 and [***] for further Development and Commercialization worldwide, in each case as set forth herein;

WHEREAS, in connection with the foregoing, Stoke is willing to grant to Acadia, and Acadia is willing to accept, licenses under certain of Stoke's patents and other intellectual property rights with respect to the Products, all on the terms and conditions herein.

NOW, THEREFORE, in consideration of the promises and mutual covenants herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

ARTICLE 1
DEFINITIONS & INTERPRETATION

Whenever used in this Agreement, the capitalized terms defined in this Article 1 and elsewhere in this Agreement, and any cognates or correlatives thereof, whether used in the singular or plural, shall have the specified meanings.

1.1 "**Acadia Collaboration Know-How**" means any and all Collaboration Know-How generated, developed, conceived or reduced to practice solely by on behalf of Acadia, its Affiliates or Sublicensees in the course of performing activities under this Agreement.

1.2 "**Acadia Housemarks**" means (a) the corporate logo of Acadia, (b) the trademark "Acadia", (c) any other Trademark, trade name, or service mark (whether registered or unregistered) containing the word "Acadia", (d) any other corporate logo or Trademark of Acadia used by Acadia to identify Acadia or any of its Affiliates, and (e) all intellectual property rights and goodwill associated with any and all of the foregoing in clauses (a) through (e).

1.3 "**Acadia SYNGAP1 Know-How**" means, with respect to a SYNGAP1 Co-Co Product, any and all Know-How Controlled by Acadia (or any of its Affiliates) during the Term that is necessary or reasonably useful for the Development, Manufacture or Commercialization such SYNGAP1 Co-Co Product and that is (a) Acadia Collaboration Know-How, (b) Acadia's and its Affiliates' interests in any Joint Collaboration Know-How, or (c) other Know-How Controlled by Acadia that (i) Acadia discloses to Stoke and that the Parties mutually agree to use, and is actually used, in the Development of such SYNGAP1 Co-Co Product under the applicable SYNGAP1 Co-Development Plan, or (ii) is actually used by Acadia in the course of performing its responsibilities under this Agreement (including the applicable SYNGAP1 Co-Development Plan or SYNGAP1 Co-Commercialization Plan) (the Know-How in this clause (c), may include Know-How existing on the Effective Date or during the Term, as applicable, the "**Other Acadia Contributed Know-How**"), but in each case excluding any Acquiring Person Intellectual Property.

1.4 "**Acadia SYNGAP1 Patents**" means, with respect to a SYNGAP1 Co-Co Product, any and all Patent Rights Controlled by Acadia (or any of its Affiliates) during the Term that Cover, or are otherwise necessary or reasonably useful for the Development, Manufacture or Commercialization of, such SYNGAP1 Co-Co Product and that are (a) Collaboration Patents, or (b) other Patent Rights Controlled by Acadia or its Affiliates that claim Other Acadia Contributed Know-How, but in each case excluding any Acquiring Person Intellectual Property.

1.5 "**Acadia SYNGAP1 Technology**" means, with respect to a SYNGAP1 Co-Co Product, the Acadia SYNGAP1 Know-How and the Acadia SYNGAP1 Patents.

1.6 "**Acquiring Person**" means a Third Party (the "**Acquiror**") that acquires a Party through a Change of Control, together with any Affiliates of such Acquiror existing immediately prior to the consummation of the Change of Control. For clarity, an "Acquiring Person" of a Party shall exclude the Party and all of its Affiliates existing immediately prior to the consummation of the Change of Control.

1.7 "**Act**" means, as applicable, the United States Federal Food, Drug and Cosmetic Act, 21 U.S.C. § 301 et seq., as such may be amended from time to time.

1.8 "**Affiliate**" means any entity directly or indirectly controlled by, controlling, or under common control with, a Party to this Agreement, regardless of whether such entity is or becomes an Affiliate on or after the Effective Date, but only for so long as such control exists. For purposes of this definition, "control" (including, with correlative meanings, "controlled by", "controlling" and "under common control with") means (a) possession, direct or indirect, of the power to direct or cause direction of the management or policies of an entity (whether through ownership of securities or other ownership interests, by contract or otherwise), or (b) beneficial ownership of fifty percent (50%) or more (or the maximum ownership interest permitted by Applicable Laws giving control) of the voting securities or other ownership or general partnership interest (whether directly or indirectly) or other comparable equity interests in an entity.

1.9 "**Antisense Oligonucleotide**" or "**ASO**" means an RNA construct (modified or unmodified), including the sequence of such construct and the chemistry of natural and non-natural nucleic acids contained in such construct and the other chemical elements contained in such construct.

1.10 "**Antitrust Filings**" means any required filing or application under any antitrust, competition or other similar Applicable Laws that are designed or intended to prohibit, restrict or regulate actions having the purpose or effect of monopolization or restraint of trade or lessening competition through merger or acquisition, including the HSR Act and similar Applicable Laws of any jurisdiction.

1.11 "**Applicable Laws**" means the applicable provisions of any and all federal, national, supranational, regional, state and local laws, treaties, statutes, rules, regulations, guidelines or requirements, administrative codes, guidance, ordinances, judgments, decrees, directives, injunctions, orders, or permits of or from any court, arbitrator, Regulatory Authority, Governmental Authority, data protection authority, taxing authority, national securities exchange or exchange listing organization having jurisdiction over or related to the relevant subject item that may be in effect from time to time during the Term.

1.12 "**Approved Labeling**" means, with respect to a SYNGAP1 Co-Co Product: (a) the Regulatory Authority-approved full prescribing information for such SYNGAP1 Co-Co Product; and (b) the Regulatory Authority-approved labels and other written, printed, or graphic materials on any container, wrapper, or any package insert that is used with or for such SYNGAP1 Co-Co Product.

1.13 "**Business Day**" means a day other than a Saturday, Sunday or any other day on which banking institutions in Boston, Massachusetts or San Diego, California are authorized or required by Applicable Laws to remain closed.

1.14 "**Calendar Quarter**" means the respective periods of three (3) consecutive calendar months ending on March 31, June 30, September 30, and December 31; provided, however, that the first Calendar Quarter of the Term shall begin on the Effective Date and end on the last day of the then-current Calendar Quarter and the last Calendar Quarter of the Term shall begin on the first day of such Calendar Quarter and end on the last day of the Term.

1.15 "**Calendar Year**" means each successive period of twelve (12) months commencing on January 1 and ending on December 31; provided, however, that the first Calendar Year of the Term shall begin on the Effective Date and end on December 31 of the then-current Calendar Year and the last Calendar Year of the Term shall begin on the first day of such Calendar Year and end on the last day of the Term.

1.16 "**Change of Control**" with respect to a Party, shall be deemed to have occurred if any of the following occurs after the Effective Date:

(i) any Third Party "person" or "group" (as such terms are defined below) (i) is or becomes, through one or a series of transactions, the "beneficial owner" (as defined below), directly or indirectly, of the then-outstanding shares of common stock of such Party (or any direct or indirect parent entity or ultimate parent entity of such Party) representing fifty percent (50%) or more of the total then-outstanding common stock (or foreign equivalent thereof) (the "**Outstanding Common Stock**"), (ii) is or becomes, through one or a series of transactions, the "beneficial owner", directly or indirectly, of shares of securities, capital stock or other interests (including partnership interests) of such Party (or any direct or indirect parent entity or ultimate parent entity of such Party) then-outstanding and normally entitled (without regard to the occurrence of any contingency) to vote in the election of the directors, managers or similar supervisory positions ("**Outstanding Voting Stock**") of such Party (or any direct or indirect parent entity or ultimate parent entity of such Party) representing fifty percent

(50%) or more of the total voting power of all Outstanding Voting Stock of such Party (or any direct or indirect parent entity or ultimate parent entity of such Party) or (iii) has the power, directly or indirectly, to elect a majority of the members of the Party's (or any direct or indirect parent entities or ultimate parent entities of such Party) board of directors (or similar governing body); or

(ii) such Party (or any direct or indirect parent entity or ultimate parent entity of such Party) enters into a merger, consolidation or similar transaction with a Person (whether or not such Party (or any direct or indirect parent entity or ultimate parent entity of such Party) is the surviving entity) (a "**Business Combination**"), in each case, unless, following such Business Combination, (i) the individuals and entities who were the beneficial owners, respectively, of the Outstanding Common Stock and Outstanding Voting Stock of such Party (and the ultimate parent entity thereof) immediately prior to such Business Combination beneficially own, directly or indirectly, fifty percent (50%) or more of, respectively, (1) the then-outstanding shares of common stock (or foreign equivalent thereof) and (2) the combined voting power of the then-outstanding voting securities entitled to vote generally in the election of directors, of the corporation or other entity resulting from such Business Combination (and the ultimate parent entity thereof) and (ii) fifty percent (50%) or more of the members of the board of directors (or similar governing body) of the corporation or other entity resulting from such Business Combination (and ultimate parent entity thereof, as applicable) were members of the board of directors (or similar governing body) of such Party (or ultimate parent entity of such Party, as applicable) at the time of the execution of the initial agreement, or became members of the board of directors of such corporation or other entity by virtue of the action of the board of directors (or similar governing body) of such Party (or ultimate parent entity), providing for such Business Combination; or

(iii) any direct or indirect acquisition or issuance, whether in a single transaction or a series of related transactions, whether by one or more persons or by a group, and whether through any merger, reorganization, consolidation, tender offer, self-tender, exchange offer, stock acquisition, asset acquisition, binding share exchange, business combination, recapitalization, liquidation, dissolution, joint venture or otherwise, of the assets or businesses of such Party or any of its subsidiaries (including securities of subsidiaries) equal to at least a majority of the consolidated assets of such Party of any of its subsidiaries or at least a majority of the net revenues or net income of such Party or any of its subsidiaries (for the 12-month period ending on the last day of such Party's most recently completed fiscal quarter).

For the purpose of this definition of Change of Control, (x) "person" and "group" have the meanings given such terms under Sections 13(d) and 14(d) of the United States Securities Exchange Act of 1934 and the term "group" includes any group acting for the purpose of acquiring, holding or disposing of securities within the meaning of Rule 13d-5(b)(1) under the aforesaid Act;

(y) a "beneficial owner" shall be determined in accordance with Rule 13d-3 under the aforesaid Act, except that a Person shall be deemed to have beneficial ownership of all shares that any such Person has the right to acquire, whether such right which may be exercised immediately or only after the passage of time; and (z) the terms "beneficially owned" and "beneficially own" shall have meanings correlative to that of "beneficial owner."

1.17 "**Clinical Trial**" means any clinical study involving the administration of a product to a human subject.

1.18 "**CMC**" means chemistry, manufacturing and controls.

1.19 "**Collaboration Know-How**" means any and all Know-How, whether patentable or not, that is generated, developed, conceived or reduced to practice by or on behalf of a Party, its Affiliates or Sublicensees in the course of performing activities or exercising rights under this under this Agreement.

1.20 "**Collaboration Patents**" means any and all Patent Rights that claim any Collaboration Know-How.

1.21 "**Collaboration Technology**" means, collectively, the Collaboration Know-How and the Collaboration Patents.

1.22 "**Commercialization Costs**" means, with respect to the Commercialization of a given SYNGAP1 Co-Co Product in the Territory in a given period, the following Internal Costs and External Costs incurred during such period with respect to such SYNGAP1 Co-Co Product in such period, but solely to the extent (a) incurred by a Party (or its Affiliate) as a cost or expense in accordance with U.S. GAAP, (b) directly attributable or reasonably allocable to such SYNGAP1 Co-Co Product, and (c) within the scope of the activities set forth in the applicable SYNGAP1 Co-Commercialization Plan and in accordance with the applicable SYNGAP1 Co-Commercialization Budget (plus any Permitted Commercialization Overage):

(a) costs related to (i) managed care market and marketing, (ii) marketing (including telemarketing), promotion, detailing, advertising, and promotional materials, and (iii) activities related to obtaining reimbursement from payers and costs of sales and marketing data; and (iv) samples;

(b) costs incurred in connection with preparation of the applicable SYNGAP1 Co-Commercialization Plan, including market research, including collection of data regarding competitors, and selection of each SYNGAP1 Co-Co Product Mark;

(c) the Manufacturing Cost for the SYNGAP1 Co-Co Product for use in Commercialization activities;

(d) such costs and expenses associated with MAAs and Regulatory Approval for the SYNGAP1 Co-Co Product in any country in the Territory and the maintenance thereof, including fees and local costs and expenses for pharmacovigilance activities and other regulatory activities;

(e) costs incurred in connection with preparation and approval of SYNGAP1 Co-Co Product Materials to be used by the Parties for the Commercialization of the SYNGAP1 Co-Co Product in the Territory;

(f) costs that are attributable to the distribution of the SYNGAP1 Co-Co Product, including storage and distribution activities, packaging, and labeling of the SYNGAP1 Co-Co Product (to the extent not included in Manufacturing Costs), customer services, collection of data about sales to hospitals and other end users, order entry, billing, credit, and credit and collection services and other such activities;

(g) costs incurred in connection with preparation of training materials and carrying out of the training activities for the Field Force that shall Commercialize the SYNGAP1 Co-Co Product in the Territory;

(h) speakers' programs, including training of such speakers;

(i) operation and maintenance of the Field Force in the Territory, sales bulletins and other communications, sales meetings, call reporting and other monitoring/tracking costs, development and copying of training, motivational and communications materials to the extent relating to the SYNGAP1 Co-Co Product in the Territory, and other services ancillary to the foregoing (to the extent not otherwise falling within Medical Affairs);

(j) reimbursement assistance services or other patient service or distribution related costs, call center set up, maintenance and operation for personnel used in connection therewith;

(k) establishing and conducting one or more training facilities for potential users of the SYNGAP1 Co-Co Product, including trainer costs, facility costs, supplies, and user costs;

(l) patient assistance program costs associated with programs designed to facilitate patient education and access, including engagements with patient advocacy groups (including sponsorships and grants to patient and disease advocacy organizations), patient support programs, co-pay assistance, and patient assistance programs, and any field-based team dedicated to patient access related activities for a SYNGAP1 Co-Co Product;

(m) such costs and expenses associated with the conduct of Medical Affairs activities conducted in connection with the SYNGAP1 Co-Co Product;

(n) costs of any lobbying activities related to the SYNGAP1 Co-Co Product in the Territory;

(o) the cost of product liability insurance for the SYNGAP1 Co-Co Product in the Territory; and

(p) any other categories of expenses incurred in the performance of activities under the SYNGAP1 Co-Commercialization Plan in accordance with the SYNGAP1 Co-Commercialization Budget for a SYNGAP1 Co-Co Product.

Notwithstanding any provision to the contrary set forth in this Agreement, no Development Milestone Payment or Sales Milestone Payment hereunder shall be considered a Development Cost, Commercialization Cost or Other Expense, and no expense included as a Commercialization Cost shall be included as a Development Cost or Other Expense. Commercialization Costs specifically exclude any costs or expenses of a Party or its Affiliates to the extent caused by such Party or its Affiliate's breach of this Agreement.

1.23 "**Commercialize**" means, with respect to a product, any and all activities directed to the offering for sale and sale of such product, including: (a) activities directed to storing, marketing, promoting, detailing, distributing, importing, exporting, selling and offering to sell (including receiving, accepting, and filling orders); (b) handling all returns; (c) controlling invoicing, order processing, and collection of accounts receivable for the sales; (d) booking and recording sales in its books of account, (e) distributing and managing inventory; (f) determining jurisdictions in which MAAs for such product will be made, preparing and submitting such MAAs, and interacting with Regulatory Authorities regarding any of the foregoing (including with respect to labeling); (g) seeking Pricing and Reimbursement Approvals (as applicable), (h) conduct of any Clinical Trials of the product after the receipt of Regulatory Approval for such product for any indication, including conduct of any Phase IV Clinical Trials and coordination of investigator initiated studies Initiated after such initial Regulatory Approval; and (i) Medical Affairs, but excluding in each case (a)-(i) activities to the extent solely directed to Manufacturing or Development. Commercialization shall also include activities related to additional forms, formulations, or indications for a product after receipt of Regulatory Approval of such product. "**Commercialization**," "**Commercializing**," and "**Commercialized**" will be construed accordingly.

1.24 "**Commercially Reasonable Efforts**" means, [***].

1.25 "**Competing Product**" means, [***].

1.26 "**Control**" or "**Controlled**" means, subject to Section 2.6(b), Section 2.6(c) and Section 17.1(b), with respect to any material, Know-How, Patent Rights or other intellectual property rights, the legal authority or right (whether by ownership, license or otherwise, other than pursuant to this Agreement) of a Party or its Affiliates to grant the other Party the access, licenses or sublicenses, of the scope set forth herein, under such material, Know-How, Patent Rights or other intellectual property rights, without violating the terms of any agreement or other arrangement with any Third Party existing at the time such Party would be required hereunder to grant the other Party such access or license or sublicense.

1.27 "**Cover**" means, as to a product and a Patent Right, that, in the absence of a license granted under, or ownership of, such Patent Right, the making, using, selling, offering for sale or importation of such product would infringe such Patent Right or, as to a pending claim included in such Patent Right, the making, using, selling, offering for sale or importation of such product would infringe such Patent Right if such pending claim were to issue in an issued Patent Right without modification.

1.28 "**Develop**" means, with respect to a product, any and all internal and external activities directed to (a) research and development of such product, including non-clinical testing,

toxicology, CMC, non-clinical activities and pre-clinical studies, (b) Clinical Trials for such product (other than those expressly included within Commercialization), and (c) preparation, submission, review, and development of data or information for the purpose of submission to a Regulatory Authority to obtain authorization to conduct Clinical Trials included within the foregoing clause (b). "**Development**," "**Developing**," and "**Developed**" will be construed accordingly.

1.29 "**Development Costs**" means, with respect to the Development of a given SYNGAP1 Co-Co Product in the Territory in a given period, the following Internal Costs and External Costs incurred during such period with respect to such SYNGAP1 Co-Co Product in such period, but solely to the extent (a) incurred by a Party (or its Affiliate) as a cost or expense in accordance with U.S. GAAP, (b) directly attributable or reasonably allocable to such SYNGAP1 Co-Co Product, and (c) within the scope of the activities set forth in the applicable SYNGAP1 Co-Development Plan and in accordance with the applicable SYNGAP1 Co-Development Budget (plus any Permitted Development Overage):

(a) such costs and expenses that are directly attributable or reasonably allocable to Development activities for achieving MAA approval for the SYNGAP1 Co-Co Product in the Territory (and any costs associated with maintaining Regulatory Approval will be considered a "Commercialization Cost" for the purposes of this Agreement);

(b) such costs and expenses that are directly attributable or reasonably allocable to CMC Development activities for the SYNGAP1 Co-Co Product in the Territory;

(c) such costs and expenses incurred in connection with the conduct of any Clinical Trials for the SYNGAP1 Co-Co Product (including the cost of comparator agents used in such Clinical Trial (if any) and advertising costs for recruitment of patients, costs for branding, public relations, and communications plan, including publications and educational programs);

(d) the Manufacturing Cost for the SYNGAP1 Co-Co Product for use in Development activities, including technology transfer costs, the costs for placebo and any Third Party product and validation and registration lots of such SYNGAP1 Co-Co Product;

(e) costs for conducting advisory board meetings or other consultant programs, the purpose of which is to obtain advice and feedback related to the Development of the SYNGAP1 Co-Co Product; and

(f) such costs and expenses for non-clinical activities for the SYNGAP1 Co-Co Product, including, for example, in vivo or in vitro toxicology experiments and corresponding statistical analyses under the applicable SYNGAP1 Research Plan.

Notwithstanding any provision to the contrary set forth in this Agreement, no expense included as a Development Cost shall be included as a Commercialization Cost or Other Expense. For clarity, any Clinical Trials included in "Commercialization Costs" (e.g. post-marketing and Phase IV Clinical Trials) are excluded from "Development Costs." Development Costs specifically exclude any costs or expenses of a Party or its Affiliates to the extent caused by such Party or its Affiliate's breach of this Agreement.

1.30 "**Development Milestone Event**" mean a development milestone event set forth in Section 9.2(a), Section 9.3(a) or Section 9.4(a).

1.31 "**Development Milestone Payment**" means a development milestone payment set forth in Section 9.2(a), Section 9.3(a) or Section 9.4(a).

1.32 "**Development Plan**" means any or all of the MECP2 Development Plan or [***] Development Plan, as the context requires.

1.33 "**Development Program**" means any or all of the MECP2 Development Program or [***] Development Program, as the context requires.

1.34 "**Directed Against**" means, with respect to an ASO or other compound, and with respect to a particular target, that such ASO or other compound is engineered or selected to modulate such target for therapeutic benefit.

1.35 "**Distributor**" means any Third Party that purchases Product from a Party, its Affiliates or Sublicensees for resale in the Territory and such Third Party takes title to such Product; provided, however, that such Third Party does not pay royalties or commissions to such Party or any of its Affiliates or Sublicensees with respect to its resale of such Product. For clarity, a "Distributor" shall not be considered a sublicensee for purposes of this Agreement (even if licenses are granted to such Distributor for purposes of conducting its activities).

1.36 "**Dollar**" means the U.S. dollar, and "$" shall be interpreted accordingly.

1.37 "**EMA**" means the European Medicines Agency or any successor entity thereto.

1.38 "**European Union**" or "**E.U.**" means (i) the United Kingdom, and (ii) the organization of member states of the European Union, as it may be constituted from time to time during the Term.

1.39 "**Executive Officer**" means, respectively, Acadia's Chief Executive Officer (or the officer or employee of Acadia then serving in a substantially equivalent capacity) and Stoke's Chief Executive Officer (or the officer or employee of Stoke then serving in a substantially equivalent capacity).

1.40 "**Exploit**" means, with respect to a Product, to make, use, offer to sell, sell, import, export, practice, research, develop, manufacture commercialize or otherwise exploit (including Develop, Manufacture, perform Medical Affairs activities and Commercialize), and have others do the same.

1.41 "**External Costs**" mean costs and expenses paid to Third Parties (or payable to Third Parties and accrued in accordance with U.S. GAAP) by a Party or its Affiliate and incurred in the performance of the relevant activity under this Agreement, including the cost of materials (including taxes and duties thereon) and services, but excluding any (a) capital expenditures and financing costs, and (b) any items included under the FTE Rate. For clarity, with respect to any Clinical Trial, External Costs include all payments made to Third Parties providing services in connection with the conduct of such study, including study sites (including start-up fees and patient

visit fees), laboratory services providers and contract research organizations, and any related logistics cost (such as shipping, insurance and storage costs of clinical supply).

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

1.43 "**Field**" means any and all uses.

1.44 "**Field Force**" means, for a given SYNGAP1 Co-Co Product and a given country, the full set of sales representatives, field managers, district managers, regional managers, national sales managers, regional trainers, medical science trainers and the training department and other personnel allocated by the Parties for the Promotion of such SYNGAP1 Co-Co Product in such country.

1.45 "**First Commercial Sale**" means, with respect to a Product, the first sale of such Product by a Party, its Affiliate or Sublicensee to a Third Party for distribution, use or consumption in any country in the Territory after Regulatory Approval has been obtained for such Product in such country, excluding, however, any sale or other distribution for use in a Clinical Trial.

1.46 "**FTE**" means a qualified full-time person, or more than one person working the equivalent of a full-time person, performing activities under a Research Plan, SYNGAP1 Co-Development Plan or SYNGAP1 Co-Commercialization Plan (including any Medical Affairs plan thereunder). Overtime, and work on weekends, holidays and the like will not be counted with any multiplier (e.g., time-and-a-half or double time) toward the number of hours that are used to calculate the FTE contribution. The portion of an FTE billable by a Party for one (1) employee during a given accounting period will be determined by (a) dividing the number of hours worked directly by such employee on the work to be conducted under this Agreement during such accounting period by the number of FTE hours applicable for such accounting period based on [***] working hours per Calendar Year, or (b) to the extent applicable to a Party and its tracking methodologies, the appropriate allocation by a Party of a given individual to activities performed hereunder (e.g., 85% of a given individual's total hours). FTE efforts will include the work of the JSC, membership oversight activities, and alliance management, but will exclude executive management, general corporate, legal, or administrative personnel. FTEs will be pro-rated on a daily basis if necessary.

1.47 "**FTE Rate**" means [***] per FTE per Calendar Year, and which rate, beginning in the Calendar Year 2023, is subject to annual adjustment in each Calendar Year during the Term as agreed by the JSC based on the percentage increase or decrease in the Consumer Price Index for All Urban Consumers (CPI-U) published by the U.S. Bureau of Labor Statistics as of December 31 of each Calendar Year, over the level of such Consumer Price Index as of December 31 of the prior Calendar Year, with the first such increase to be effective on January 1, 2023. Notwithstanding the foregoing, for any Calendar Year during the Term that is less than a full year, the above referenced rate shall be proportionately reduced to reflect such portion of such full Calendar Year. For avoidance of doubt, the FTE Rate is hereby deemed to include all direct and indirect internal costs associated with a given FTE for purposes of allocating costs under this Agreement, including all wages and salaries, employee benefits, bonus, taxes, travel and entertainment, costs associated with facilities usage (including conducting internal experiments,

studies or analyses), administrative support and access to and use of equipment, consumables, materials, and laboratory supplies (to the extent not included as a separate cost in the applicable Research Plan, SYNGAP1 Co-Development Plan or SYNGAP1 Co-Commercialization Plan), costs directly allocable to FTEs, such as costs for property and liability insurance, rent, utilities, HR and IT support, repairs, office supplies, internet and telephone, and no such other direct or indirect costs shall be included in the determination of cost allocation hereunder. The FTE Rate will in no case include general and administrative personnel costs (other than those set forth herein), such as costs of general company management, or financial, legal or business development personnel costs. For clarity, the FTE Rate will not include manufacturing plant overhead that is included in the definition of Manufacturing Costs.

1.48 **"Generic Drug or Biosimilar Product**" means, with respect to a Product, and on a Product-by-Product and country-by-country basis, any product (including a "generic product," "generic drug," "biogeneric," "follow-on biologic," "follow-on biological product," "follow-on protein product," "similar biological medicinal product," or "biosimilar product") approved by way of an abbreviated regulatory mechanism by the relevant Regulatory Authority in a country in reference to such Product, that in each case: (a) is sold in the same country (or is commercially available in the same country via import from another country) as such Product by any Third Party that is not a Sublicensee of the applicable Party or any of its Affiliates and that did not purchase such product in a chain of distribution that included any of the applicable Party or any of its Affiliates or its Sublicensees; and (b) meets the applicable equivalency determination by the applicable Regulatory Authority in such country (including, as applicable, a determination that the product is "comparable," "interchangeable," "bioequivalent," "biosimilar" or other term of similar meaning, with respect to the Product), in each case, as is necessary to permit substitution of such product for the Product under Applicable Laws in such country, including, with respect to the U.S., a Product with an approved Abbreviated New Drug Application under Section 505(j) of the Act (21 U.S.C. 355(j)) or a Product licensed as a "biosimilar" or "interchangeable" biological product under Section 351(k) of the PHSA (42 U.S.C. 262(k)), or, outside the United States, in accordance with European Directive 2001/83/EC on the Community Code for medicinal products (Article 10(4) and Section 4, Part II of Annex I) and European Regulation EEC/2309/93 establishing the Community procedures for the authorization and evaluation of medicinal products, each as amended, and together with all associated guidance, and any counterparts thereof or equivalent process inside or outside of the United States or EU to the foregoing.

1.49 "**GLP Tox Study**" means, with respect to a Molecule, Clinical Candidate or a Product, an *in vivo* toxicology study that is conducted pursuant to a Research Plan in compliance with Good Laboratory Practices.

1.50 "**Good Clinical Practices**" or "**GCP**" means the applicable then-current standards for clinical activities for pharmaceuticals or biologicals, as set forth in the Act and any regulations or guidance documents promulgated thereunder, as amended from time to time, together with, with respect to work performed in a country other than the United States, any similar standards of good clinical practice as are required by any Regulatory Authority in such country, to the extent such standards are not less stringent than applicable U.S. standards or ICH Guidelines, including ICH E6.

1.51 "**Good Laboratory Practices**" or "**GLP**" means the applicable then-current standards for laboratory activities for pharmaceuticals or biologicals, as set forth in the Act and any regulations or guidance documents promulgated thereunder, as amended from time to time, together with, with respect to work performed in a country other than the United States, any similar standards of good laboratory practice as are required by any Regulatory Authority in such country.

1.52 "**Good Manufacturing Practices**" or "**GMP**" means the applicable then-current standards for conducting Manufacturing activities for pharmaceuticals or biologicals (or active pharmaceutical ingredients) as are required by any applicable Regulatory Authority in the Territory, to the extent such standards are not less stringent than applicable U.S. standards as provided in, but not limited to, 21 C.F.R. Parts 210 and 211, or ICH Guidelines, including ICH Q7.

1.53 "**Governmental Authority**" means any federal, state, national, state, provincial, or local government, or political subdivision thereof, or any multinational organization or any authority, agency or commission entitled to exercise any administrative, executive, judicial, legislative, police, regulatory or taxing authority or power, or any court or tribunal (or any department, bureau or division thereof, or any governmental arbitrator or arbitral body).

1.54 "**H-W Notice Letter**" has the meaning set forth in Section 14.5.

1.55 "**Hatch-Waxman Act**" means rights conferred in the U.S. under the Drug Price Competition and Patent Term Restoration Act, 21 U.S.C. §355, as amended (or any successor statute or regulation).

1.56 "**IND**" means an investigational new drug application filed with the FDA or any similar application filed with a Regulatory Authority in a country other than the U.S. required to commence Clinical Trials of a pharmaceutical product.

1.57 "**Initiation**" means, with respect to a Clinical Trial, the administration of the first dose of the product being studied to the first human subject in such Clinical Trial.

1.58 "**Internal Costs**" means, for any period, the product obtained by *multiplying* (i) the actual total FTEs (or portion thereof) devoted to the performance of the relevant activities as specifically set forth in the applicable Research Plan, SYNGAP1 Co-Development Plan or SYNGAP1 Co-Commercialization Plan, in each case, during such period, *by* (ii) the applicable FTE Rate.

1.59 "**Joint Collaboration Know-How**" means any and all Collaboration Know-How that is generated, developed, conceived or reduced to practice jointly by or on behalf of both (i) Acadia, its Affiliates or Sublicensees, and (ii) Stoke, its Affiliates or Sublicensees.

1.60 "**Joint Collaboration Patents**" means any and all Patent Rights that claim Joint Collaboration Know-How, but do not claim Acadia Collaboration Know-How or Stoke Collaboration Know-How.

1.61 "**Know-How**" means any proprietary scientific or technical information, inventions, discoveries, results and data of any type whatsoever, in any tangible or intangible form,

including inventions, discoveries, databases, safety information, practices, methods, instructions, techniques, processes, drawings, documentation, specifications, formulations, formulae, knowledge, know-how, trade secrets, materials, skill, experience, test data and other information and technology applicable to formulations, compositions or products or to their manufacture, development, registration, use, marketing or sale or to methods of assaying or testing them, including pharmacological, pharmaceutical, medicinal chemistry, biological, chemical, biochemical, toxicological and clinical test data, physical and analytical, safety, quality control data, manufacturing, and stability data, materials, studies and procedures, and manufacturing process and development information, results and data.

1.62 "**Licensed Product**" means any MECP2 Licensed Product, [***] Licensed Product or SYNGAP1 Opt-Out Product, or all of the foregoing, as the context requires.

1.63 "**Licensed Product Patents**" means, with respect to a Molecule or Clinical Candidate (or any modification or derivative of such Molecule or Clinical Candidate), the Stoke MECP2 Patents, Stoke [***] Patents, Stoke SYNGAP1 Patents or Joint Collaboration Patents, as applicable, that have at least one claim that claims the composition of a Molecule or Clinical Candidate or any use thereof, or any modification or derivative of such Molecule or Clinical Candidate, or any formulation, method of use or method of manufacture of such Molecule or Clinical Candidate or any modification or derivative of such Molecule or Clinical Candidate.

1.64 [***].

1.65 "**Major Market**" means [***}.

1.66 "**Manufacture**" means, with respect to a product, any and all manufacturing-related activities that support the Development and Commercialization, including seeking and obtaining of Regulatory Approval, as applicable, of such product, including manufacturing process development and scale-up, validation, qualification and audit of clinical and commercial manufacturing facilities, bulk production and fill/finish work, stability testing, characterization, related quality assurance technical support activities and CMC activities, and including the synthesis, manufacturing, processing, formulating, packaging, labeling, holding, quality control testing and release of such product. "**Manufacturing**" and "**Manufactured**" will be construed accordingly.

1.67 "**Manufacturing Cost**" has the meaning set forth in Schedule 1.67.

1.68 "**Marketing Authorization Application**" or "**MAA**" means (a) any New Drug Application (as defined in the Act), any Biologics License Application (as defined in the PHSA) and applicable regulations promulgated thereunder by the FDA filed with the FDA to gain approval to market a pharmaceutical product in the U.S., (b) a marketing authorization application filed with (i) the EMA under the centralized EMA filing procedure to gain approval to market a biopharmaceutical in the E.U., or (ii) a Regulatory Authority in any E.U. country if the centralized EMA filing procedure is not used to gain approval to market a biopharmaceutical in the E.U., or (c) any other equivalent or related Regulatory Material filed in support of approval to market a biopharmaceutical in any country outside of the U.S. or E.U., and, in each case ((a) through (c)),

including any amendments thereto, and supplemental applications, but excluding applications for Pricing and Reimbursement Approval.

1.69 "**Material Communications**" means written, telephonic, or in person communications from or with any Regulatory Authority (including any meeting minutes from any meetings with any Regulatory Authority) concerning any of the following: key product quality attributes (e.g., purity), safety findings (e.g., serious adverse events, emerging safety signals), clinical or non-clinical findings affecting patient safety, lack of efficacy, receipt or denial of Regulatory Approval, the design of Clinical Trials, or the need for additional non clinical studies or pre-clinical studies (e.g., additional toxicology or carcinogenicity studies).

1.70 "**MECP2 Licensed Product**" means (a) a product containing or comprising, as an active ingredient (i) a Molecule arising out of the MECP2 Research Program, including any such Molecule that is a Clinical Candidate, (ii) a Molecule Directed Against MECP2 that is owned or Controlled by Stoke as of the Effective Date or (iii) any modification or derivative of a Molecule identified in clause (i) or (ii), which Molecule is Directed Against MECP2, and (b) any and all forms, presentations, delivery systems, dosages, and formulations of a product described in (a).

1.71 "**Medical Affairs**" means, with respect to a product, any and all activities for conducting medical affairs for such product, including field medical (medical scientific liaisons and payor liaisons), medical information and health economics outcomes research, development and execution of strategic and tactical medical product plans, generation of clinical and health economic outcomes data via post hoc analyses and real world evidence studies; development of economic models, production of value dossiers, key opinion leader strategy development and communications, generation and execution of responses to medical information requests, publication of scientific findings, presentations at medical scientific congresses and virtual medical engagements; medical education, symposia, congresses, advisory boards (to the extent related to Medical Affairs or clinical guidance), conducting health economics and outcomes research, conducting medical science liaison activities, activities performed in connection with patient registries, and other medical programs and communications, including continuing education grants, and research grants (including conducting investigator-initiated studies), to the extent related to medical scientific affairs and not to other activities that involve the promotion, marketing, sale, or other Commercialization of such product.

1.72 "**Net Sales**" means, with respect to any Product, the gross amounts invoiced by (i) a Party or its Affiliate and (ii) with respect to any such Product that is a Licensed Product, any Sublicensee thereof (any such entity of (i) and (ii), a "**Selling Party**") to Third Party customers for sales of such Product in the Territory, less the following deductions actually incurred, allowed, paid, accrued or specifically allocated in its financial statements for such Product, all in accordance with U.S. GAAP, consistently applied, for:

(a) [***];

(b) [***];

(c) [***];

(d) [***];

(e) [***];

(f) [***]; and

(g) [***].

Such amounts shall be determined from the books and records of such Party or its Sublicensee maintained in accordance with U.S. GAAP or, in the case of Sublicensees, such similar accounting principles, consistently applied. Net Sales shall not be imputed to transfers of Products for use in clinical trials, non-clinical Development activities or other Development activities with respect to Products, as applicable, by or on behalf of the Parties, for bona fide charitable purposes or for compassionate use, patient program or for Product samples, in each case if no monetary consideration exceeding the cost of goods for such Product is received for such transfers.

In the event that a Licensed Product is sold as part of a Combination Product (where "**Combination Product**" means any single-priced product(s) which comprises the Licensed Product and one or more Other Active Ingredients ("**Other Product(s)**")), the Net Sales of such Licensed Product, for the purposes of determining royalty payments, shall be determined by [***].

In the event that the weighted average sale price of the Licensed Product can be determined but the weighted average sale price of the Other Product(s) cannot be determined, Net Sales for purposes of determining royalty payments shall be calculated by [***].

In the event that the weighted average sale price of the Other Product(s) can be determined but the weighted average sale price of the Licensed Product cannot be determined, Net Sales for purposes of determining royalty payments shall be calculated by [***].

In the event that the weighted average sale price of both the Licensed Product and the Other Product(s) in the Combination Product cannot be determined, the Parties shall enter into good faith negotiations to determine the appropriate value to be allocated to the Licensed Product and the Other Product(s).

The weighted average sale price for a Licensed Product, Other Product, or Combination Product shall be calculated [***] and such price shall be used during all applicable royalty reporting periods for [***]. When determining the weighted average sale price of a Licensed Product, Other Product or Combination Product, the weighted average sale price shall be calculated by [***]. In the initial [***], a forecasted weighted average sale price shall be used for the Licensed Product, Other Products or Combination Product. Any over or under payment in the initial year due to a difference between forecasted and actual weighted average sale prices shall be paid or credited in the first royalty payment of the following [***].

Adjuvants and excipients shall not be deemed to be "active compound(s) or ingredients" except where such adjuvant or excipient is recognized by the FDA as an active ingredient in accordance with 21 C.F.R. § 210.3(b)(7).

For avoidance of doubt, for purposes of determining the Net Sales of any SYNGAP1 Co-Co Product that includes an Other Active Ingredient, no adjustment will be made to the Net Sales

based on the weighted average sale price of the SYNGAP1 Co-Co Product or the Other Active Ingredient, and the determination of costs and revenues from any such SYNGAP1 Co-Co Product will be determined in accordance with Section 9.6.

1.73 "**NMPA**" means the National Medical Licensed Products Administration in China, and local counterparts thereto, or any successor entity thereto.

1.74 "[*****] Licensed Product**" means (a) a product containing or comprising, as an active ingredient (i) a Molecule arising out of the [***] Research Program, including any such Molecule that is a Clinical Candidate, (ii) a Molecule Directed Against [***] that is owned or Controlled by Stoke as of the Effective Date or (iii) any modification or derivative of a Molecule identified in clause (i) or (ii), which Molecule is Directed Against [***], and (b) any and all forms, presentations, delivery systems, dosages, and formulations of a product described in (a).

1.75 "**Opt-Out Party**" means (i) Stoke after it exercised its Development Opt-Out Right pursuant to Section 8.1(a) or (ii) Stoke after it exercised its Commercialization Opt-Out Right pursuant to Section 8.2(a), as the case may be.

1.76 "**Other Active Ingredient**" means a clinically active material(s), other than a Molecule (or modification or derivative thereof that is Directed Against the applicable Target), that provides pharmacological activity in a biopharmaceutical or pharmaceutical product, excluding formulation components such as coatings, stabilizers, excipients or solvents, adjuvants or delivery technologies.

1.77 "**Other Expenses**" means, with respect to the Exploitation of a SYNGAP1 Co-Co Product in the Territory in a given period, the following items, but solely to the extent (a) incurred by a Party (or its Affiliate) as a cost or expense in accordance with U.S. GAAP, and (b) directly attributable or reasonably allocable to the Exploitation of such SYNGAP1 Co-Co Product:

(a) Losses arising from any Third Party Claim relating to the Exploitation of such SYNGAP1 Co-Co Product in the Territory, including fees and disbursements to counsel, incurred by either Party in connection with the defense of any such Third Party Claim brought in the Territory that are expressly permitted to be applied as Other Expenses pursuant to Section 13.2;

(b) Third Party Co-Co In-License Payments under Third Party Co-Co In-License Agreements;

(c) Internal Costs and External Costs incurred in connection with the performance of regulatory activities for the Territory to the extent not included in Development Costs or Commercialization Costs;

(d) Internal Costs and External Costs of conducting a recall of a SYNGAP1 Co-Co Product in the Territory

(e) Pharmacovigilance Costs;

(f) Shared Patent Enforcement Costs;

(g) Trademark Costs; and

(h) External Costs incurred in connection with the negotiation of an agreement with a Third Party licensee or sublicensee under Section 2.2(b)(i)(B)(including legal costs and attorneys' fees).

No expense included as an Other Expense shall also be included as a Commercialization Cost, or Development Cost. Other Expenses specifically exclude any costs or expenses of a Party or its Affiliates to the extent caused by such Party or its Affiliate's breach of this Agreement.

1.78 "**Packaging and Labeling**" means, with respect to a SYNGAP1 Co-Co Product, primary, secondary, or tertiary packaging and labeling of such SYNGAP1 Co-Co Product (in its commercial packaging presentation) for sale or use in the Territory, consistent with respect to the applicable SYNGAP1 Co-Commercialization Plan, including the Approved Labeling and insertion of materials such as patient inserts, patient medication guides, and professional inserts and any other written, printed, or graphic materials accompanying such SYNGAP1 Co-Co Product and any brand security or anti-counterfeiting measures included in the packaging elements for such SYNGAP1 Co-Co Product considered to be part of the finished packaged SYNGAP1 Co-Co Product, and all testing and release thereof.

1.79 "**Patent Rights**" means: (a) pending patent applications, issued patents, utility models and designs; (b) reissues, substitutions, confirmations, registrations, validations, re-examinations, additions, continuations, continued prosecution applications, continuations-in-part, or divisions of or to any of the foregoing; and (c) extensions, renewals or restorations of any of the foregoing by existing or future extension, renewal or restoration mechanisms, including supplementary protection certificates or the equivalent thereof.

1.80 "**Person**" means an individual, corporation, partnership, limited liability company, limited partnership, trust, business trust, association, joint stock company, joint venture, syndicate, sole proprietorship, unincorporated organization, Governmental Authority or any other form of entity not specifically listed herein.

1.81 "**Pharmacovigilance Costs**" means, with respect to a SYNGAP1 Co-Co Product, those Internal Costs and External Costs, in each case, directly attributable or reasonably allocable to the performance of any activities related to pharmacovigilance for such SYNGAP1 Co-Co Product, including establishing, updating, and maintaining a global safety database for such SYNGAP1 Co-Co Product and the performance of any other activities under the Pharmacovigilance Agreement.

1.82 "**Phase I/II Clinical Trial**" means, with respect to a product, a Clinical Trial that provides for the first introduction of such product into patients in a target patient population with the primary purpose of determining safety, metabolism and pharmacokinetic properties and clinical pharmacology of such product, in a manner that is consistent with U.S. 21 C.F.R. 312.21(a) or corresponding foreign regulations, and that is also prospectively designed to generate sufficient data (if successful) to support the commencement of a Phase III Clinical Trial for, or to file for accelerated approval of, such product.

1.83 "**Phase III Clinical Trial**" means, with respect to a product, a Clinical Trial performed to gain evidence with statistical significance of the efficacy of such product in a target population and to obtain expanded evidence of safety for such product that is needed to evaluate the overall benefit-risk relationship of such product, to form the basis for approval of an MAA by a Regulatory Authority and to provide an adequate basis for physician labeling, as described in 21 C.F.R. 312.21(c), as amended from time to time, or the corresponding regulation in jurisdictions other than the United States.

1.84 "**Phase IV Clinical Trial**" means a post-registrational Clinical Trial conducted in any country or countries and required as a condition to, or for the maintenance of, any Regulatory Approval for a Product in the Territory.

1.85 "**PHSA**" means the United States Public Health Service Act, as may be amended, or any subsequent or superseding law, statute or regulation.

1.86 "**PMDA**" means the Japanese Pharmaceuticals and Medical Devices Agency or any successor entity thereto.

1.87 "**Pricing and Reimbursement Approval**" means, with respect to any country or jurisdiction in which one or more Governmental Authorities determine or approve the pricing at which a product will be charged to, or reimbursed by, public or private payors, the approval, agreement, determination or decision by such applicable Governmental Authority(ies) establishing the pricing and reimbursement status for such product for any such payor or group of payors (including all activities related to tenders and contracts).

1.88 "**Pricing Matters**" means, with respect to a SYNGAP1 Co-Co Product, all issues and decisions regarding price, price terms and other contract terms with respect to such SYNGAP1 Co-Co Product sales in the Territory, including discounts, rebates, other price concessions and service fees to payors and purchasers and includes all financial issues and financial decisions with respect to contracting with managed care entities, hospitals, pharmacies, group purchasing organizations, pharmacy benefit managers, and government, and specifically includes issues and decisions about the offer of discounts or rebates for formulary placement for such SYNGAP1 Co-Co Product.

1.89 "**Product**" means any or all MECP2 Licensed Products, [***] Licensed Products, SYNGAP1 Co-Co Products or SYNGAP1 Opt-Out Products, as the context requires.

1.90 "**Program**" means each Research Program corresponding to a Target, and references to a Program hereunder refer to such Program both during the applicable Research Term and thereafter for the Term (including the applicable Target and related Products).

1.91 "**Promotion**" means, with respect to a given SYNGAP1 Co-Co Product, any activities aimed at encouraging the use of such SYNGAP1 Co-Co Products in a country, including marketing, promoting, conducting calls and details, contract administration, key account management and advertising (including educating, speaking programs and promotional symposia).

1.92 "**Prosecute and Maintain**" means activities directed to (a) preparing, filing and prosecuting applications (of all types) for any Patent Rights, or (b) managing or settling any patent

office or regulatory agency interference, re-issue, reexamination, supplemental examination, inter partes or post-grant review proceedings, revocation, nullification, or cancellation proceeding relating to the foregoing (but excluding, for clarity, defense of challenges to the applicable Patent Rights as a counterclaim in an infringement proceeding).

1.93 "**Regulatory Approval**" means, collectively, any and all approvals (including supplements, amendments, pre- and post-approvals, Pricing and Reimbursement Approvals), licenses, registrations, permits, notifications, and authorizations (including marketing and labeling authorizations) or waivers of any Regulatory Authority that are necessary for the testing, research, development, registration, manufacture (including formulation), use, storage, import, export, transport, promotion, marketing, distribution, offer for sale, sale or other commercialization of a pharmaceutical product (including any Product) in any country or jurisdiction.

1.94 "**Regulatory Authority**" means any Governmental Authority, including the FDA, EMA, NMPA, PMDA or any health regulatory authority in any country or jurisdiction that is a counterpart to the foregoing agencies, in each case, that holds responsibility for the Development, Manufacture, distribution, importation, exportation and Commercialization of, and the granting of Regulatory Approval for, a pharmaceutical product in such country or jurisdiction.

1.95 "**Regulatory Exclusivity**" means, with respect to a Product in any country in the Territory, a period of data or marketing exclusivity (other than Patent Rights exclusivity) granted or afforded by applicable Law or by a Regulatory Authority in such country that prevents the approval or marketing of any Generic Drug or Biosimilar Product of such Product in such country, including reference product exclusivity under Section 351(k)(7)(C) of the PHSA and pediatric exclusivity under Section 351(m) of the same and any foreign equivalents.

1.96 "**Regulatory Filing**" means any documentation comprising or relating to or supporting any submission or application with any Regulatory Authority with respect to a Product or its use or potential use in humans, including any documents submitted to any Regulatory Authority and all supporting data, including INDs, Regulatory Approval applications, and all correspondence with any Regulatory Authority with respect to any Product (including minutes of any meetings, telephone conferences or discussions with any Regulatory Authority).

1.97 "**Regulatory Materials**" means all Regulatory Filings, regulatory registrations, applications, authorizations, approvals (including approvals of MAAs, supplements and amendments, pre- and post-approvals, Pricing and Reimbursement Approvals and labeling approvals, and INDs) and other submissions made to or with any Regulatory Authority, including drug master files, for Development (including the conduct of Clinical Trials), Manufacture or Commercialization of a pharmaceutical product in a country or regulatory jurisdiction, together with all related correspondence to or from any Regulatory Authority and all documents referenced in the complete regulatory chronology for each MAA, including any US Certificate of Pharmaceutical Product.

1.98 "**Research Budget**" means any or all of the MECP2 Research Budget, [***] Research Budget or SYNGAP1 Research Budget, as the context requires.

1.99 "**Research Costs**" means, with respect to a given Research Plan in a given period, the Internal Costs and External Costs (a) incurred by Stoke (or its Affiliate) during such period as a cost or expense in accordance with U.S. GAAP, (b) directly attributable or reasonably allocable to the applicable Target, and (c) within the scope of the activities set forth in the applicable Research Plan and in accordance with the applicable Research Budget (plus any Permitted Research Overage).

1.100 "**Research Plan**" means any or all of the MECP2 Research Plan, [***] Research Plan or SYNGAP1 Research Plan, as the context requires.

1.101 "**Research Program**" means any or all of the MECP2 Research Program, [***] Research Program or SYNGAP1 Research Program, as the context requires.

1.102 "**Research Term**" means, with respect to a Research Program, the period of time beginning on the Effective Date and ending [***], as may be extended pursuant to Section 4.3.

1.103 "**Sales Milestone Event**" mean a sales milestone event set forth in Section 9.2(b), Section 9.3(b) or Section 9.4(b).

1.104 "**Sales Milestone Payment**" means a sales milestone payment set forth in Section 9.2(b), Section 9.3(b) or Section 9.4(b).

1.105 "**Segregate**" means, with respect to an Acquiring Person COC Program or Acquired COC Program, to segregate the research, development and commercialization activities relating to such Acquiring Person COC Program or Acquired COC Program, from research, development and commercialization activities with respect to the Product under this Agreement, including (i) ensuring that: (a) no personnel involved in performing the research, development or commercialization, as applicable, of such Acquiring Person COC Program or Acquired COC Program are involved in the research, development or commercialization of, or otherwise have access to non-public plans or non-public information relating to the research, development or commercialization of, the Product or any other Confidential Information of either Party or any Collaboration Know-How; and (b) no personnel involved in performing the research, development or commercialization of the Product are involved in the research, development or commercialization of, or otherwise have access to non-public plans or information relating to, the research, development or commercialization of such Acquiring Person COC Program or Acquired COC Program, provided that in either case ((a) or (b)), applicable personnel within a Party's (or its Affiliates') financial functions may review financial information with respect to the Acquiring Person COC Program or Acquired COC Program as necessary to comply with its financial oversight and reporting obligations, (ii) establishing reasonable firewall protections and safeguards (that are reasonably acceptable to the other Party) designed to ensure that research, development or commercialization, as applicable, of such Acquiring Person COC Program or Acquired COC Program is segregated from the research, development or commercialization of the Product and (iii) ensuring that the research, development or commercialization, as applicable, of such Acquiring Person COC Program or Acquired COC Program does not delay or otherwise inhibit the conduct of the research, development or commercialization, as applicable, of the Product hereunder.

1.106 "**Stoke Collaboration Know-How**" means any and all Collaboration Know-How generated, developed, conceived or reduced to practice solely by or on behalf of Stoke, its Affiliates or Sublicensees in the course of performing activities under this Agreement.

1.107 "**Stoke Existing In-License**" means all license agreement(s) between Stoke or its Affiliate and a Third Party pursuant to which Stoke or its Affiliate Controls any of the Stoke MECP2 Technology, Stoke [***] Technology or Stoke SYNGAP1 Technology as of the Effective Date. Schedule 1.107 includes all Stoke Existing In-Licenses.

1.108 "**Stoke Housemarks**" means (a) the corporate logo of Stoke, (b) the trademark "Stoke", (c) any other Trademark, trade name, or service mark (whether registered or unregistered) containing the word "Stoke", (d) any other corporate logo or Trademark of Stoke used by Stoke to identify Stoke or any of its Affiliates, and (e) all intellectual property rights and goodwill associated with any and all of the foregoing in clauses (a) through (e).

1.109 "**Stoke MECP2 Know-How**" means any and all Know-How Controlled by Stoke (or any of its Affiliates) as of the Effective Date or during the Term that is necessary or reasonably useful for the Development, Manufacture or Commercialization of MECP2 Licensed Products, including (a) any such Know-How that is Stoke Collaboration Know-How, (b) Stoke's and its Affiliates' interests in any Joint Collaboration Know-How, and (c) other Know-How Controlled by Stoke that (i) Stoke discloses to Acadia and that the Parties mutually agree to use, and is actually used, in the Development of such MECP2 Licensed Products under the MECP2 Research Plan or MECP2 Development Plan, or (ii) is actually used by Stoke in the course of performing its responsibilities under this Agreement (including under the MECP2 Research Plan or MECP2 Development Plan) but in each case excluding any Acquiring Person Intellectual Property.

1.110 "**Stoke MECP2 Patents**" means any and all Patent Rights Controlled by Stoke (or any of its Affiliates) as of the Effective Date or during the Term, that Cover, or are otherwise necessary or reasonably useful for the Development, Manufacture or Commercialization of, the MECP2 Licensed Products, including Stoke's and its Affiliates' interests in any such Patent Rights that are Joint Collaboration Patents, but excluding any Acquiring Person Intellectual Property. All Stoke MECP2 Patents as of the Effective Date are set forth on Schedule 1.110.

1.111 "**Stoke MECP2 Technology**" means the Stoke MECP2 Know-How and the Stoke MECP2 Patents.

1.112 "**Stoke [***] Know-How**" means any and all Know-How Controlled by Stoke (or any of its Affiliates) as of the Effective Date or during the Term that is necessary or reasonably useful for the Development, Manufacture or Commercialization of [***] Licensed Products, including (a) any such Know-How that is Stoke Collaboration Know-How, (b) Stoke's and its Affiliates' interests in any Joint Collaboration Know-How and (c) other Know-How Controlled by Stoke that (i) Stoke discloses to Acadia and that the Parties mutually agree to use, and is actually used, in the Development of such [***] Licensed Products under the [***] Research Plan or [***] Development Plan, or (ii) is actually used by Stoke in the course of performing its responsibilities under this Agreement (including under the [***] Research Plan or [***] Development Plan) but in each case excluding any Acquiring Person Intellectual Property.

1.113 "**Stoke [***] Patents**" means any and all Patent Rights Controlled by Stoke (or any of its Affiliates) as of the Effective Date or during the Term, that Cover, or are otherwise necessary or reasonably useful for the Development, Manufacture or Commercialization of, the [***] Licensed Products, including Stoke's and its Affiliates' interests in any such Patent Rights that are Joint Collaboration Patents, but excluding any Acquiring Person Intellectual Property. All Stoke [***] Patents as of the Effective Date are set forth on Schedule 1.113.

1.114 "**Stoke [***] Technology**" means the Stoke [***] Know-How and the Stoke [***] Patents.

1.115 "**Stoke SYNGAP1 Know-How**" means, with respect to a SYNGAP1 Co-Co Product, any and all Know-How Controlled by Stoke (or any of its Affiliates) as of the Effective Date or during the Term that is necessary or reasonably useful for the Development, Manufacture or Commercialization such SYNGAP1 Co-Co Product and that is (a) Stoke Collaboration Know-How, (b) Stoke's and its Affiliates' interests in any Joint Collaboration Know-How, or (c) other Know-How Controlled by Stoke that (i) Stoke discloses to Acadia and that the Parties mutually agree to use, and is actually used, in the Development of such SYNGAP1 Co-Co Product under the SYNGAP1 Research Plan or applicable SYNGAP1 Co-Development Plan or SYNGAP1 Co-Commercialization Plan, or (ii) is actually used by Stoke in the course of performing its responsibilities under this Agreement (including under the SYNGAP1 Research Plan or applicable SYNGAP1 Co-Development Plan or SYNGAP1 Co-Commercialization Plan) (the Know-How in this clause (c), "**Other Stoke Contributed Know-How**"), but in each case excluding any Acquiring Person Intellectual Property.

1.116 "**Stoke SYNGAP1 Patents**" means, with respect to a SYNGAP1 Co-Co Product, any and all Patent Rights Controlled by Stoke (or any of its Affiliates) as of the Effective Date or during the Term that Cover, or are otherwise necessary or reasonably useful for the Development, Manufacture or Commercialization of, such SYNGAP1 Co-Co Product and that are (a) Collaboration Patents, or (b) other Patent Rights Controlled by Stoke or its Affiliates that claim Other Stoke Contributed Know-How, but in each case excluding any Acquiring Person Intellectual Property. All Stoke SYNGAP1 Patents as of the Effective Date are set forth on Schedule 1.116.

1.117 "**Stoke SYNGAP1 Technology**" means the Stoke SYNGAP1 Know-How and the Stoke SYNGAP1 Patents.

1.118 "**Sublicensee**" means a Third Party that is granted a license or sublicense to research, develop, make, have made, use, keep, import, export, offer for sale, sell, or otherwise Exploit a Product in the Field in the Territory (including any option to any of the foregoing), beyond the mere right to purchase such Product from a Party and its Affiliates, and excludes each Party's Affiliates or Third Party subcontractors that act solely for such Party or its Affiliates in the supply chain or that perform discrete services (as opposed to being granted broad rights or responsibilities) on behalf of such Party or its Affiliates.

1.119 "**Sublicensee Revenue**" means all amounts (including upfront payments, license fees, milestone payments and royalties) received by a Party or any of its Affiliates from any licensee or sublicensee in consideration for the grant by such Party or any of its Affiliates of a license or sublicense of any of the rights granted under this Agreement with respect to a SYNGAP1

Co-Co Product in the Territory, in all cases, in accordance with Section 2.2(b)(i). Sublicensee Revenue in the form of non-cash consideration shall be valued at fair market value at the time of receipt by the relevant Party. To the extent that a payment not explicitly tied to the SYNGAP1 Co-Co Product is made under a sublicense agreement that grants rights both to the SYNGAP1 Co-Co Product and one or more other products (*e.g.*, an upfront payment), then the portion of such payment that shall be considered Sublicensee Revenue hereunder shall be determined by the Parties in good faith and shall reasonably reflect the fair value of the contribution of the SYNGAP1 Co-Co Product in comparison to the other products under such agreement, and in the event that the Parties are unable to agree, the dispute shall be resolved pursuant to Section 17.4.

1.120 "**SYNGAP1 Co-Co Product**" means (a) a product containing or comprising, as an active ingredient (i) a Molecule arising out of the SYNGAP1 Research Program, including any such Molecule that is a Clinical Candidate, (ii) a Molecule Directed Against SYNGAP1 that is owned or Controlled by Stoke as of the Effective Date or (iii) any modification or derivative of a Molecule identified in clause (i) or (ii), which Molecule is Directed Against SYNGAP1, and (b) any and all forms, presentations, delivery systems, dosages, and formulations of a product described in (a).

1.121 "**SYNGAP1 Co-Co Product Marks**" means, with respect to a SYNGAP1 Co-Co Product, any Trademark (whether registered or unregistered) for use on, with, or to refer to such SYNGAP1 Co-Co Product or used with patient support or other information or services or SYNGAP1 Co-Co Product Materials associated with such SYNGAP1 Co-Co Product in the Territory during the Term, including related internet domain names.

1.122 "**SYNGAP1 Co-Co Product Materials**" means, with respect to a SYNGAP1 Co-Co Product, any and all promotional materials, training materials, medical education materials, Packaging and Labeling, and all other literature or other information related to such SYNGAP1 Co-Co Product for use in the Territory.

1.123 "**SYNGAP1 Co-Co Product Net Revenues**" means, with respect to a given SYNGAP1 Co-Co Product in a given period, the sum of all Net Sales of such SYNGAP1 Co-Co Product generated during such period and Sublicensee Revenue received in connection with such SYNGAP1 Co-Co Product during such period.

1.124 "**SYNGAP1 Opt-Out Product**" means any SYNGAP1 Co-Co Product for which (i) the Development Opt-Out Party has exercised its Development Opt-Out Right or (ii) Stoke has exercised its Commercialization Opt-Out Right pursuant to Article 8.

1.125 "**SYNGAP1 Product Patents**" means, with respect to a SYNGAP1 Co-Co Product that contains or comprises a Molecule or Clinical Candidate (or any modification or derivative of such Molecule or Clinical Candidate), the Stoke SYNGAP1 Patents, Acadia SYNGAP1 Patents or Joint Collaboration Patents, as applicable, that have at least one claim that claims the composition of a Molecule or Clinical Candidate or any use thereof, or any modification or derivative of such Molecule or Clinical Candidate, or any formulation, method of use or method of manufacture of such Molecule or Clinical Candidate or any modification or derivative of such Molecule or Clinical Candidate.

1.126 "**Target**" means any or all of MECP2, [***] and SYNGAP1, as the context requires.

1.127 "**Territory**" means worldwide.

1.128 "**Third Party**" means any Person other than a Party or an Affiliate of a Party.

1.129 "**Third Party Co-Co In-License Agreement**" means, subject to the provisions of Section 2.6, a license or other similar agreement between a Party (or its Affiliate) and a Third Party pursuant to which such Party (or its Affiliates) obtains a license or similar right in any (a) Know-How necessary or reasonably useful for the Development, Manufacture or Commercialization of a SYNGAP1 Co-Co Product under this Agreement; or (b) Patent Right that claims or covers a SYNGAP1 Co-Co Product or the Development, Manufacture or Commercialization of SYNGAP1 Co-Co Product.

1.130 "**Third Party Co-Co In-License Payments**" means, with respect to a SYNGAP1 Co-Co Product, any upfront payment, milestone payment, royalty or any other similar payment paid to any Third Party by a Party (or its Affiliates) during the Term under any Third Party Co-Co In-License Agreement, which payments are directly attributable to or reasonably allocable to (a) the Development (including Manufacture for purposes of Development) or (b) the Commercialization (including Manufacture for purposes of Commercialization), of such SYNGAP1 Co-Co Product for the Territory in accordance with this Agreement; provided that, for clarity, "Third Party Co-Co In-License Payments" shall exclude any amounts payable by Stoke (or its Affiliates) to a Third Party under the Stoke Existing In-License. Notwithstanding the foregoing, if the applicable Third Party Co-Co In-License Agreement giving rise to Third Party Co-Co In-License Payments includes or applies to any (i) products other than the SYNGAP1 Co-Co Product, or (ii) intellectual property other than intellectual property covering or claiming the SYNGAP1 Co-Co Product, then, in each case ((i) and (ii)), the Parties shall mutually agree upon a fair and reasonable allocation of the applicable payments to the SYNGAP1 Co-Co Product in the Territory for purposes of including in Third Party Co-Co In-License Payments, and in the event that the Parties are unable to agree, the dispute shall be resolved pursuant to Section 17.4.

1.131 "**Third Party In-License Agreements**" means, subject to the provisions of Section 2.6, a license or other similar agreement between a Party (or its Affiliate) and a Third Party pursuant to which such Party (or its Affiliates) obtains a license or similar right in any (a) Know-How necessary or reasonably useful for the Development, Manufacture or Commercialization of a Licensed Product under this Agreement; or (b) Patent Right that claims or covers a Licensed Product or the Development, Manufacture or Commercialization of a Licensed Product; provided, however, that the Stoke Existing In-License is hereby deemed not to be Third Party In-License Agreements for any purposes under this Agreement.

1.132 "**Third Party In-License Payments**" means, with respect to a Licensed Product, any upfront payment, milestone payment, royalty or any other similar payment paid to any Third Party by a Party (or its Affiliates) during the Term under any Third Party In-License Agreement, which payments are directly attributable to or reasonably allocable to (a) the Development (including Manufacture for purposes of Development) or (b) the Commercialization (including Manufacture for purposes of Commercialization), of such Licensed Product for the Territory in

accordance with this Agreement; provided that, for clarity, "Third Party In-License Payments" shall exclude any amounts payable by Stoke (or its Affiliates) to a Third Party under the Stoke Existing In-License. If a Third Party In-License Agreement giving rise to Third Party In-License Payments includes or applies to any (i) products other than a Licensed Product, or (ii) intellectual property other than intellectual property covering or claiming a Licensed Product, then, in each case ((i) and (ii)), the Parties shall mutually agree upon a fair and reasonable allocation of such payments to the Licensed Product in the Territory, and in the event that the Parties are unable to agree, the dispute shall be resolved pursuant to Section 17.4.

1.133 "**Trademark**" means any trademark, trade name, service mark, service name, product name, brand, domain name, trade dress, logo, slogan, or other indicia of origin or ownership, and (a) all registrations, applications for registrations, and other intellectual property rights associated with any of the foregoing, and (b) the goodwill associated with each of the foregoing.

1.134 "**United States**" or "**U.S.**" means the United States of America and its territories and possessions.

1.135 "**U.S. GAAP**" means generally accepted accounting principles as practiced in the United States, as generally and consistently applied throughout each Party's organization.

1.136 "**Valid Claim**" means: (a) a claim of an issued and unexpired Patent Rights within the Stoke MECP2 Patents, Stoke [***] Patents, Stoke SYNGAP1 Patents or Collaboration Patents that has not been abandoned, cancelled or held permanently revoked, unenforceable or invalid by a decision of a court or other governmental agency of competent jurisdiction unappealed within the time allowed for appeal, or that has not been admitted to be invalid or unenforceable through reissue or disclaimer or otherwise; or (b) a claim of a pending patent application within the Stoke MECP2 Patents, Stoke [***] Patents, Stoke SYNGAP1 Patents or Collaboration Patents, which patent application was filed and is being prosecuted in good faith and has not been cancelled, withdrawn from consideration, abandoned or finally disallowed without the possibility of appeal or refiling of the application and that has not been pending for more than [***] from the earliest date from which the patent application claims priority. Notwithstanding the foregoing, if, such a pending patent application issues after the expiration of the [***] mentioned above, each claim of the applicable issued patent shall, subject to clause (a) above, be deemed to be a Valid Claim with effect from the date of issue.

1.137 **Additional Definitions**. The following table identifies the location of definitions set forth in various Sections of this Agreement:

Definition	**Section**
Acadia	Preamble
Acadia Indemnitee	13.1(a)
Acadia Patents	14.3(c)
Acquired COC Program	2.5(b)(ii)
Acquiring Person COC Program	2.5(b)(i)
Agreement	Preamble
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Assumed Commercialization Activities	7.3
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Clinical Candidate	4.6(e)
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CMO	6.3
Commercialization Activities Cure Period	7.3
Commercialization Cost Report	9.6(b)(ii)
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MECP2 Development Program	5.2(a)
MECP2 Research Budget	4.1
MECP2 Research Plan	4.1
MECP2 Research Program	4.1
MECP2 Royalty Term	9.2(c)(ii)
MECP2 Technology Transfer	5.1(a)
MECP2 Third Party License(s)	9.2(c)(iii)(C)
Molecule	4.6(e)
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[***] Research Plan	4.1
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[***] Third Party License(s)	9.3(c)(iii)(C)
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SYNGAP1 Co-Co Commercial Supply Agreement	7.7
SYNGAP1 Co-Co Technology Transfer Plan	7.7
SYNGAP1 Co-Commercialization Budget	7.1(a)
SYNGAP1 Co-Commercialization Plan	7.1(a)
SYNGAP1 Co-Development Plan	6.1(a)
SYNGAP1 Commercialization Technology Transfer	8.2(c)
SYNGAP1 Development Technology Transfer	8.1(c)
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SYNGAP1 Research Budget	4.1
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ARTICLE 2
LICENSES

2.1 License Grants.

(a) MECP2 Exclusive License Grant to Acadia. Subject to the terms and conditions of this Agreement, Stoke (on behalf of itself and its Affiliates) hereby grants to Acadia an exclusive (even as to Stoke and its Affiliates, subject to the remainder of this Section 2.1(a)), non-transferable (except as set forth in Section 17.1(a)), sublicensable (as set forth in Section 2.2) license under the Stoke MECP2 Technology to Develop, make, have made, use, sell, offer for sale, import, Commercialize (for avoidance of doubt, including, Medical Affairs activities) and otherwise Exploit MECP2 Licensed Products in the Field in the Territory. Stoke retains the right (on behalf of itself and its Affiliates) to practice the Stoke MECP2 Technology in order to conduct its responsibilities under the MECP2 Research Plan.

(b) [***] Exclusive License Grant to Acadia. Subject to the terms and conditions of this Agreement, Stoke (on behalf of itself and its Affiliates) hereby grants to Acadia an exclusive (even as to Stoke and its Affiliates, subject to the remainder of this Section 2.1(b)), non-transferable (except as set forth in Section 17.1(a)), sublicensable (as set forth in Section 2.2) license under the Stoke [***] Technology to Develop, make, have made, use, sell, offer for sale, import, Commercialize (for avoidance of doubt, including Medical Affairs activities), and otherwise Exploit [***] Licensed Products in the Field in the Territory. Stoke retains the right (on behalf of itself and its Affiliates) to practice the Stoke [***] Technology in order to conduct its responsibilities under the [***] Research Plan.

(c) SYNGAP1 Co-Co Exclusive License Grants.

(i) **Exclusive License Grant to Acadia.** Subject to the terms and conditions of this Agreement, on a SYNGAP1 Co-Co Product-by-SYNGAP1 Co-Co Product basis, Stoke (on behalf of itself and its Affiliates) hereby grants to Acadia a co- exclusive (with Stoke and its Affiliates), non-transferable (except as set forth in Section 17.1(a)), sublicensable (as set forth in Section 2.2), license under the Stoke SYNGAP1 Technology to Develop, make, have made, use, sell, offer for sale, import, Commercialize (for avoidance of doubt, including Medical Affairs activities) and otherwise Exploit such SYNGAP1 Co-Co Product in the Field in the Territory. Stoke retains the right (on behalf of itself and its Affiliates) to practice the SYNGAP1 Technology to exercise its rights and perform its obligations hereunder and as set forth in Section 2.3.

(ii) **Exclusive License Grant to Stoke.** Subject to the terms and conditions of this Agreement, on a SYNGAP1 Co-Co Product-by-SYNGAP1 Co-Co Product basis, Acadia (on behalf of itself and its Affiliates) hereby grants to Stoke a co-exclusive (with Acadia and its Affiliates), non-transferable (except as set forth in Section 17.1(a)), sublicensable (as set forth in Section 2.2), license under the Acadia SYNGAP1 Technology to Develop, make, have made, use, sell, offer for sale, import, Commercialize (for avoidance of doubt, including Medical Affairs activities) and otherwise Exploit such SYNGAP1 Co-Co Product in the Field in the Territory. Acadia retains the right (on behalf of itself and its Affiliates) to practice the

SYNGAP1 Technology to exercise its rights and perform its obligations hereunder and as set forth in Section 2.3.

2.2 Sublicensing; Subcontracting.

(a) Licensed Products.

(i) **Sublicensing Rights**. Subject to the terms and conditions of this Agreement, Acadia shall have the right to grant sublicenses of the rights granted to it under Section 2.1(a) and Section 2.1(b) through multiple tiers, without Stoke's prior consent, on a Target-by-Target basis to (x) its Affiliates, provided that such sublicense shall automatically terminate if such sublicensee ceases to be an Affiliate of Acadia, and (y) Third Parties, provided that in the case of (y), Acadia shall not sublicense any of its rights under Section 2.1(a) or Section 2.1(b) until the conclusion of the Research Term without Stoke's prior written consent, which shall not be unreasonably withheld, conditioned or delayed. Each sublicense granted by Acadia pursuant to this Section 2.2(a) shall be pursuant to a written agreement that (A) is consistent with the terms of this Agreement, (B) includes obligations of confidentiality and non-use applicable to the Confidential Information of the other Party that are at least as stringent as those set forth in Article 10 and (C) includes terms that are consistent with the intellectual property provisions set forth in this Agreement. Acadia shall promptly provide Stoke with a copy of each such final executed sublicense, which sublicense may be redacted to protect confidential information of the Sublicensee or to redact information related to any product other than a Product (but shall be sufficient, after such redactions, for Stoke to determine the scope of the licenses and sublicenses granted to such Sublicensee with respect to any Product). If any such sublicense is not in English, Acadia will provide Stoke with a translation thereof into English. No sublicensing by Acadia, its Affiliate or Sublicensee in accordance with this Section 2.2(a)(i) shall relieve Acadia of its obligations under this Agreement or any liability hereunder.

(ii) **Subcontracting Rights**. Acadia (and its Affiliates and Sublicensees) may engage a Third Party subcontractors in connection with the performance of its obligations or exercise of its rights under any Development Program or with respect to the Manufacture or Commercialization of any Licensed Product. No subcontracting by Acadia, its Affiliate or Sublicensee in accordance with this Section 2.2(a)(ii) shall relieve Acadia of its obligations under this Agreement or any liability hereunder. Each agreement with any Third Party subcontractor engaged in accordance with this Section 2.2(a)(ii) must (A) be consistent with the terms of this Agreement, (B) include obligations of confidentiality and non-use applicable to the Confidential Information of the other Party that are at least as stringent as those set forth in Article 10 and (C) include terms that are consistent with the intellectual property provisions set forth in this Agreement.

(b) SYNGAP1 Co-Co Products.

(i) **Sublicensing**.

(A) **Sublicensing Rights**. Notwithstanding anything to the contrary in this Agreement, except as permitted under this Section 2.2(b), neither Party shall grant a sublicense of the rights granted to such Party under Section 2.1(c) unless approved by the JSC.

If either Party wishes to grant a license or sublicense (as applicable) to a Third Party to Develop, Manufacture, or Commercialize any SYNGAP1 Co-Co Product in the Territory, then such Party shall notify the JSC, and the JSC shall review such proposal and determine whether to consent to the extension of rights to such licensee or sublicensee. Following any such written consent, the proposing Party shall have the right to lead discussions with potential Sublicensees, negotiate terms, and execute a written agreement with such Sublicensee, provided that such Party shall provide the final form of any such agreement to the JSC for the JSC's approval prior to execution thereof. In addition, the Parties shall coordinate through the JSC with respect to the performance of any such Sublicensees, as applicable, to ensure the efficient Development, Manufacture, and Commercialization of the SYNGAP1 Co-Co Products throughout the Territory.

(B) **Costs and Income from Sublicensing Activities in the Territory**. The External Costs incurred in connection with the negotiation of an agreement with an actual or prospective Third Party Sublicensee (including legal costs and attorneys' fees) for the Territory in accordance with Section 2.2(b)(i) shall be shared equally by the Parties as Other Expenses. Any Sublicensee Revenue received from such Third Party Sublicensee shall be shared by the Parties in accordance with Section 9.6(a).

(C) **Sublicense Agreements**. Each sublicense to a Third Party granted by a Party pursuant to this Section 2.2(b)(i) shall (1) be subject and subordinate to this Agreement, (2) be consistent with the terms of this Agreement, (3) include obligations of confidentiality and non-use applicable to the Confidential Information of the other Party that are at least as stringent as those set forth in Article 10, and (4) include terms that are consistent with the intellectual property provisions set forth in this Agreement, unless, in each case, the Parties agree otherwise.

(D) **Responsibility for Sublicensees**. Notwithstanding any sublicense, the Party that grants rights to a Sublicensee pursuant to this Section 2.2(b)(i) shall remain primarily liable to the other Party for the performance of all of its obligations under, and such Party's compliance with all provisions of, this Agreement. Each Party agrees that it shall be fully responsible and liable for any breach of the terms of this Agreement by any of its Sublicensees to the same extent as if such Party itself has committed any such breach, and shall provide notice thereof to the other Party via the JSC, JDC or JCC, as appropriate and such Committee shall discuss ways to mitigate the effects and damage, if any, arising from such breach.

(ii) **Subcontracting**.

(A) **Subcontracting Rights**. Either Party may engage a Third Party subcontractor in connection with the performance of its obligations or exercise of its rights under any SYNGAP1 Co-Development Plan or SYNGAP1 Co-Commercialization Plan in the Territory; provided that (1) any subcontractor engaged to perform Development (including Medical Affairs) activities with respect to a SYNGAP1 Co-Co Product must be set forth in the SYNGAP1 Co-Development Plan for such SYNGAP1 Co-Co Product, and (2) any subcontractor engaged to perform Commercialization activities with respect to a SYNGAP1 Co-Co Product in or for the Territory must be set forth in the SYNGAP1 Co-Commercialization Plan for such SYNGAP1 Co-Co Product.

(B) **Subcontracting Requirements**. No subcontracting by either Party in accordance with Section 2.2(b)(ii)(A) shall relieve the subcontracting Party of its obligations under this Agreement or any liability hereunder. Each agreement with any Third Party subcontractor engaged in accordance with Section 2.2(b)(ii)(A) must (1) be consistent with the terms of this Agreement, (2) include obligations of confidentiality and non-use applicable to the Confidential Information of the other Party that are at least as stringent as those set forth in Article 10 and (3) include terms that are consistent with the intellectual property provisions set forth in this Agreement. Upon the other Party's request, the subcontracting Party shall provide the other Party with a copy of any executed agreement with a Third Party subcontractor performing Development, Manufacturing, Commercialization, or Medical Affairs activities under this Agreement in the Territory (which copy may be redacted to remove provisions that are not necessary to monitor compliance with this Section 2.2(b)(ii)(B)). Each Party shall remain directly responsible for any uncured material breach of this Agreement by a subcontractor, and for any damage to the other Party caused thereby, and shall provide notice thereof to the other Party via the JSC, JDC or JCC, as appropriate and such Committee shall discuss ways to mitigate the effects and damage, if any, arising from such breach.

2.3 Retained Rights. In addition to any other rights retained by Stoke hereunder with respect to the Stoke MECP2 Technology, Stoke [***] Technology and Stoke SYNGAP1 Technology, and subject to the terms and conditions set forth herein, including Section 2.5, Stoke retains the exclusive right to practice, license and otherwise exploit the Stoke MECP2 Technology, Stoke [***] Technology and Stoke SYNGAP1 Technology in the Territory outside the scope of the licenses granted under Section 2.1, including with respect to products other than the Products. In addition to any other rights retained by Acadia hereunder with respect to the Acadia SYNGAP1 Technology, and subject to the terms and conditions set forth herein, including Section 2.5, Acadia retains the exclusive right to practice, license and otherwise exploit the Acadia SYNGAP1 Technology in the Territory outside the scope of the licenses granted under Section 2.1(c)(ii), including with respect to products other than the SYNGAP1 Co-Co Products. For clarity, the licenses granted to Acadia under Section 2.1 do not extend to Other Active Ingredients that may be covered by Stoke MECP2 Technology, Stoke [***] Technology or Stoke SYNGAP1 Technology.

2.4 No Implied Licenses; Negative Covenants. Except as expressly set forth herein, neither Party shall acquire any right, license or other interest, by implication or otherwise, under any Know-How, Trademarks, Patent Rights or other intellectual property of the other Party, pursuant to this Agreement. Acadia shall not, and shall not permit any of its Affiliates, Sublicensees or subcontractors to, practice or otherwise exploit any Stoke MECP2 Technology, Stoke [***] Technology and Stoke SYNGAP1 Technology in the Territory outside the scope of the licenses granted under Section 2.1. Stoke shall not, and shall not permit any of its Affiliates, Sublicensees or subcontractors to, practice or otherwise exploit any Acadia SYNGAP1 Technology outside the scope of the license granted in Section 2.1(c)(ii).

2.5 Non-Compete.

(a) Competing Products.

(i) **MECP2 and [***]**. With respect to the MECP2 Target and the [***] Target, during the period beginning on the Effective Date and ending upon the earlier of (x) (A) with respect to [***], and (B) with respect to [***] and (y) termination of this Agreement with respect to such Target, [***] will not, and will ensure that its Affiliates and Sublicensees do not, either (1) alone or with a Third Party, research, Develop, perform Medical Affairs activities, Commercialize or otherwise Exploit any Competing Product anywhere in the Territory or (2) grant any rights to any Third Party (including through granting a license, option or other right) to research, Develop, perform Medical Affairs activities, Commercialize or otherwise Exploit any Competing Product anywhere in the Territory.

(ii) **SYNGAP1**. With respect to the SYNGAP1 Target, during the period beginning on the Effective Date and ending upon the earlier of (x) [***] and (y) termination of this Agreement with respect to such Target, each Party will not, and will ensure that its Affiliates and Sublicensees do not, either (1) alone or with a Third Party, research, Develop, perform Medical Affairs activities, Commercialize or otherwise Exploit any Competing Product anywhere in the Territory or (2) grant any rights to any Third Party (including through granting a license, option or other right) to research, Develop, perform Medical Affairs activities, Commercialize or otherwise Exploit any Competing Product anywhere in the Territory.

(b) Exception for Change of Control. Notwithstanding Section 2.5(a):

(i) If [***], or one of its Affiliates or Sublicensees, undergoes a Change of Control and, on the date of the closing of such Change of Control, the Acquiring Person has a product or program that, upon the closing of such Change of Control, would be in violation of Section 2.5(a) with respect to a Competing Product ("**Acquiring Person COC Program**"), then [***] will not be in breach of Section 2.5(a), as a result of such Change of Control or the continuation of such Acquiring Person COC Program by such Acquiring Person thereafter, provided that the Acquiring Person promptly Segregates the Acquiring Person COC Program.

(ii) If [***], or one of its Affiliates or Sublicensees, acquires a Third Party (or business or assets of a Third Party) (by merger, purchase of assets, stock acquisition or otherwise), and on the date of the closing of such transaction, such Third Party has a product or program that, upon the closing of such transaction, would be in violation of Section 2.5(a) with respect to a Competing Product ("**Acquired COC Program**"), then [***] will not be in breach of Section 2.5(a), as a result of such transaction or the continuation of such Acquired COC Program by [***], or its Affiliate or Sublicensee, as applicable, thereafter for a period of up to [***] following the closing of such transaction, provided that [***] (A) Divests such Acquired COC Program within [***] following the closing of such transaction and (B) prior to such Divestiture, promptly Segregates such Acquired COC Program. For the purpose of this Section 2.5(b)(ii), "**Divestiture**" means (1) the divestiture of the Acquired COC Program through (x) an outright sale or assignment of all material rights in such Acquired COC Program to a Third Party or (y) an exclusive out-license of all Exploitation rights with respect to such Acquired COC Program, with no further material role, influence or authority, directly or indirectly, with respect to such Acquired

COC Program, or (2) the complete cessation of all Exploitation activities with respect to such Acquired COC Program. For clarity, customary technology transfer and coordination of patent and regulatory matters and the right to receive royalties, milestones or other payments in connection with clause (1) above, shall be permitted for any such Divestiture. When used as a verb, "Divest" and "Divested" means to cause a Divestiture.

2.6 Third Party In-License Agreements.

(a) Generally. The licenses granted under Sections 2.1(a), 2.1(b) and 2.1(c) may include certain rights licensed by a Third Party to the license-granting party (or its Affiliate) (the "**Licensor Party**"), including, with respect to Section 2.1(c), under Third Party In-License Agreements. Any sublicense of Third Party intellectual property rights granted by the Licensor Party pursuant to Sections 2.1(a), 2.1(b) and 2.1(c) to the other Party shall be subject to the terms and conditions of the Third Party In-License Agreement applicable to sublicensees under which such sublicense is granted, subject to Sections 2.6(b) and 2.6(c). As of the Effective Date, the Stoke Existing In-License is the only such in-license agreements.

(b) MECP2 and [***] Research Programs. Stoke shall bear all costs and expenses, including all milestone payments and royalties that become due and payable under any Stoke Existing In-License. If, during the applicable Research Term for the MECP2 Research Program or [***] Research Program, the Parties desire to include Third Party Know-How or Patent Rights in a Research Plan, and such use would require the practice of rights subject to a Third Party In-License Agreement, then prior to using such Third Party Know-How or Patent Rights in the performance of the relevant Research Plan, the Parties shall mutually agree upon the allocation of any amounts that would become owing to such Third Party as a result of Stoke's use of such Third Party's Know-How or Patent Rights in the performance of the Research Plan or Acadia's practice of the sublicensed rights under such Third Party's Know-How or Patent Rights in the Development, Manufacture, or Commercialization of any Licensed Product under this Agreement.

(c) SYNGAP1 Co-Co Products.

(i) **New Third Party Co-Co In-License Agreements After Effective Date.** During the Term, without the approval of the JSC, neither Party nor any of its Affiliates may enter into any Third Party Co-Co In-License Agreement with respect to any intellectual property rights that will be used for the research, Development, Commercialization or Manufacture of a SYNGAP1 Co-Co Product hereunder. For the avoidance of doubt, any license or other similar agreement between a Party (or its Affiliate) and a Third Party pursuant to which such Party (or its Affiliates) obtains a license or similar right in any Know-How or Patent Right that was entered into in violation of the provisions of this Section 2.6(c) shall not be a "Third Party Co-Co In-License Agreement" for purposes of this Agreement, unless the other Party approves in writing the inclusion of such license or other similar agreement as a "Third Party Co-Co In-License Agreement", in such other Party's discretion.

(ii) **Third Party Co-Co In-License Agreements as of the Effective Date.** As of the Effective Date, the Stoke Existing In-License is the only Third Party Co-Co In-License Agreement. No amounts paid or payable by either Party under any other license or other similar agreement between a Party (or its Affiliate) and a Third Party, in existence as of the

Effective Date, pursuant to which such Party (or its Affiliates) has obtained a license or similar right in any Know-How or Patent Right shall be deemed to be a "Third Party Payment" for purposes of this Agreement, unless the other Party approves in writing the inclusion of such license or other similar agreement as a "Third Party Co-Co In-License Agreement", in such other Party's discretion, in which case (a) such license or similar agreement shall thereafter be a "Third Party Co-Co In-License Agreement" hereunder and (b) the applicable payments pursuant to such Third Party Co-Co In-License Agreement made thereafter shall be included hereunder as "Third Party Co-Co In-License Payments" (to the extent such payments otherwise fall within the definition of "Third Party Co-Co In-License Payments").

ARTICLE 3
GOVERNANCE

3.1 Alliance Manager. Within [***] following the Effective Date, each Party shall appoint an individual to act as the Alliance Manager for such Party (each, an "**Alliance Manager**"). Each Alliance Manager shall thereafter be permitted to attend meetings of the JSC or any of its subcommittees as a nonvoting observer. The Alliance Managers shall be the primary point of contact for the Parties regarding the activities contemplated under this Agreement and shall help facilitate all such activities hereunder.

3.2 Joint Steering Committee. Within [***] after the Effective Date, the Parties shall establish a joint steering committee (the "**JSC**") composed of up to three (3) senior representatives from each Party that shall oversee and manage the collaboration between the Parties. The JSC may, from time to time, establish subcommittees as it deems necessary to further the purposes of this Agreement; provided that the Parties shall in any event establish a joint development subcommittee ("**JDC**") in accordance with Section 3.4 and a joint commercialization subcommittee ("**JCC**") in accordance with Section 3.5. The JSC may change its size from time to time on mutual agreement of the Parties; provided, that the JSC shall consist at all times of an equal number of representatives of each Party. Each Party may replace any of its JSC representatives with a qualified employee of such Party at any time upon written notice to the other Party. The JSC may invite non-members to participate in the discussions and meetings of the JSC; provided, that such participants shall have no voting authority at the JSC and shall be bound by the confidentiality obligations no less stringent than those provided in this Agreement. The JSC shall have two (2) co-chairpersons, one from each Party. The role of the co-chairpersons shall be to convene and preside at meetings of such JSC. The Alliance Managers shall work with the co-chairpersons to prepare and circulate agendas and to ensure the preparation of minutes. The co-chairpersons shall have no additional powers or rights beyond those held by the other JSC representatives.

(a) Specific responsibilities of the JSC. The JSC shall have the following responsibilities:

(i) review, discuss and approve updates or amendments to each Research Plan and each Research Budget;

(ii) oversee the conduct and performance of each Research Program;

(iii) for each Research Program, review and discuss the Molecules arising from such Research Program, and determine whether to approve any such Molecules as Clinical Candidates for further Development and Commercialization hereunder;

(iv) review, discuss and approve each Development Plan and Development budget, and review, discuss and approve any updates or amendments thereto;

(v) oversee the performance of each Development Program;

(vi) oversee, review, discuss and approve each SYNGAP1 Co-Development Plan and SYNGAP1 Co-Development Budget, and review, discuss and approve any updates or amendments thereto;

(vii) review the overall strategy regarding Regulatory Approval of each SYNGAP1 Co-Co Product in the Territory;

(viii) for each SYNGAP1 Co-Commercialization Plan and SYNGAP1 Co-Commercialization Budget, review, discuss and approve any updates or amendments thereto and oversee the Commercialization of SYNGAP1 Co-Co Products in the Territory;

(ix) review and approve any Excess Research Overage, Excess Development Overage, or Excess Commercialization Overage;

(x) resolve all matters that are in dispute as escalated to the JSC by the JDC or JCC that cannot be resolved by such committee; and

(xi) perform such other functions as expressly set forth in this Agreement or as otherwise agreed by the Parties in writing.

3.3 Meetings. The JSC and each of its subcommittees shall each meet at least [***] during the Research Term, and more often as may be necessary. The JSC and each of its subcommittees may conduct such meetings by telephone, videoconference, internet meeting or in person, as determined by their members for each meeting. Each Party may call special meetings of the JSC or any of its subcommittees with at least [***] prior written notice, or a shorter time period in exigent circumstances, to resolve particular matters requested by such Party that are within the purview of the JSC or the subcommittee, as applicable. Each Party may invite a reasonable number of participants, in addition to its representatives, to attend JSC and subcommittee meetings in a nonvoting capacity; provided that if either Party intends to have any Third Party (including any consultant) attend such a meeting, such Party shall provide prior written notice to the other Party. Such Party shall ensure that such Third Party is bound by confidentiality and non-use obligations consistent with the terms of this Agreement. Each Party is responsible for its own expenses incurred in connection with participating in and attending all such meetings. Each Party's Alliance Manager or his/her designee shall keep minutes of each JSC and subcommittee meeting that records in writing all decisions made, action items assigned or completed and other appropriate matters. Each Party's Alliance Manager shall help consolidate and then send meeting minutes to all members of the JSC or the subcommittee, as applicable, promptly after a meeting for review. Each member shall have [***] from receipt in which to comment on and to approve the minutes (such approval not to be unreasonably withheld,

conditioned or delayed). If a member, within such time period, does not notify either Party's Alliance Manager that s/he does not approve of the minutes, the minutes shall be deemed to have been approved by such member.

3.4 Joint Development Committee.

(a) General. Within [***] after the Effective Date, the Parties shall establish the JDC to coordinate the Development activities (including the related regulatory activities) of the Parties related to the Development of Products in accordance with this Agreement. Each Party shall appoint three (3) representatives to the JDC, with each representative having knowledge and expertise in the development of compounds and products similar to the potential Clinical Candidates and Products and having sufficient seniority within the applicable Party to make decisions arising within the scope of the JDC's responsibilities. The JDC may change its size from time to time on mutual agreement of the Parties; provided, that the JDC shall consist at all times of an equal number of representatives of each Party. Each Party may replace any of its JDC representatives with a qualified employee of such Party at any time upon written notice to the other Party. The JDC may invite non-members to participate in the discussions and meetings of the JDC; provided, that such participants shall have no voting authority at the JDC and shall be bound by the confidentiality obligations no less stringent than those provided in this Agreement. The JDC shall have two (2) co-chairpersons, one from each Party. The role of the co-chairpersons shall be to convene and preside at meetings of such JDC. The Alliance Managers shall work with the co-chairpersons to prepare and circulate agendas and to ensure the preparation of minutes. The co-chairpersons shall have no additional powers or rights beyond those held by the other JDC representatives.

(b) Specific Responsibilities of the JDC. The JDC shall have the following responsibilities:

(i) prepare and submit to the JSC for approval each Development Plan and Development Budget, and any updates or amendments thereto;

(ii) oversee the conduct of each Development Plan, and receive and discuss reports from Acadia pursuant to Section 5.2(e);

(iii) oversee the conduct of each SYNGAP1 Co-Development Plan and SYNGAP1 Co-Development Budget;

(iv) for each SYNGAP1 Co-Development Plan, design, implement and review the overall strategy for Development and the design of all Clinical Trials conducted under the SYNGAP1 Co-Development Plan;

(v) for each SYNGAP1 Co-Co Product, oversee the conduct of all Clinical Trials under the applicable SYNGAP1 Co-Development Plan, including the carrying out of such activities as are required to comply with applicable regulatory requirements with respect thereto, including preparation and submission of Regulatory Materials for all such Clinical Trials prior to the first Regulatory Approval for such SYNGAP1 Co-Co Product;

(vi) facilitate the flow of information between the Parties with respect to the Development of a SYNGAP1 Co-Co Product, including any Manufacturing updates related to clinical supply;

(vii) review and approve Third Party subcontractors with respect to any work to be conducted by such subcontractor under a SYNGAP1 Co-Development Plan or SYNGAP1 Co-Commercialization Plan; and

(viii) perform such other functions as expressly set forth in this Agreement or as the JSC may request from time to time.

3.5 Joint Commercialization Committee.

(a) General. No later than [***] prior to the anticipated first MAA filing for the first SYNGAP1 Co-Co Product in the Territory, the Parties shall establish the JCC to oversee and manage the Commercialization with respect to the SYNGAP1 Co-Co Products. Each Party shall appoint three (3) representatives to the JCC, with each representative having knowledge and expertise in the development of compounds and products similar to the potential Clinical Candidates and Products and having sufficient seniority within the applicable Party to make decisions arising within the scope of the JCC's responsibilities. The JCC may change its size from time to time on mutual agreement of the Parties; provided, that the JCC shall consist at all times of an equal number of representatives of each Party. Each Party may replace any of its JCC representatives with a qualified employee of such Party at any time upon written notice to the other Party. The JCC may invite non-members to participate in the discussions and meetings of the JCC; provided, that such participants shall have no voting authority at the JCC and shall be bound by the confidentiality obligations no less stringent than those provided in this Agreement. The JCC shall have two (2) co-chairpersons, one from each Party. The role of the co-chairpersons shall be to convene and preside at meetings of such JCC. The Alliance Managers shall work with the co-chairpersons to prepare and circulate agendas and to ensure the preparation of minutes. The co-chairpersons shall have no additional powers or rights beyond those held by the other JCC representatives.

(b) Specific Responsibilities of the JCC. The JCC shall have the following responsibilities:

(i) for each SYNGAP1 Co-Co Product, review and oversee the overall strategy for Regulatory Approval of such SYNGAP1 Co-Co Product in the Territory, and review and oversee the carrying out of such activities as are required to comply with applicable regulatory requirements with respect to Clinical Trials conducted after the first Regulatory Approval for such SYNGAP1 Co-Co Product, including preparation and submission of Regulatory Materials with respect thereto;

(ii) prepare and submit to the JSC for review and approval each SYNGAP1 Co-Commercialization Plan or SYNGAP1 Co-Commercialization Budget, and any updates or amendments thereto;

(iii) oversee the Commercialization of SYNGAP1 Co-Co Products in the Territory;

(iv) discuss, review and approve the use of any SYNGAP1 Co-Co Product Marks in any packages and labels for a SYNGAP1 Co-Co Product;

(v) establish policies and procedures and a joint promotional review Working Group ("**Promotional Working Group**"), for review of promotional materials for any SYNGAP1 Co-Co Product in the Territory;

(vi) review and discuss the Pricing Guidelines for each SYNGAP1 Co-Co Product in the Territory;

(vii) facilitate the flow of information between the Parties with respect to the Commercialization of a SYNGAP1 Co-Co Product, including any Manufacturing updates related to commercial supply;

(viii) review and approve Third Party subcontractors with respect to any work to be conducted by such subcontractor under a SYNGAP1 Co-Commercialization Plan; and

(ix) perform such other functions as expressly set forth in this Agreement or as the JSC may request from time to time.

3.6 Working Groups. From time to time, the JSC, or a subcommittee (each a "**Committee**") may establish and delegate duties to working groups (each a "**Working Group**") on an "as-needed" basis to oversee particular projects or activities, which delegations shall be reflected in the minutes of the meetings of the applicable Committee. Such Working Groups may be established on an ad hoc basis for purposes of a specific project, for the life of the applicable Product or on such other basis as the establishing Committee may determine, and shall be constituted and shall operate as the establishing Committee may determine, provided that each Working Group and its activities shall be subject to the oversight, review and approval of, and, shall report to, the Committee that established such Working Group. In no event shall the authority of any Working Group exceed that of the Committee that established it, as specified in this Article 3. For clarity, the Working Groups shall be a forum for discussion and shall be able to make recommendations to the Committees, but shall have no decision-making authority.

3.7 Decisions.

(a) Decision-making Generally. Where this Agreement provides that a matter is subject to the approval of JDC, JCC, a subcommittee or Working Group, such approval requirement shall be met by the process set forth in this Section 3.7. The JSC, JDC and JCC shall endeavor to make decisions by consensus, with the representatives of each Party having, collectively, one (1) vote on behalf of that Party (which vote shall, with respect to the JSC, be exercised by the respective JSC Co-Chairs). Deadlocks in the case of JDC, JCC, subcommittees and Working Groups shall be referred to the JSC for final disposition. If the JSC cannot reach consensus on a matter before it within [***] (each a "**Deadlocked Matter**"), then either Party may refer such Deadlocked Matter to the Executive Officers for discussion and attempted resolution. If the Executive Officers are unable to resolve such Deadlocked Matter within [***] after referral thereof by the JSC, then:

(i) Any Deadlocked Matter pertaining to a matter escalated to the JSC pursuant to Section 14.2(b) shall be resolved pursuant to Section 17.4(c);

(ii) Acadia will have the tie-breaking vote with respect to any Deadlocked Matter relating to the MECP2 Research Program or [***] Research Program, provided, however, that Acadia may not exercise its tie-breaking vote to (A) cause Stoke to undertake any activities in addition to those included under the then-current applicable Research Plan and Research Budget without Stoke's consent, unless Acadia agrees to pay for the costs associated with such additional activities, or (B) change the FTE Rate with respect to FTEs performing activities under a Research Plan;

(iii) Acadia will have the tie-breaking vote with respect to any Deadlocked Matter relating to the Licensed Products, including all decisions related to Development (subject to (i)(A) and (B) above relating to the MECP2 and [***] Research Programs), Manufacture and regulatory activities with respect thereto (for further clarity, all matters not related to Development, including all Commercialization matters with respect to Licensed Products, do not fall within the purview of Article 3, and Acadia has sole decision-making authority with respect thereto, subject to compliance with the terms of this Agreement);

(iv) On a SYNGAP1 Co-Co Product-by-SYNGAP1 Co-Co Product basis, any Deadlocked Matter relating to the Development of such SYNGAP1 Co-Co Product and arising prior to the first Regulatory Approval for such SYNGAP1 Co-Co Product shall be resolved in accordance with Section 17.4(c), including:

(A) any such Deadlocked Matter relating to the Manufacture of such SYNGAP1 Co-Co Product used in connection with such Development activities; and

(B) any such Deadlocked Matter relating to preparation and submission of Regulatory Materials in connection with the performance of such Development activities pertaining to such SYNGAP1 Co-Co Product (except as otherwise provided in Section 3.7(a)(v)(B) below);

(v) On a SYNGAP1 Co-Co Product-by-SYNGAP1 Co-Co Product basis, Acadia will have the tie-breaking vote with respect to any Deadlocked Matter relating to such SYNGAP1 Co-Co Product arising after the first Regulatory Approval for such SYNGAP1 Co-Co Product, or any Deadlocked Matter relating to the Commercialization of such SYNGAP1 Co-Co Product, regardless of if that matter arises before the first Regulatory Approval of such SYNGAP1 Co-Co Product, including:

(A) any such Deadlocked Matter relating to the Manufacture of such SYNGAP1 Co-Co Product (including commercial supply pursuant to Section 7.7) used in connection with Commercialization activities;

(B) any Deadlocked Matter pertaining to (x) the Regulatory Strategy for, or obtaining or maintaining Regulatory Approval of such SYNGAP1 Co-Co Product, including the timing or selection of the jurisdictions in the Territory for which Regulatory Approval will be sought for such SYNGAP1 Co-Co Product or (y) for each country, beginning

with MAA submission and thereafter, the preparation and submission of Regulatory Materials for such SYNGAP1 Co-Co Product in such country; and

(C) any Deadlocked Matter relating to the Commercialization of such SYNGAP1 Co-Co Product, including the SYNGAP1 Co-Commercialization Plan and the SYNGAP1 Co-Commercialization Budget (and any amendments thereto), activities relating to SYNGAP1 Co-Co Product Materials (including negotiations with a Regulatory Authority and decision making with respect to the SYNGAP1 Co-Co Product label), Pricing Matters (including Pricing and Reimbursement Approvals and Pricing Guidelines), and disputes related to Patent Term Extensions in connection with SYNGAP1 Co-Co Products arising under Section 14.7;

provided, however, that (i) Acadia may not exercise its tie-breaking authority to (A) reduce Stoke's Minimum Participation Rights or (B) change any FTE Rate mutually agreed upon by the Parties for any FTEs performing activities under a SYNGAP1 Co-Commercialization Plan; (ii) any Deadlocked Matter relating to an Excess Commercialization Overage shall be resolved in accordance with Section 17.4(c); and (iii) neither Party shall be permitted to cause the other Party to take any action that would result in a violation of Applicable Laws.

(b) Authority. The JSC, JDC, JCC and each subcommittee and Working Group have only the powers assigned expressly to them in this Article 3 and elsewhere in this Agreement, and do not have any power to amend, modify or waive compliance with this Agreement. Each Party retains the rights, powers and discretion granted to it under this Agreement and neither Party may delegate or vest such rights, powers or discretion in the JSC, JDC or JCC unless expressly provided for in this Agreement or the Parties expressly so agree in writing. No Committee shall have the power to amend, waive or modify any term of this Agreement, and no decision of any Committee shall be in contravention of any terms and conditions of this Agreement. It is understood and agreed that issues to be formally decided by the JSC are limited to those specific issues that are expressly provided in this Agreement to be decided by the JSC.

3.8 Discontinuation. The JSC, JDC and any subcommittee or Working Group, as applicable, will disband, or if it is still in place for other Programs, shall have no further authority hereunder with respect to Licensed Products Directed Against a Target upon the first approval of an MAA for a Licensed Product Directed Against such Target in the Territory (for clarity, the Licensed Products are outside of the scope of the JCC's authority during the entirety of the Term). Additionally, and without limiting the other provisions of this Agreement, in the event Stoke or its Affiliates acquires a Competing Product with respect to a MECP2 or [***] following completion of the relevant time period in Section 2.5, the JSC and other Committees shall automatically disband as to such Target upon Stoke's initiation of a GLP tox study for such Competing Product, and Acadia will have no further information sharing or reporting obligations to Stoke with respect thereto except for Commercialization reports as set forth in Section 5.5(c) and reports as set forth in Section 5.5(c) applied *mutatis mutandis* to Development activities, provided that such reports will be limited to the level of detail necessary to confirm Acadia's financial and diligence obligations herein. With respect to a particular SYNGAP1 Co-Co Product, the JSC, JDC, JCC and any subcommittee or Working Group pertaining thereto will disband with respect to such SYNGAP1 Co-Co Product, and shall have no further authority hereunder, upon the first to occur of: (i) the Development Opt-Out Date; (ii) the Commercialization Opt-Out Date; and (iii) the end of the Term. For the avoidance of doubt, once the JSC disbands per the foregoing, Acadia shall

have sole decision-making authority for Developing, Commercializing and all other matters for all Licensed Products for which the JSC has disbanded.

ARTICLE 4
RESEARCH PROGRAMS

4.1 Research Programs and Plans. On a Target-by-Target basis, the Parties shall conduct research program for such Target during the applicable Research Term, with the goal of identifying one or more Clinical Candidates Directed Against such Target for further Development and Commercialization as a Product as set forth herein (the "**MECP2 Research Program**", the "**[***] Research Program**" and the "**SYNGAP1 Research Program,**" respectively). Each Research Program shall be conducted pursuant to a research plan and budget detailing: (a) the activities to be undertaken by Stoke in the conduct such Research Program, which activities shall include preclinical research through IND-enabling toxicology studies, (b) the modality(ies) (i.e., class of compound) of Molecules that will be researched under the Research Plan, (c) the timeframes in which such activities are expected to be completed, and (d) the criteria for a Molecule to meet in order to be considered as a potential Molecule (such criteria the "**Critical Success Factors**," such plan the "**MECP2 Research Plan,**" "**[***] Research Plan**" and "**SYNGAP1 Research Plan**," respectively, and such budget the "**MECP2 Research Budget**," "**[***] Research Budget**" and "**SYNGAP1 Research Budget**," respectively). The initial Research Plan and corresponding Research Budget for each Research Program are attached hereto as Schedule 4.1. During the Research Term for a given Target, each Party shall have the right to propose updates or amendments to the applicable Research Plan and Research Budget, provided that any such updates or amendments shall be subject to review and discussion by the JDC, and review and approval by the JSC. Without limiting the JDC's rights to review and discuss and the JSC's rights to review and approve any updates or amendments to a Research Plan or Research Budget, and subject to the terms and conditions of this Agreement, Stoke shall have the right, without seeking JDC review or JSC approval, to make operational decisions with respect to the performance of any research activity assigned to it to the extent consistent with the then-current Research Plan and Research Budget.

4.2 Diligence. On a Research Program-by-Research Program basis, during the applicable Research Term, Stoke shall conduct the Research Program in accordance with this Agreement. Without limiting the foregoing, on a Research Plan-by-Research Plan basis, Stoke shall use Commercially Reasonable Efforts to conduct (itself or through its Affiliates or by permitted subcontracting) its obligations under such Research Plan in accordance with the timeframes set forth therein. Stoke shall conduct each Research Program in a good scientific manner, in accordance with GLP, GMP and GCP, as applicable, and in compliance with Applicable Laws. For clarity, for a given Research Program, Stoke shall not be required to perform any work which is not included in the applicable then-current Research Plan and corresponding Research Budget approved in accordance with this Agreement.

4.3 Research Term Extension. Acadia shall have the exclusive option at its sole discretion to extend the Research Term with respect to a Research Program by an additional [***], exercisable by written notice to Stoke at any time prior to the expiration of the then-current Research Term, up to [***] times, for a maximum Research Term of [***] with respect to such Research Program.

4.4 Research Costs.

(a) MECP2 Research Program and [***] Research Program. For each of the MECP2 Research Programs and [***] Research Programs, Acadia shall reimburse Stoke for all of Stoke's Research Costs incurred in the conduct of the relevant Research Plan in accordance with the Research Budget. With respect to each MECP2 Research Plan and [***] Research Plan, within [***] after the end of each [***] during the applicable Research Term, Stoke shall send a report to Acadia describing all of Stoke's Research Costs incurred under such Research Plan for such [***] and an invoice for such Research Costs. Acadia may reasonably request additional supporting documentation for Stoke's Research Costs described in such reports and Stoke shall provide such documentation (e.g. out-of-pocket cost breakdowns and general allocation of FTEs). Acadia shall pay all such invoiced amounts within [***] after receipt of any such invoice from Stoke. With respect to any MECP2 or [***] Research Program, reimbursement of any Stoke Research Costs in excess of the aggregate amount budgeted in the relevant Research Budget shall be subject to approval by the JSC.

(b) SYNGAP1 Research Program. For the SYNGAP1 Research Program, the Parties shall each fund fifty percent (50%) of Stoke's Research Costs incurred in the conduct of the relevant SYNGAP1 Research Plan in accordance with the SYNGAP1 Research Budget. Within [***] after the end of each [***] during the Research Term for the SYNGAP1 Research Program Stoke shall send a report to Acadia describing all of Stoke's Research Costs incurred under the SYNGAP1 Research Plan for such [***] and an invoice for fifty percent (50%) of such Research Costs. Acadia may reasonably request additional supporting documentation for Stoke's Research Costs described in such reports and Stoke shall provide such documentation (e.g. out-of-pocket cost breakdowns and general allocation of FTEs). Acadia shall pay all such invoiced amounts within [***] after receipt of any such invoice from Stoke.

(c) Permitted Research Overage. With respect to each Research Plan, Stoke shall use Commercially Reasonable Efforts to ensure that the actual costs and expenses for such research activities in a Calendar Year do not exceed [***] of the estimated allocated costs and expenses budgeted for such activity for such Calendar Year as set forth in the applicable Research Budget (i.e., the costs and expenses for the performance of a specific activity described in the Research Plan may exceed the estimated allocated costs and expenses therefor as set forth in the Research Budget by up to [***] (the "**Permitted Research Overage**") and such costs and expenses, to the extent such costs and expenses are within the Permitted Research Overage and would otherwise have been included as Research Costs but for the budget overage, shall be included as Research Costs). If Stoke believes that the actual costs and expenses in relation to a particular research activity in a Calendar Year will exceed the allocated budget (plus the Permitted Research Overage) for such activity during such Calendar Year as set forth in the applicable Research Budget, Stoke may request the JSC to review and approve an amendment to the applicable Research Budget before incurring such excess cost ("**Excess Research Overage**"). In the event that the JSC does not approve an increase in the applicable Research Budget for such activity, Stoke shall be solely responsible for the costs and expenses it incurs which are in excess of the applicable Research Budget (plus the Permitted Research Overage) (and any such Excess Research Overage shall not be Research Costs hereunder); provided that, to the extent such Excess Research Overage is attributable to reasonable activities performed as a direct result of (i) a change in Applicable Law, (ii) a force majeure or (iii) activities required by a Regulatory Authority, and

in each case of (i), (ii) or (iii), as applicable, such excess costs and expenses would otherwise have been included as Research Costs but for the budget overage, then such Excess Research Overage shall be included in Research Costs.

4.5 Subcontractors. Subject to the remainder of this Section 4.5, Stoke may engage subcontractors to perform its obligations under a Research Plan, which engagement shall be pursuant to a written agreement that is consistent with the terms and conditions of this Agreement (including without limitation Article 10 and Article 14), provided such subcontractor is (i) listed in the SYNGAP1 Research Plan, or (ii) consented to by Acadia, which consent shall not be unreasonably withheld or delayed. In all cases, Stoke shall ensure that (a) it remains responsible for the work allocated to such subcontractors to the same extent it would if it had done such work itself, (b) the subcontractor undertakes in writing obligations of confidentiality and non-use regarding Confidential Information that are at least as protective as those undertaken by such Party with respect to Confidential Information pursuant to Article 10, and (c) the subcontractor undertakes in writing to assign or exclusively license back (with the right to sublicense through multiple tiers) all intellectual property arising out of such subcontracted activities, in each case in the course of performing any such work under the applicable Research Plan, to Stoke such that Stoke shall Control such intellectual property. Without limiting the generality of the foregoing, Stoke may subcontract any of its obligations under the applicable Research Plan to a university or academic institution on reasonable and customary terms, provided that, (1) Stoke shall use reasonable efforts to ensure that such subcontracting relationship is consistent with, and such university or academic institution abides by, the terms and obligations set forth in this Section 4.5 (or such revisions to such terms or obligations as the Parties may mutually agree) and (2) neither the United States government nor any agency thereof has funded or will fund any part of such subcontracting relationship. Furthermore, Stoke shall provide to Acadia an unredacted copy of any and all such written agreements with such subcontractors.

4.6 Records; Audits; Reports.

(a) Records. Stoke shall maintain, or cause to be maintained, during the applicable Research Term and for a reasonable period of time thereafter that is consistent with industry standards, complete and accurate written (or electronic) records of its activities under each Research Plan in sufficient detail and in a good scientific manner appropriate for scientific, patent and regulatory purposes, which records shall reasonably reflect all work performed by or on behalf of Stoke under the applicable Research Plan ("**Research Plan Records**"), which Research Plan Records shall be the Confidential Information of Stoke (subject to the terms of Section 4.6(d) below).

(b) Acadia Right to Audit. With respect to a given Research Program, Acadia shall have the right to audit the relevant Research Plan Records to ensure compliance with this Agreement, exercisable during the applicable Research Term and for one year thereafter, on reasonable prior written notice and no more than once per Calendar Year absent cause.

(c) Results; Reports. For each Research Program, for each Calendar Quarter during the applicable Research Term, Stoke shall provide the JDC with an update and summary of the research activities, data, results and analyses ("**Results**") generated by it (or on its behalf) in conducting activities under the relevant Research Plan to date.

(d) Ownership; Confidentiality. Each Party shall own all rights, title and interest (including all intellectual property rights) in and to the Know-How (including Results) generated by it (or on its behalf) in connection with a Research Program in accordance with Section 14.1. Such Know-How shall in each case be subject to the rights and obligations of the Parties under this Agreement, including Article 9 and the licenses granted hereunder. With respect to a Research Program, for (i) the MECP2 and [***] Research Programs, all Results for such Research Program shall be deemed the Confidential Information of Acadia (and Acadia shall be deemed the disclosing Party and Stoke the receiving Party for the purposes of Article 10 regardless of who first actually disclosed), and (ii) the SYNGAP1 Research Program, all Results for such Research Program shall deemed be the Confidential information of both Parties, in each case regardless of whether contained in Research Plan Records and provided that (x) Stoke shall have a limited, non-exclusive, non-transferrable (except in connection with a permitted assignment of this Agreement as set forth in Section 17.1(a)) and sublicensable right (subject to Section 2.2(a)(i) applied *mutatis mutandis* with respect to Stoke) to use such of the Results as are generally applicable to Stoke's proprietary technology platform, TANGO, for identifying Antisense Oligonucleotides and other compounds for use in treating severe genetic diseases, solely for internal research purposes to improve such platform; and (y) Stoke shall have a limited, non-exclusive, non-transferrable (except in connection with a permitted assignment of this Agreement as set forth in Section 17.1(a)) and sublicensable right (subject to Section 2.2(a)(i) applied *mutatis mutandis* with respect to Stoke) to use such Results for any purpose, subject in each case ((x) and (y)) to Sections 2.1, 2.5, 4.6(d), Article 10 and other applicable terms and conditions under this Agreement. For clarity, the foregoing sentence does not limit Acadia's rights to the Results or use thereof for any purpose, subject to the applicable terms and conditions under this Agreement.

(e) Clinical Candidate Selection Process. In addition to reporting the Results in accordance with Section 4.6(c) above, on a Research Program-by-Research Program basis, Stoke shall provide the JDC a written data package containing: (a) the identity of each ASO or other compound Directed Against the relevant Target identified by Stoke during the conduct of the applicable Research Plan that [***] (each such Molecule a "**Molecule**"), (b) a summary of all preclinical data generated in the Research Program for such Molecule(s), (c) an intellectual property assessment, including an analysis of the patentability of each Molecule (including a prior art search and analysis) and (d) any other relevant supporting information and analysis pertaining to such Molecule(s) (each such notice a "**Clinical Candidate Notice**"). For clarity, a Molecule that should have been identified in such written data package but was not for whatever reason, shall nonetheless be considered a Molecule for the purposes of this Agreement. Each such Clinical Candidate Notice shall be provided by Stoke to the JDC in draft form (provided that items (a)-(d) above shall only be provided in such draft to the extent they exist at such time) no fewer than [***] prior to the anticipated end of the Research Term (which draft form shall not constitute a Clinical Candidate Notice for the purposes of this Agreement) and in final form upon the conclusion of the Research Term. Within [***] after the issuance of a Clinical Candidate Notice for a Research Program, the JDC shall meet to discuss the Molecule(s) identified in the Clinical Candidate Notice and shall recommend to the JSC which Molecule(s) to select for the conduct of GLP Tox Studies under the Research Plan. Within [***] after the JSC's receipt of the JDC's recommendation, the JSC may select one or more Molecules (without being limited to the Molecules that were recommended by the JDC) for the conduct of GLP Tox Studies under the Research Plan. Following the conduct of such GLP Tox Studies, Stoke shall report the results of such studies to the JDC and, within [***] thereof, the JDC shall meet to discuss such results and shall recommend to the JSC

which Molecule(s) to select as Clinical Candidates (as defined below) for further Development and Commercialization under this Agreement. Within [***] after the JSC's receipt of the JDC's recommendation, the JSC may select such one or more Molecules (without being limited to the Molecules that were recommended by the JDC) for such Research Program for further Development and Commercialization under this Agreement (each such Molecule as selected by the JSC a "**Clinical Candidate**"). During such aforementioned [***] and [***] periods, the Parties, via the JSC or JDC, will consider and discuss the information, and analyses, including that Stoke will provide direct access to Stoke's and its Affiliates' scientists or other relevant personnel involved in the conduct of the relevant Research Plan as reasonably requested by JSC or JDC. For clarity, with respect to each Research Program, the JSC may select one or more Molecules as Clinical Candidates for further Development and Commercialization as set forth herein, provided that if following the initial selection of Clinical Candidates by the JSC pursuant to the aforementioned [***] period, Acadia (with respect to the MECP2 and [***] Programs), or either Party (with respect to the SYNGAP1 Program), desires to select a Molecule that was not previously selected as a Clinical Candidate for such Research Program as a Clinical Candidate, then such Party shall notify the JSC in writing and the JSC shall determine whether or not to select such Molecule as a Clinical Candidate. Notwithstanding anything herein to the contrary, any dispute involving whether or not a Molecule is a Molecule shall be resolved in accordance with Section 3.7. Without limiting the scope of the selection process above, Stoke shall have and retain all rights in and to any Molecules that are not Molecules generated by Stoke in the conduct of a Research Plan (and, for clarity, such Molecules shall be Stoke's Confidential Information, subject to the terms and conditions of this Agreement including Section 2.5).

4.7 Failure to Identify Molecules or Clinical Candidates. If the conduct of the Research Program fails to generate any Molecules during the applicable Research Term, or if JSC fails to select at least one (1) Clinical Candidate for a Research Program in accordance with Section 4.6(e), then at the request of Acadia, the Parties will negotiate in good faith towards an extension of the applicable Research Term (without limiting Acadia's options to extend the Research Term pursuant to Section 4.3), and if the Research Term is not further extended (including following Acadia's options to extend the Research Term pursuant to Section 4.3), then [***].

ARTICLE 5
DEVELOPMENT AND COMMERCIALIZATION OF LICENSED PRODUCTS

5.1 Technology Transfer.

(a) MECP2 Research Program Transfer. Within [***] following the JSC's selection of one or more Clinical Candidates from the MECP2 Research Program in accordance with Section 4.6(e), Stoke shall transfer to Acadia (i) Stoke's existing Know-How and documentation for the synthesis, conjugation, formulation and manufacturing of the Clinical Candidate(s); (ii) any existing material of the Clinical Candidate(s); and (iii) all Results pertaining to such Clinical Candidate(s) and other Stoke MECP2 Know-How relating to such Clinical Candidate(s) and manufacture thereof (including, for example, Know-How from Stoke's other research programs to the extent necessary or generally useful in the manufacture of ASOs) (such transfer the "**MECP2 Technology Transfer**"), in each case, to the extent not already in the possession of Acadia. Acadia shall reimburse Stoke for its Internal Costs and External Costs in connection with performing such activities. In addition, for a period of [***] following the

completion of such transfer, Stoke shall provide Acadia with technical and scientific assistance as reasonably requested by Acadia and in an amount not to exceed [***] FTE hours, provided that Acadia will reimburse Stoke for any Internal Costs incurred in providing such assistance.

(b) [***] Research Program Transfer. Within [***] following the JSC's selection of one or more Clinical Candidates for the [***] Research Program in accordance with Section 4.6(e), Stoke shall transfer to Acadia (i) Stoke's existing Know-How and documentation for the synthesis, conjugation, formulation and manufacturing of the Clinical Candidate(s); (ii) any existing material of the Clinical Candidate(s); and (iii) all Results pertaining to such Clinical Candidate(s) and other Stoke [***] Know-How relating to such Clinical Candidate(s) and manufacture thereof (including, for example, Know-How from Stoke's other research programs to the extent necessary or generally useful in the manufacture of ASOs) ("**[***] Technology Transfer**"), in each case, to the extent not already in the possession of Acadia. Acadia shall reimburse Stoke for its Internal Costs and External Costs in connection with performing activities under the technology transfer plan. In addition, for a period of [***] following the completion of such transfer, Stoke shall provide Acadia with technical and scientific assistance as reasonably requested by Acadia and in an amount not to exceed [***] FTE hours, provided that Acadia will reimburse Stoke for any Internal Costs incurred in providing such assistance.

5.2 Development.

(a) Clinical Candidate Development; Responsibility. Subject to the terms and conditions of this Agreement, for each of the MECP2 and [***] Targets, Acadia will be responsible for carrying out and funding the Development (subject to Stoke carrying out those activities assigned to Stoke under the applicable Research Plan as described above) of the Clinical Candidates Directed Against such Targets in the Territory (the "**MECP2 Development Program**" and "**[***] Development Program,**" respectively). Before Acadia conducts any Development activities for Licensed Products for the MECP2 and [***] Targets, Acadia must have a Development Plan in place. Acadia shall conduct each Development Program pursuant to a plan setting forth, with respect to each Clinical Candidate for such Development Program, (i) the specific Development activities (including Clinical Trials) to be conducted by Acadia, (ii) planned timelines for conducting such Development activities, and (iii) a strategy and timeline for obtaining Regulatory Approval of a Licensed Product corresponding to such Clinical Candidate throughout the Territory (the "**MECP2 Development Plan**" and "**[***] Development Plan**," respectively). Acadia will submit an initial Development Plan for each Development Program to the JDC for review and comment within [***] following the relevant MECP2 Technology Transfer or [***] Technology Transfer. Following review and comment by the JDC, the JDC shall submit the initial Development Plan for a Development Program to the JSC for the JSC's review and approval. For clarity, during the Research Term or prior to the conclusion of a Research Program, Acadia may simultaneously perform certain Development activities (e.g., natural history studies) for the Licensed Products with respect to the MECP2 and [***] Targets, in each case, pursuant to a Development Program and corresponding Development Plan.

(b) Updates. Acadia shall update each Development Plan at least annually, which update shall be submitted to the JDC for review and comment, and to the JSC for review and approval. Once approved by the JSC, each updated Development Plan shall become effective and supersede the previous Development Plan as of the date of such approval or at such other time as decided by the JSC.

(c) Diligence. With respect to each Development Program for MECP2 and [***] Targets, Acadia shall use Commercially Reasonable Efforts to [***]. On a Development Program-by-Development Program basis, Acadia shall use Commercially Reasonable Efforts to conduct (itself or through its Affiliates or Sublicensees) such Development Program in accordance with the Development Plan, including the timeframes set forth therein. Acadia shall conduct each Development Program in a good scientific manner, in accordance with GLP, GMP and GCP, as applicable, and in compliance with Applicable Laws.

(d) Development Records. Acadia shall maintain complete, current and accurate records of the Development activities it conducts under a Development Program in good scientific manner appropriate for regulatory and patent purposes. Acadia shall document all non-clinical studies and Clinical Trials in formal written study reports according to Applicable Laws and national and international guidelines (*e.g.*, ICH, GCP, GLP, and GMP).

(e) Development Reports. Acadia shall keep Stoke, via the JDC, reasonably informed as to the progress and results of its and its Affiliates' and Sublicensees' Development activities under this Agreement for each Development Program ("**Development Records**"). Without limiting the foregoing, Acadia shall provide Stoke with regular reports (but in any event no less than every [***]) summarizing its Development of Licensed Products under each Development Program and the results of such Development. Such reports shall be at a level of detail sufficient to enable Stoke to determine Acadia's compliance with its diligence obligations under Section 5.2(c). Without limiting the foregoing, Acadia may respond to Stoke's reasonable questions or requests for additional information relating to such Development activities for each Development Program.

(f) Stoke Right to Audit. With respect to a given Development Program, Stoke shall have the right to audit the relevant Development Records to ensure compliance with this Agreement on reasonable prior written notice and no more than once per Calendar Year absent cause.

5.3 Regulatory Responsibility.

(a) Responsibility. For each of the MECP2 and [***] Programs, following the completion of the applicable MECP2 Technology Transfer or [***] Technology Transfer, (i) Acadia shall be solely responsible, at its sole expense, for all regulatory activities necessary to obtain and maintain Regulatory Approval of the applicable Licensed Products in the Field in the Territory, and (ii) Acadia will own all Regulatory Materials for such Licensed Products in the Field in the Territory, including all Regulatory Approvals, and will be responsible for the payment of fees and all other associated regulatory costs for such Licensed Products in the Field in the Territory.

(b) Stoke Obligations. Upon Acadia's request, Stoke shall provide reasonable and timely access, use and support of its then-existing regulatory and technical documents relating to any Licensed Products to assist Acadia's submission of any IND or other Regulatory Material. Acadia shall reimburse Stoke for the Internal Costs and External Costs incurred by Stoke in providing assistance pursuant to this Section 5.3(b).

(c) Notification of Threatened Action; Remedial Actions. Acadia shall promptly notify Stoke of any information it receives regarding any threatened or pending action, inspection or communication by any Regulatory Authority that may affect the safety or efficacy claims of any Licensed Products or the continued marketing of any Licensed Product. Without limiting the foregoing, Acadia shall promptly notify Stoke if it obtains information indicating that any Licensed Product may be subject to any recall, corrective action or other regulatory action taken by virtue of Applicable Law.

5.4 Manufacturing; Acadia Responsibilities. For each of the MECP2 and [***] Programs, following the completion of the applicable MECP2 Technology Transfer or [***] Technology Transfer, Acadia shall be responsible, itself or through Affiliates or Third Party contract manufacturers, for the Manufacture and supply of the applicable Licensed Products for use in all Development and Commercialization under this Agreement, and for all CMC activities for Licensed Products in the Field in the Territory, at Acadia's sole cost (and Stoke shall be responsible for such CMC activities until completion of the applicable technology transfer in accordance with the applicable Research Plan). The Manufacture of such Licensed Products, including all process and formulation development in connection therewith, including CMC activities, shall be conducted in compliance with this Agreement and all Applicable Laws.

5.5 Commercialization.

(a) Responsibility. Subject to the terms and conditions of this Agreement, Acadia (and its Affiliates and Sublicensees, as applicable) shall be responsible, at its sole cost and expense, for the Commercialization of all Licensed Products in the Field in the Territory.

(b) Diligence. Following receipt of Regulatory Approval for a Licensed Product in a Major Market, Acadia (and its Affiliates and Sublicensees, as applicable) shall use Commercially Reasonable Efforts to [***]. Acadia shall conduct all such Commercialization in a good scientific manner, in accordance with GLP, GMP and GCP, as applicable, and in compliance with Applicable Laws.

(c) Commercialization Reports. Acadia shall provide to Stoke an annual report on its Commercialization of the Licensed Products in the Territory. Each such report shall summarize Acadia's and its Affiliates' and sublicensees' significant Commercialization activities with respect to the Licensed Products throughout the Territory and will be at a level of detail sufficient to enable Stoke to determine Acadia's compliance with its diligence obligations in Section 5.5(b). Without limiting the foregoing, Acadia shall timely respond to Stoke's representatives' reasonable questions or requests for additional information relating to such Commercialization activities.

(d) Patent Marking. Acadia shall mark all Licensed Products in accordance with the applicable patent marking laws and shall require all of its Affiliates and Sublicensees to do the same.

5.6 Trademarks. Acadia will solely own all right, title and interest in and to any trademarks adopted for use with the Licensed Products in the Field in the Territory, and will be responsible for the registration, filing, maintenance and enforcement thereof. Neither Stoke nor any of its Affiliates will at any time do or authorize to be done any act or thing which is likely to materially impair the rights of Acadia therein, and will not at any time claim any right of interest in or to such marks or the registrations or applications therefor. Neither Stoke nor any of its Affiliates will use Acadia's or any of its Affiliates' trademarks or any confusingly similar trademarks in a manner that might amount to infringement, dilution, unfair competition or passing off of any of Acadia's or any of its Affiliates' trademarks without Acadia's consent.

ARTICLE 6
DEVELOPMENT OF SYNGAP1 CO-CO PRODUCTS

6.1 SYNGAP1 Co-Co Product Development Activities.

(a) SYNGAP1 Co-Development Plan. Subject to Section 6.3, with respect to each Clinical Candidate resulting from the SYNGAP1 Research Program and selected by the JSC for further Development and Commercialization in accordance with Section 4.6(e), promptly after such selection, the JDC shall prepare, subject to review and approval by the JSC, a written plan and budget detailing the Development objectives and the activities to be undertaken by both Parties in the Development a SYNGAP1 Co-Co Product corresponding to such Clinical Candidate in the Territory (each such plan and budget, as approved by the JSC, the "**SYNGAP1 Co-Development Plan**" and "**SYNGAP1 Co-Development Budget**"). Before either Party conducts any Development activities for SYNGAP1 Co-Co Products (other than those activities set forth in the SYNGAP1 Research Plan), there must be a SYNGAP1 Co-Development Plan in place. Each SYNGAP1 Co-Development Plan shall include: (a) in reasonable detail the planned Development activities for such SYNGAP1 Co-Co Product in the Territory, (b) an overall strategy for obtaining, supporting, and maintaining Regulatory Approval of such SYNGAP1 Co-Co Product in the Territory, (c) a timeline showing the key Development activities and timeframes in which such activities are expected to be completed, (d) a Lead Regulatory Party, as described in Section 6.9(a), (e) with respect to any other Development activity included in the plan, a Party to lead such Development activity (e.g., a Clinical Trial) (the "**Lead Development Party**") and (f) a plan for conducting a technology transfer of Know-How Controlled by Stoke and pertaining to such SYNGAP1 Co-Co Product to Acadia to support Acadia's Development activities for such SYNGAP1 Co-Co Product under the plan. With respect to designating a Lead Development Party for a particular activity, the JSC will take into consideration the relative capabilities of each Party to operationally lead such activity. Subject to Section 6.2 and Section 6.9(a), the Parties may elect to conduct Development activities jointly and allocate specific operational activities in accordance with the applicable SYNGAP1 Co-Development Plan. If a particular Development activity is

allocated to both Parties to perform jointly under the SYNGAP1 Co-Development Plan, then both Parties shall conduct such activity in collaboration with each other as directed by the JDC.

(b) Updates and Amendments. On at least an annual basis during the Term (or more frequently as may be required), the JDC shall update or amend the current version of each SYNGAP1 Co-Development Plan and SYNGAP1 Co-Development Budget based on currently available information and data. The JDC shall submit any such update or amendment to the JSC for review and approval. Each such update or amendment shall become effective and shall supersede the previous applicable SYNGAP1 Co-Development Plan and SYNGAP1 Co-Development Budget only upon approval thereof by the JSC. Notwithstanding anything to the contrary herein, if either Party proposes to include new or revised Development activities in a current SYNGAP1 Co-Development Plan and SYNGAP1 Co-Development Budget because those Development activities are required by a Regulatory Authority in the Territory, then the JSC shall approve the inclusion of such Development activities the SYNGAP1 Co-Development Plan and SYNGAP1 Co-Development Budget. Without limiting the JDC's rights to review and discuss and the JSC's right to approve each update or amendment to a SYNGAP1 Co-Development Plan or SYNGAP1 Co-Development Budget, the Lead Development Party to whom a particular Development activity is allocated under a SYNGAP1 Co-Development Plan shall have the right, without seeking JDC review or JSC approval, to make operational decisions with respect to the performance of such Development activity to the extent consistent with such SYNGAP1 Co-Development Plan and the SYNGAP1 Co-Development Budget.

(c) Diligence. Each Party shall use Commercially Reasonable Efforts to conduct (itself or through its Affiliates or by permitted subcontracting) the activities assigned to it under the then-current SYNGAP1 Co-Development Plan in accordance with the timeframes set forth therein. Each Party shall conduct such activities in a good scientific manner, in accordance with GLP, GMP and GCP, as applicable, and in compliance with Applicable Laws. All Development activities (other than those activities set forth in the SYNGAP1 Research Plan), including Clinical Trials, for SYNGAP1 Co-Co Products in the Territory shall be conducted solely as set forth in the relevant SYNGAP1 Co-Development Plan, and the Parties shall not perform any Development activities in the Territory for any SYNGAP1 Co-Co Product other than those set forth in the applicable SYNGAP1 Co-Development Plan. In the event a Party wishes to conduct a Development activity with respect to a SYNGAP1 Co-Co Product that is not included in the current applicable SYNGAP1 Co-Development Plan or SYNGAP1 Research Plan, e.g., with respect to a new formulation or indication, then such Party may propose such new Development activity to the JDC for consideration.

6.2 Conduct of Clinical Trials.

(a) With respect to any Clinical Trials of a SYNGAP1 Co-Co Product to be conducted pursuant to a SYNGAP1 Co-Development Plan, the Lead Development Party shall prepare and submit to the JDC for review, discussion and approval the protocol (and any amendments thereto) for any such Clinical Trial.

(b) The Lead Development Party for a given Clinical Trial under a SYNGAP1 Co-Development Plan shall act as the sponsor of such Clinical Trial. The Lead Development Party shall be responsible for obtaining all necessary approvals and clearances, including IRB approvals,

INDs and other Regulatory Approvals and customs clearances necessary for the conduct of such Clinical Trial, and the Lead Development Party shall ensure that all such approvals and clearances are obtained prior to initiating performance of the applicable Clinical Trial. The Lead Development Party shall ensure that the Clinical Trial is performed in accordance with the protocol and all Applicable Law, including GCPs.

(c) The Lead Development Party for a given Clinical Trial under a SYNGAP1 Co-Development Plan shall be responsible for selecting the Clinical Trial sites and principal investigators and entering into clinical trial agreements in connection therewith. The clinical trial agreements shall require the Clinical Trial sites to comply with all Applicable Laws and will contain provisions in accordance with industry standards, including those relating to confidentiality, data and results, intellectual property and publications; provided that, in all cases, such agreement shall require that all Know-How specifically related to the SYNGAP1 Co-Co Product, including improvements or modifications thereof, shall be assigned to the Lead Development Party (and shall, as between the Parties, be owned as provided for herein).

(d) The Lead Development Party for a given Clinical Trial under a SYNGAP1 Co-Development Plan shall prepare and obtain the patient informed consent forms for the Clinical Trials, which shall comply with Applicable Law. The Lead Development Party shall ensure that all patient authorizations and consents in connection with the Clinical Trials permit, in accordance with Applicable Law, sharing of clinical trial data with the other Party in accordance with this Agreement.

(e) Each Party or its representatives may, for actual cause or based upon a reasonable belief of non-compliance with a SYNGAP1 Co-Development Plan, this Agreement or Applicable Law, perform audits of the other Party or its Affiliates and any Clinical Trial sites engaged, or other facilities used, by such other Party or its Affiliates, Sublicensees or vendors to conduct its obligations under such SYNGAP1 Co-Development Plan (provided that with respect to audits of a Third Party or the facilities of a Third Party, such audit may only be conducted to the extent permitted under the applicable Party's agreement with such Third Party; provided that in negotiating such agreement, the applicable Party shall use Commercially Reasonable Efforts to obtain such rights for the other Party), to ensure that such Clinical Trials are conducted in compliance with such SYNGAP1 Co-Development Plan and all Applicable Laws. No later than [***] following the completion of any such audit, the auditing Party will provide the other Party with a written summary of its findings in English, including any deficiencies or other areas of remediation that the auditing Party reasonably identifies during such audit, and the Parties shall promptly meet to discuss such findings and proposed remedial actions. If the Parties agree on a proposed remedial action, the non-auditing Party will use Commercially Reasonable Efforts to remediate any such deficiencies within [***] following agreement upon the remedial actions (or such longer time as may be reasonably necessary so long as the non-auditing Party continues to use such Commercially Reasonable Efforts to remediate such deficiencies), at the non-auditing Party's cost and expense. If the non-auditing Party is unable to remediate such deficiencies within a reasonable period and the auditing Party reasonably determines, based on such deficiencies, that a site engaged to conduct activities pursuant to such SYNGAP1 Co-Development Plan is inadequate to continue performing in the applicable Clinical Trial, then without limiting any other remedies under the Agreement, the non-auditing Party will work with the auditing Party in good faith to wind-down activities at such site as promptly as practicable.

6.3 Clinical Supply. Unless otherwise determined by the JSC, with respect to each SYNGAP1 Co-Co Product, Stoke shall be responsible, by itself or through one or more Third Party contract manufacturers (each a "**CMO**"), to Manufacture and supply to each Party, its Affiliates and Sublicensees such SYNGAP1 Co-Co Product for Development in the Territory. Within [***] after the selection of a Clinical Candidate resulting from the SYNGAP1 Research Program, the Parties shall negotiate in good faith and enter into an agreement pursuant to which the supplying Party would supply the corresponding SYNGAP1 Co-Co Product to each Party for use in performing Development activities under the applicable SYNGAP1 Co-Development Plan at a transfer price equal to the supplying Party's Manufacturing Cost (without any markup) (each a "**SYNGAP1 Co-Co Clinical Supply Agreement**"). With respect to each SYNGAP1 Co-Co Clinical Supply Agreement, the Parties shall negotiate in good faith and enter into an agreement governing the quality control of the product Manufactured pursuant to such agreement.

6.4 Development Costs; Costs in Excess of Development Budget.

(a) Sharing. On a SYNGAP1 Co-Co Product-by-SYNGAP1 Co-Co Product basis, the Parties shall share all Development Costs for such SYNGAP1 Co-Co Product equally (50:50), as set forth in Section 9.6.

(b) Permitted Development Overage. With respect to each SYNGAP1 Co-Development Plan, the Party that is responsible for the performance of activities described in the SYNGAP1 Co-Development Plan shall use Commercially Reasonable Efforts to ensure that the actual costs and expenses for such Development activities in a Calendar Year do not exceed [***] of the estimated allocated costs and expenses budgeted for such activity with respect to such Party for such Calendar Year as set forth in the applicable SYNGAP1 Co-Development Budget (i.e., the costs and expenses for the performance of a specific activity described in the SYNGAP1 Co-Development Plan may exceed the estimated allocated costs and expenses therefor as set forth in the SYNGAP1 Co-Development Budget by up to [***] (the "**Permitted Development Overage**") and such costs and expenses, to the extent such costs and expenses are within the Permitted Development Overage and would otherwise have been included as Development Costs but for the budget overage, shall be included as Development Costs). If either Party believes that the actual costs and expenses in relation to a particular Development activity in a Calendar Year will exceed the allocated budget (plus the Permitted Development Overage) for such activity during such Calendar Year as set forth in the applicable SYNGAP1 Co-Development Budget, such Party may request the JSC to review and approve an amendment to the applicable SYNGAP1 Co-Development Budget before incurring such excess cost ("**Excess Development Overage**"). In the event that the JSC does not approve an increase in the SYNGAP1 Co-Development Budget for such activity with respect to such Party, the Party requesting approval shall be solely responsible for the costs and expenses it incurs which are in excess of the applicable SYNGAP1 Co-Development Budget (plus the Permitted Development Overage) (and any such Excess Development Overage shall not be Development Costs hereunder); provided that, to the extent such Excess Development Overage is attributable to reasonable activities performed as a direct result of (i) a change in Applicable Law, (ii) a Force Majeure or (iii) activities required by a Regulatory Authority, and in each case of (i), (ii) or (iii), as applicable, such excess costs and expenses would otherwise have been included as Development Costs but for the budget overage, then such Excess Development Overage shall be included in Development Costs.

6.5 Co-Development Reports. At each JDC meeting, (a) Stoke shall provide the JDC a summary of the progress and results of Development activities for any SYNGAP1 Co-Co Product for which Stoke is the Lead Development Party or Lead Regulatory Party or otherwise responsible for, and (b) Acadia shall provide the JDC a summary of the progress and results of Development activities for any SYNGAP1 Co-Co Product for which Acadia is the Lead Development Party or Lead Regulatory Party or otherwise responsible for. Without limiting the foregoing, Acadia and Stoke shall each provide the JDC with a written report summarizing the Development activities for the SYNGAP1 Co-Co Products conducted by or on behalf of each Party since the last JDC meeting, including, as applicable (i) patient enrollment and the ongoing status of all Clinical Trials, in each case, under any SYNGAP1 Co-Development Plan, (ii) the status of each pending and proposed Regulatory Material submission and Regulatory Approval for each SYNGAP1 Co-Co Product for the Territory, and (iii) the conduct of material Medical Affairs activities (e.g., attendance at industry conferences), in each case to the extent not already provided.

6.6 Standards of Conduct; Development Records. Acadia and Stoke shall perform, and each shall ensure that their Affiliates and licensees and permitted sublicensees (as applicable), and subcontractors perform, all Development activities under the SYNGAP1 Co-Development Plan in a good scientific manner, in accordance with GMP and GCP, as applicable, and in compliance with Applicable Laws. Each Party and its Affiliates shall maintain written or electronic records, in sufficient detail, in a good scientific manner (in accordance with GLP, GCP, and GMP, as applicable), and appropriate for regulatory and patent purposes, and that are complete and accurate in all material respects and reflect all Development work performed and results achieved, in each case, by or on behalf of such Party and its Affiliates under this Agreement.

6.7 Access to Data. In addition to its adverse event and safety data reporting obligations set forth in Section 6.10, each Party shall promptly provide the other Party with copies of all data and results and all supporting documentation (*e.g.*, protocols, Investigator's Brochures, case report forms, analysis plans) Controlled by such Party that are generated by or on behalf of such Party or its Affiliates, Sublicensees, or subcontractors, as applicable, in the Development of each SYNGAP1 Co-Co Product, to the extent necessary or reasonably useful for the performance of the other Party's Development activities.

6.8 Assumed Development Activities. Subject to any applicable SYNGAP1 Co-Co Clinical Supply Agreement, if (i) either Party anticipates that it is likely to, or has, defaulted on its obligations to timely perform one or more material Development activities allocated to such Party under a SYNGAP1 Co-Development Plan, and such failure delays the performance of such matters for a period of more than [***] beyond the timeline set forth in such SYNGAP1 Co-Development Plan, such Party shall so notify the other Party regarding such anticipated or actual failure to perform, or (ii) either Party has defaulted on its obligations to perform one or more material Development activities allocated to such Party under a SYNGAP1 Co-Development Plan, and such failure delays the performance of such matters for a period of more than [***] beyond the timeline set forth in such SYNGAP1 Co-Development Plan, the other Party may provide written notice of such failure to the defaulting Party then, in either case (clause (i) or (ii)), upon the effective date of the receipt of such notice as described in clause (i) or (ii), the defaulting Party shall have a [***] period (or such longer time as may be reasonably necessary so long as the defaulting Party continues to use diligent efforts to remediate such default pursuant to a plan of remediation) to commence the performance of such Development activities in accordance with the

terms hereof and the applicable SYNGAP1 Co-Development Plan, or, if it is not possible to commence performance during such time period due to factors outside that Party's control (e.g., force majeure), to commence steps needed to resolve the causes of such delayed performance, and to commence performance as soon as reasonably practicable (the "**Development Activities Cure Period**"). If (x) the defaulting Party has not commenced such performance or such steps to resolve the causes of the delay (as the case may be) during the applicable Development Activities Cure Period, (y) the defaulting Party notifies the non-defaulting Party in writing that the defaulting Party anticipates that it shall be unable to perform such Development activities, or (z) the defaulting Party does not perform such Development activities in accordance with the applicable SYNGAP1 Co-Development Plan or otherwise in accordance with this Article 6, within a reasonable period of time in accordance with the terms hereof, then, in each case ((x)-(z)), the non-defaulting Party may, upon written notice to the defaulting Party, assume those Development activities that are the subject of such default by the defaulting Party (the "**Assumed Development Activities**"). In connection with the defaulting Party's failure to perform such activities or default of such obligations and the non-defaulting Party's assumption thereof and without limiting the other rights and remedies that the non-defaulting Party may have hereunder, at law or in equity:

(a) the defaulting Party shall work collaboratively and in good faith with the non-defaulting Party, and make its personnel reasonably available to the non-defaulting Party, in each case, in order to (i) transfer of any applicable technology, materials, or contracts with subcontractors to the other Party that are necessary or reasonably useful for the performance of the applicable Assumed Development Activities, and (ii) provide such other assistance so as to enable the non-defaulting Party to assume performance of the applicable Assumed Development Activities;

(b) the non-defaulting Party shall thereafter have the right to make operational decisions with respect to the performance of such Assumed Development Activities as if such activities were assigned to such non-defaulting Party under the then-current SYNGAP1 Co-Development Plan (provided that the decision-making authority with respect to such activities shall remain subject to Article 3 in all respects);

(c) the JDC shall update the applicable SYNGAP1 Co-Development Plan to allocate performance of the Assumed Development Activities to the non-defaulting Party; and

(d) for the avoidance of doubt, Development Costs incurred in connection with the performance of Assumed Development Activities shall be shared equally (50:50) by the Parties as set forth in Section 9.6.

6.9 Regulatory Affairs.

(a) Regulatory Responsibilities. The Parties will share responsibility for leading regulatory matters relating to the SYNGAP1 Co-Co Products, as described in this Section 6.9 (each Party, when designated as provided herein to provide such leadership with respect to designated activities is the "**Lead Regulatory Party**" with respect to such activities). With respect to each SYNGAP1 Co-Co Product, Acadia shall (x) lead the overall strategy for obtaining Regulatory Approval of such SYNGAP1 Co-Co Product (including labeling for such SYNGAP1 Co-Co Product), including by selecting the jurisdictions within which MAAs will be pursued and

the timing and order in which such approvals will be sought ("**Regulatory Strategy**"), and will be the Lead Regulatory Party with respect to such strategic activities with respect to such SYNGAP1 Co-Co Product, (y) be the Lead Regulatory Party with respect to the submission of any MAA for such SYNGAP1 Co-Co Product, and (z) following the first Regulatory Approval of such SYNGAP1 Co-Co Product, be the Lead Regulatory Party in connection with such SYNGAP1 Co-Co Product and with respect to Commercialization and regulatory activities (including post-marketing studies). Subject to the foregoing, the JSC shall designate a Party to lead all other pre-Regulatory Approval regulatory matters relating to each SYNGAP1 Co-Co Product in accordance with the applicable SYNGAP1 Co-Development Plan (each Party in such capacity will be deemed the Lead Regulatory Party with respect to such activities). The Lead Regulatory Party shall be responsible for (i) filing for in its name, and owning, all Regulatory Materials relating to regulatory activities with respect to such SYNGAP1 Co-Co Product in the relevant country, (ii) overseeing, monitoring, and coordinating all regulatory actions, communications and filings with, and submissions to, each Regulatory Authority with respect to such activities; and (iii) interfacing, corresponding, and meeting with each Regulatory Authority with respect to such activities, in each case consistent with the Regulatory Strategy and applicable SYNGAP1 Co-Development Plan or SYNGAP1 Co-Commercialization Plan.

(b) Cooperation and Coordination. With respect to each SYNGAP1 Co-Co Product, at the Lead Regulatory Party's request, the other Party shall diligently cooperate with the Lead Regulatory Party in connection with any Regulatory Materials and other regulatory compliance related activities with respect to such SYNGAP1 Co-Co Product, including harmonization of any Regulatory Material submissions.

(c) Communications with Regulatory Authorities.

(i) **Prompt Disclosures**. Each Party shall inform the other Party within [***], or such shorter time as is necessary to comply with the reporting requirements of any applicable Regulatory Authority or under Applicable Laws, of notification of any action by, or notification or other information that it receives (directly or indirectly) from any Regulatory Authority in the Territory to the extent such information: (A) raises any material concerns regarding the safety or efficacy of a SYNGAP1 Co-Co Product; (B) indicates or suggests a potential material liability of either Party to Third Parties in connection with a SYNGAP1 Co-Co Product; (C) is reasonably likely to lead to a clinical hold, recall, market withdrawal, or field alert with respect to a SYNGAP1 Co-Co Product; or (D) relates to expedited and periodic reports of adverse events with respect to a SYNGAP1 Co-Co Product, or SYNGAP1 Co-Co Product complaints, and may have an adverse impact on the receipt or maintenance of Regulatory Approval or the continued Commercialization of a SYNGAP1 Co-Co Product. The Parties shall reasonably cooperate with and assist each other in complying with regulatory obligations and communications, including by providing to the applicable Lead Regulatory Party, within two (2) Business Days after a request, such information and documentation that is in the other Party's possession as may be necessary or helpful for such Lead Regulatory Party to prepare a response to an inquiry from a Regulatory Authority in the Territory with respect to a SYNGAP1 Co-Co Product. Each Party shall also promptly provide the other Party with a copy of all correspondence received from a Regulatory Authority in the Territory specifically regarding the matters referred to above (translated into English, if applicable). In addition, the Lead Regulatory Party shall allow the other Party a reasonable opportunity to review and comment on the Lead Regulatory Party's

proposed response to any Material Communications with any Regulatory Authority in the Territory with respect to any SYNGAP1 Co-Co Product in advance of the transmission of such response, and the Lead Regulatory Party shall reasonably consider all comments timely provided by the other Party in connection therewith.

(ii) **Other Disclosures**. Without limiting Section 6.9(c)(i), each Party shall promptly disclose to the other Party the following regulatory information:

(A) **Regulatory Actions**. All material information Controlled by such Party pertaining to actions taken by Regulatory Authorities related to a SYNGAP1 Co-Co Product in the Territory, including any notice, audit notice, notice of initiation by Regulatory Authorities of investigations, inspections, detentions, seizures, or injunctions concerning a SYNGAP1 Co-Co Product in the Territory, notice of violation letter (*i.e.*, an untitled letter), warning letter, service of process, or other inquiry; provided that a Party shall be entitled to redact those portions thereof to the extent not related to a SYNGAP1 Co-Co Product.

(B) **Regulatory Non-Compliance**. All information Controlled by such Party pertaining to notices from Regulatory Authorities in the Territory of non-compliance with Applicable Laws in connection with a SYNGAP1 Co-Co Product, including receipt of a warning letter or other notice of alleged material non-compliance from any Regulatory Authority relating to a SYNGAP1 Co-Co Product; provided that a Party shall be entitled to redact those portions thereof to the extent not related to a SYNGAP1 Co-Co Product.

(d) Regulatory Meetings. The Lead Regulatory Party shall provide the other Party with reasonable advance notice of all substantive meetings with the Regulatory Authorities pertaining to a SYNGAP1 Co-Co Product, or with as much advance notice as practicable under the circumstances. Upon the other Party's request, the Lead Regulatory Party shall include the other Party in the preparation and strategy for such substantive meeting and in any discussions and actions relating to the outcome thereof. The other Party shall participate (including attending in person as applicable) in all such meetings if required by the applicable Regulatory Authority, and otherwise, to the extent permitted by Applicable Laws and by the applicable Regulatory Authorities, shall have the right to participate provided that such participation shall be limited to up to two (2) representatives of the other Party.

(e) Regulatory Filings.

(i) **Regulatory Filings**. The Lead Regulatory Party for a country shall provide the other Party with a copy of all proposed material Regulatory Material submissions to be submitted to any Regulatory Authority in the country for a SYNGAP1 Co-Co Product for the other Party's review and comment sufficiently in advance of, but in any event, unless not practicable, at least [***] prior to, the Lead Regulatory Party's submission thereof, and the Lead Regulatory Party for the country shall reasonably consider incorporating any reasonable comments received from the other Party into such Regulatory Materials.

(ii) **Other Submissions**. In addition, the Lead Regulatory Party shall provide the other Party with written notice of each of the following events with regard to a SYNGAP1 Co-Co Product throughout the Territory (to the extent not already provided pursuant

to Section 6.9(e)(i)), within a reasonable period of time, but in any event, unless not practicable, at least [***], following the occurrence thereof (a) the submission of any applications for Regulatory Approval of a SYNGAP1 Co-Co Product to any Regulatory Authority in the country, and (b) receipt of or denial of Regulatory Approval for a SYNGAP1 Co-Co Product (or inquiries from the applicable Regulatory Authority related to the Regulatory Approval process); provided that in all cases the Lead Regulatory Party shall inform the other Party of any such event under (a) or (b) prior to any public disclosure of such event by the Lead Regulatory Party.

(f) Right of Reference. Subject to the rules of the relevant Regulatory Authority and the terms of this Agreement, each Party hereby grants to the other Party a "Right of Reference," as that term is defined in 21 C.F.R. § 314.3(b) (or any successor rule or analogous Applicable Laws recognized outside of the United States) to, and a right to copy, access, and otherwise use, all information and data relating to any SYNGAP1 Co-Co Product in any Regulatory Material or Regulatory Approval Controlled by such Party during the Term, solely for the other Party's or its Affiliates' use in the Development and Commercialization of the SYNGAP1 Co-Co Products during the Term in accordance with this Agreement. All such information and data contained in any such Regulatory Materials or Regulatory Approvals shall be considered Confidential Information of such Party and subject to the terms of Article 10. If requested by the other Party, such Party shall provide a signed statement to this effect in accordance with 21 C.F.R. § 314.50(g)(3) (or any successor rule or analogous Applicable Laws outside of the United States) to give effect to the intent of this Section 6.9(f).

6.10 Pharmacovigilance and Adverse Event Reporting. The Parties shall cooperate with regard to the reporting and handling of safety information involving the SYNGAP1 Co-Co Products in accordance with the Applicable Laws, regulatory requirements, and regulations on pharmacovigilance and clinical safety. The Lead Regulatory Party for a SYNGAP1 Co-Co Product in a given country shall be responsible for all processing of information related to any adverse events for such SYNGAP1 Co-Co Product for such country. Each Party shall provide to the other Party the relevant safety information it receives (either directly or indirectly) related to a SYNGAP1 Co-Co Product within such time to ensure that all regulatory requirements and timelines are met in the respective Territories. No later than [***] prior to the first IND submission, unless mutually agreed in writing by the Parties, the Parties shall negotiate in good faith and enter into one or more (as appropriate) written Pharmacovigilance Agreements for the SYNGAP1 Co-Co Products, which agreements shall define the pharmacovigilance responsibilities of the Parties and include safety data exchange procedures governing the exchange of information affecting the SYNGAP1 Co-Co Products (*e.g.*, serious adverse events, emerging safety issues) to enable each Party to comply with all of its legal and regulatory obligations related to such SYNGAP1 Co-Co Products (each a "**Pharmacovigilance Agreement**"). Between the execution of this Agreement and the execution of the Pharmacovigilance Agreement, each Party shall provide to the other Party within [***], any and all known information that may impact human safety with respect to the SYNGAP1 Research Program and SYNGAP1 Co-Co Products. Acadia shall own and maintain, and be responsible for, the global safety database for each SYNGAP1 Co-Co Product. In the event of any inconsistency between the terms of this Agreement and the Pharmacovigilance Agreement, the terms of this Agreement shall prevail and govern, except to the extent such conflicting terms relating directly to the pharmacovigilance responsibilities of the Parties (including the exchange of safety data), in which case the terms of the Pharmacovigilance Agreement shall prevail and govern.

6.11 Recalls, Withdrawal, or Field Alert of a SYNGAP1 Co-Co Product.

(a) Notification and Determination. In the event that any Governmental Authority threatens in writing or initiates any action to remove a SYNGAP1 Co-Co Product from the market (in whole or in part) in the Territory, the Party receiving notice thereof shall notify the other Party of such communication immediately, but in no event later than [***] after receipt thereof. Notwithstanding the foregoing, in all cases the Lead Regulatory Party for a SYNGAP1 Co-Co Product in a country shall determine whether to initiate any recall, withdrawal, or field alert of such SYNGAP1 Co-Co Product in such country, including the scope of such recall or withdrawal (*e.g.*, a full or partial recall, or a temporary or permanent recall) or field alert. Before the Lead Regulatory Party initiates a recall, withdrawal, or field alert for a SYNGAP1 Co-Co Product in a country, the Parties shall use reasonable efforts to promptly meet and discuss in good faith the reasons therefor, provided that such discussions shall not delay any action that such Lead Regulatory Party reasonably believes should be taken in relation to any actual or potential recall, withdrawal, or field alert. In the event of any such recall, withdrawal, or field alert, the Lead Regulatory Party for the applicable country shall determine the necessary actions to be taken and shall implement such action. Without limiting the foregoing, either Party shall have the right to propose that a recall, withdrawal, or field alert for a SYNGAP1 Co-Co Product should be initiated by such Party, but the Lead Regulatory Party for the applicable country shall have the right to make the final decision as to whether or not to initiate the recall, withdrawal, or field alert.

(b) Cost Allocation. All Internal Costs and External Costs associated with implementing a recall, withdrawal, or field alert with respect to a SYNGAP1 Co-Co Product shall be shared equally (50:50) by the Parties as Other Expenses, in accordance with Section 9.6(a) in the event of such a recall of a SYNGAP1 Co-Co Product in the Territory.

ARTICLE 7
CO-COMMERCIALIZATION OF SYNGAP1 CO-CO PRODUCTS

7.1 Co-Commercialization Activities.

(a) Co-Commercialization Plan. Subject to Section 7.7, with respect to each SYNGAP1 Co-Co Product, no later than [***] prior to the anticipated First Commercial Sale of such SYNGAP1 Co-Co Product in the Territory, the JCC shall prepare in good faith, subject to review and approval by the JSC, a commercially reasonable written plan and budget detailing the Commercialization objectives and the activities to be undertaken by both Parties in the Commercialization of such SYNGAP1 Co-Co Product in the Territory, which plan and budget shall be subject to review and approval by the JSC (each such plan and budget, as approved by the JSC, the **"SYNGAP1 Co-Commercialization Plan" and "SYNGAP1 Co-Commercialization Budget**"); provided that each SYNGAP1 Co-Commercialization Plan shall be consistent with the following: (i) Acadia shall lead the global Commercialization Strategy and related strategic activities throughout the Territory for each SYNGAP1 Co-Co Product, and (ii) Stoke shall have the right to [***] (the "**Stoke Minimum Participation Rights**"). Each SYNGAP1 Co-Commercialization Plan shall contain a three (3) year rolling annual plan for the global Commercialization activities for the applicable SYNGAP1 Co-Co Product in the Territory and the SYNGAP1 Co-Commercialization Budget shall include a three (3) year financial forecast

reflecting reasonably anticipated Commercialization Costs in accordance with the SYNGAP1 Co-Commercialization Plan.

(b) Updates and Amendments. On at least an annual basis during the Term (or more frequently as may be required), the JCC shall update or amend the then-current version of each SYNGAP1 Co-Commercialization Plan and SYNGAP1 Co-Commercialization Budget based on currently available information and data. The JCC shall submit any such update or amendment to the JSC for review and approval. Each such update or amendment shall become effective and shall supersede the previous applicable SYNGAP1 Co-Commercialization Plan and SYNGAP1 Co-Commercialization Budget only upon approval thereof by the JSC. Notwithstanding anything to the contrary herein, the Parties acknowledge and agree that to the extent a Regulatory Authority requires certain Commercialization activities, then the JSC shall approve the inclusion of such Commercialization activities in the SYNGAP1 Co-Commercialization Plan and SYNGAP1 Co-Commercialization Budget. Without limiting the JCC's rights to review and discuss and the JSC's right to approve each update or amendment to a SYNGAP1 Co-Commercialization Plan or SYNGAP1 Co-Commercialization Budget, the Lead Commercialization Party to whom a particular Commercialization activity is allocated under a SYNGAP1 Co-Commercialization Plan shall have the right, without seeking JCC review or JSC approval, to make operational decisions with respect to the performance of such Commercialization activity to the extent consistent with such SYNGAP1 Co-Commercialization Plan and the SYNGAP1 Co-Commercialization Budget.

(c) Medical Affairs. With respect to a given SYNGAP1 Co-Co Product, approximately [***] before the anticipated submission of the first MAA filing seeking Regulatory Approval for such SYNGAP1 Co-Co Product in the Territory, the applicable SYNGAP1 Co-Commercialization Plan shall be updated to include a plan for conducting Medical Affairs with respect to such SYNGAP1 Co-Co Product in the Territory. The Parties acknowledge and agree that Commercialization and Medical Affairs activities are separate activities and are subject to different Applicable Laws, regulatory requirements and obligations in various jurisdictions throughout the Territory, and that the Parties intend to comply with such Applicable Laws, regulatory requirements and obligations, as applicable.

(d) Lead Commercialization Party; Diligence.

(i) **Lead Commercialization Party.** Acadia shall lead the global Commercialization strategy ("**Commercialization Strategy**") and related strategic activities throughout the Territory for each SYNGAP1 Co-Co Product. Subject to Acadia's lead role with respect to strategic issues, the Parties will share responsibility for leading execution with respect to specific commercial activities relating to the SYNGAP1 Co-Co Products as set forth herein (each Party, with respect to such specified activities is the "**Lead Commercialization Party**"). Unless otherwise so designated by the JSC, with respect to specific commercial activities under SYNGAP1 Co-Commercialization Plan, the Lead Commercialization Party shall be whichever Party has been assigned responsibility for executing such specific commercial activities under the SYNGAP1 Co-Commercialization Plan. If a particular Commercialization activity is allocated to both Parties to perform jointly under a SYNGAP1 Co-Commercialization Plan, then both Parties shall coordinate to jointly conduct such activity in collaboration with each other. All Commercialization activities for SYNGAP1 Co-Co Products in the Territory shall be conducted

solely as set forth in the relevant SYNGAP1 Co-Commercialization Plan, and the Parties shall not perform any Commercialization activities in the Territory for any SYNGAP1 Co-Co Product other than those set forth in the applicable SYNGAP1 Co-Commercialization Plan. In the event a Party wishes to conduct a Commercialization activity with respect to a SYNGAP1 Co-Co Product that is not included in the current applicable SYNGAP1 Co-Commercialization Plan, then such Party may propose such new Commercialization activity to the JCC for consideration.

(ii) **Commercialization Diligence Obligations**. Following receipt of Regulatory Approval of a SYNGAP1 Co-Co Product in a Major Market within the Territory, each Party shall use Commercially Reasonable Efforts to perform, or cause to be performed, the activities for such SYNGAP1 Co-Co Product assigned to it in the applicable SYNGAP1 Co-Commercialization Plan in such Major Market and pursuant to this Agreement. Each Party shall conduct such activities in a good scientific manner, in accordance with GLP, GMP and GCP, as applicable, and in compliance with Applicable Laws.

7.2 Commercialization Costs; Costs in Excess of Commercialization Budget.

(a) Sharing. On a SYNGAP1 Co-Co Product-by-SYNGAP1 Co-Co Product basis, the Parties shall share all Commercialization Costs for such SYNGAP1 Co-Co Product equally (50:50) in accordance with Section 9.6.

(b) Permitted Commercialization Overage. With respect to each SYNGAP1 Co-Commercialization Plan, the Party that is responsible for the performance of activities described in the SYNGAP1 Co-Commercialization Plan shall use Commercially Reasonable Efforts to ensure that the actual costs and expenses for such Commercialization activities in a Calendar Year do not exceed [***] of the estimated allocated costs and expenses budgeted for such activity with respect to such Party for such Calendar Year as set forth in the applicable SYNGAP1 Co-Commercialization Budget (i.e., the costs and expenses for the performance of a specific activity described in the SYNGAP1 Co-Commercialization Plan may exceed the estimated allocated costs and expenses therefor as set forth in the SYNGAP1 Co-Commercialization Budget by up to [***] (the "**Permitted Commercialization Overage**") and such costs and expenses, to the extent such costs and expenses are within the Permitted Commercialization Overage and would otherwise have been included as Commercialization Costs but for the budget overage, shall be included as Commercialization Costs). If either Party believes that the actual costs and expenses in relation to a particular Commercialization activity in a Calendar Year will exceed the allocated budget (plus the Permitted Commercialization Overage) for such activity during such Calendar Year as set forth in the applicable SYNGAP1 Co-Commercialization Budget, such Party may request the JSC to review and approve an amendment to the applicable SYNGAP1 Co-Commercialization Budget before incurring such excess cost ("**Excess Commercialization Overage**"). In the event that the JSC does not approve an increase in the SYNGAP1 Co-Commercialization Budget for such activity with respect to such Party, the Party requesting approval shall be solely responsible for the costs and expenses it incurs which are in excess of the applicable SYNGAP1 Co-Commercialization Budget (plus the Permitted Commercialization Overage) (and any such Excess Commercialization Overage shall not be Commercialization Costs hereunder); provided that, to the extent such Excess Commercialization Overage is attributable to reasonable activities performed as a direct result of (i) a change in Applicable Law, (ii) a Force Majeure or (iii) activities required by a Regulatory Authority, and in each case of (i), (ii) or (iii),

as applicable, such excess costs and expenses would otherwise have been included as Commercialization Costs but for the budget overage, then such Excess Commercialization Overage shall be included in Commercialization Costs. For clarity, the process for increase the then-current SYNGAP1 Co-Commercialization Budget with respect to a Permitted Commercialization Overage is separate from and does not limit the JSC's ability to independently amend the then-current SYNGAP1 Co-Commercialization Plan to add new activities and to update the SYNGAP1 Co-Commercialization Budget accordingly.

7.3 Assumed Commercialization Activities. Subject to any applicable SYNGAP1 Co-Co Clinical Supply Agreement or SYNGAP1 Co-Co Commercial Supply Agreement, if (i) either Party anticipates that it is likely to, or has, defaulted on its obligations to timely perform one or more material Commercialization activities allocated to such Party under a SYNGAP1 Co-Commercialization Plan, and such failure delays the performance of such matters for a period of more than [***] beyond the timeline set forth in such SYNGAP1 Co-Commercialization Plan, such Party shall so notify the other Party regarding such anticipated or actual failure to perform, or (ii) either Party has defaulted on its obligations to perform one or more material Commercialization activities allocated to such Party under a SYNGAP1 Co-Commercialization Plan and such failure delays the performance of such matters for a period of more than [***] beyond the timeline set forth in such SYNGAP1 Co-Commercialization Plan, the other Party may provide written notice of such failure to the defaulting Party and, in either case (clause (i) or (ii)), the defaulting Party shall have a [***] period (or such longer time as may be reasonably necessary so long as the defaulting Party continues to use diligent efforts to remediate such default pursuant to a plan of remediation) to commence the performance of such Commercialization activities in accordance with the terms hereof and the applicable SYNGAP1 Co-Commercialization Plan, or, if it is not possible to commence performance during such time period due to factors outside that Party's control (e.g., force majeure), to commence steps needed to resolve the causes of such delayed performance, and to commence performance as soon as reasonably practicable (the "**Commercialization Activities Cure Period**"). If (a) the defaulting Party has not commenced such performance or such steps to resolve such causes of the delay (as the case may be) during the applicable Commercialization Activities Cure Period, (b) the defaulting Party notifies the non-defaulting Party in writing that the defaulting Party anticipates that it shall be unable to perform such Commercialization activities, or (c) the defaulting Party does not perform such Commercialization activities in accordance with the applicable SYNGAP1 Co-Commercialization Plan or otherwise in accordance with this Article 7, within a reasonable period of time in accordance with the terms hereof, then, in each case ((a)-(c)), the non-defaulting Party may, upon written notice to the defaulting Party, assume those Commercialization activities that are the subject of such default by the defaulting Party (the "**Assumed Commercialization Activities**"). In connection with the defaulting Party's failure to perform such activities or default of such obligations and the non-defaulting Party's assumption thereof, and without limiting the other rights and remedies that the non-defaulting Party may have hereunder, at law or in equity:

(a) the defaulting Party shall work collaboratively and in good faith with the non-defaulting Party, and make its personnel reasonably available to the non-defaulting Party, in each case, in order to (i) transfer of any applicable technology, materials, or contracts with subcontractors to the other Party that are necessary or reasonably useful for the performance of the applicable Assumed Commercialization Activities and (ii) provide such other assistance so as to

enable the non-defaulting Party to assume performance of the applicable Assumed Commercialization Activities;

(b) the non-defaulting Party shall thereafter have the right to make operational decisions with respect to the performance of such Assumed Commercialization Activities as if such activities were assigned to such non-defaulting Party under the then-current SYNGAP1 Co-Commercialization Plan (provided that the decision-making authority with respect to such activities shall remain subject to Article 3 in all respects);

(c) the applicable JSC subcommittee shall update the applicable SYNGAP1 Co-Commercialization Plan to allocate performance of the Assumed Commercialization Activities to the non-defaulting Party; and

(d) for the avoidance of doubt, Commercialization Costs incurred in connection with the performance of Assumed Commercialization Activities shall be shared equally (50:50) by the Parties as set forth in Section 9.6.

7.4 Pricing Matters. With respect to each SYNGAP1 Co-Co Product, the JSC shall, as and to the extent consistent with Applicable Law, provide a global pricing strategy for such SYNGAP1 Co-Co Product in the Territory, including establishing various pricing bands for each country in the Territory (collectively, the "**Pricing Guidelines**"). Acadia, as Lead Regulatory Party from and after first Regulatory Approval of a SYNGAP1 Co-Co Product and Lead Commercialization Party with respect to all strategic Commercialization matters, will be responsible for conducting all Pricing Matters in such country in accordance with the Pricing Guidelines, including negotiating, obtaining, and maintaining all Pricing and Reimbursement Approvals for the SYNGAP1 Co-Co Products in the relevant country. To the extent permitted by Applicable Law, Acadia, as the Lead Commercialization Party for each country, shall have the right and responsibility for establishing and modifying the terms and conditions with respect to the sale of such SYNGAP1 Co-Co Product to customers in such country, including any terms and conditions relating to the price at which the such SYNGAP1 Co-Co Product will be sold to customers (including discounts, rebates and other forms of price concessions); provided that, in connection therewith, the following shall apply:

(a) in those countries where Regulatory Authorities issue Pricing and Reimbursement Approvals for such SYNGAP1 Co-Co Product, such pricing decisions and terms shall in all cases comply with all applicable Pricing and Reimbursement Approvals from the applicable Regulatory Authorities in the country of sale; and

(b) such pricing decisions and terms shall, to the extent permitted by Applicable Law, also comply with the Pricing Guidelines (but subject in all cases to Section 7.4(a), if applicable, which shall control in the event of a conflict).

7.5 Commercialization Reports. At each JCC meeting, (a) Stoke shall provide the JCC a summary of the progress and results of Commercialization activities for any SYNGAP1 Co-Co Product for which Stoke is the Lead Commercialization Party or otherwise responsible for, (b) Acadia shall provide the JCC a summary of the progress and results of Commercialization activities for any SYNGAP1 Co-Co Product for which Acadia is the Lead Commercialization

Party or otherwise responsible for. Without limiting the foregoing, at each meeting of the JCC, each Party shall provide to the JCC a summary of sales forecasts, sales performance reports, and other information for such SYNGAP1 Co-Co Product, as applicable.

7.6 Standards of Conduct; Compliance. Each Party shall perform, or shall ensure that each of its Affiliates, Sublicensees, and subcontractors perform, all Commercialization activities in a professional and ethical business manner and in compliance with Applicable Laws, the Approved Labeling, and the applicable SYNGAP1 Co-Commercialization Plan.

7.7 Commercial Supply. With respect to each SYNGAP1 Co-Co Product, reasonably in advance of, but at least [***] prior to, the anticipated First Commercial Sale thereof, the JCC shall determine a plan for the Manufacture and supply to each Party, its Affiliates and Sublicensees of such SYNGAP1 Co-Co Product for Commercialization in the Territory. If, pursuant to such plan, Acadia will conduct some or all commercial manufacturing of the SYNGAP1 Co-Co Product (including supplying Stoke, its Affiliates or Sublicensees), then the JCC will prepare a plan (each such plan a "**SYNGAP1 Co-Co Technology Transfer Plan**") and Stoke shall transfer to Acadia or its CMO (subject to Section 2.2(b)(ii)) the Stoke SYNGAP1 Know-How (including, for example, Know-How from Stoke's other research programs to the extent necessary or generally useful in the manufacture of ASOs) with respect to the manufacture of such SYNGAP1 Co-Co Product as set forth in the plan, the cost of which transfer shall be shared by the Parties equally (50:50) as an Other Expense. To the extent necessary while the commercial manufacturing process for the SYNGAP1 Co-Co Product is being transferred and validated, Stoke will, upon on a transitional basis (not to exceed [***] after first Regulatory Approval of such SYNGAP1 Co-Co Product in the Territory), provide commercial supplies of the SYNGAP1 Co-Co Product following the first Regulatory Approval thereof in the Territory, subject to the terms and conditions set forth in the relevant SYNGAP1 Co-Co Clinical Supply Agreement. As applicable, the Parties shall negotiate in good faith and enter into an agreement pursuant to which a Party would supply the SYNGAP1 Co-Co Product to the other Party, its Affiliates and Sublicensees for use in performing Commercialization activities under the applicable SYNGAP1 Co-Commercialization Plan at a transfer price equal to such Party's Manufacturing Cost (each a "**SYNGAP1 Co-Co Commercial Supply Agreement**"). With respect to each SYNGAP1 Co-Co Commercial Supply Agreement, the Parties shall negotiate in good faith and enter into an agreement governing the quality control of the product Manufactured pursuant to such agreement.

7.8 SYNGAP1 Co-Co Product Materials. With respect to each SYNGAP1 Co-Co Product, unless otherwise agreed to by the Parties, the Parties shall jointly create and develop and provide to the JCC and JSC for approval all SYNGAP1 Co-Co Product Materials to be used in the Promotion of such SYNGAP1 Co-Co Product in each country in the Territory where the SYNGAP1 Co-Co Product is being Commercialized. All such SYNGAP1 Co-Co Product Materials shall be in accordance with the relevant Approved Labeling and Regulatory Approval, and in compliance with all Applicable Laws. Acadia, as Lead Commercialization Party for a country, shall own all rights, title, and interests in and to such SYNGAP1 Co-Co Product Materials in such country, excluding any Stoke Housemarks. The Parties agree that, to the extent permitted under Applicable Laws, all SYNGAP1 Co-Co Product Materials shall include Acadia Housemarks and Stoke Housemarks with equal prominence.

7.9 SYNGAP1 Co-Co Product Marks.

(a) Ownership. With respect to each SYNGAP1 Co-Co Product, unless otherwise agreed to by the Parties, the Parties shall jointly develop and provide to the JCC and JSC for approval of the SYNGAP1 Co-Co Product Marks for such SYNGAP1 Co-Co Product to be used in any country in the Territory where the SYNGAP1 Co-Co Product is being Commercialized. In addition, the Parties may mutually agree to jointly develop and adopt certain distinctive colors, logos, images, symbols, and trade dress to be used (in addition to the SYNGAP1 Co-Co Product Marks) in connection with the Commercialization of such SYNGAP1 Co-Co Product.

(b) Lead Party; Trademark License. The relevant SYNGAP1 Co-Commercialization Plan shall set forth a Lead Commercialization Party to own all rights, title, and interests in and to any SYNGAP1 Co-Co Product Marks for the relevant SYNGAP1 Co-Co Product in a country, including all Trademark registrations and applications therefor and all goodwill associated therewith, but expressly excluding Stoke Housemarks or Acadia Housemarks. To the extent the non-Lead Commercialization Party acquires any rights, title, or interests in or to any such SYNGAP1 Co-Co Product Mark (including any Trademark registration or application therefore or goodwill associated with any such SYNGAP1 Co-Co Product Mark), the non-Lead Commercialization Party shall, and hereby does, assign the same to the Lead Commercialization Party. With respect to any SYNGAP1 Co-Co Product Marks, (i) the relevant Lead Commercialization Party shall have, assert, or acquire any rights, title, or interests in or to any such SYNGAP1 Co-Co Product Marks or the goodwill pertaining thereto, and (ii) each Party recognizes and agrees that all goodwill developed by virtue of the use of such SYNGAP1 Co-Co Product Marks inures to the benefit of the associated Lead Commercialization Party; provided that (A) Acadia reserves all rights, title or interests in and to Acadia Housemarks, and all goodwill developed by virtue of the use of Acadia Housemarks inures to the benefit of Acadia, regardless of which Party uses Acadia Housemarks in which region, and (B) Stoke reserves all rights, title or interests in and to Stoke Housemarks, and all goodwill developed by virtue of the use of Stoke Housemarks inures to the benefit of Stoke, regardless of which Party uses Stoke Housemarks in which region. Upon a Party's reasonable request from time to time, the other Party shall provide to such Party for its review all materials that include any SYNGAP1 Co-Co Product Marks, provided that all subsequent uses of any materials already provided to such Party for review may be used without additional review.

(c) Use. Each Party agrees that it and its Affiliates and Sublicensees shall ensure that each SYNGAP1 Co-Co Product that is sold bearing any SYNGAP1 Co-Co Product Mark is of a high quality consistent with industry standards for global pharmaceutical and biologic therapeutic products. Each Party agrees that it and its Affiliates and Sublicensees shall (i) not use any SYNGAP1 Co-Co Product Marks in a way that might materially prejudice their distinctiveness or validity or the goodwill therein and shall include the trademark registration symbol ® or ™ as appropriate; (ii) ensure that each use of the SYNGAP1 Co-Co Product Marks is in accordance with the guidelines with respect to manner of use set forth in the applicable SYNGAP1 Co-Commercialization Plan; (iii) not directly or indirectly, attack, dispute, or contest the validity of or ownership of any SYNGAP1 Co-Co Product Mark anywhere in the Territory or any registrations issued or issuing with respect thereto; and (iv) not use any trademarks or trade names so resembling any SYNGAP1 Co-Co Product Mark as to be likely to cause confusion or deception.

(d) Registration, Maintenance, and Enforcement. The relevant Lead Commercialization Party shall have the sole right to register, maintain, and enforce the SYNGAP1 Co-Co Product Marks during the Term, provided that Acadia shall have the sole right to register, maintain, and enforce Acadia Housemarks and Stoke shall have the sole right to register, maintain, and enforce Stoke Housemarks regardless of where they are used. All costs of such registration, maintenance, and enforcement efforts shall be shared by the Parties equally (50:50) as Other Expenses to the extent such costs relate to registration, maintenance, and enforcement in the Territory of the SYNGAP1 Co-Co Product Marks used in connection with the Commercialization of the relevant SYNGAP1 Co-Co Product in the Territory (the "**Trademark Costs**").

7.10 Patent Marking. Each of Acadia and Stoke shall mark all SYNGAP1 Co-Co Products (or the packaging, inserts or by way of a product website) in accordance with the applicable patent marking laws, and shall require all of its Affiliates and Sublicensees to do the same.

7.11 Copyright License. Subject to the terms and conditions of this Agreement, each Party hereby grants to the other Party a non-exclusive license, with the right to grant sublicenses through multiple tiers without the prior written consent of such Party, to use such Party's copyrights solely to perform Medical Affairs activities with respect to the SYNGAP1 Co-Co Products in the Territory in accordance with this Agreement, the Medical Affairs plan and the Co-Commercialization Plan.

ARTICLE 8
SYNGAP1 OPT-OUT RIGHTS

8.1 Stoke Opt-Out Right During Development.

(a) Development Opt-Out Right. On a SYNGAP1 Co-Co Product-by-SYNGAP1 Co-Co Product basis, Stoke may elect to opt-out ("**Development Opt-Out**," and such right to Development Opt-Out, the "**Development Opt-Out Right**", and Stoke the "**Development Opt-Out Party**") of the global Development and Commercialization of such SYNGAP1 Co-Co Product hereunder by written notice to Acadia within each of the following time period (such period the "**Development Opt-Out Window**"): commencing on or after the Initiation of the first Phase I/II Clinical Trial for such SYNGAP1 Co-Co Product and ending [***] after the delivery of top line results from the first Phase III Clinical Trial of such SYNGAP1 Co-Co Product (meaning, the audited, quality-controlled tables, listings and figures, in reasonable and customary form, reflecting all results from such Clinical Trial) to the JSC. Stoke may exercise its Development Opt-Out Right upon [***] prior written notice to Acadia of such election during the Development Opt-Out Window (the "**Development Opt-Out Notice**"). Despite the exercise by Stoke of its Development Opt-Out Right in accordance with the foregoing sentence, Stoke shall remain responsible for the performance of its obligations as set forth in this Agreement and the SYNGAP1 Co-Development Plan and the sharing of the corresponding Development Costs incurred in the performance of such activities for a period ending [***] after the receipt of the Development Opt-Out Notice by Acadia (the "**Development Opt-Out Date**", and Acadia referred to as the "**Primary Party**" after the Development Opt-Out Date with respect to the SYNGAP1 Program).

(b) Effects of Development Opt-Out. Subject to the remainder of this Section 8.1(b), from and after the Development Opt-Out Date: (i) the SYNGAP1 Co-Co Product shall cease to be a SYNGAP1 Co-Co Product and shall be deemed a "**SYNGAP1 Opt-Out Product**," and Sections 5.2(c)-(f) and Sections 5.3-5.6 shall apply *mutatis mutandis* with respect to the further Development and Commercialization of such SYNGAP1 Co-Co Product by the Primary Party, (ii) the Development Opt-Out Party shall continue to be responsible for fifty percent (50%) of all Development Costs to the extent actually incurred by or on behalf of the Parties or are committed to through the Development Opt-Out Date, (iii) the Development Opt-Out Party shall not be responsible for any further Development Costs, Commercialization Costs or Other Expenses incurred with respect to the SYNGAP1 Opt-Out Product after the Development Opt-Out Date; (iv) the Primary Party shall pay to the Development Opt-Out Party milestone payments as set forth in Section 9.4 for such SYNGAP1 Opt-Out Product and royalties with respect to Net Sales of such SYNGAP1 Opt-Out Product as set forth in Section 9.5; (v) the license granted by Acadia to Stoke under Section 2.1(c)(ii) shall immediately terminate with respect to such SYNGAP1 Opt-Out Product as of the Development Opt-Out Date, and the license granted by Stoke to Acadia under Section 2.1(c)(i) shall survive the Development Opt-Out and immediately become exclusive with respect to such SYNGAP1 Opt-Out Product, including with respect to Stoke and its Affiliates (subject to applicable Antitrust Filings and related government approvals or clearances, provided that the Parties shall reasonably cooperate with each other in connection with the Antitrust Filings); (vi) the Parties shall agree upon a written transition plan (an "**Development Opt-Out Transition Plan**") setting forth all of the wind-down and other activities necessary or reasonably useful to transition all Development and Commercialization activities with respect to such SYNGAP1 Opt-Out Product, and any accompanying technology transfer activities further described in Section 8.1(c) (collectively, the "**Development Opt-Out Transition Activities**"); (vii) each Party shall carry out the Development Opt-Out Transition Activities assigned to it in the Development Opt-Out Transition Plan and the Parties shall share equally all costs as specified in such Development Opt-Out Transition Plan as if the same were Development Costs hereunder; (viii) the Development Opt-Out Party shall assign and transfer (where applicable) to the Primary Party all INDs, Regulatory Filings, Regulatory Approvals, Regulatory Materials, copies of material correspondence and conversation logs, pre-clinical and clinical study reports, clinical study protocols, and all data (in the format in which it is maintained by Stoke) pertaining solely to the SYNGAP1 Opt-Out Product, and shall grant the Primary Party a right of reference to all Regulatory Materials with respect to such SYNGAP1 Opt-Out Product necessary for the further Development and Commercialization thereof; and (ix) as soon as practicable, Stoke shall take all steps necessary to transfer to Acadia or its designee ownership of all such assigned INDs, Regulatory Filings, Regulatory Approvals and Regulatory Materials, including submitting to each applicable Regulatory Authority a letter or other necessary documentation (with a copy to Acadia) notifying such Regulatory Authority of the transfer of such ownership of the applicable INDs, Regulatory Filings, Regulatory Approvals and Regulatory Materials; provided that if it is not feasible under Applicable Laws for Stoke to transfer to Acadia any such INDs, Regulatory Filings, Regulatory Approvals and Regulatory Materials, Stoke shall hold such INDs, Regulatory Filings, Regulatory Approvals and Regulatory Materials in its name for the benefit of Acadia and shall grant, and hereby does grant to Acadia an exclusive, royalty-free license and right of reference to use such INDs, Regulatory Filings, Regulatory Approvals and Regulatory Materials in connection with Development and Commercialization of the SYNGAP1 Opt-Out Product and authorize Acadia or its designee to conduct regulatory activities with applicable Regulatory Authorities

relating to such INDs, Regulatory Filings, Regulatory Approvals and Regulatory Materials. Notwithstanding anything herein to the contrary, in the event that Stoke exercises its Development Opt-Out Right, the JSC, JDC, JCC and any subcommittees and Working Groups, except to the extent required by the Development Opt-Out Transition Plan to facilitate the Development Opt-Out Transition Activities, shall immediately disband with respect to the applicable SYNGAP1 Co-Co Product effective as of the date of the Development Opt-Out Notice. For avoidance of doubt, the Development Opt-Out Party shall remain fully liable for all of its accrued and unpaid liabilities as of the Development Opt-Out Date (even if such accrued and unpaid liabilities are only determined with certainty after such date).

(c) Development Opt-Out Program Transfer. Within [***] following the Development Opt-Out Date, the Development Opt-Out Party shall transfer to the Primary Party with respect to the applicable SYNGAP1 Opt-Out Product, (i) the Development Opt-Out Party's existing Know-How and documentation for the synthesis, conjugation, formulation and manufacturing of the SYNGAP1 Opt-Out Product; (ii) any existing material of the SYNGAP1 Opt-Out Product; and (iii) all results and other Development Opt-Out Party Know-How relating to such SYNGAP1 Opt-Out Product and manufacture of such SYNGAP1 Opt-Out Product (such transfer the "**SYNGAP1 Development Technology Transfer**"), in each case, to the extent requested by the Primary Party. In addition, for a period of [***] following the completion of such transfer, the Development Opt-Out Party shall provide the Primary Party with technical and scientific assistance as reasonably requested by the Primary Party, provided that the Primary Party reimburses the Development Opt-Out Party for its Internal Costs incurred in providing such assistance.

8.2 Stoke Opt-Out Right During Commercialization.

(a) Commercialization Opt-Out Right. On a SYNGAP1 Co-Co Product-by-SYNGAP1 Co-Co Product basis, provided that Stoke has not exercised its Development Opt-Out Right for such SYNGAP1 Co-Co Product, Stoke may, at any time following the First Commercial Sale of such SYNGAP1 Co-Co Product, elect to opt-out ("**Commercialization Opt-Out**," and such right to Commercialization Opt-Out, the "**Commercialization Opt-Out Right**") of the global Development and Commercialization of such SYNGAP1 Co-Co Product hereunder. Stoke may exercise its Commercialization Opt-Out Right by providing [***] prior written notice to Acadia of such election (the **"Commercialization Opt-Out Notice,**" the effective date of such notice is the "**Commercialization Opt-Out Date**" and such [***] period is the "**Opt-Out Period**"). Despite the exercise by Stoke of the Commercialization Opt-Out Right in accordance with the foregoing sentence, Stoke shall remain responsible for the performance of its obligations as set forth in this Agreement, the relevant SYNGAP1 Co-Development Plan and the relevant SYNGAP1 Co-Commercialization Plan during the entire Opt-Out Period, and for the sharing of the corresponding Development Costs and Commercialization Costs incurred in the performance of such activities; provided that, Stoke may at its option, on written notice to Acadia provided within [***] after the Commercialization Opt-Out Notice, elect to receive the Opt-Out milestones and royalties as described in Section 8.2(b) below, before the end of the Opt-Out Period, in lieu of sharing costs and revenues as described in Section 9.6, for the last [***] of the Opt-Out Period (the end of such [***] or [***] month period as elected by Stoke is the "**Commercialization Opt-Out Cross-Over Date**"), and if such option is elected, Stoke will continue to be obligated to perform any activities ascribed to Stoke under the SYNGAP1 Co-Development Plan or SYNGAP1

Co-Commercialization Plan during the remaining [***] of the Opt-Out Period, to the extent requested by Acadia; provided that, Acadia shall reimburse Stoke for its Internal Costs incurred in connection with the performance of such activities during such three (3) month period plus [***].

(b) Effects of Commercialization Opt-Out. Subject to the remainder of this Section 8.2(b), if Stoke exercises the Commercialization Opt-Out Right, then from and after the Commercialization Opt-Out Cross-Over Date (i) the SYNGAP1 Co-Co Products shall cease to be SYNGAP1 Co-Co Products and shall be deemed "**SYNGAP1 Opt-Out Products**," and Sections 5.3-5.6 shall apply *mutatis mutandis* with respect to the further Commercialization of such SYNGAP1 Co-Co Product by Acadia (ii) Acadia shall pay to Stoke royalties with respect to Net Sales of such SYNGAP1 Opt-Out Product as set forth in Section 9.5 and there shall be no further cost sharing under this Agreement with respect to such SYNGAP1 Opt-Out Products, including that Stoke shall not be responsible for any further Commercialization Costs or Other Expenses incurred with respect to the SYNGAP1 Opt-Out Product; (iii) the license of the Acadia SYNGAP1 Technology with respect to the SYNGAP1 Opt-Out Products from Acadia to Stoke under Section 2.1(c)(ii) shall immediately terminate as of the Commercialization Cross-Over Opt-Out Date, and the license of the Stoke SYNGAP1 Technology with respect to the SYNGAP1 Opt-Out Products from Stoke to Acadia under Section 2.1(c)(i) shall survive the Commercialization Opt-Out and immediately become exclusive, including with respect to Stoke and its Affiliates (subject to applicable Antitrust Filings and related government approvals or clearances, provided that the Parties shall reasonably cooperate with each other in connection with the Antitrust Filings); (iv) the Parties shall agree upon a written transition plan (an "**Commercialization Opt-Out Transition Plan**") setting forth all of the wind-down and other activities necessary or reasonably useful to transition all Development, Medical Affairs and Commercialization activities, and any accompanying technology transfer activities further described in Section 8.2(c) (collectively, the "**Commercialization Opt-Out Transition Activities**"); (v) each Party shall carry out the Commercialization Opt-Out Transition Activities assigned to it in the Commercialization Opt-Out Transition Plan and the Parties shall share equally all costs as specified in such Development Opt-Out Transition Plan as if the same were Commercialization Costs hereunder; (vi) Stoke shall assign and transfer (where applicable) to Acadia all INDs, Regulatory Filings, Regulatory Approvals, Regulatory Materials, copies of material correspondence and conversation logs, pre-clinical and clinical study reports, clinical study protocols, and all data (in the format in which it is maintained by Stoke) pertaining solely to the SYNGAP1 Opt-Out Product, and shall grant Acadia a right of reference to all Regulatory Materials with respect to such SYNGAP1 Opt-Out Product necessary for the further Development and Commercialization thereof; and (vii) as soon as practicable, Stoke shall take all steps necessary to transfer to Acadia or its designee ownership of all such assigned INDs, Regulatory Filings, Regulatory Approvals and Regulatory Materials, including submitting to each applicable Regulatory Authority a letter or other necessary documentation (with a copy to Acadia) notifying such Regulatory Authority of the transfer of such ownership of the applicable INDs, Regulatory Filings, Regulatory Approvals and Regulatory Materials; provided that if it is not feasible under Applicable Laws for Stoke to transfer to Acadia any such INDs, Regulatory Filings, Regulatory Approvals and Regulatory Materials, Stoke shall hold such INDs, Regulatory Filings, Regulatory Approvals and Regulatory Materials in its name for the benefit of Acadia and shall grant, and hereby does grant to Acadia an exclusive, royalty-free license and right of reference to use such INDs, Regulatory Filings, Regulatory Approvals and Regulatory Materials in connection with Development and Commercialization of the SYNGAP1 Opt-Out Product and authorize Acadia or its designee to conduct regulatory activities with applicable Regulatory

Authorities relating to such INDs, Regulatory Filings, Regulatory Approvals and Regulatory Materials. Notwithstanding anything herein to the contrary, in the event Stoke exercises its Commercialization Opt-Out Right, the JSC, JDC, JCC and any subcommittees and Working Groups shall immediately disband with respect to such SYNGAP1 Opt-Out Product effective as of the date of the Commercialization Opt-Out Notice. For avoidance of doubt, Stoke shall remain fully liable for all of its accrued and unpaid liabilities as of the Commercialization Opt-Out Cross-Over Date (even if such accrued and unpaid liabilities are only determined with certainty after such date).

(c) Commercialization Opt-Out Program Transfer. Within [***] following the Commercialization Opt-Out Cross-Over Date, as applicable, Stoke shall transfer to Acadia (i) Stoke's existing Know-How and documentation for the synthesis, conjugation, formulation and manufacturing of the SYNGAP1 Opt-Out Products; (ii) any existing material of the SYNGAP1 Opt-Out Products; and (iii) all results and other Commercialization Opt-Out Party Know-How relating to such SYNGAP1 Opt-Out Products and manufacture of such SYNGAP1 Opt-Out Product (such transfer the "**SYNGAP1 Commercialization Technology Transfer**"), in each case, to the extent requested by Acadia. In addition, for a period of [***] following the completion of such transfer, Stoke shall provide Acadia with technical and scientific assistance as reasonably requested by Acadia, provided that Acadia reimburses Stoke for its Internal Costs incurred in providing such assistance.

ARTICLE 9
PAYMENTS

9.1 Upfront Fee. In partial consideration of Stoke's granting of the licenses and rights to Acadia hereunder, Acadia shall pay to Stoke a one-time, non-refundable and non-creditable upfront payment of sixty million Dollars ($60,000,000) (the "**Upfront Payment**") within [***] following the Effective Date.

9.2 Payments for MECP2 Licensed Products.

(a) Development Milestones for MECP2 Licensed Products. In further consideration for the licenses and other rights granted to Acadia herein by Stoke, following the first achievement by Acadia, its Affiliate or Sublicensee of each Development Milestone Event set forth in the table below by a first MECP2 Licensed Product, Acadia shall make the corresponding one-time, non-refundable, non-creditable Development Milestone Payment to Stoke in accordance with Section 9.7(a).

Development Milestone Event	Development Milestone Payment
[***]	[$***]
[***]	[$***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

Each of the foregoing Development Milestone Payments in this Section 9.2(a) shall be payable a maximum of one (1) time with respect to all MECP2 Licensed Products regardless of the number of times the applicable Development Milestone Event was achieved by such MECP2 Licensed Products. [***]. Solely by way of first example, if [***]. Solely by way of second example, if [***]. For the avoidance of doubt, the maximum amount payable by Acadia pursuant to this Section 9.2(a) for all MECP2 Licensed Products is [***].

(b) Sales Milestones for MECP2 Licensed Products. In further consideration for the licenses and other rights granted to Acadia herein by Stoke, following the first achievement by Acadia, its Affiliate or Sublicensee of each Sales Milestone Event set forth in the table below on a MECP2 Licensed Product-by-MECP2 Licensed Product basis after the Effective Date, Acadia shall make the corresponding one-time, non-refundable, non-creditable Sales Milestone Payment to Stoke in accordance with Section 9.7(b).

Sales Milestone Event (each MECP2 Licensed Product)	Sales Milestone Payment
[***]	[***]
[***]	[***]
[***]	[***]

Each of the foregoing Sales Milestone Payments in this Section 9.2(b) shall be payable a maximum of one (1) time with respect to each MECP2 Licensed Product, regardless of the number of times the applicable Sales Milestone Event was achieved by such MECP2 Licensed Product. For the avoidance of doubt, the maximum total amount payable under this Section 9.2(b) shall not exceed [***] with respect to each MECP2 Licensed Product. If more than one Sales Milestone Event is achieved in the same Calendar Year, Acadia shall pay Stoke all Sales Milestone Payments for such Sales Milestone Events achieved in such Calendar Year in accordance with this Section 9.2(b).

(c) Royalty Payments for MECP2 Licensed Products.

(i) **Royalty Rates**. In further consideration for the licenses and other rights granted to Acadia herein by Stoke, subject to the remainder of this Section 9.2(c), Acadia shall make quarterly non-refundable, non-creditable royalty payments to Stoke on the aggregate Net Sales, on a MECP2 Licensed Product-by- MECP2 Licensed Product basis, sold in the Territory in a given Calendar Year, calculated by multiplying the applicable royalty rate set forth below by such Net Sales. The applicable royalty rates set forth in the table below will apply only to that portion of the Net Sales during a given Calendar Year that falls within the indicated range. Net Sales of each MECP2 Licensed Product throughout the Territory will be aggregated for purposes of determining the royalty tiers and royalties, provided that if no royalty is payable on a given unit of MECP2 Licensed Product (i.e., following the expiration of the MECP2 Royalty Term for such MECP2 Licensed Product in a given country), then the Net Sales of such unit of MECP2 Licensed Product shall not be included in Net Sales for purposes of determining the royalty tiers and royalties due hereunder. All royalty payments, and associated reports, shall be made in accordance with Section 9.7(c).

Aggregate Annual Net Sales of a MECP2 Licensed Product in the Territory	Royalty Rate
Portion of Net Sales in a given Calendar Year less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to ***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***]	[***]

(ii) **MECP2 Royalty Term.** Net Sales of a given MECP2 Licensed Product in a given country shall only be included in aggregate Net Sales for purposes of determining the royalty tiers and royalty payments due pursuant to this Section 9.2(c) during the period beginning on the First Commercial Sale of such MECP2 Licensed Product in such country and ending upon the later of: (A) the tenth (10th) anniversary of the date of the First Commercial Sale of such MECP2 Licensed Product in such country; (B) the expiration of the last Valid Claim that Cover such MECP2 Licensed Product in such country; and (C) the expiration of all Regulatory Exclusivities for such MECP2 Licensed Product in such country ("**MECP2 Royalty Term**").

(iii) **MECP2 Royalty Reductions**.

(A) **No Valid Claim**. On an MECP2 Licensed Product-by-MECP2 Licensed Product and country-by-country basis, the applicable royalty rate set forth in Section 9.2(c)(i) as applied to Net Sales of such MECP2 Licensed Product in such country shall be reduced by [***] during any Calendar Quarter of the MECP2 Royalty Term in which there is not at least one (1) Valid Claim that Covers such MECP2 Licensed Product, and all Regulatory Exclusivities for such MECP2 Licensed Product have expired, in such country, subject to Section 9.2(c)(iii)(D).

(B) **Generic Drug or Biosimilar Product**. If during any Calendar Quarter during the MECP2 Royalty Term, on an MECP2 Licensed Product-by-MECP2 Licensed Product and country-by-country basis, the aggregate number of units of Generic Drug or Biosimilar Products with respect to such MECP2 Licensed Product sold during such Calendar Quarter in such country, in the market segment in which such MECP2 Licensed Product competes in such country, equals or exceeds [***] of the aggregate units of the sum of all such Generic Drug or Biosimilar Products and such MECP2 Licensed Product sold in such Calendar Quarter in such country (as determined by data obtained from a mutually agreed upon Third Party source), then the applicable royalty rate set forth in Section 9.2(c)(i) as applied to Net Sales of such MECP2 Licensed Product in such country shall be reduced by [***] for such Calendar Quarter, subject to Section 9.2(c)(iii)(D).

(C) **Third Party In-License Payments**. On an MECP2 Licensed Product-by-MECP2 Licensed Product and country-by-country basis, if Acadia, its Affiliates or Sublicensees obtain a license or similar rights to Patent Rights of a Third Party or Third Parties in order to Develop, Manufacture or Commercialize such MECP2 Licensed Product in such country the during any Calendar Quarter during the Royalty Term for such MECP2 Licensed Product ("**MECP2 Third Party License(s)**"), then, subject to Section 9.2(c)(iii)(D), Acadia shall have the right to credit [***] of the royalties payable under such MECP2 Third Party

License(s) with respect units of MECP2 Licensed Product against royalties payable hereunder with respect to the same units of MECP2 Licensed Product.

(D) **Royalty Floor**. The reductions of Sections 9.2(c)(iii)(A), 9.2(c)(iii)(B) and 9.2(c)(iii)(C) are cumulative, provided that in no event shall the royalty rate applicable to Net Sales of the MECP2 Licensed Product during any Calendar Quarter in the Royalty Term in a country fall below a rate that is [***] of the royalty rate otherwise payable pursuant to Section 9.2(c)(i). Acadia may carry forward any such reductions permitted in accordance with Section 9.2(c)(iii)(A), Section 9.2(c)(iii)(B) and Section 9.2(c)(iii)(C) that are incurred or accrued in a Calendar Quarter but that are not applied against royalties due to Stoke for such MECP2 Licensed Product in such country in such Calendar Quarter as a result of the foregoing floor and apply such amounts against royalties due to Stoke for such MECP2 Licensed Product in such country in any subsequent Calendar Quarter (subject to the minimum floor set forth in this Section 9.2(c)(iii)(D)) until the amount of such reduction has been fully applied against royalties due to Stoke for such MECP2 Licensed Product in such country.

9.3 Payments for [***] Licensed Products.

(a) Development Milestones for [***] Licensed Products. In further consideration for the licenses and other rights granted to Acadia herein by Stoke, following the first achievement by Acadia, its Affiliate or Sublicensee of each Development Milestone Event set forth in the table below by a first [***] Licensed Product, Acadia shall make the corresponding one-time, non-refundable, non-creditable Development Milestone Payment to Stoke in accordance with Section 9.7(a).

Development Milestone Event	Development Milestone Payment
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

Each of the foregoing Development Milestone Payments in this Section 9.3(a) shall be payable a maximum of one (1) time with respect to all [***] Licensed Products regardless of the number of times the applicable Development Milestone Event was achieved by such [***] Licensed Products. [***]. Solely by way of first example, if [***]. Solely by way of second example, if [***]. For the avoidance of doubt, the maximum amount payable by Acadia pursuant to this Section 9.3(a) for all [***] Licensed Products is [***].

(b) Sales Milestones for [***] Licensed Products. In further consideration for the licenses and other rights granted to Acadia herein by Stoke, following the first achievement by Acadia, its Affiliate or Sublicensee of each Sales Milestone Event set forth in the table below on a [***] Licensed Product-by-[***] Licensed Product basis after the Effective Date, Acadia shall

make the corresponding one-time, non-refundable, non-creditable Sales Milestone Payment to Stoke in accordance with Section 9.7(b).

Sales Milestone Event (each [***] Licensed Product)	Sales Milestone Payment
[***]	[***]
[***]	[***]
[***]	[***]

Each of the foregoing Sales Milestone Payments in this Section 9.3(b) shall be payable a maximum of one (1) time with respect to each [***] Licensed Product, regardless of the number of times the applicable Sales Milestone Event was achieved by such [***] Licensed Product. For the avoidance of doubt, the maximum total amount payable under this Section 9.3(b) shall not exceed [***] with respect to each [***] Licensed Product. If more than one Sales Milestone Event is achieved in the same Calendar Year, Acadia shall pay Stoke all Sales Milestone Payments for such Sales Milestone Events achieved in such Calendar Year in accordance with this Section 9.3(b).

(c) Royalty Payments for [***] Licensed Products.

(i) **Royalty Rates**. In further consideration for the licenses and other rights granted to Acadia herein by Stoke, subject to the remainder of this Section 9.3(c), Acadia shall make quarterly non-refundable, non-creditable royalty payments to Stoke on the aggregate Net Sales, on a [***] Licensed Product-by-[***] Licensed Product basis, sold in the Territory in a given Calendar Year, calculated by multiplying the applicable royalty rate set forth below by such Net Sales. The applicable royalty rates set forth in the table below will apply only to that portion of the Net Sales during a given Calendar Year that falls within the indicated range. Net Sales of each [***] Licensed Product throughout the Territory will be aggregated for purposes of determining the royalty tiers and royalties, provided that if no royalty is payable on a given unit of [***] Licensed Product (i.e., following the expiration of the [***] Royalty Term for such [***] Licensed Product in a given country), then the Net Sales of such unit of [***] Licensed Product shall not be included in Net Sales for purposes of determining the royalty tiers and royalties due hereunder. All royalty payments, and associated reports, shall be made in accordance with Section 9.7(c).

Aggregate Annual Net Sales of a [***] Licensed Product in the Territory	Royalty Rate
Portion of Net Sales in a given Calendar Year less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***]	[***]

(ii) **[***] Royalty Term.** Net Sales of a given [***] Licensed Product in a given country shall only be included in aggregate Net Sales for purposes of determining the royalty tiers and royalty payments due pursuant to this Section 9.3(c) during the period beginning on the First Commercial Sale of such [***] Licensed Product in such country and ending upon the later of: (i) the tenth (10th) anniversary of the date of the First Commercial Sale of such [***]

Licensed Product in such country; (ii) the expiration of the last Valid Claim that Covers such [***] Licensed Product in such country; and (iii) the expiration of all Regulatory Exclusivities for such [***] Licensed Product in such country ("**[***] Royalty Term**").

(iii) **[***] Royalty Reductions**.

(A) **No Valid Claim**. On an [***] Licensed Product-by-[***] Licensed Product and country-by-country basis, the applicable royalty rate set forth in Section 9.3(c)(i) as applied to Net Sales of such [***] Licensed Product in such country shall be reduced by [***] during any Calendar Quarter of the [***] Royalty Term in which there is not at least one (1) Valid Claim that Covers such [***] Licensed Product, and all Regulatory Exclusivities for such [***] Licensed Product have expired, in such country, subject to Section 9.3(c)(iii)(D).

(B) **Generic Drug or Biosimilar Product**. If during any Calendar Quarter during the [***] Royalty Term, on an [***] Licensed Product-by-[***] Licensed Product and country-by-country basis, the aggregate number of units of Generic Drug or Biosimilar Products with respect to such [***] Licensed Product sold during such Calendar Quarter in such country, in the market segment in which such [***] Licensed Product competes in such country, equals or exceeds [***] of the aggregate units of the sum of all such Generic Drug or Biosimilar Products and such [***] Licensed Product sold in such Calendar Quarter in such country (as determined by data obtained from a mutually agreed upon Third Party source), then the applicable royalty rate set forth in Section 9.3(c)(i) as applied to Net Sales of such [***] Licensed Product in such country shall be reduced by [***] for such Calendar Quarter, subject to Section 9.3(c)(iii)(D).

(C) **Third Party In-License Payments**. On an [***] Licensed Product-by-[***] Licensed Product and country-by-country basis, if Acadia, its Affiliates or Sublicensees obtain a license or similar rights to Patent Rights of a Third Party or Third Parties in order to Develop, Manufacture or Commercialize such [***] Licensed Product in such country the during any Calendar Quarter during the Royalty Term for such [***] Licensed Product ("**[***] Third Party License(s)**"), then, subject to Section 9.3(c)(iii)(D), then, subject to Section 9.3(c)(iii)(D), Acadia shall have the right to credit [***] of the royalties payable under such [***] Third Party License(s) with respect units of [***] Licensed Product against royalties payable hereunder with respect to the same units of [***] Licensed Product.

(D) **Royalty Floor**. The reductions of Sections 9.3(c)(iii)(A), 9.3(c)(iii)(B) and 9.3(c)(iii)(C) are cumulative, provided that in no event shall the royalty rate applicable to Net Sales of the [***] Licensed Product during any Calendar Quarter in the Royalty Term in a country fall below a rate that is [***] of the royalty rate otherwise payable pursuant to Section 9.3(c)(i). Acadia may carry forward any such reductions permitted in accordance with Section 9.3(c)(iii)(A), Section 9.3(c)(iii)(B) and Section 9.3(c)(iii)(C) that are incurred or accrued in a Calendar Quarter but that are not applied against royalties due to Stoke for such [***] Licensed Product in such country in such Calendar Quarter as a result of the foregoing floor and apply such amounts against royalties due to Stoke for such [***] Licensed Product in such country in any subsequent Calendar Quarter (subject to the minimum floor set forth in this Section 9.3(c)(iii)(D)) until the amount of such reduction has been fully applied against royalties due to Stoke for such [***] Licensed Product in such country.

9.4 Milestone Payments for SYNGAP1 Co-Co Products and SYNGAP1 Opt-Out Products.

(a) Development Milestones for SYNGAP1 Co-Co Products and SYNGAP1 Opt-Out Products. In further consideration for the licenses and other rights granted to Acadia herein by Stoke, following the first achievement by either Party (or its Affiliate or Sublicensee) of each Development Milestone Event set forth in the table below by a first SYNGAP1 Co-Co Product or SYNGAP1 Opt-Out Product, Acadia shall make the corresponding one-time, non-refundable, non-creditable Development Milestone Payment to Stoke, which payment amount shall be reduced by [***] if such achievement is by a SYNGAP1 Opt-Out Product, in accordance with Section 9.7(a).

Development Milestone Event	Development Milestone Payment
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

Each of the foregoing Development Milestone Payments in this Section 9.4(a) shall be payable a maximum of one (1) time with respect to all SYNGAP1 Co-Co Products and SYNGAP1 Opt-Out Products regardless of the number of times the applicable Development Milestone Event was achieved by such SYNGAP1 Co-Co Products or such SYNGAP1 Opt-Out Products. [***]. Solely by way of first example, if [***]. Solely by way of second example, if [***]. For the avoidance of doubt, the maximum amount payable by Acadia pursuant to this Section 9.4(a) is [***] with respect to all SYNGAP1 Co-Co Products.

(b) Sales Milestones for SYNGAP1 Co-Co Products and SYNGAP1 Opt-Out Products. In further consideration for the licenses and other rights granted to Acadia herein by Stoke, with respect to each SYNGAP1 Co-Co Product and each SYNGAP1 Opt-Out Product, following the first achievement by Acadia of each Sales Milestone Event set forth in the table below by such SYNGAP1 Co-Co Product or SYNGAP1 Opt-Out Product, Acadia shall make the corresponding one-time, non-refundable, non-creditable Sales Milestone Payment to Stoke, which payment amount shall be reduced by [***] if such achievement is by a SYNGAP1 Opt-Out Product, in accordance with Section 9.7(b).

Sales Milestone Event (each SYNGAP1 Co-Co Product and each SYNGAP1 Opt-Out Product)	Sales Milestone Payment
[***]	[***]
[***]	[***]
[***]	[***]

Each of the foregoing Sales Milestone Payments in this Section 9.4(b) shall be payable a maximum of one (1) time with respect to each SYNGAP1 Co-Co Product and each SYNGAP1 Opt-Out Product, regardless of the number of times the applicable Sales Milestone Event was achieved by

such SYNGAP1 Co-Co Product or SYNGAP1 Opt-Out Product. For the avoidance of doubt, the maximum total amount payable under this Section 9.4(b) shall not exceed [***] with respect to a SYNGAP1 Co-Co Product. If more than one Sales Milestone Event is achieved in the same Calendar Year with respect to a SYNGAP1 Co-Co Product or SYNGAP1 Opt-Out Product, Acadia shall pay Stoke all Sales Milestone Payments for such Sales Milestone Events achieved in such Calendar Year in accordance with this Section 9.4(b).

9.5 Royalty Payments for SYNGAP1 Opt-Out Products.

(a) Royalty Rates. In further consideration for the licenses and other rights granted to the Primary Party herein by the Opt-Out Party, subject to the remainder of this Section 9.5(a), the Primary Party shall make quarterly non-refundable, non-creditable royalty payments to the Opt-Out Party on the aggregate Net Sales, on a SYNGAP1 Opt-Out Product-by-SYNGAP1 Opt-Out Product basis, sold in the Territory in a given Calendar Year, calculated by multiplying the applicable royalty rate set forth below by such Net Sales. The applicable royalty rates set forth in the table below will apply only to that portion of the Net Sales during a given Calendar Year that falls within the indicated range. Net Sales of each SYNGAP1 Opt-Out Product throughout the Territory will be aggregated for purposes of determining the royalty tiers and royalties, provided that if no royalty is payable on a given unit of SYNGAP1 Opt-Out Product (i.e., following the expiration of the SYNGAP1 Royalty Term for such SYNGAP1 Opt-Out Product in a given country), then the Net Sales of such unit of SYNGAP1 Opt-Out Product shall not be included in Net Sales for purposes of determining the royalty tiers and royalties due hereunder. All royalty payments, and associated reports, shall be made in accordance with Section 9.7(c).

(i) For each SYNGAP1 Opt-Out Product, if the Opt-Out Party provided a Development Opt-Out Notice on or after the Initiation of the first Phase I/II Clinical Trial for such SYNGAP1 Co-Co Product, and prior to the Initiation of the first Phase III Clinical Trial for such SYNGAP1 Co-Co Product:

Aggregate Annual Net Sales of the SYNGAP1 Opt-Out Product in the Territory	Royalty Rate
Portion of Net Sales in a given Calendar Year less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***]	[***]

(ii) For each SYNGAP1 Opt-Out Product, if the Opt-Out Party provided a Development Opt-Out Notice after the Initiation of the first Phase III Clinical Trial for such SYNGAP1 Co-Co Product and on or within [***] after the delivery of top line results from the first Phase III Clinical Trial of such SYNGAP1 Co-Co Product (meaning, the audited, quality-controlled tables, listings and figures, in reasonable and customary form, reflecting all results from such Clinical Trial) to the JSC:

Aggregate Annual Net Sales in the Territory	Royalty Rate
Portion of Net Sales in a given Calendar Year less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***]	[***]

(iii) For each SYNGAP1 Opt-Out Product after Stoke exercises a Commercialization Opt-Out:

Aggregate Annual Net Sales in the Territory	Royalty Rate
Portion of Net Sales in a given Calendar Year less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[**]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***]	[***]

(b) SYNGAP1 Royalty Term. Net Sales of a given SYNGAP1 Opt-Out Product in a given country shall only be included in aggregate Net Sales throughout the Territory for purposes of determining the royalty tiers and royalty payments due pursuant to this Section 9.5(b) during the period beginning on the First Commercial Sale of such SYNGAP1 Opt-Out Product in such country and ending upon the later of: (i) the tenth (10th) anniversary of the date of the First Commercial Sale of such SYNGAP1 Opt-Out Product in such country; (ii) the expiration of the last Valid Claim that Covers such SYNGAP1 Opt-Out Product in such country; and (iii) the expiration of all Regulatory Exclusivities for such SYNGAP1 Opt-Out Product in such country ("**SYNGAP1 Royalty Term**").

(c) SYNGAP1 Royalty Reductions.

(i) **No Valid Claim**. On an SYNGAP1 Opt-Out Product-by-SYNGAP1 Opt-Out Product and country-by-country basis, the applicable royalty rate set forth in Section 9.5(a) as applied to Net Sales of such SYNGAP1 Opt-Out Product in such country shall be reduced by [***] during any Calendar Quarter of the SYNGAP1 Royalty Term in which there is not at least one (1) Valid Claim that Covers such SYNGAP1 Opt-Out Product, and all Regulatory Exclusivities for such SYNGAP1 Opt-Out Product have expired, in such country, subject to Section 9.5(c)(iv).

(ii) **Generic Drug or Biosimilar Product**. If during any Calendar Quarter during the SYNGAP1 Royalty Term, on an SYNGAP1 Opt-Out Product-by-SYNGAP1 Opt-Out Product and country-by-country basis, the aggregate number of units of Generic Drug or Biosimilar Products with respect to such SYNGAP1 Opt-Out Product sold during such Calendar Quarter in such country, in the market segment in which such SYNGAP1 Opt-Out Product competes in such country, equals or exceeds [***] of the aggregate units of the sum of all such Generic Drug or Biosimilar Products and such SYNGAP1 Opt-Out Product sold in such Calendar

Quarter in such country (as determined by data obtained from a mutually agreed upon Third Party source), then the applicable royalty rate set forth in Section 9.5(a) as applied to Net Sales of such SYNGAP1 Opt-Out Product in such country shall be reduced by [***] for such Calendar Quarter, subject to Section 9.5(c)(iv).

(iii) **Third Party In-License Payments**. On an SYNGAP1 Opt-Out Product-by-SYNGAP1 Opt-Out Product and country-by-country basis, if it is necessary for the Primary Party, its Affiliates or Sublicensees to maintain or obtain a license or similar rights to Patent Rights of a Third Party or Third Parties in order to Develop, Manufacture or Commercialize such SYNGAP1 Opt-Out Product in such country during any Calendar Quarter during the Royalty Term for such SYNGAP1 Opt-Out Product ("**SYNGAP1 Third Party License(s)**"), then, subject to Section 9.5(c)(iv), the Primary Party shall have the right to credit [***] of the royalties payable under such SYNGAP1 Third Party License(s) with respect units of SYNGAP1 Opt-Out Product against royalties payable hereunder with respect to the same units of SYNGAP1 Opt-Out Product. If Acadia exercises its right to terminate pursuant to Section 15.2, the foregoing credit mechanism shall not apply to payments made under any Stoke Existing In-License.

(iv) **Royalty Floor.** The reductions of Sections 9.5(c)(i), 9.5(c)(ii) and 9.5(c)(iii) are cumulative, provided that in no event shall the royalty rate applicable to Net Sales of the SYNGAP1 Opt-Out Product during any Calendar Quarter in the SYNGAP1 Royalty Term in a country fall below a rate that is [***] of the royalty rate otherwise payable pursuant to Section 9.5(a) during any Calendar Quarter during the Royalty Term during which the Opt-Out Party is obligated to pay royalties under the Stoke Existing In-License agreements, as applicable with respect to the Opt-Out Party and with respect to such SYNGAP1 Opt-Out Product. The Primary Party may carry forward any such reductions permitted in accordance with Section 9.5(c)(i), Section 9.5(c)(ii) and 9.5(c)(iii) that are incurred or accrued in a Calendar Quarter but that are not applied against royalties due to the Opt-Out Party for such SYNGAP1 Opt-Out Product in such country in such Calendar Quarter as a result of the foregoing floor and apply such amounts against royalties due to the Opt-Out Party for such SYNGAP1 Opt-Out Product in such country in any subsequent Calendar Quarter (subject to the minimum floor set forth in this Section 9.5(c)(iv)) until the amount of such reduction has been fully applied against royalties due to the Opt-Out Party for such SYNGAP1 Opt-Out Product in such country.

9.6 Sharing of Costs and Revenues for SYNGAP1 Co-Co Products.

(a) Generally. With respect to each SYNGAP1 Co-Co Product, (i) on a worldwide basis, the Parties shall share all Development Costs on the basis of fifty percent (50%) to Acadia and fifty percent (50%) to Stoke; (ii) on a worldwide basis, the Parties shall share all Commercialization Costs on the basis of fifty percent (50%) to Acadia and fifty percent (50%) to Stoke; (iii) on a worldwide basis, the Parties shall share all Other Expenses on the basis of fifty percent (50%) to Acadia and fifty percent (50%) to Stoke, and (iv) on a worldwide basis, the Parties shall share SYNGAP1 Co-Co Product Net Revenues, in each case, received pursuant to this Agreement for such SYNGAP1 Co-Co Product, on the basis of fifty percent (50%) to Acadia and fifty percent (50%) to Stoke, in each case ((i), (ii), (iii), and (iv)), which shall be paid as set forth in Section 9.6(b). Notwithstanding the financial definitions herein, the Parties acknowledge and agree that no single item of cost or expense, and no revenue, shall be included or deducted more than one time in the calculation of Development Costs, Commercialization Costs, Other Expenses,

Manufacturing Costs or SYNGAP1 Co-Co Product Net Sales or Sublicensee Revenues, if inclusion therein would result in a duplication or double-counting of the same cost or expense or the same revenue.

(b) Calculation and Payment of Shared Costs and Revenues. During the Term, the following shall apply:

(i) Within [***] after the end of each Calendar Quarter, each Party shall provide to the other Party and the financial managers, in a format to be mutually agreed by the financial managers, (A) an interim activity-based statement of its (and its Affiliates') Development Costs and Other Expenses, including an itemized breakdown of the calculation of each element (including Internal Costs, External Costs, Manufacturing Costs and Third Party Co-Co In-License Payments) included in the Development Costs (each, an "**Interim Development Cost Report**") and (B) an interim activity-based statement of its (and its Affiliates) Commercialization Costs (each, an "**Interim Commercialization Cost Report**" and, together with the corresponding Interim Development Cost Report, the "**Interim Cost Reports**"), including an itemized breakdown of the calculation of each element of the Commercialization Costs (including Internal Costs, Manufacturing Costs and Third Party Co-Co In-License Payments), in each case of (A) and (B), to the extent incurred in such Calendar Quarter (or a good faith estimate of any portions thereof where actuals are not known as of such time and, to the extent possible, determine if the actuals are projected to be within [***] of such estimated amounts). The Interim Costs Reports shall be in a format to be agreed upon by the financial managers. To the extent that any such Development Costs, Other Expenses or Commercialization Costs reported pursuant to this Section 9.6(b)(i) were estimated, the relevant Party shall provide actual cost information in the Development Cost Report, or the Commercialization Cost Report, as applicable, pursuant to Section 9.6(b)(ii) below.

(ii) Within [***] after the end of each Calendar Quarter, each Party shall provide to the other Party and the financial managers, in a format to be mutually agreed by the financial managers, (A) a detailed, activity-based statement of its (and its Affiliates') Development Costs and Other Expenses, including an itemized breakdown of the calculation of each element (including Internal Costs, Manufacturing Costs and Third Party Co-Co In-License Payments) included in the Development Costs (each, a "**Development Cost Report**") and (B) a detailed, activity-based statement of its (and its Affiliates) Commercialization Costs (each, a "**Commercialization Cost Report**" and, together with the corresponding Development Cost Report, the "**Cost Reports**"), including an itemized breakdown of the calculation of each element of the Commercialization Costs (including Internal Costs, External Costs, Manufacturing Costs and Third Party Co-Co In-License Payments), in each case of (A) and (B), to the extent incurred in such Calendar Quarter (or a good faith estimate of any portions thereof where actuals are not known as of such time and, to the extent possible, determine if the actuals are projected to be within [***] of such estimated amounts). The Costs Reports shall be in a format to be agreed upon by the financial managers. To the extent that any such Development Costs, Other Expenses or Commercialization Costs reported pursuant to this Section 9.6(b)(ii) were estimated, the relevant Party shall provide actual cost information with the next Calendar Quarter's quarterly Development Cost Report, or Commercialization Cost Report, as applicable, and the provisions of Section 9.6(b)(iii) shall apply to properly allocate between the Parties any amount by which such actual costs exceeded or were less than the estimated costs. For clarity, Development Costs, Other Expenses and Commercialization Costs for each Calendar Quarter may include accruals/estimates,

and those accruals/estimates will be trued up to actual costs each Calendar Quarter as part of the cost reporting for the following Calendar Quarter.

(iii) Within [***] after the end of each Calendar Quarter, the financial managers shall provide to Acadia, Stoke and the JSC a written report (each, a "**Cost Reconciliation Report**") setting forth, in a format to be mutually agreed by the financial managers, the calculations of (A) the Development Costs and Other Expenses, and each Party's share of such Development Costs and Other Expenses, and (B) the Commercialization Costs and each Party's share of such Commercialization Costs. Such Cost Reconciliation Report shall include for such Calendar Quarter, the (1) total Development Costs, total Other Expenses and total Commercialization Costs incurred by each Party, and each Party's respective proportionate share thereof, and (2) the net payment due from one Party to the other Party in accordance with Section 9.6(a). Each Party shall promptly, following receipt of each Cost Reconciliation Report, issue an invoice to the other Party for any such net payment due to such Party from such other Party in accordance with Section 9.6(a). Any net payment owed from one Party to the other Party shall be paid within [***] following receipt of such invoice; provided that if a Party disputes an amount provided in such Cost Reconciliation Report, then such disputed amount shall be reviewed by the JSC provided, however, that in the event that the JSC is unable to resolve the issue, then notwithstanding Section 3.7, either Party shall have the right to have an independent auditor examine the applicable records in order to resolve such issue pursuant to Section 9.8, which determination shall be binding on the Parties absent manifest error, and any net payment owed with respect to the undisputed amounts shall be paid within such [***] period (and the disputed amount, if determined to be owed, shall be paid within [***] of resolution of the dispute). If requested by Acadia or Stoke, any invoices or other supporting documentation for any payments to a Third Party that individually exceed [***] shall be promptly provided.

(iv) Within [***] after the end of each Calendar Quarter, each Party shall provide to the other Party and the financial managers, in a format to be mutually agreed by the financial managers, (A) an interim statement of its (and each of its Affiliate's) SYNGAP1 Co-Co Product Net Revenues with respect to the applicable SYNGAP1 Co-Co Product for the Territory (including the calculation thereof, including a breakdown of SYNGAP1 Co-Co Product Net Revenues (and the calculation thereof)) and (B) an interim statement of Sublicensee Revenues for such Calendar Quarter with respect to the applicable SYNGAP1 Co-Co Product for the Territory, in each case (A) and (B), the interim statement may include a good faith estimate of any portions thereof where actual revenues are not known as of such time and, to the extent possible, determine if the actual revenues are projected to be within [***] of such estimated amounts, as well as details of any adjustments to be made to the amounts submitted in the previous Calendar Quarter in the previous Revenue Report or Revenue Reconciliation Report (each, an "**Interim Revenue Report**"). The Interim Revenue Report shall be in a format to be agreed upon by the financial managers.

(v) Within [***] after the end of each Calendar Quarter, each Party shall provide to the other Party and the financial managers, in a format to be mutually agreed by the financial managers, (A) a detailed statement of its (and each of its Affiliate's) SYNGAP1 Co-Co Product Net Revenues with respect to the applicable SYNGAP1 Co-Co Product for the Territory (including the calculation thereof, including a breakdown of SYNGAP1 Co-Co Product Net Revenues (and the calculation thereof)) and (B) a detailed statement of Sublicensee Revenues for

such Calendar Quarter with respect to the applicable SYNGAP1 Co-Co Product for the Territory, as well as details of any adjustments to be made to the amounts submitted in the previous Calendar Quarter in the Interim Revenue Report (each, a "**Revenue Report**"). The Revenue Report shall be in a format to be agreed upon by the financial managers.

(vi) Within [***] after the end of each Calendar Quarter, the financial managers shall provide to Acadia, Stoke and the JSC a written report (each, a "**Revenue Reconciliation Report**") setting forth, in a format to be mutually agreed by the financial managers prior to the First Commercial Sale of the SYNGAP1 Co-Co Product in the Territory, (A) the total SYNGAP1 Co-Co Product Net Sales and Sublicensee Revenues for the applicable SYNGAP1 Co-Co Product for the Territory, the amount of SYNGAP1 Co-Co Product Net Sales and Sublicensee Revenues for the applicable SYNGAP1 Co-Co Product for the Territory recognized by each Party, and each Party's share of such SYNGAP1 Co-Co Product Net Sales and Sublicensee Revenues for the applicable SYNGAP1 Co-Co Product for the Territory, and (B) the net payment due from one Party to the other Party in accordance with Section 9.6(a). Each Party shall promptly, following receipt of each Revenue Reconciliation Report, issue an invoice to the other Party for any such net payment due to such Party from such other Party in accordance with Section 9.6(a). Any net payment owed from one Party to the other Party shall be paid within [***] following receipt of such invoice; provided that if a Party disputes an amount provided in such Revenue Reconciliation Report, then such disputed amount shall be reviewed by the JSC (provided, however, that in the event that the JSC is unable to resolve the issue, then notwithstanding Section 3.7(a), either Party shall have the right to have an independent auditor examine the applicable records in order to resolve such issue pursuant to Section 9.8, which determination shall be binding on the Parties absent manifest error), and any net payment owed with respect to the undisputed amounts shall be paid within such [***] period (and the disputed amount, if determined to be owed, shall be paid within [***] of resolution of the dispute).

(vii) All costs and expenses and revenues pursuant to this Section 9.6 shall be recorded and reported consistent with U.S. GAAP, consistently applied, and shall be reported in Dollars (with currency conversions as set forth in Section 9.7(d)).

(viii) The financial managers may determine to consolidate the Cost Reconciliation Report and Revenue Reconciliation Report in order to result in one net payment by the applicable Party. In addition, if agreed to by the Parties (such agreement not to be unreasonably withheld, conditioned or delayed), the Parties shall have the right to reconcile amounts within the Cost Reconciliation Report and Revenue Reconciliation Report at the local country level, on a case-by-case basis; provided that any such amounts shall not also be counted in Section 9.6(a) in order to avoid duplication.

(ix) The Parties acknowledge and agree that the Manufacturing Costs and FTE Rate represent fair market value for the provision of the applicable services for which such amounts are paid and represent arms'-length negotiated amounts. The FTE Rate shall be reviewed annually by the Parties and may be adjusted by mutual written agreement of the Parties to the extent the Parties mutually determine that an adjustment is necessary to comply with the arm's-length standard under Applicable Law.

(x) Notwithstanding anything to the contrary set forth herein, (A) when calculating the Parties' Commercialization Costs, Development Costs and Other Expenses, any amount of, or in respect of, recoverable VAT incurred by each Party (or its Affiliates) in respect of any item of expenditure or cost that forms a component of such calculations shall be excluded and (B) when calculating SYNGAP1 Co-Co Product Net Sales and Sublicensee Revenues, any amount of, or in respect of, VAT in respect of any item of revenue that forms a component of such calculations shall be excluded.

(xi) Each Party shall consider in good faith other reasonable procedures proposed by the other Party for sharing applicable financial information hereunder in order to permit each Party to close its books periodically in a timely manner.

(c) Costs other than Allowable Costs. For the avoidance of doubt, except as provided in connection with the SYNGAP1 Research Costs, each Party shall be solely responsible for any costs and expenses (including any payments arising under any agreements between such Party (or its Affiliates) and Third Party licensors, including such payments arising from the grant of rights to, or exercise of rights by, the other Party (or any of its Affiliates or sublicensees) hereunder) incurred by it (or its Affiliate) in connection with the Development, Manufacture or Commercialization of a SYNGAP1 Co-Co Product, other than such costs and expenses that are included in the Development Costs, Other Expenses or Commercialization Cost as set forth in this Agreement (which shall be shared by the Parties as set forth in this Section 9.6(c)).

9.7 Payment Terms.

(a) Development Milestone Payments. Acadia shall provide Stoke with written notice of the achievement of each Development Milestone Event within [***] thereafter (with the except of [***]). Following receipt of such notification, Stoke shall invoice Acadia for the amount of the applicable Development Milestone Payment, and Acadia shall make the corresponding Development Milestone Payment within [***] after receipt of such invoice.

(b) Sales Milestone Payments. Following the First Commercial Sale of a Product, within [***] of the end of each Calendar Year, Acadia shall notify Stoke of each Sales Milestone Event achieved with respect to such Calendar Year. Following receipt of such notification, Stoke shall invoice Acadia for the amount of the applicable Sales Milestone Payment(s), and Acadia shall make the corresponding Sales Milestone Payment(s) within [***] after receipt of such invoice.

(c) Royalty Payments. During the Term, with respect to each Licensed Product, following the First Commercial Sale of such Licensed Product, Acadia shall furnish to Stoke a written report for each Calendar Quarter showing the Net Sales of such Licensed Product in the Territory during the reporting Calendar Quarter and the royalties payable under this Agreement pursuant to Section 9.2(c), Section 9.3(c) or Section 9.4 in sufficient detail to allow Stoke to verify the amount of royalties paid by Acadia with respect to such Calendar Quarter. Each such report for a Licensed Product shall include, on a country-by-country basis, the total gross amount invoiced for the Licensed Product sold, the Net Sales of the Licensed Product, and the total royalties (in USD) payable for the Licensed Product. Reports shall be due no later than [***] following the end of each Calendar Quarter. The corresponding royalties shown to have accrued

by each report provided under this Section 9.7(c) shall be due and payable on the date such report is due.

(d) Payment Currency; Exchange Rate; No Offset. All payments to be made under this Agreement shall be made in Dollars. Payments to a Party shall be made by electronic wire transfer of immediately available funds to the account of the other Party, as designated in writing to the paying Party. If any currency conversion is required in connection with the calculation of amounts payable hereunder, such conversion shall be made using a rate of exchange at the average actual foreign currency exchange rate for the month in which the expense is incurred or sale made according to the exchange rates utilized by the applicable Party in its own internal accounting system, consistently applied. Unless otherwise agreed to by the Parties, neither Party shall have the right to offset any payment that is owed by the other Party but not paid against any payments owed by such Party, if any, under this Agreement.

(e) Late Payments. Any undisputed payments or portions thereof due hereunder that are not paid on the date such payments are due under this Agreement shall bear interest at a rate equal to the lesser of: (i) [***] the prime rate as published by *The Wall Street Journal* or any successor thereto on the first day of each Calendar Quarter in which such payments are overdue or (ii) the maximum rate permitted by Applicable Law; in each case calculated on the number of days such payment is delinquent (provided that if the payment is disputed, such interest shall be calculated from the time that the dispute is resolved), compounded monthly.

(f) Blocked Currency. If by Applicable Laws in a country or jurisdiction in the Territory conversion into Dollars or transfer of funds of a convertible currency to the United States becomes materially restricted, forbidden or substantially delayed, then Acadia shall promptly notify Stoke and, thereafter, amounts accrued in such country or jurisdiction shall be paid to Stoke (or its designee) in such country or jurisdiction in local currency by deposit in a local bank designated by Stoke and to the credit of Stoke, unless the Parties otherwise agree.

9.8 Records and Audit Rights. Each Party shall keep complete, true and accurate books of account and records for the purpose of determining the amounts payable under this Agreement. Such books and records shall be kept at the principal place of business of each Party, as the case may be, for at least [***] (or such longer period as required by applicable Law) following the end of the Calendar Year to which they pertain. Each Party (the "**Audited Party**") shall make such account and records available, on reasonable notice sent by the other Party (the "**Auditing Party**"), for inspection during normal business hours, with not less than [***] advance written notice, by an independent certified public accounting firm nominated by such and reasonably acceptable for the Audited Party, for the purpose of verifying the accuracy of any statement or report given by the Audited Party and to verify the accuracy of the payments due hereunder for any Calendar Year. Such auditor shall advise the Parties simultaneously promptly upon its completion of its audit whether or not the payments due hereunder have been accurately recorded, calculated, and reported, and, if not, the amount of such discrepancy. Except in the case of willful misconduct or fraud, (a) a Party's financial records with respect to a given period of time shall only be subject to one (1) audit per Calendar Year, and (b) the Auditing Party's right to perform an audit pertaining to any Calendar Year shall expire [***] after the end of such Calendar Year. The auditor shall be required to keep confidential all information learned during any such inspection, and to disclose to the Auditing Party only such details as may be necessary to report

the accuracy of the Audited Party's statement or report. The Auditing Party shall be responsible for the auditor's costs, unless the auditor certifies that an overpayment to, or an underpayment by, the Audited Party that resulted from a discrepancy in a report that the Audited Party provided to the Auditing Party during the applicable audit period, which underpayment or overpayment was more than [***] of the amount set forth in such report or [***], whichever is greater, in which case the Audited Party shall bear the full cost of such audit. If such accounting firm correctly identifies a discrepancy made during such period, any unpaid amounts or overpaid amounts that are discovered shall be paid/refunded promptly but in any event within [***] of the date of delivery of such accounting firm's written report so correctly concluding, or as otherwise agreed upon by the Parties. The Auditing Party shall treat all financial information subject to review under this Section 9.8 in accordance with the confidentiality and non-use provisions of Article 10, and shall cause its accounting firm to enter into an acceptable confidentiality agreement with the Audited Party obligating it to retain all such information in confidence pursuant to such confidentiality agreement. Upon the expiration of [***] following the end of any Calendar Year, royalty calculations and joint Development Cost sharing calculations with respect to such Calendar Year shall be binding and conclusive upon both parties. Unless an audit is ongoing with respect to such period, the Parties shall be released from any liability or accountability with respect to said calculations for such Calendar Year.

9.9 Taxes.

(a) VAT. Any consideration due under this Agreement is exclusive of VAT. If any VAT will be chargeable on any of the transactions contemplated under this Agreement and is payable to the respective tax authority by the Party making the supply or providing the service for VAT purposes, upon receipt of a valid invoice in accordance with the applicable VAT law from the supplying or service providing Party, the other Party shall pay such VAT in addition to the consideration otherwise due.

(b) Withholding Taxes. Any Party (the "**Paying Party**") required to make a payment pursuant to this Agreement to the other Party (the "**Payee**") shall be entitled to deduct or withhold from the amount payable the tax for which the Paying Party is liable to deduct or withhold under any provisions of applicable tax law. If any Paying Party determines that applicable tax laws require withholding of any taxes, such Paying Party shall immediately notify the Payee in writing of the potential for withholding of taxes and cooperate with such Payee in good faith before undertaking any such withholding of taxes so as to reduce or eliminate any potential obligation for such withholding of taxes to the greatest extent possible, including with respect to obtaining the benefit of any present or future treaty against double taxation or refund or reduction in such taxes. Without limiting the foregoing, each Paying Party shall make any such required withholding payments in a timely manner and shall subtract the amount thereof from the payments made to Payee. Such Paying Party shall promptly (as available) submit to the Payee appropriate proof of payment of the taxes as well as the official receipts within a reasonable period of time. Notwithstanding the foregoing, if any Paying Party assigns this Agreement or changes its domicile, and, as a result, any additional taxes are required to be withheld with respect to payments made to Payee, such Paying Party shall be responsible for all such additional withholding taxes and shall pay the Payee such increased amounts as are necessary to ensure that such Payee receives the same amount as it would have received had no such assignment or change in domicile been made.

(c) Tax Cooperation. Each Party shall provide the other with reasonable assistance to enable the recovery, as permitted by Applicable Law, of withholding taxes, VAT 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 VAT.

ARTICLE 10
CONFIDENTIALITY

10.1 Confidential Information. For purposes of this Agreement, "**Confidential Information**" of a Party means all proprietary or confidential Know-How or other scientific, marketing, financial or commercial information and materials, whether or not patentable and in any form (written, oral, photographic, electronic, magnetic, or otherwise), including information or materials of Third Parties, that one Party or any of its Affiliates discloses or otherwise makes available to the other Party or its Affiliates pursuant to this Agreement. The terms and conditions of this Agreement shall be the Confidential Information of both Parties.

10.2 Duty of Confidence; Exceptions. Each Party agrees that, during the Term and for a period of [***] thereafter, it shall keep confidential and shall not publish or otherwise disclose and shall not use for any purpose other than as provided for in this Agreement (including for the exercise of the rights and licenses granted to such Party hereunder, but it being understood that this parenthetical itself shall not create or imply any rights or licenses not expressly granted under this Agreement) any Confidential Information of the other Party, except to the extent expressly agreed in writing by the other Party. The foregoing confidentiality and non-use obligations shall not apply to any portion of the disclosing Party's Confidential Information that the receiving Party can demonstrate by competent written proof:

(a) was in the lawful knowledge and possession of the receiving Party prior to the time it was disclosed to the receiving Party, or was otherwise developed independently by or for the receiving Party without use of or reference to the disclosing Party's Confidential Information, as evidenced by written records kept in the ordinary course of business, or other documentary proof of actual use by the receiving Party;

(b) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving Party;

(c) became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission of the receiving Party in breach of this Agreement; or

(d) was disclosed to the receiving Party, other than under an obligation of confidentiality, by a Third Party who, to the knowledge of the receiving Party, had no obligation to the disclosing Party not to disclose such information to others.

Any combination of features or disclosures shall not be deemed to fall within the foregoing exclusions merely because individual features are published or available to the general public or in the rightful possession of the receiving Party unless the combination itself and principle of operation are published or available to the general public or in the rightful possession of the receiving Party.

10.3 Authorized Disclosures. Notwithstanding Section 10.2, a Party may disclose Confidential Information belonging to the other Party if and to the extent such disclosure is reasonably necessary in the following instances:

(a) filing, prosecuting, maintaining or listing Patent Rights in accordance Article 14;

(b) filing, prosecuting, or maintaining Regulatory Materials and Regulatory Approvals for the Products as permitted by this Agreement;

(c) prosecuting or defending litigation as contemplated herein;

(d) subject to Section 11.2(b), to comply with Applicable Law;

(e) to actual or potential acquirors, investment bankers, investors, lenders, or other similar sources of financing solely for the purpose of evaluating or carrying out an actual or potential investment, or acquisition, in each case under a written agreement containing obligations of confidentiality and non-use at least as stringent as those herein; provided that the receiving Party will be liable for any breaches of its obligations of confidentiality and non-use hereunder by any of its actual or potential acquirors, investment bankers, investors, lenders, or other financial partners; and

(f) to its and its Affiliates' employees, consultants, advisors (including accountants and attorneys), contractors, agents, collaborators and Sublicensees, in each case on a need-to-know basis to exercise its rights or perform its obligations in accordance with the terms of this Agreement, and in each case under a written agreement containing obligations of confidentiality and non-use at least as stringent as those herein (or without such agreement for recipients that are financial or legal advisors under a professional code of conduct giving rise to an obligation of confidentiality and non-use at least as restrictive as those set forth in this Agreement), provided that the receiving Party will be liable for any breaches of its obligations of confidentiality and non-use hereunder by any of its or its Affiliates' employees, consultants, advisors (including accountants and attorneys), contractors, agents, collaborators and Sublicensees.

Notwithstanding the foregoing, in the event that a Party is required to make a disclosure of the other Party's Confidential Information pursuant to Section 10.3(c)-(d), it will, except where impracticable, promptly inform the other Party of the disclosure that is being sought in order to provide the other Party an opportunity to challenge or limit the disclosure obligations, and, if requested by the other Party, cooperate in all reasonable respects with the other Party's efforts to obtain confidential treatment or a protective order with respect to any such disclosure, at the other Party's expense. In any such event, each Party agrees to take all reasonable action to minimize disclosure of the other Party's Confidential Information. Any information disclosed pursuant to this Section 10.3 shall remain, subject to Section 10.2, the Confidential Information of the disclosing Party and subject to the restrictions set forth in this Agreement, including the foregoing provisions of this Article 10.

ARTICLE 11
PUBLICATIONS & PUBLICITY

11.1 Publications.

(a) SYNGAP1 Co-Co Products. The Parties will jointly develop a global publication strategy for the SYNGAP1 Co-Co Products, including a strategy for the publication of data generated under this Agreement from the conduct of Clinical Trials for SYNGAP1 Co-Co Products.

(b) Other Publications. Subject to Section 11.1(a), the following restrictions shall apply with respect to disclosure by any Party of Confidential Information in any publication or presentation with respect to the Research Programs, Development Programs, Targets, Products or their testing:

(i) both Parties acknowledge that it is their policy for the studies and results thereof to be registered and published in accordance with their internal guidelines; and

(ii) a Party ("**Publishing Party**") shall provide the other Party with a copy of any proposed material publication or presentation at least [***] (or [***] in the case of a manuscript) prior to submission for publication so as to provide such other Party with an opportunity to recommend any changes it reasonably believes are necessary to continue to maintain the Confidential Information disclosed by the other Party to the Publishing Party in accordance with the requirements of this Agreement. The incorporation of such recommended changes shall not be unreasonably refused; and if such other Party notifies ("**Publishing Notice**") the Publishing Party in writing, within such [***] period (or [***] period in the case of a manuscript) after receipt of the copy of the proposed publication, presentation, or manuscript, that such publication or presentation in its reasonable judgment (i) contains an invention, solely or jointly conceived or reduced to practice by the other Party, for which the other Party reasonably desires to obtain patent protection or (ii) could be expected to have a material adverse effect on the commercial value of any Confidential Information disclosed by the other Party to the Publishing Party, the Publishing Party shall prevent such publication or delay such publication for a mutually agreeable period of time. In the case of inventions, a delay shall be for a period reasonably sufficient to permit the timely preparation and filing of a patent application(s) on such invention, and in no event less than [***] from the date of the Publishing Notice.

(c) Re-Publication. Notwithstanding anything to the contrary in this Section 11.1, the contents of any press release or other publication that has been reviewed and approved by a reviewing Party in accordance with this Section 11.1 may be re-released by such reviewing Party or Publishing Party without a requirement for re-approval.

11.2 Publicity.

(a) The Parties have mutually approved a joint press release attached hereto as Schedule 11.2 with respect to this Agreement and either Party may make subsequent public disclosure of the contents of such press release. Each Party agrees not to issue any press release or other public statement, whether oral or written, disclosing the terms hereof or any of the activities conducted hereunder without the prior written consent of the other Party (such consent

not to be unreasonably withheld, conditioned or delayed), except as provided herein. Notwithstanding the foregoing, any disclosure that is required by Applicable Laws (including the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended) or the rules of any Securities Regulator or the securities regulations of any other jurisdiction, shall be in accordance with Sections 10.3 and 11.2(b), as applicable. Without limiting the foregoing, each Party agrees to provide to the other Party a copy of any public announcement covered by this Section 11.2(a) as soon as reasonably practicable under the circumstances prior to its scheduled release. In the event that Stoke desires to make a public announcement regarding any payment under Article 9 (or the occurrence of the activity related thereto), Stoke will provide Acadia with no less than [***], or shorter period if required by Applicable Law, in which to review and approve such announcement, such approval not to be unreasonably withheld, conditioned or delayed.

(b) Securities Filings. The Parties hereby acknowledge and agree that either Party may be required by Applicable Laws to submit a copy of this Agreement to the US Securities and Exchange Commission or its foreign equivalent (each, a "**Securities Regulator**"). If a Party is required by Applicable Laws to submit a description of the terms of this Agreement to or file a copy of this Agreement with any Securities Regulator, such Party agrees to consult and coordinate with the other Party with respect to such disclosure and, if applicable, the preparation and submission of a confidential treatment request for this Agreement. Notwithstanding the foregoing, if a Party is required by Applicable Laws to submit a description of the terms of this Agreement to or file a copy of this Agreement with any Securities Regulator and such Party has (i) promptly notified the other Party in writing of such requirement and any respective timing constraints, (ii) provided copies of the proposed disclosure or filing to the other Party reasonably in advance of such filing or other disclosure and (iii) given the other Party a reasonable time under the circumstances to comment upon and request confidential treatment for such disclosure, then such Party will have the right to make such disclosure or filing at the time and in the manner reasonably determined by its counsel to be required by Applicable Laws or the applicable Securities Regulator. If a Party seeks to make a disclosure or filing as set forth in this Section 11.2(b) and the other Party provides comments within the respective time periods or constraints specified herein, the Party seeking to make such disclosure or filing will reasonably consider such comments and use good faith efforts to incorporate such comments in the disclosure or filing; provided that prior to making any such filing of this Agreement, the Parties shall reasonably cooperate and use good faith efforts to agree on a redacted form of this Agreement to be so filed.

ARTICLE 12
REPRESENTATIONS, WARRANTIES, AND COVENANTS

12.1 Mutual Representations and Warranties. Each of Acadia and Stoke represent and warrant, as of the Effective Date, that:

(a) it is duly organized and validly existing under in the Applicable Laws of the jurisdiction of its incorporation or formation, as applicable, has full corporate, limited liability company or other power and authority, as applicable, to enter into this Agreement and to carry out the provisions hereof, and has sufficient facilities, experienced personnel or other capabilities (including via Affiliates or Third Parties) to enable it to perform its obligations under this Agreement;

(b) it is duly authorized to execute and deliver this Agreement and to perform its obligations hereunder, and each individual executing this Agreement on its behalf has been duly authorized to do so by all requisite corporate, limited liability company or other action, as applicable; and

(c) this Agreement is legally binding upon it and enforceable in accordance with its terms (except as the enforceability thereof may be limited by bankruptcy, bank moratorium or similar laws affecting creditors' rights generally and laws restricting the availability of equitable remedies and may be subject to general principles of equity whether or not such enforceability is considered in a proceeding at law or in equity) and the execution, delivery and performance of this Agreement by it have been duly authorized by all necessary corporate action and do not and shall not: (i) conflict with, or constitute a default or result in a breach under, any agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, or violate any Applicable Law; or (ii) require any consent or approval of its stockholders or similar.

12.2 Stoke Representations and Warranties. Stoke represents and warrants to Acadia that, as of the Effective Date:

(a) Stoke is the sole and exclusive owner of, or otherwise Controls pursuant to an Stoke Existing In-License, the Stoke MECP2 Technology, Stoke [***] Technology and Stoke SYNGAP1 Technology licensed to Acadia hereunder in the Territory, and the Stoke MECP2 Technology, Stoke [***] Technology and Stoke SYNGAP1 Technology licensed to Acadia hereunder are free and clear of liens, charges or encumbrances other than licenses and rights granted to Third Parties that are not inconsistent with the rights and licenses granted to Acadia under this Agreement;

(b) Neither Stoke or its Affiliates are in breach or default under the Stoke Existing In-License and neither Stoke nor its Affiliates have received any written notice of breach or default with respect to any Stoke Existing In-License. Stoke has met and will continue to meet all of its obligations to the licensor (including payment, diligence and reporting requirements) under the Stoke Existing In-License and will remain in good standing under the Stoke Existing In-License. In addition, Stoke will not amend the Stoke Existing In-License without Acadia's prior written consent. In the event that Stoke breaches the Stoke Existing In-License, Stoke will promptly notify Acadia of such breach and Acadia may cure such breach on behalf of Stoke, provided that Acadia may offset the costs of curing such breach against the amounts due hereunder. In the event that the Stoke Existing In-License is terminated by Stoke or the upstream licensor, Stoke will fully cooperate and support Acadia's efforts to obtain a direct license from such upstream licensor.

(c) Stoke has the right, power and authority to grant the rights and licenses granted to Acadia hereunder, has obtained all necessary consents and fulfilled all necessary conditions, if any, to grant the rights and licenses to Acadia hereunder, and neither Stoke nor its Affiliates have granted any rights (or other encumbrances) to any Third Party with respect to the Stoke Patents that would prevent, limit or conflict with the rights and licenses granted to Acadia hereunder;

(d) all Stoke Patents that as of the Effective Date are issued or subject to a pending application for issuance are: (i) to the extent issued, subsisting and not invalid or unenforceable, in whole or in part; (ii) other than any Patent Rights in-licensed to Stoke pursuant to the Stoke Existing In-License as of the Effective Date, solely and exclusively owned by Stoke, free of any encumbrance, lien or claim of ownership by any Third Party; (iii) to the extent subject to a pending application for issuance, being diligently prosecuted in the respective patent offices in which such applications have been filed in accordance with Applicable Laws and, to Stoke's knowledge, all relevant references, documents and information have been presented to the relevant patent examiner at the relevant patent office; and (iv) to Stoke's knowledge, filed and maintained properly and correctly, and no applicable fees applicable thereto when due and payable, as may be or have been extended, have gone unpaid;

(e) Stoke has complied with all Applicable Laws, including any duties of candor to applicable patent offices, in connection with the filing, prosecution and maintenance of the Stoke Patents;

(f) Stoke has obtained from each inventor of the Stoke Patents (other than any Patent Rights in-licensed to Stoke pursuant to the Stoke Existing In-License as of the Effective Date) each such inventor's entire right, title and interest in and to the Stoke Patents and each such agreement is valid and enforceable;

(g) Schedule 1.107 sets forth a true, correct and complete list of all Stoke Existing In-License(s), Schedule 1.110 sets forth a true, correct and complete list of all Stoke MECP2 Patents as of the Effective Date and each such Patent Right is owned solely by Stoke, Schedule 1.113 sets forth a true, correct and complete list of all Stoke [***] Patents as of the Effective Date and each such Patent Right is owned solely by Stoke, and Schedule 1.116 sets forth a true, correct and complete list of all Stoke SYNGAP1 Patents as of the Effective Date and each such Patent Right is owned solely by Stoke or in-licensed by Stoke under the Stoke Existing In-License;

(h) there are no pending or threatened (in writing) adverse actions, suits or proceedings against Stoke involving the Stoke MECP2 Technology, Stoke [***] Technology, or Stoke SYNGAP1 Technology and, to Stoke's knowledge, there is no reasonable basis for any such action or suit;

(i) the inventions claimed by the Stoke Patents (i) were not conceived, discovered, developed, or otherwise made in connection with any research activities funded, in whole or in part, by the federal government of the United States or any agency thereof and (ii) are not a "subject invention" as that term is described in 35 U.S.C. Section 201(e), and (iii) are not otherwise subject to the provisions of the Patent and Trademark Law Amendments Act of 1980, as amended, codified at 35 U.S.C. §§ 200-212, as amended, as well as any regulations promulgated pursuant thereto, including in 37 C.F.R. part 401;

(j) to Stoke's knowledge, the Stoke Existing In-License is not applicable to the MECP2 or [***] Programs;

(k) Stoke has not given any written notice to any Third Party asserting infringement by such Third Party of any of the Stoke Patents existing as of the Effective Date and, to Stoke's knowledge, there is no unauthorized use, infringement or misappropriation of the Stoke Patents; and

(l) Stoke has disclosed to Acadia all safety and regulatory information in Stoke's or its Affiliates' possession or control relating to any ASO in Stoke's or its Affiliates' possession or control that, to Stoke's knowledge or reasonable belief, is Directed Against a Target.

12.3 Covenants.

(a) Employees, Consultants and Contractors. Each Party represents, warrants and covenants that it and its Affiliates have obtained from each of its and their respective former and current employees, consultants and contractors, and shall obtain from each of its and their respective future employees, consultants and contractors, in each case who have conceived, discovered, invented or created or who may conceive, discover, invent or create any of such Party's Collaboration Technology, written agreements containing obligations of confidentiality and non-use and an assignment to such Party or its applicable Affiliates of all of such Person's rights to such Collaboration Technology such that no such employee, contractor or consultant shall retain any rights thereto that would prevent or conflict with the other Party's rights of ownership, license or use thereof or thereto, as the case may be, contemplated under this Agreement.

(b) Debarment. Each Party represents, warrants and covenants to the other Party that neither it nor its officers, employees, agents, consultants or any other person used by such Party in the performance of the respective research and Development activities under this Agreement is: (a) debarred or disqualified under the U.S. Federal Food, Drug and Cosmetic Act; (b) listed by any government or regulatory agencies as ineligible to participate in any government healthcare programs or government procurement or non-procurement programs (as that term is defined in 42 U.S.C. § 1320a-7b(f)), or excluded, debarred, suspended or otherwise made ineligible to participate in any such program; or (c) convicted of a criminal offense related to the provision of healthcare items or services, or is subject to any such pending action. Each Party shall not during the Term knowingly, employ or use, directly or indirectly, including through Affiliates the services of any such person. In the event that either Party becomes aware of the debarment or disqualification or threatened debarment or disqualification of any person providing services to such Party, directly or indirectly, including through Affiliates or Sublicensees, which directly or indirectly relate to activities contemplated under this Agreement, such Party shall promptly notify the other Party in writing and such Party shall cease employing, contracting with, or retaining any such person to perform any such services.

(c) Data Privacy. Each Party shall: (i) comply with all applicable data protection and privacy laws, rules and regulations (including the United States Department of Health and Human Services privacy rules under the Health Insurance Portability and Accountability Act (HIPAA) and the General Data Protection Regulation (Regulation (EU) 2016/679) (GDPR), as any of the foregoing may be amended from time to time) ("**Data Protection Laws**") with respect to the collection, use, transfer, storage, destruction, aggregation or other use of subject health information or other Personal Data (as defined in the applicable Data Protection Laws, collectively, "**Personal Data**") in connection with its activities

under or in connection with this Agreement, including the Development and Commercialization of any Licensed Product hereunder, (ii) implement appropriate and reasonable security processes and controls in connection with its activities under or in connection with this Agreement so as to protect the security and privacy of Personal Data in accordance with Data Protection Laws, and (iii) take such steps as necessary to comply with Data Protection Laws to permit such Party to disclose Personal Data to the other Party and to permit the other Party to use and disclose such Personal Data for its own purposes in accordance with this Agreement.

(d) Sunshine Act. Each Party acknowledges that, under the provisions of Section 1128G of the Social Security Act, 42 U.S.C. § 1320a-7h and other similar provisions of Applicable Law, such Party may be required to disclose certain payments and other transfers of value provided to health care professionals and institutions, including payments, reimbursements, materials or equipment made or provided under or in connection with this Agreement or the development plans. Each Party will provide the other Party with all reasonable information in its Control related to the activities hereunder necessary for the other Party to comply with such Applicable Laws in the form reasonably requested by the requesting Party and at such times as the requesting Party may reasonably request to satisfy its obligations.

(e) Statements to Regulatory Authorities. Neither Party shall, with respect to any Development or Commercialization activities conducted hereunder, commit an act, make a statement or fail to act or make a statement, that would be or create an untrue statement of material fact or fraudulent statement to any Regulatory Authority with respect to the exploitation of Products.

(f) Violations; Exclusions Lists. With respect to the activities contemplated under this Agreement, during the Term, neither Party will engage, directly or indirectly, in any transactions, or otherwise deal with, except to the extent permissible under applicable United States law or other Applicable Law, any country or Person targeted by United States or other relevant economic sanctions Applicable Law, including any Person designated on the Specially Designated Nationals List. In addition, each Party agrees that it will not use (and will cause its Affiliates and Third Party contractors not to use) any Person (including any employee, officer, director or Third Party contractor) who is (or has been) on the Exclusions Lists, or who is (or has been) in Violation, in the performance of any activities hereunder. Each Party certifies to the other Party that, as of the Effective Date, it has screened itself, and its officers and directors (and its Affiliates and Third Party contractors (acting in connection with this Agreement) and their respective officers and directors) against the Exclusions Lists and that it has informed the other Party in writing whether it, or any of its officers or directors (or any of its Affiliates or any of their respective officers and directors) has been in Violation. After the Effective Date, each Party will notify the other Party in writing immediately if any such Violation occurs or comes to its attention. For purposes of this Section 12.3(f), "**Violation**" means that a Party or any of its officers or directors or any other personnel of such Party (or other permitted agents of such Party performing activities hereunder, including any of such Party's Affiliates, sublicensees or Third Party contractors and their respective officers and directors) has been: (a) convicted of any of the felonies identified among the exclusion authorities listed on the U.S. Department of Health and Human Services, Office of Inspector General (OIG) website, including 42 U.S.C. § 1320a-7(a) (http://oig.hhs.gov/exclusions/authorities.asp); (b) identified in the OIG List of Excluded Individuals/Entities (LEIE) database (http://exclusions.oig.hhs.gov/) or the U.S. General Services

Administration's list of Parties Excluded from Federal Programs (http://www.epls.gov); or (c) listed by any U.S. federal agency as being suspended, debarred, excluded or otherwise ineligible to participate in federal procurement or non-procurement programs, including under 21 U.S.C. § 335a (http://www.fda.gov/ora/compliance_ref/debar/) (each of (a), (b) and (c), collectively, the "**Exclusions Lists**").

(g) Anti-Corruption. Each Party will:

(i) in connection with its activities under or in connection with this Agreement strictly comply with the OECD Anti-Bribery Convention on combating bribery of foreign public officials in international business transactions, the United States Foreign Corrupt Practices Act of 1977, the United Kingdom Bribery Act 2010 and any other equivalent Applicable Laws in the Territory for the prevention of fraud, corruption, racketeering, money laundering and terrorism, in each case as may be amended from time to time (such Applicable Law, the "**Anti-Corruption Laws**"), including such Party's own internal policies in connection therewith. Each Party shall require any Affiliates, contractors, subcontractors, distributors or other persons or entities that provide services to such Party in connection with this Agreement to comply with such Party's obligations under this Section;

(ii) not, in the performance of this Agreement, directly or indirectly, make any payment, or offer or transfer anything of value, or agree or promise to make any payment or offer or transfer anything of value, to a Public Official or any other Third Party with the purpose of influencing decisions related to either Party or its business in a manner that would violate Anti-Corruption Laws;

(iii) no later than forty-five (45) days following the end of each Calendar Year, verify in writing that to the best of its knowledge, there have been no violations of Anti-Corruption Laws in the performance of this Agreement or shall provide details of any exception to the foregoing; and

(iv) maintain records (financial and otherwise) and supporting documentation related to the subject matter of this Agreement in order to document or verify compliance with the provisions of this Section 12.3(g) and upon request of the other Party, up to once per year and upon reasonable advance notice, shall provide the other Party or its representative with access to such records for purposes of verifying compliance with the provisions of this Section 12.3(g).

For purposes of this Section 12.3(g), "**Public Official**" means (i) any officer, employee or representative of any regional, federal, state, provincial, county or municipal government or government department, agency or other division; (ii) any officer, employee or representative of any commercial enterprise that is owned or controlled by a government, including any state-owned or controlled veterinary, laboratory or medical facility; (iii) any officer, employee or representative of any public international organization, such as the African Union, the International Monetary Fund, the United Nations or the World Bank; and (iv) any person acting in an official capacity for any government or government entity, enterprise or organization identified above.

(h) Compliance Program. In connection with this Agreement, each Party has implemented and agrees to maintain and enforce a compliance and ethics program designed to prevent and detect violations of Applicable Law, including the Federal Food, Drug, and Cosmetic Act (21 U.S.C. § 301 et seq.), the Public Health Service Act (42 U.S.C. § 201 et seq.), the Anti-Kickback Statute (42 U.S.C. § 1320a-7b), Civil Monetary Penalty Statute (42 U.S.C. § 1320a-7a), the False Claims Act (31 U.S.C. § 3729 et seq.) and anti-corruption Applicable Law, throughout its operations (including subsidiaries) and the operations of its contractors and subcontractors that have responsibility for products, payments or services provided under this Agreement. Each Party agrees to comply with the other Party's internal code of conduct for such program. The Alliance Managers will facilitate discussions and the sharing of information and experiences between the Parties respective compliance and ethics organizations.

12.4 Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR VALIDITY OF PATENT CLAIMS. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION MADE OR WARRANTY GIVEN BY EITHER PARTY THAT EITHER PARTY SHALL BE SUCCESSFUL IN OBTAINING ANY PATENTS OR THAT ANY PATENTS SHALL ISSUE BASED ON A PENDING APPLICATION. WITHOUT LIMITING THE RESPECTIVE RIGHTS AND OBLIGATIONS OF THE PARTIES EXPRESSLY SET FORTH HEREIN, EACH PARTY SPECIFICALLY DISCLAIMS ANY GUARANTEE THAT THE PRODUCTS SHALL BE SUCCESSFUL, IN WHOLE OR IN PART.

ARTICLE 13
INDEMNIFICATION

13.1 Indemnity.

(a) By Stoke. Subject to Section 13.1(c), Stoke shall defend, indemnify and hold harmless Acadia and its Affiliates, and their respective directors, officers, employees and agents (each, a "**Acadia Indemnitee**") from and against any and all costs, fees, expenses, losses, liabilities and damages, including reasonable legal expenses and attorneys' fees (collectively, "**Losses**") to which any Acadia Indemnitee may become subject as a result of any claim, demand, action or other proceeding by any Third Party (a "**Claim**") to the extent such Losses arise out of: (i) the gross negligence or willful misconduct of Stoke or its Affiliates in connection with its activities under this Agreement; or (ii) the breach of this Agreement by Stoke or the breach of representations, warranties and covenants made hereunder by Stoke; except, in each case, to the extent such Losses result from (x) matters subject to clause (i) or (ii) of Section 13.1(b) or (y) a Acadia Indemnitee's negligence.

(b) By Acadia. Subject to Section 13.1(c), Acadia shall defend, indemnify and hold harmless Stoke, its Affiliates, and their respective directors, officers, employees and agents (each, an "**Stoke Indemnitee**") from and against any and all Losses to which any Stoke Indemnitee may become subject as a result of any Claim to the extent such Losses arise out of: (i) the gross negligence or willful misconduct of Acadia or its Affiliates in connection with its activities under

this Agreement; (ii) the breach of this Agreement by Acadia or the breach of representations, warranties and covenants made hereunder by Acadia; except, in each case, to the extent such Losses result from (x) matters subject to clause (i) or (ii) of Section 13.1(a) or (y) a Stoke Indemnitee's negligence.

(c) Procedure. A Party that intends to claim indemnification under this Section 13.1 (the "**Indemnitee**") shall promptly notify the other Party (the "**Indemnitor**") in writing of any Claim in respect of which the Indemnitee intends to claim such indemnification. The failure to deliver written notice to the Indemnitor within a reasonable time after the commencement of any action with respect to a Claim shall only relieve the Indemnitor of its indemnification obligations under this Section 13.1 if and to the extent the Indemnitor is actually and materially prejudiced thereby. The Indemnitor has sole control of the defense or settlement thereof. The Indemnitee shall cooperate fully with the Indemnitor and its legal representatives in the investigation of any action with respect to a Claim covered by this indemnification. The Indemnitee may participate at its expense in the Indemnitor's defense of and settlement negotiations for any Claim with counsel of the Indemnitee's own selection. The Indemnitor shall not settle any Claim without the prior written consent of the Indemnitee, not to be unreasonably withheld, conditioned or delayed. So long as the Indemnitor is actively defending the Claim in good faith, the Indemnitee shall not settle or compromise any such Claim without the prior written consent of the Indemnitor. If the Indemnitor does not assume and conduct the defense of the Claim as provided above: (i) the Indemnitee may defend against, consent to the entry of any judgment, or enter into any settlement with respect to such Claim in any manner the Indemnitee may deem reasonably appropriate (and the Indemnitee need not consult with, or obtain any consent from, the Indemnitor in connection therewith); and (ii) the Indemnitor shall remain responsible to indemnify the Indemnitee as provided in this Section 13.1.

13.2 Losses in the Territory. All Losses arising from any Third Party Claim relating to the Exploitation of a SYNGAP1 Co-Co Product in the Territory, including fees and disbursements to counsel, incurred by either Party in connection with the defense of any such Third Party Claim brought in the Territory, shall be shared equally (50:50) by the Parties as an Other Expense in accordance with Section 9.6(a); provided that such Other Expenses shall not include Losses of a Party or its Affiliate to the extent such Losses are: (a) caused by a breach of this Agreement by such Party or Affiliate; or (b) caused by the negligence or willful misconduct of such Party or its Affiliate.

13.3 Limitation of Liability. NEITHER PARTY NOR THEIR RESPECTIVE AFFILIATES SHALL BE LIABLE TO THE OTHER PARTY OR ITS AFFILIATES FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, PUNITIVE OR INDIRECT DAMAGES, OR FOR ANY LOSS OF PROFITS OR REVENUE (AND, FOR CLARITY, NEITHER PARTY NOR ANY OF THEIR RESPECTIVE AFFILIATES SHALL BE ENTITLED TO RECOVER FOR ANY LOST PROFIT OR LOST REVENUE DAMAGES WHETHER SUCH DAMAGES ARE CLAIMED AS DIRECT OR INDIRECT DAMAGES), ARISING FROM OR RELATING TO THIS AGREEMENT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, REGARDLESS OF ANY NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING THE FOREGOING, NOTHING IN THIS SECTION 13.3 IS INTENDED TO OR SHALL LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF ANY PARTY FOR ANY LOSSES

FROM THIRD PARTY CLAIMS UNDER THIS ARTICLE 13 OR BREACH OF A PARTY'S CONFIDENTIALITY OBLIGATIONS UNDER Article 10.

13.4 Insurance. During the Term, each Party shall maintain such types and amounts of liability insurance (including, with respect to Acadia, self-insurance) as is normal and customary in the industry generally for similarly situated parties and adequate to cover its obligations under this Agreement. Except with respect to self-insurance, each Party shall provide the other Party with evidence of such insurance upon request. Such insurance shall not be construed to create a limit of either Party's liability with respect to its indemnification obligations under this Article 13 or otherwise.

ARTICLE 14
INTELLECTUAL PROPERTY MATTERS

14.1 Ownership of Intellectual Property.

(a) Inventorship. Inventorship as between the Parties shall be determined in accordance with U.S. patent laws. All such determinations shall be documented to ensure any patent applications and patents reflect appropriate inventorship. Ownership of the Collaboration Technology shall follow inventorship. The Parties intend and agree that ownership, Prosecution and Maintenance of all Collaboration Know-How and patentable inventions arising under this Agreement shall be governed by this Article 14 and that, except as expressly set forth herein, it is the Parties' intention to use Commercially Reasonable Efforts to Prosecute and Maintain Patent Rights Covering all such Know-How and inventions.

(b) Disclosure. Each Party shall promptly disclose to the other Party all Collaboration Know-How that it conceives, discovers, develops or otherwise makes in the course of performing any activities or exercising any rights under this Agreement, whether solely or jointly with others (in any event, prior to the filing of any patent application with respect to any patentable invention), including all invention disclosures or other similar documents submitted to such Party by it or its Affiliates, or subcontractors or its or their respective directors, officers, employees or agents relating thereto. Each Party shall also promptly respond to reasonable requests from the other Party for additional information relating thereto.

(c) Assignment Obligation. Each Party shall cause all employees, independent contractors, consultants, and others who perform activities for such Party under this Agreement to be under an obligation to assign to such Party their rights in and to any Collaboration Technology and all intellectual property rights therein, except where Applicable Laws requires otherwise. Each Party shall use reasonable efforts to promptly disclose to the other Party all Collaboration Technology, including any invention disclosures, or other similar documents, submitted to it by its employees, agents or independent contractors describing such Collaboration Technology, and all information relating to such Collaboration Technology to the extent necessary or useful for the preparation, filing and maintenance of any Patent Rights with respect to such Collaboration Technology.

14.2 Joint Patent Committee.

(a) Composition. Within [***] after the Effective Date, the Parties shall establish a committee to facilitate discussion and cooperation between the Parties with respect to intellectual property matters contemplated by this Article 14 (the "**JPC**"). Each Party shall initially appoint at least one (1) employee of such Party as representatives to the JPC, each such representative (a) having sufficient seniority and expertise in the prosecution, maintenance, enforcement and defense of Patent Rights to participate on the JPC, and (b) to be duly authorized under their respective company's internal governance procedures to carry out the activities given to them under this Agreement. The JPC may change its size from time to time by mutual, unanimous consent of its members; provided that the JPC shall consist at all times of an equal number of representatives of each of Stoke and Acadia. Each Party may replace one or more of its JPC representatives at any time in its sole discretion upon written notice to the other Party. If agreed by the JPC, the JPC may invite non-members to participate in the discussions and meetings of the JPC; provided that such participants are under obligations of confidentiality consistent with this Agreement.

(b) Specific Responsibilities of the JPC. In addition to its general responsibility of providing a forum for the discussion of intellectual property matters contemplated by this Article 14, the JPC shall in particular be responsible for: (i) making initial determinations of inventorship in accordance with the terms of Section 14.1; (ii) discussing (but not approving) overall strategies for the Prosecution and Maintenance and enforcement of the Stoke Patents, Acadia Patents and Joint Collaboration Patents that are not SYNGAP1 Product Patents; and (iii) with respect to any SYNGAP1 Product Patents for which the Parties are jointly controlling Prosecution and Maintenance, (w) selecting lead patent counsel, (x) discussing and determining strategies for the Prosecution and Maintenance and enforcement of the SYNGAP1 Product Patents, (y) reviewing and commenting on substantive filings and documents related to the Prosecution and Maintenance of the such SYNGAP1 Product Patents, and (z) instructing lead patent counsel with respect to Prosecution and Maintenance of such SYNGAP1 Product Patents. The JPC shall endeavor to make decisions by consensus, with the representatives of each Party having, collectively, one (1) vote on behalf of that Party. If the JPC is unable to reach consensus on any decision before it, then the matter shall be escalated to the JSC, and if the JSC is unable to reach consensus on any decision before it, then such decision will be resolved in accordance with Section 3.7(a).

(c) Meetings. The JPC will meet at least once per Calendar Quarter (or more or less frequently as the Parties may otherwise mutually agree), with the location for such meetings to be determined by the JPC. The JPC may meet in person or, alternatively, the JPC may meet by means of teleconference, videoconference or other similar communications equipment. Each Party will bear the expense of its respective JPC members' participation in JPC meetings. The JPC shall be responsible for keeping reasonably detailed written minutes of all meetings of the JPC.

(d) Duration of the JPC. The JPC shall endure for the Term, and if mutually agreed to by the Parties, after the end of the Term (for such period of time as agreed to by the Parties).

14.3 Patent Prosecution and Maintenance.

(a) Stoke Patents. As between the Parties, Stoke shall have the right to control the Prosecution and Maintenance of the Stoke MECP2 Patents, Stoke [***] Patents and Stoke SYNGAP1 Patents, other than the Licensed Product Patents and SYNGAP1 Product Patents (the "**Stoke Patents**") at its sole expense and in accordance with the remainder of this Section 14.3(a) and subject to Section 14.3(b). Stoke shall keep Acadia reasonably informed of the status of the Stoke Patents and shall promptly provide Acadia with all correspondence received from any patent authority in connection therewith. In addition, Stoke shall provide Acadia with drafts of all proposed filings and correspondence to any patent authority with respect to the Stoke Patents for Acadia's review with reasonable time for Acadia to provide comments prior to the submission of such proposed filings and correspondences, and Stoke shall consider Acadia's reasonable comments in good faith. If Stoke intends to allow any Stoke Patent to lapse or become abandoned, it will notify and consult with Acadia with respect to such decision or intention at least [***] prior to the date upon which the subject matter of such Patent Right will become unpatentable or such Patent Right will lapse or become abandoned (or such other reasonable time under the circumstances if Stoke became aware of such matters with less than [***] remaining prior to such deadline), and, if after such consultation between the Parties, Stoke still intends not to Prosecute and Maintain such Patent Right, Acadia will take into consideration, in good faith, Stoke's reasonable, objective rationale for deciding not to Prosecute or Maintain such Patent Right, and Acadia will thereupon have the right (but not the obligation) to assume the Prosecution and Maintenance of such Patent Right in Stoke's name and at Acadia's cost, subject to the foregoing information sharing obligation and review and comment rights applied *mutatis mutandis*.

(b) Product-Specific Patents.

(i) **Generally**. Subject to Section 14.3(b)(ii) and Section 14.3(b)(iii), Stoke will have the first right to Prosecute and Maintain the Licensed Product Patents and SYNGAP1 Product Patents using patent counsel reasonably acceptable to Acadia. Stoke will Prosecute and Maintain such Licensed Product Patents and SYNGAP1 Product Patents that are solely owned by Stoke in Stoke's name and will Prosecute and Maintain such Licensed Product Patents and SYNGAP1 Product Patents that are that are Joint Collaboration Patents in both Parties' names. Stoke will bear the costs of such Prosecution and Maintenance. Stoke shall use Commercially Reasonable Efforts to file Patent Rights that claim the composition of each Molecule, which claims the Parties acknowledge and agree may be directed to a class of compounds, a broad genus formula or a Markush group that encompasses such Molecule or its use. Stoke shall keep Acadia reasonably informed of the status of the Licensed Product Patents and SYNGAP1 Product Patents and shall promptly provide Acadia with all correspondence received from any patent authority in connection therewith. In addition, Stoke shall provide Acadia with drafts of all proposed filings and correspondence to any patent authority with respect to the Licensed Product Patents and SYNGAP1 Product Patents for Acadia's review with reasonable time for Acadia to provide comments prior to the submission of such proposed filings and correspondences, and Stoke shall consider Acadia's reasonable comments in good faith. If Stoke in any country decides not to file any such Licensed Product Patent or SYNGAP1 Product Patent, or intends to allow such Patent Right to lapse or become abandoned, it will notify and consult with Acadia with respect to such decision or intention at least [***] prior to the date upon which the subject matter of such Patent Right will become unpatentable or such Patent Right will

lapse or become abandoned (or such other reasonable time under the circumstances if Stoke became aware of such matters with less than [***] remaining prior to such deadline), and in such event, such Licensed Product Patent or SYNGAP1 Product Patent shall be Prosecuted and Maintained in accordance with Section 14.3(b)(ii) or Section 14.3(b)(iii), as applicable.

(ii) **Acadia Right to Prosecute Licensed Product Patents**. On an MECP2 Program and [***] Program basis, upon a first IND acceptance for a Licensed Product for such Program and for the remainder of the Term, Acadia will have the first right to Prosecute and Maintain the respective Licensed Product Patents for the such Program using patent counsel reasonably acceptable to Stoke, provided that with respect to any Licensed Product Patent that claims a class of compounds, a broad genus formula or a Markush group that encompasses a Molecule of such Program or its use, Stoke shall, at Acadia's request, file a continuation or divisional of such Licensed Product Patent that claims the explicit structure of such Molecule, and Acadia shall only have the first right to Prosecute and Maintain such continuation or divisional (if any) ("Molecule Specific Patent"). Acadia will Prosecute and Maintain such Licensed Product Patents that are Stoke Patents solely in Stoke's name, will Prosecute and Maintain such Licensed Product Patents that are Joint Collaboration Patents in both Parties' names. Acadia will bear the costs of such Prosecution and Maintenance. If Acadia in any country decides not to file any such Licensed Product Patent, or intends to allow such Patent Right to lapse or become abandoned, it will notify and consult with Stoke with respect to such decision or intention at least [***] prior to the date upon which the subject matter of such Patent Right will become unpatentable or such Patent Right will lapse or become abandoned (or such other reasonable time under the circumstances if Acadia became aware of such matters with less than [***] remaining prior to such deadline), and in such event, Acadia shall permit Stoke, at Stoke's discretion and at its sole expense, to Prosecute and Maintain such Licensed Product Patent, subject to the foregoing information sharing obligation and review and comment rights applied *mutatis mutandis*. The Parties shall in good faith cooperate through the JPC to effect the foregoing.

(iii) **Joint Prosecution of SYNGAP1 Product Patents**. For the SYNGAP1 Program, upon a first IND acceptance for a SYNGAP1 Co-Co Product and for the remainder of the Term, the Parties shall jointly control the Prosecution and Maintenance of the SYNGAP1 Product Patents using outside patent counsel mutually acceptable to the Parties, provided that with respect to a SYNGAP1 Product Patent that claims a class of compounds, a broad genus formula or a Markush group that encompasses a Molecule of such Program or its use, Stoke shall file a continuation or divisional of such SYNGAP1 Product Patent that claims the explicit structure of such Molecule, and the Parties shall only jointly control the Prosecution and Maintenance of such continuation or divisional (if any) (such continuation or divisional a "SYNGAP1 Molecule Specific Patent"). For any such Patent Rights, the JPC will appoint a lead patent counsel to Prosecute and Maintain such Patent Rights in accordance with directions provided by the JPC, provided that (a) such lead patent counsel will be mutually agreed to by both Parties in writing (and be subject to the continuing acceptance of each Party), a Party's agreement not to be unreasonably delayed or withheld, except that a Party shall have no obligation to agree to a lead patent counsel who (or whose firm) has a conflict of interest with respect to such Party, and (b) each Party shall have the right, at its sole cost, to retain independent patent counsel to advise such Party on the Prosecution and Maintenance of such Patent Rights. The lead patent counsel will take direction from the JPC regarding the Prosecution and Maintenance of the SYNGAP1 Product Patents, will be required to promptly provide the JPC copies of all substantive

filings and documents related to the Prosecution and Maintenance of such Patent Rights with sufficient opportunity to review and comment thereon, and will incorporate any comments of the JPC relating thereto. With respect to any response to a communication received from a patent office (such as an office action), the JPC will draft instructions to the lead patent counsel for preparing such response within [***] of the date of the applicable patent office communication.

(c) Patents Solely Owned by Acadia. Subject to Section 14.3(b), as between the Parties, Acadia shall have the first right, but not the obligation, to Prosecute and Maintain the Acadia SYNGAP1 Patents and any Collaboration Patents solely owned by Acadia ("**Acadia Patents**"), and Acadia shall bear the cost of such Prosecution and Maintenance. Acadia shall keep Stoke reasonably informed of the status of all such Collaboration Patents and shall promptly provide Stoke with all correspondence received from any patent authority in connection therewith. In addition, Acadia shall promptly provide Stoke with drafts of all proposed filings and correspondence to any patent authority with respect to any such Collaboration Patents for Stoke's review and comment prior to the submission of such proposed filings and correspondences, and Acadia shall consider Stoke's reasonable comments in good faith. Acadia shall notify Stoke of its intention to suspend or cease any Prosecution and Maintenance of any such Collaboration Patents and in such event, Acadia shall permit Stoke, at Stoke's discretion and at its sole expense, to continue Prosecution and Maintenance of such Collaboration Patent, subject to the foregoing information sharing obligation and review and comment rights applied *mutatis mutandis*.

(d) Joint Patents. Subject to Section 14.3(b), the Parties shall determine in good faith which Party has the first right, but not the obligation, to Prosecute and Maintain all Joint Collaboration Patents. The Party handling the Prosecution and Maintenance of a given Joint Collaboration Patent shall keep the other Party reasonably informed of the status of such Joint Collaboration Patent and shall promptly provide such other Party with all correspondence received from any patent authority in connection therewith. In addition, the prosecuting Party shall promptly provide the other Party with drafts of all proposed filings and correspondence to any patent authority with respect to such Joint Collaboration Patent for such other Party's review and comment prior to the submission of such proposed filings and correspondences, and the prosecuting Party shall consider the other Party's reasonable comments in good faith. The prosecuting Party shall notify the other Party of its intention to suspend or cease any Prosecution and Maintenance of any such Joint Collaboration Patent and in such event, the prosecuting Party shall permit the other Party, at its discretion and at its sole expense, to continue Prosecution and Maintenance of such Joint Collaboration Patent subject to the foregoing information sharing obligation and review and comment rights applied *mutatis mutandis*.

(e) Cooperation of the Parties. Each Party shall cooperate fully with the other Party in the Prosecution and Maintenance of Patents under this Section 14.3 at its own cost, including by: (i) executing all papers and instruments, or requiring its employees or contractors, to execute such papers and instruments, to enable the other Party to apply for and to Prosecute and Maintain the applicable Patent Rights in any country as permitted by this Section 14.3 and (ii) promptly informing the other Party of any matters coming to such Party's attention that may affect the Prosecution and Maintenance of any such Patent Rights.

14.4 Enforcement.

(a) Notice. Each Party shall notify the other within [***] of becoming aware of any alleged or threatened infringement by a Third Party of any of Stoke Patents, Acadia Patents or Joint Collaboration Patents, which infringing activity involves the using, making, importing, offering for sale or selling any Product in the Field in the Territory, and any related declaratory judgment, opposition or similar action alleging the invalidity, unenforceability or non-infringement of any of the Stoke Patents, Acadia Patents or Collaboration Patents (collectively "**Infringement**").

(b) Licensed Products.

(i) As between the Parties, on a Licensed Product-by-Licensed Product basis, upon acceptance of a first IND for such Licensed Product, Acadia shall have the first right to bring and control any legal action to enforce the Licensed Product Patents, SYNGAP1 Product Patents, Acadia Patents and Joint Collaboration Patents in connection with any Infringement with respect to an MECP2 Licensed Product, [***] Licensed Product or SYNGAP1 Opt-Out Product, at Acadia's own expense. Acadia shall keep Stoke reasonably informed of the status of such enforcement efforts for such Patent Rights. Stoke may, at its own expense, be represented in any such action by counsel of its own choice with respect to such enforcement. If Acadia does not bring such legal action within a commercially reasonable period of time (but not less than [***]) after the notice provided pursuant to Section 14.4(a), Stoke may bring and control any legal action to enforce the Licensed Product Patents, SYNGAP1 Product Patents, Acadia Patents and Joint Collaboration Patents at its own expense as it reasonably determines appropriate. In such case, Stoke shall keep Acadia reasonably informed of the status of such enforcement efforts, and Acadia may, at its own expense, be represented in any such action by counsel of its own choice with respect to such enforcement. Notwithstanding the foregoing, to the extent a Molecule Specific Patent(s) has been filed with respect to the relevant Licensed Product pursuant to Section 14.3(b)(ii), then Acadia's first right to enforce shall only apply to such Molecule Specific Patent(s).

(ii) Subject to Section 14.4(b)(i), as between the Parties, on a Licensed Product-by-Licensed Product basis, Stoke shall have the first right to bring and control any legal action to enforce the Licensed Product Patents for which Acadia does not have the first right to enforce pursuant to Section 14.4(b)(i) in connection with any Infringement with respect to an MECP2 Licensed Product, [***] Licensed Product or SYNGAP1 Opt-Out Product at Stoke's own expense. Stoke shall keep Acadia reasonably informed of the status of such enforcement efforts for such Patent Rights. Acadia may, at its own expense, be represented in any such action by counsel of its own choice with respect to such enforcement. If Stoke does not bring such legal action within a commercially reasonable period of time (but not less than three (3) months) after the notice provided pursuant to Section 14.4(a), Acadia may bring and control any legal action to enforce such Licensed Product Patents in connection with such Infringement at its own expense as it reasonably determines appropriate (and in such case, Acadia shall keep Stoke reasonably informed of the status of such enforcement efforts, and Stoke may, at its own expense, be represented in any such action by counsel of its own choice with respect to such enforcement), provided that if Stoke provides a reasonable, objective rationale for not pursuing or continuing to pursue such legal action (including a substantive concern regarding counter-claims by the infringing Third Party with respect to Patent Rights owned or Controlled by Stoke), then the Parties

shall consider and discuss in good faith Stoke's reasonable comments and concerns and Acadia shall not have the right to bring and control such legal action without Stoke's consent, such consent not to be unreasonably withheld.

(c) SYNGAP1 Co-Co Product.

(i) As between the Parties, Acadia shall have the first right to bring and control any legal action to enforce the SYNGAP1 Product Patents, Acadia Patents and Joint Collaboration Patents in connection with any Infringement with respect to a SYNGAP1 Co-Co Product. Acadia shall keep Stoke reasonably informed of the status of such enforcement efforts. Stoke may be represented in any such action by counsel of its own choice with respect to such enforcement. If Acadia does not bring such legal action within a commercially reasonable period of time (but not less than [***]) after the notice provided pursuant to Section 14.4(a), Stoke may bring and control any legal action to enforce the SYNGAP1 Product Patents, Acadia Patents and Joint Collaboration Patents in connection with such Infringement as it reasonably determines appropriate. In such case, Stoke shall keep Acadia reasonably informed of the status of such enforcement efforts, and Acadia may be represented in any such action by counsel of its own choice with respect to such enforcement. Notwithstanding the foregoing, to the extent a SYNGAP1 Molecule Specific Patent(s) has been filed with respect to the relevant SYNGAP1 Co-Co Product pursuant to Section 14.3(b)(iii), then Acadia's first right to enforce shall only apply to such SYNGAP1 Molecule Specific Patent(s).

(ii) Subject to Section 14.4(c)(i), as between the Parties, Stoke shall have the first right to bring and control any legal action to enforce the SYNGAP1 Product Patents for which Acadia does not have the first right to enforce pursuant to Section 14.4(c)(i) in connection with any Infringement with respect to a SYNGAP1 Co-Co Product. Stoke shall keep Acadia reasonably informed of the status of such enforcement efforts. Acadia may be represented in any such action by counsel of its own choice with respect to such enforcement. If Stoke does not bring such legal action within a commercially reasonable period of time (but not less than [***]) after the notice provided pursuant to Section 14.4(a), Acadia may bring and control any legal action to enforce such SYNGAP1 Product Patents in connection with such Infringement at its own expense as it reasonably determines appropriate (and in such case, Acadia shall keep Stoke reasonably informed of the status of such enforcement efforts, and Stoke may be represented in any such action by counsel of its own choice with respect to such enforcement), provided that if Stoke provides a reasonable, objective rationale for not pursuing or continuing to pursue such legal action (including a substantive concern regarding counter-claims by the infringing Third Party with respect to Patent Rights owned or Controlled by Stoke), then the Parties shall consider and discuss in good faith Stoke's reasonable comments and concerns and Acadia shall not have the right to bring and control such legal action without Stoke's consent, such consent not to be unreasonably withheld.

(iii) Except as expressly set forth herein, all Internal Costs and External Costs incurred by the Parties in connection with any suit or other action brought by a Party under this Section 14.4(c) shall be considered "**Shared Patent Enforcement Costs**" that shall be shared equally (50:50) between the Parties as an Other Expense.

(d) Recoveries.

(i) Any recoveries resulting from enforcement action relating to a claim of Infringement regarding the SYNGAP1 Co-Co Product, whether by settlement or judgment, shall be allocated as follows: (A) first, each Party shall be reimbursed its External Costs incurred in conducting, or cooperating with, such action; provided that if amounts recovered are insufficient to reimburse all such External Costs incurred by both Parties, then such recovered amounts shall be shared pro rata in proportion to the relative amount of such External Costs incurred by each Party and (B) second, the balance of such recovered amounts shall be split equally (50:50) between the Parties.

(ii) Any recoveries resulting from enforcement action relating to a claim of Infringement with respect to a Licensed Product, whether by settlement or judgment, shall be first applied against payment of each Party's costs and expenses in connection therewith; provided that if amounts recovered are insufficient to reimburse all such costs and expenses incurred by both Parties, then such recovered amounts shall be shared pro rata in proportion to the relative amount of such costs and expenses incurred by each Party. Any remaining recovery shall be allocated as follows: (A) the enforcing Party shall receive [***] and (B) the non-enforcing Party shall receive [***].

(e) Cooperation. At the request and expense of the Party bringing an action under this Section 14.4, the other Party shall provide reasonable assistance in connection therewith, including by executing reasonably appropriate documents, cooperating in discovery and joining as a party to the action if required by Applicable Laws to pursue such action. In connection with any such enforcement action, the Party bringing the action shall not enter into any settlement admitting the invalidity or non-infringement of, or otherwise impairing the other Party's rights in the applicable Patent Rights without the prior written consent of the other Party.

14.5 Hatch-Waxman. Notwithstanding any provision to the contrary set forth in this Agreement, if a Party receives a written notice letter including any "patent certification" filed in the U.S. under 21 U.S.C. §355(j)(2)(A)(vi)(IV) for a Product pursuant to the Hatch-Waxman Act, or its equivalent in a country other than the U.S., with respect to any activities under this Agreement in the Field, then such Party will immediately provide the other Party with a copy of such notice letter ("**H-W Notice Letter**"). Following delivery of such H-W Notice Letter, the Parties will meet and discuss such certification, including any necessary consents from Third Party licensors with respect thereto. For each Product, Acadia shall have the first right to bring suit within a [***] period from the date of such certification. If Acadia does not bring suit with respect to a H-W Notice Letter in the Territory within [***] following receipt thereof, then Stoke shall have the right to bring suit with respect to a H-W Notice Letter in the Territory.

14.6 CREATE Act. Notwithstanding anything to the contrary in this Article 14, neither Party will have the right to make an election under the CREATE Act when exercising its rights under this Article 14 without the prior written consent of the other Party, which will not be unreasonably withheld, conditioned or delayed. With respect to any such permitted election, the Parties will use reasonable efforts to cooperate and coordinate their activities with respect to any submissions, filings or other activities in support thereof. The Parties acknowledge and agree that this Agreement is a "joint research agreement" as defined in the CREATE Act. Notwithstanding

the foregoing, the other Party's consent under this Section 14.6 will not be required in connection with an obviousness-type double patenting rejection in any patent application claiming a Collaboration Patents and Joint Collaboration Patent, or uses thereof.

14.7 Patent Term Extensions. Acadia will have the full and exclusive right and discretion to determine and control all filings of requests for patent term extensions, supplementary protection certificates, or equivalents thereto in any country in the Territory, ("**Patent Term Extensions**"), in each case where applicable to a Licensed Product; provided that Stoke's prior written consent shall be required if Acadia desires to designate a Stoke Patent (other than a Licensed Product Patent) for such Patent Term Extension. In the event that Acadia exercises its termination right pursuant to Section 15.2, Stoke shall have the full and exclusive right and discretion to determine and control all filings of requests for Patent Term Extensions under the Acadia Patents with respect to the Terminated Product or SYNGAP1 Terminated Product, as applicable, subject to Acadia's prior written consent. The JPC shall determine which Patent Term Extensions to seek in any country in the Territory applicable to a SYNGAP1 Co-Co Product and with respect to the SYNGAP1 Product Patents, Acadia SYNGAP1 Patents, Stoke SYNGAP1 Patents and Joint Collaboration Patents, provided that in the event of any dispute then the matter shall be resolved in accordance with Section 3.7(a)(v). All costs and expenses relating to the Patent Term Extensions will be born solely by Acadia with respect to the Licensed Products and shall be a shared Other Expense with respect to any SYNGAP1 Co-Co Product. Upon request of Acadia and at Acadia's cost and expense, Stoke will provide support, assistance, and all necessary documents, in full executed form if needed, to Acadia for the purpose of supporting, filing, obtaining, and maintaining Patent Term Extensions for Licensed Products in accordance with the foregoing.

ARTICLE 15
TERM AND TERMINATION

15.1 Term. This Agreement shall be effective as of the Effective Date, and shall continue, unless terminated earlier as set forth herein, in effect as follows (the "**Term**"):

(a) with respect to Licensed Products, on a country-by-country and Product-by-Product basis until the expiration of the MECP2 Royalty Term, [***] Royalty Term or SYNGAP1 Royalty Term, as applicable, for such Licensed Product and such country. On a country-by-country and Licensed Product-by-Licensed Product basis, upon the expiration of the applicable royalty term for such Licensed Product and such country, the relevant license to Acadia pursuant to Section 2.1(a), Section 2.1(b) or Section 2.1(c)(i) in such country shall become fully paid-up, royalty-free, perpetual and irrevocable for use with the Licensed Product in the form as such Licensed Product exists as of the effective date of expiration in such country; and

(b) with respect to each SYNGAP1 Co-Co Product, until the date on which the Parties have agreed to permanently abandon the further Development and Commercialization of such SYNGAP1 Co-Co Product under this Agreement.

15.2 Unilateral Termination by Acadia. Following the first anniversary of the Effective Date, Acadia shall have the right to terminate this Agreement (with or without cause) (a)

in its entirety, or (b) on a Program-by-Program basis, or (c) on a Product-by-Product basis, in each case (a)-(c) at any time by giving one hundred twenty (120) days' advance written notice to Stoke.

15.3 Termination by Mutual Agreement. The Parties shall have the right to terminate this Agreement in its entirety (or in part) upon mutual written agreement. In such case, the Parties shall agree in writing on the effects of such termination (including the costs of transition or wind-down of activities), and the provisions of Section 15.6 shall not apply (unless otherwise mutually agreed to by the Parties).

15.4 Termination for Cause.

(a) Termination for Material Breach. If either Acadia or Stoke is in material breach of this Agreement, the non-breaching Party may give written notice to the breaching Party specifying the claimed particulars of such breach, and in such event, if the breach is not cured within [***] after receipt of such notice (provided that if any breach, other than a payment breach, is not reasonably curable within such [***] cure period, then such cure period will be extended for an additional period of up to [***] (for a total cure period of [***]), the non-breaching Party shall have the right thereafter to terminate this Agreement in its entirety with immediate effect by giving written notice of such termination to the breaching Party; provided that with respect to (i) a Licensed Product, Stoke shall be permitted to terminate this Agreement pursuant to this Section 15.4(a) (and only after completion of the process set forth in Section 15.4(a)(i) if invoked) solely as a result of (A) Acadia's material failure to make timely payments to Stoke or (B) Acadia's material failure to use Commercially Reasonable Efforts to Develop or Commercialize the relevant Licensed Product and (ii) a SYNGAP1 Co-Co Product, each Party shall be permitted to terminate this Agreement pursuant to this Section 15.4(a) (and only after completion of the process set forth in Section 15.4(a)(i) if invoked) solely as a result of (A) a Party's material failure to make timely payments to the other Party or (B) a Party's material failure to use Commercially Reasonable Efforts to Develop or Commercialize the relevant SYNGAP1 Co-Co Product, and in each case ((i) and (ii) above) including a failure to timely cure during the time periods set forth this Section 15.4(a) (and only after completion of the process set forth in Section 15.4(a)(i) if invoked), and for no other reason. Notwithstanding the foregoing:

(i) if the allegedly breaching Party disputes in good faith the existence, materiality or cure of the applicable material breach and provides written notice of such dispute to the other Party within [***] after receipt of notice of the applicable material breach or notice of termination, as applicable, then the matter will be addressed under the dispute resolution provisions in Section 17.4 and the termination will not become effective unless and until it has been finally determined under Section 17.4 that the allegedly breaching Party is in material breach of any of its obligations under this Agreement and has failed to cure the same (which cure period shall commence following such final determination). During the pendency of such a dispute, all of the terms of this Agreement will remain in effect and the Parties will continue to perform all of their respective obligations hereunder; and,

(ii) If a Party is the breaching Party, and such material breach is limited to one or more Programs, Products or countries, the non-breaching Party shall only have the right to terminate this Agreement solely with respect to each such Program, Product or country to which the material breach relates.

(b) Termination for Patent Challenge. In the event that a Party or any of its Affiliates directly takes any action, or knowingly provides financial or other assistance (including direct legal or technical advice) to any Third Party, to challenge in a court or administrative proceeding any claim in any Stoke MECP2 Patent, Stoke [***] Patent, Stoke SYNGAP1 Patent, Acadia SYNGAP1 Patents or other Acadia Patents as being invalid, unenforceable or otherwise not patentable, the other Party shall have the right to immediately terminate this Agreement in its entirety or with respect to the Program to which the challenged patent relates, including the rights with respect thereto of any Sublicensee, upon [***] prior written notice to such Party; provided that the other Party shall not have the right to terminate this Agreement (x) if such Party withdraws or causes to be withdrawn such action within such [***] period or (y) if such Party (or its Affiliate) or such Third Party challenged the Stoke MECP2 Patent, Stoke [***] Patent, Stoke SYNGAP1 Patent, Acadia SYNGAP1 Patents or other Acadia Patents in defense of claims raised by or on behalf of other Party (or its Affiliate) against such Party (or its Affiliate) or such Third Party, or otherwise in connection with an assertion of a cross-claim or a counter-claim. In the event that the other Party notifies such Party in writing that any of such Party's Sublicensees directly takes any action, or knowingly provides financial or other assistance (including direct legal or technical advice) to any Third Party, to challenge in a court or administrative proceeding any claim in any Stoke MECP2 Patent, Stoke [***] Patent, Stoke SYNGAP1 Patent, Acadia SYNGAP1 Patents or other Acadia Patents as being invalid, unenforceable or otherwise not patentable, then such Party shall terminate such Sublicensee's sublicense in its entirety, unless (A) such action by such Sublicensee is withdrawn within [***] after the other Party's notice to such Party thereof or (B) such Sublicensee (or its affiliate) or such Third Party challenged the Stoke MECP2 Patent, Stoke [***] Patent, Stoke SYNGAP1 Patent, Acadia SYNGAP1 Patents or other Acadia Patents in defense of claims raised by or on behalf of the other Party (or its Affiliate) against such Sublicensee (or its affiliate) or such Third Party, or otherwise in connection with an assertion of a cross-claim or a counter-claim.

(c) Termination for Insolvency.

(i) **Right to Terminate**. Each Party shall have the right to terminate this Agreement effective immediately upon delivery of written notice to the other Party in the event that (A) such other Party files in any court or agency pursuant to any statute or regulation of any jurisdiction a petition in bankruptcy or insolvency or for reorganization or similar arrangement for the benefit of creditors or for the appointment of a receiver or trustee of such other Party or its assets, (B) such other Party is served with an involuntary petition against it in any insolvency proceeding and such involuntary petition has not been stayed or dismissed within [***] of its filing, or (C) such other Party makes an assignment of substantially all of its assets for the benefit of its creditors.

(ii) **Rights in Bankruptcy**. For purposes of Section 365(n) of the US Bankruptcy Code (the "**Bankruptcy Code**") and any similar Applicable Laws in any other jurisdiction, all rights and licenses granted under or pursuant to this Agreement by Stoke and Acadia are, and shall otherwise be deemed to be, for purposes of the Bankruptcy Code or any comparable provision of any Applicable Laws in any other jurisdiction, rights to "intellectual property" (as defined in Section 101(35A) of the Bankruptcy Code) or any comparable provision of any Applicable Laws in any other jurisdiction. The Parties agree that each Party, as licensee of such rights under this Agreement, shall retain and may fully exercise all of its rights and elections

under the Bankruptcy Code or any comparable provision of any Applicable Laws in any other jurisdiction. The Parties further agree that, in the event of the commencement of a bankruptcy proceeding by or against a Party under the Bankruptcy Code or any comparable provision of any Applicable Laws in any other jurisdiction, the other Party shall be entitled to a complete duplicate of (or complete access to, as appropriate) any such intellectual property and all embodiments of such intellectual property, which, if not already in such other Party's possession, shall be promptly delivered to such other Party (A) upon any such commencement of a bankruptcy proceeding upon such other Party's written request therefor, unless such Party elects to continue to perform all of its obligations under this Agreement, or (B) if not delivered under clause (A), following the rejection of this Agreement by such Party upon written request therefor by such other Party. The Parties agree that they intend the following rights to extend to the maximum extent permitted by law, including for purposes of the Bankruptcy Code or any comparable provision of any Applicable Laws in any other jurisdiction: (1) the right of access to any intellectual property (including all embodiments thereof) of the licensor, or any Third Party with whom the licensor contracts to perform an obligation of such licensor under this Agreement which is necessary for the Development, Manufacture or Commercialization of the Licensed Product; (2) the right to contract directly with any Third Party described in (1) to complete the contracted work and (3) the right to cure any default under any such agreement with a Third Party and set off the costs thereof against amounts payable to such licensor under this Agreement. The provisions of this Section 15.4(c)(ii) shall be (x) without prejudice to any rights a Party may have arising under any applicable insolvency statute or other Applicable Laws and (y) effective only to the extent permitted by Applicable Law.

15.5 Full Force and Effect During Notice Period. This Agreement shall remain in full force and effect during any applicable termination notice period ("**Termination Notice Period**"), and each Party shall continue to perform all of its obligations under this Agreement then in effect in accordance with the terms and conditions of this Agreement (including that each Party shall also continue to bear its share of all applicable costs with respect to any SYNGAP1 Co-Co Product incurred during the Termination Notice Period). For clarity, (a) if any Net Sales of Licensed Product are made during the termination notice period, then the corresponding royalty payment is accrued and Acadia shall remain responsible for the payment of such amounts even if the due date of such payment may come after the effective date of the termination, and (b) Acadia shall still be obligated to make any Development Milestone Payment and Sales Milestone Payment to Stoke with respect to any milestone event achieved during the period commencing on the date of notice of termination of this Agreement and ending on the effective date of termination of this Agreement.

15.6 Effects of Termination.

(a) Effects of termination generally. Subject to the remainder of this Section 15.6, upon termination of this Agreement in its entirety:

(i) **Licenses**. All licenses granted hereunder will terminate; provided that such licenses will continue as necessary for the Parties to complete the orderly wind-down of their activities under this Agreement in accordance with Applicable Laws and as otherwise required in accordance with Section 15.6(a)(ii). With the exception of such wind-down activities, each Party shall immediately cease and shall cause its Affiliates, Sublicensees and subcontractors, each as applicable, to immediately cease, all Development, Manufacturing and Commercialization

activities hereunder. In the event of termination of this Agreement with respect to a Program pursuant to Section 15.2 by Acadia or Section 15.4 by Stoke, all Results pertaining to the Program shall be deemed the Confidential Information of Stoke.

(ii) **Wind-Down**. Promptly following receipt by the applicable Party of a notice of termination under Section 15.2, Section 15.4(a) or Section 15.4(b), the Parties will begin to wind-down their respective activities under this Agreement. The Parties will establish an appropriate Working Group to coordinate such wind-down.

(iii) **Destruction of Confidential Information**. Each receiving Party shall destroy (at the disclosing Party's written request) all such Confidential Information of the receiving Party in its possession as of the effective date of expiration or termination (with the exception of one copy of such Confidential Information, which may be retained by the legal department of the receiving Party to confirm compliance with the non-use and non-disclosure provisions of this Agreement), and any Confidential Information of the disclosing Party contained in its laboratory notebooks or databases, provided that each receiving Party may retain and continue to use such Confidential Information of the disclosing Party to the extent necessary to exercise any surviving rights, licenses or obligations under this Agreement. Notwithstanding the foregoing, a receiving Party shall not be required to destroy any computer files created during automatic system back up that are subsequently stored securely by it and not readily accessible to its employees, consultants, or others who received the Disclosing Party's Confidential Information under this Agreement provided that such copies remain subject to the confidentiality and non-use provisions of this Agreement.

(iv) **Sublicense Survival**. Any permitted sublicense granted by Acadia or its Affiliate to a Third Party under this Agreement shall survive the termination of this Agreement; provided that, in the case where termination of this Agreement is for Acadia's uncured material breach pursuant to Section 15.4(a), such Sublicensee did not cause such uncured material breach and provided further that such Sublicensee is not in breach of its sublicense agreement. If permitted under such a surviving sublicense, effective upon termination of this Agreement, such sublicense shall become a direct license from Stoke, provided that, at a minimum, such Sublicensee shall be subject to the relevant diligence and payment obligations set forth in this Agreement.

15.7 Consequences of Termination in Part. Upon any termination of this Agreement pursuant to Section 4.7, Section 15.2, Section 15.4(a) or Section 15.4(b) in part, then Section 15.6 shall apply accordingly, but solely with view to the terminated Program(s), Product(s) or country(ies).

15.8 Specific Effects of Termination for Licensed Products.

(a) Upon termination of this Agreement in whole or in part by Acadia pursuant to Section 15.2 or by either Party pursuant to Section 15.4, with respect to any MECP2 Licensed Product or [***] Licensed Product containing or comprising a Clinical Candidate (or any modification or derivative thereof) for which this Agreement is terminated (in the form existing as of the effective date of termination or any modified form so long as such modification itself does not incorporate or use proprietary technology of Acadia that is not already licensed to Stoke) (each a "**Terminated Product**"), effective upon the date of such termination (i) Acadia hereby grants

Stoke an exclusive license, with the right to grant sublicenses through multiple tiers, under all Know-How and Patent Rights Controlled by Acadia (including Acadia's interest in any Collaboration Patents) and that are necessary or useful to research, Develop, make, Manufacture, have made, distribute, use, promote, market, sell, offer for sale, have sold, export, import, and otherwise Commercialize and Exploit such Terminated Product in the Field in the Territory; such license, to the extent that it constitutes a sublicense of any Know-How or Patent Rights of a Third Party, shall be subject to the applicable terms of Acadia's license agreement with such Third Party with respect to such Know-How or Patent Rights only if Acadia disclosed them to Stoke in writing prior to termination and Stoke elected in writing to receive such sublicense under such terms; (ii) the transition provisions of Section 8.1(b)(vi)-(ix) or 8.2(b)(iv)-(vii), as applicable, shall apply *mutatis mutandis*, as applicable, with respect to Acadia and Stoke with respect to the Terminated Product; (iii) Acadia hereby assigns to Stoke or its designee all Regulatory Materials, copies of material correspondence and conversation logs, pre-clinical and clinical study reports, clinical study protocols, and all data (in the format in which it is maintained by Acadia), in each case, that are related to the Terminated Product and Controlled by Acadia or its Affiliates as of the effective date of termination and Acadia shall take all steps necessary to transfer to Stoke or its designee ownership of all such assigned Regulatory Materials, including submitting to each applicable Regulatory Authority a letter or other necessary documentation (with a copy to Stoke) notifying such Regulatory Authority of the transfer of such ownership of the applicable Regulatory Materials; provided that if it is not feasible under Applicable Laws for Acadia to transfer to Stoke any such Regulatory Materials, Acadia shall hold such Regulatory Materials in its name for the benefit of Stoke and shall grant, and hereby does grant to Stoke an exclusive, royalty-free license and right of reference to use such Regulatory Materials in connection with Development and Commercialization of the Terminated Product and authorize Stoke or its designee to conduct regulatory activities with applicable Regulatory Authorities relating to such Regulatory Materials; (iv) Stoke shall pay Acadia royalties on the Net Sales of such Terminated Product (with related definitions and duration of payment applied *mutatis mutandis*) at the rate of (a) [***], if, at the time of such termination, the applicable Terminated Product has not entered a Phase I/II Clinical Trial, (b) [***], if at the time of such termination, the Terminated Product has entered into a Phase I/II Clinical Trial but has not entered a Phase III Clinical Trial, and (c) [***], if at the time of such termination, the Terminated Product has entered into a Phase III Clinical Trial, provided that in each case (a)-(c) the rates shall be reduced by [***] in the event of termination by Stoke pursuant to Section 15.4; and (v) Stoke shall be solely responsible for and shall pay (or reimburse if applicable) Acadia for any post-termination amounts owed to a Third Party in consideration for Stoke's sublicense in subsection (i) to such Third Party's Know-How or Patent Rights with respect to the Terminated Product in the event that Stoke elects in writing to receive a sublicense to the applicable Third Party Know-How or Patent Rights after Acadia's disclosure to Stoke of the terms thereof pursuant to subsection (i).

15.9 Reduced Payments In Lieu of Termination. On a Licensed Product-by- Licensed Product basis, with respect to Stoke's material breach of any of its obligations under this Agreement with respect thereto as determined pursuant to Section 15.4(a) (and after completion of the process set forth in Section 15.4(a)(i) if invoked), Acadia shall have the right, at its option and by written notice to Stoke, in lieu of exercising its right to terminate this Agreement with respect to such Licensed Product under Section 15.4(a), to instead continue this Agreement with respect to such Licensed Product in accordance with its terms, and in which case: (a) at Acadia's option, the JSC will coordinate wind-down of Stoke's activities with respect to such Licensed

Product, and (b) from and after such time as Acadia delivers such written notice to Stoke, any and all amounts thereafter payable by Acadia for a Licensed Product applicable to such Licensed Product hereunder (including milestone payments and royalties) shall be reduced by [***] (and for clarity, any floors on any such milestone payments and royalties hereunder will not apply). Notwithstanding the foregoing, Acadia's exercise of its rights under this Section 15.9 with respect to a Licensed Product shall (i) constitute a waiver by Acadia of any right hereunder or under Applicable Law to recover damages caused by such material breach by Stoke, and (ii) not affect the Parties' respective rights and obligations (including, without limitation, milestone payments and royalties) with respect to any other Licensed Products.

15.10 Specific Effects of Termination for SYNGAP1 Products.

(a) Upon termination of this Agreement in whole or in part by Acadia pursuant to Section 15.2, or by either Party pursuant to Section 15.4 (Acadia terminating pursuant to Section 15.2, or the breaching Party pursuant to Section 15.4, the "**Terminated Party**", and the other Party the "**Continuing Party**"), with respect to any SYNGAP1 Co-Co Product containing or comprising a Clinical Candidate (or any modification or derivative thereof) for which this Agreement is terminated (in the form existing as of the effective date of termination) (each a "**SYNGAP1 Terminated Product**"), effective upon the date of such termination: (i) Sections 5.2(c)-(f) and Sections 5.3-5.6 shall apply *mutatis mutandis* with respect to the further Development and Commercialization of such SYNGAP1 Terminated Product by the Continuing Party; (ii) the Terminated Party hereby grants the Continuing Party an exclusive license, with the right to grant sublicenses through multiple tiers, under certain Know-How and Patent Rights Controlled by the Terminated Party (including the Terminated Party's interest in any Collaboration Patents) and that are necessary to research, Develop, make, Manufacture, have made, distribute, use, promote, market, sell, offer for sale, have sold, export, import, and otherwise Commercialize and Exploit such SYNGAP1 Terminated Product in the Field in the Territory; such license, to the extent that it constitutes a sublicense of any Know-How or Patent Rights of a Third Party, shall be subject to the applicable terms of the Terminated Party's license agreement with such Third Party with respect to such Know-How or Patent Rights only if the Terminated Party disclosed them to the Continuing Party in writing prior to termination and the Continuing Party elected in writing to receive such sublicense under such terms; (iii) the transition provisions of Section 8.1(b)(vi)-(ix) or 8.2(b)(iv)-(vii), as applicable, shall apply *mutatis mutandis*, as applicable, with respect to the Terminated Party and the Continuing Party with respect to the SYNGAP1 Terminated Product; including that the Terminated Party hereby assigns to the Continuing Party or its designee all Regulatory Materials, copies of material correspondence and conversation logs, pre-clinical and clinical study reports, clinical study protocols, and all data (in the format in which it is maintained by the Terminated Party), in each case, that are related to the SYNGAP1 Terminated Product and Controlled by the Terminated Party or its Affiliates as of the effective date of termination and the Terminated Party shall take all steps necessary to transfer to the Continuing Party or its designee ownership of all such assigned Regulatory Materials, including submitting to each applicable Regulatory Authority a letter or other necessary documentation (with a copy to the Continuing Party) notifying such Regulatory Authority of the transfer of such ownership of the applicable Regulatory Materials; provided that if it is not feasible under Applicable Laws for the Terminated Party to transfer to the Continuing Party any such Regulatory Materials, the Terminated Party shall hold such Regulatory Materials in its name for the benefit of the Continuing Party and shall grant, and hereby does grant to the Continuing Party an exclusive, royalty-free license and right of

reference to use such Regulatory Materials in connection with Development and Commercialization of the Terminated Product and authorize the Continuing Party or its designee to conduct regulatory activities with applicable Regulatory Authorities relating to such Regulatory Materials; (iv) the Continuing Party shall pay the Terminated Party royalties on the Net Sales of such SYNGAP1 Terminated Product as set forth below in Section 15.10(b), Section 15.10(c) or Section 15.10(d), as applicable, and where the Continuing Party is Acadia, Acadia shall pay Stoke milestones in connection with such SYNGAP1 Terminated Product, to the extent applicable, as set forth below in Section 15.10(d), in each case with related definitions and duration of payments applied *mutatis mutandis*; (v) if the effective date of termination for the SYNGAP1 Terminated Product is prior to the First Commercial Sale of such SYNGAP1 Terminated Product, then the Terminated Party shall remain responsible for the performance of its obligations as set forth in this Agreement and the relevant SYNGAP1 Co-Development Plan and the sharing of the corresponding Development Costs incurred in the performance of such activities for a period ending [***] after the date of notice of such termination under Section 15.2 or Section 15.4 (and after completion of the process set forth in Section 15.4(a)(i) if invoked); (vi) if the effective date of termination for the SYNGAP1 Terminated Product is after the First Commercial Sale of such SYNGAP1 Terminated Product, then the Terminated Party shall remain responsible for the performance of its obligations as set forth in this Agreement, the applicable SYNGAP1 Co-Development Plan and applicable SYNGAP1 Co-Commercialization Plan for a period ending [***] after the date of notice of such termination under Sections 15.2 or 15.4(and after completion of the process set forth in Section 15.4(a)(i) if invoked), and for the sharing of the corresponding Development Costs and Commercialization Costs incurred in the performance of such activities; (vii) the Terminated Party shall not be responsible for any further Development Costs, Commercialization Costs or Other Expenses incurred with respect to the SYNGAP1 Terminated Product after such [***] or [***] period, as applicable; and (viii) the Continuing Party shall be solely responsible for and shall pay (or reimburse if applicable) the Terminated Party for any post-termination amounts owed to a Third Party in consideration for the Continuing Party's sublicense in subsection (i) to such Third Party's Know-How or Patent Rights with respect to the SYNGAP1 Terminated Product in the event that the Continuing Party elects in writing to receive a sublicense to the applicable Third Party Know-How or Patent Rights after the Terminated Party's disclosure to the Continuing Party of the terms thereof pursuant to subsection (ii).

(b) In the event Stoke is the Continuing Party and Acadia is the Terminated Party due to Acadia termination pursuant to Section 15.2, the applicable royalty rates payable to Acadia shall be as set forth below. For clarity, Stoke shall not owe any milestones, including any Development Milestones or Sales Milestones as set forth in Section 9.4, in connection with such SYNGAP1 Terminated Product.

(i) For each SYNGAP1 Terminated Product for which Acadia provided a notice of termination on or after the Initiation of the first Phase I/II Clinical Trial for such

SYNGAP1 Terminated Product, and prior to the Initiation of the first Phase III Clinical Trial for such SYNGAP1 Terminated Product:

Aggregate Annual Net Sales in the Territory	Royalty Rate
Portion of Net Sales in a given Calendar Year less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***]	[***]

(ii) For each SYNGAP1 Terminated Product for which Acadia provided a notice of termination after the Initiation of the first Phase III Clinical Trial for such SYNGAP1 Terminated Product and on or within [***] after the delivery of top line results from the first Phase III Clinical Trial of such SYNGAP1 Terminated Product (meaning, the audited, quality-controlled tables, listings and figures, in reasonable and customary form, reflecting all results from such Clinical Trial) to the JSC:

Aggregate Annual Net Sales in the Territory	Royalty Rate
Portion of Net Sales in a given Calendar Year less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***]	[***]

(iii) For each SYNGAP1 Terminated Product for which Acadia provided a notice of termination following the First Commercial Sale of such SYNGAP1 Terminated Product:

Aggregate Annual Net Sales in the Territory	Royalty Rate
Portion of Net Sales in a given Calendar Year less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***]	[***]

(c) In the event Stoke is the Continuing Party and Acadia is the Terminated Party due to Stoke termination for breach pursuant to Section 15.4(a), the applicable royalty rates payable to Acadia shall be as set forth in Section 15.10(b) but reduced by [***]. For clarity, Stoke shall not owe any milestones, including any Development Milestones or Sales Milestones as set forth in Section 9.4, in connection with such SYNGAP1 Terminated Product.

(d) In the event Acadia is the Continuing Party and Stoke is the Terminated Party due to Acadia termination for breach pursuant to Section 15.4(a), the applicable royalty rates payable to Stoke shall be as set forth below. In addition, Acadia shall pay to Stoke [***] of the Development Milestones and Sales Milestones as set forth in Section 9.4 in connection with such SYNGAP1 Terminated Product, to the extent applicable, but further reduced by [***].

(i) For a SYNGAP1 Terminated Product for which Acadia provided a notice of termination on or after the Initiation of the first Phase I/II Clinical Trial for such SYNGAP1 Terminated Product, and prior to the Initiation of the first Phase III Clinical Trial for such SYNGAP1 Terminated Product:

Aggregate Annual Net Sales in the Territory	Royalty Rate
Portion of Net Sales in a given Calendar Year less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***]	[***]

(ii) For each SYNGAP1 Terminated Product for which Acadia provided a notice of termination after the Initiation of the first Phase III Clinical Trial for such SYNGAP1 Terminated Product and on or within [***] after the delivery of top line results from the first Phase III Clinical Trial of such SYNGAP1 Terminated Product (meaning, the audited, quality-controlled tables, listings and figures, in reasonable and customary form, reflecting all results from such Clinical Trial) to the JSC:

Aggregate Annual Net Sales in the Territory	Royalty Rate
Portion of Net Sales in a given Calendar Year less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***]	[***]

(iii) For each SYNGAP1 Terminated Product for which Acadia provided a notice of termination following the First Commercial Sale of such SYNGAP1 Terminated Product:

Aggregate Annual Net Sales in the Territory	Royalty Rate
Portion of Net Sales in a given Calendar Year less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***] but less than or equal to [***]	[***]
Portion of Net Sales in a given Calendar Year greater than [***]	[***]

15.11 Survival. Expiration or termination of this Agreement shall not relieve the Parties of any obligation accruing prior to such expiration or termination. Without limiting the foregoing, the provisions of Sections 2.3, 2.4, 4.6(a), 4.6(b), 4.6(d), 5.6, Article 9 (with respect to any payment obligation accruing prior to expiration or termination), Article 10, Article 11, 12.3(b), 12.3(d), 12.4, Article 13, Section 14.1, Section 14.4 (with respect to legal actions pending as of the date of expiration or termination), 15.6, 15.7, 15.8, 15.10, 15.11, 15.12, Article 16, 17.2, 17.3, 17.4, 17.6, 17.7, 17.8, 17.9, 17.10, 17.11, 17.12, 17.15, and 17.16 shall survive the expiration or termination of this Agreement.

15.12 Termination Not Sole Remedy. Termination is not the sole remedy under this Agreement and, whether or not termination is effected and notwithstanding anything contained in this Agreement to the contrary, all other remedies shall remain available except as expressly agreed to otherwise herein.

ARTICLE 16
TAX MATTERS

16.1 Tax Partnership with Respect to SYNGAP1 Co-Co Product. It is expressly agreed that Stoke and Acadia shall be independent contractors and that neither Party is assuming liability through, and nothing herein is intended to create, any partnership or agency arrangement between Stoke and Acadia for tax purposes in any jurisdiction in which any activities contemplated by this Agreement and associated agreements are undertaken; provided, however, that the Parties intend that the arrangement between the Parties with respect to SYNGAP1 Co-Co Products shall be treated as a partnership for United States federal and state income tax purposes only (the "**Tax Partnership**"), and in connection therewith, Acadia is authorized and shall file an election with the United States Internal Revenue Service (and any applicable state Governmental Authority in the United States) to the extent necessary for the arrangement hereunder to be treated as a partnership for United States federal income tax purposes (and state income tax purposes, as applicable). Except as otherwise agreed to by Stoke and Acadia in writing, neither Acadia nor Stoke shall file any returns or take any tax reporting positions inconsistent with the characterization of the Parties' arrangement with respect to SYNGAP1 Co-Co Product as a Tax Partnership. Notwithstanding anything in the foregoing to the contrary, the Tax Partnership shall not include the MECP2 Licensed Products, [***] Licensed Products or SYNGAP1 Opt-Out Products.

16.2 Tax Information Sharing. Each Party shall cooperate in providing any information reasonably requested by the other Party to enable such other Party to report the transactions contemplated by this Agreement on any required tax returns (including information returns), to respond to any request for information from the United States Internal Revenue Service or other taxing authority and to comply with its financial reporting obligations in connection with the financial reporting for taxes. In connection the foregoing, Acadia shall use commercially reasonable efforts to provide Stoke with estimates of its share of the Tax Partnership's profit and loss in advance of Stoke's annual Form 10-K filing deadline.

16.3 Tax Returns of Tax Partnership. Acadia shall prepare, or cause to be prepared, and file on a timely basis with the appropriate authorities, annual income and other required tax returns for the Tax Partnership, including IRS Form 1065 and any similar tax returns filed with any state or local jurisdiction, and Stoke shall reasonably cooperate with Acadia in connection

therewith, including by timely providing to Acadia all documents and information in Stoke's control or possession that are reasonably requested by Acadia and that are required to accurately fill out the Tax Partnership tax return (including any related information returns) by Acadia or any of its Affiliates, it being understood that Stoke shall have the right to make appropriate redactions of information unrelated to activities undertaken pursuant to this Agreement. Schedule 16.3 sets forth the procedures to be used in allocating tax items of the Tax Partnership to Acadia and Stoke. Stoke shall have the right to review any tax returns of the Tax Partnership prepared, or caused to be prepared, by Acadia, in each case in advance of their submission and Acadia shall obtain Stoke's consent to the filing of such return, including with respect to any elections or other determinations made in such returns, which consent shall not be unreasonably withheld, conditioned or delayed. Acadia shall have all powers needed to perform its duties, including the power to retain all attorneys and accountants of its choice in connection therewith, and to make any US federal, state, or local tax elections with Stoke's consent, which shall not be unreasonably withheld, conditioned or delayed. Notwithstanding the foregoing, the tax elections listed in Schedule 16.3 shall not require Stoke's consent. The Tax Partnership shall apply the traditional method of allocation under Section 704(c) for any contributions of property deemed to be made to the Tax Partnership, except as otherwise agreed by Stoke and Acadia in writing. Acadia shall take steps to have the Tax Partnership elect under Section 6221(b) of the U.S. Internal Revenue Code (the "**Tax Code**"), as amended by the Bipartisan Budget Act of 2015, P.L. 114-74 (together with any subsequent amendments thereto, Treasury Regulations promulgated thereunder, and published administrative interpretations thereof, collectively, the "**BBA**") (such election, the "**6221(b) election**") not to be subject to partnership-level audit proceedings. Acadia is hereby designated the "partnership representative" of the Tax Partnership for all years governed by this Agreement and the "designated individual" shall be an officer or employee of Acadia. To the extent that the Tax Partnership is not eligible to make the 6221(b) election, (a) Acadia shall represent the Tax Partnership in any disputes, controversies or proceedings with the Internal Revenue Service or with any state or local taxing authority and is hereby authorized to take any and all actions that it is permitted to take when acting in that capacity, (b) Stoke shall have the right to participate in all material tax proceedings (including for the avoidance of doubt audits) of the Tax Partnership and shall have the right to consent to the settlement thereof (such consent not to be unreasonably withheld, conditioned or delayed), (c) Stoke shall have the right to be notified of all tax proceedings, (d) the Tax Partnership shall make the election provided by Section 6226 of the Tax Code in respect of any underpayments of tax resulting from an audit of the Tax Partnership and (e) the foregoing provisions related to the BBA shall survive termination of this Agreement and the termination of the Tax Partnership, and shall remain binding on each Party for the period of time necessary to resolve with the Internal Revenue Service (or any other applicable taxing authority) all tax matters relating to the Tax Partnership.

16.4 Additional Matters. Notwithstanding Section 16.1 or any other provision of this Agreement, the Parties do not intend to create a partnership under the laws of any jurisdiction, except the Parties intend to create a Tax Partnership, and the Parties shall take positions accordingly for accounting and tax purposes with any applicable Governmental Authority in any other jurisdiction in which any activities contemplated by this Agreement and associated agreements are undertaken. To the extent that the activities contemplated by this Agreement are treated in any such other jurisdiction as a partnership for purposes of computing Acadia's or Stoke's tax liability in such jurisdiction, the Parties agree that, to the extent permissible under the Applicable Laws of such jurisdiction, items of partnership income and deduction will be allocated

in a manner that, as close as possible, places the Parties in the same position as if no deemed partnership were created.

ARTICLE 17
MISCELLANEOUS

17.1 Assignment; Change of Control.

(a) Assignment. This Agreement may not be assigned or otherwise transferred (however structured, whether by merger, acquisition, sale of all or substantially all of its assets to which this Agreement relates or otherwise), in whole or in part, nor, except as expressly provided hereunder, may any right or obligation hereunder be assigned or transferred, by either Party without the prior written consent of the other Party; provided, however, that (i) either Party may, without such consent, assign this Agreement and its rights and obligations hereunder, in whole or in part, to any of its Affiliates; provided that the assigning Party shall continue to remain fully responsible for the actions or inactions of such Affiliate, (ii) either Party may, without such consent, assign this Agreement and its rights and obligations hereunder, to its successor in interest in connection with (x) a Change of Control (or similar transaction) or (y) a sale of all or substantially all of its assets related to this Agreement. Written notice of any permitted assignment of this Agreement shall be promptly provided to the non-assigning Party and any permitted assignee shall assume all rights and obligations of its assignor under this Agreement. Any attempted assignment not in accordance with this Section 17.1 shall be void.

(b) Change of Control. Whether or not this Agreement is assigned pursuant to Section 17.1(a), the Parties agree as follows: the rights to Patent Rights, Know-How or other intellectual property rights of any successor-in-interest of a Party as a result of a Change of Control of such Party or any Person that becomes an Affiliate of a Party through any Change of Control of such Party, that were controlled by such successor or Person (and not such Party or any of its Affiliates prior to such Change of Control) immediately prior to such Change of Control (other than as a result of a license or other grant of rights, covenant or assignment by such Party or its other Affiliates to, or for the benefit of, such Person), will not be deemed to be "Controlled" by such Party for purposes of this Agreement and will be automatically excluded from the rights licensed to the other Party under this Agreement, provided in each case except to the extent that any such Patent Rights, Know-How or other intellectual property rights (x) are actually used in the course of such Party's or such Third Party successor-in-interest's performance of activities under this Agreement, or (y) was otherwise licensed or sublicensed (as applicable) by such Third Party to such Party, or any Persons that were Affiliates of such Party prior to such Change of Control (as applicable) (such excluded Know-How, Patent Rights or other intellectual property rights, "**Acquiring Person Intellectual Property**").

17.2 Severability. Should one or more of the provisions of this Agreement become void or unenforceable as a matter of Applicable Law, then this Agreement shall be construed as if such provision were not contained herein and the remainder of this Agreement shall be in full force and effect, and the Parties will use their best efforts to substitute for the invalid or unenforceable provision a valid and enforceable provision which conforms as nearly as possible with the original intent of the Parties.

17.3 Governing Law; English Language. This Agreement shall be governed by and construed in accordance with the laws of the State of New York without reference to any rules of conflict of laws. This Agreement was prepared in the English language, which language shall govern the interpretation of, and any dispute regarding, the terms of this Agreement.

17.4 Dispute Resolution.

(a) Early Resolution. The Parties shall negotiate in good faith and use reasonable efforts to settle any dispute, controversy or claim arising from or related to this Agreement, including the formation, existence, validity, enforceability, performance, interpretation, breach, or termination hereof or thereof (a "**Dispute**"). Subject to Section 3.7 and Section 17.4(c), if any Dispute arises between the Parties, either Party may refer the Dispute to Executive Officers of each Party for resolution. If, after [***] after the notice of Dispute, such Executive Officers have not succeeded in negotiating a resolution of the Dispute, and a Party wishes to pursue the matter, each such Dispute, controversy or claim that is not an "Excluded Claim" (defined in Section 17.4(b)) shall be submitted for binding arbitration administered by the International Chamber of Commerce ("**ICC**") pursuant to its Arbitration Rules in effect at the time such Dispute arises (the "**ICC Arbitration Rules**"). The option to arbitrate under this Section 17.4(a) shall extend to any claims by or against the Parties and their respective Affiliates and any agents, principals, officers, directors, or employees of either of the Parties or their respective Affiliates.

(b) Arbitration. Any arbitration that the Parties decide to pursue shall be conducted by a single neutral arbitrator experienced in the business of pharmaceuticals. If the issues in dispute involve scientific, technical or commercial matters, the arbitrator chosen hereunder may engage experts that have educational training or industry experience sufficient to demonstrate a reasonable level of relevant scientific, medical and industry knowledge, as necessary to help resolve the dispute. The Parties shall select the arbitrator promptly following the initiation of the arbitration. If the Parties are unable or fail to agree upon the arbitrator within [***] following the initiation of arbitration, the arbitrator shall be appointed by ICC. The arbitration shall be conducted in New York, New York, and all proceedings and communications shall be in English. Except to the extent necessary to enforce a legal right or as may be required by law, neither a Party nor an arbitrator may disclose the existence, content, or results of an arbitration without the prior written consent of both Parties. Each Party shall bear its own costs and expenses and attorneys' fees and an equal share of the arbitrator's fees and any administrative fees of arbitration. Any arbitration findings or rulings made under this Section 17.4(b) shall be final and binding on the Parties and may be enforced in any court of competent jurisdiction. As used in this Section 17.4, the term "**Excluded Claim**" means a dispute, controversy or claim that concerns (i) the validity or infringement of a patent, trademark, copyright or trade secret, or (ii) any antitrust, anti-monopoly or competition Applicable Laws or regulation, whether or not statutory. Any action concerning Excluded Claims identified in the foregoing clauses (i) or (ii) may be brought in any court having jurisdiction.

(c) Baseball Arbitration. Any Deadlocked Matters referred to this Section 17.4(c) for resolution in accordance with Section 3.7 shall be submitted to and finally resolved by the following provisions in this Section 17.4(c) (the "baseball-style" arbitration). The Parties will select and agree upon a mutually acceptable single arbitrator with at least ten (10) years'

experience in the licensing, development and commercialization of pharmaceutical products, including biologics, who is independent of each Party (i.e., not a current or former employee, consultant, officer, or director or current stockholder of either Party or their respective Affiliates and who does not otherwise have any current or previous business relationship with either Party or their respective Affiliates), within [***] following the end of the [***] period during which the Executive Officers failed to resolve such Deadlocked Matter, provided that if the Parties are unable or fail to agree upon the arbitrator within [***], the arbitrator shall be appointed by the Judicial Arbitration and Mediation Services ("**JAMS**") within [***]. The arbitration shall be conducted in accordance with the JAMS procedures to the extent consistent with this Section 17.4(c). Within [***] after the selection of the arbitrator, each Party will submit to the arbitrator and the other Party such Party's proposal on the terms pertaining to such Deadlocked Matter. Within [***] after receiving each Parties' proposal, the arbitrator will select as final and binding the proposal such arbitrator believes is consistent with the successful advancement of the relevant Program(s) and the successful Development and Commercialization of relevant Products, in each case, consistent with the express terms and conditions of this Agreement and, to the extent determinable, consistent with the intent of the Parties when this Agreement was entered into; provided the arbitrator may not alter the terms of this Agreement, and the arbitrator will not have the authority to modify either Party's proposal. The decision of the arbitrator will be final and binding on the Parties. The Parties agree that the arbitrator's decision may be enforced in any court of competent jurisdiction.

(d) Confidentiality. Except to the extent necessary to comply with Applicable Law, legal process, or a court order or to enforce a final settlement agreement or secure enforcement of any arbitration award, the Parties agree that the existence, terms and content of any arbitration, all information and documents disclosed in any arbitration or evidencing any arbitration results, award, judgment or settlement, or the performance thereof, and any allegations, statements and admissions made or positions taken by either Party in any arbitration, shall be treated and maintained in confidence and are not intended to be used or disclosed for any other purpose or in any other forum.

(e) Equitable Relief. Nothing in this Section 17.4 shall preclude either Party from seeking equitable relief or interim or provisional relief from a court of competent jurisdiction, including a temporary restraining order, preliminary injunction or other interim equitable relief, concerning a dispute either prior to or during any arbitration if necessary to protect the interests of such Party or to preserve the status quo pending the arbitration proceeding.

17.5 Force Majeure. Neither Party shall be responsible to the other for any failure or delay in performing any of its obligations under this Agreement or for other nonperformance hereunder (excluding, in each case, the obligation to make payments when due) if such delay or nonperformance is caused by strike, fire, flood, earthquake, accident, war, act of terrorism, pandemics, act of God or of the government of any country or of any local government, or by any other cause unavoidable or beyond the control of any Party hereto. In such event, such affected Party shall use Commercially Reasonable Efforts to resume performance of its obligations and shall keep the other Party informed of actions related thereto.

17.6 Extension to Affiliates. Except as expressly set forth otherwise in this Agreement, each Party shall have the right to extend the rights and immunities granted in this Agreement to one or more of its Affiliates. All applicable terms and provisions of this Agreement, except this

right to extend, shall apply to any such Affiliate to which this Agreement has been extended to the same extent as such terms and provisions apply to the Party extending such rights and immunities. For clarity, a Party extending the rights and immunities granted hereunder shall remain primarily liable for any acts or omissions of its Affiliates.

17.7 Waivers and Amendments. The failure of a Party to insist upon strict performance of any provision of this Agreement or to exercise any right arising out of this Agreement shall neither impair that provision or right nor constitute a waiver of that provision or right, in whole or in part, in that instance or in any other instance. Any waiver by a Party of a particular provision or right shall be in writing, shall be as to a particular matter and, if applicable, for a particular period of time and shall be signed by such Party. No provision of this Agreement may be amended or modified other than by a written document signed by authorized representatives of each Party.

17.8 Relationship of the Parties. Nothing contained in this Agreement shall be deemed to constitute a partnership, joint venture, or legal entity of any type between Stoke and Acadia, or to constitute one as the agent of the other. Each Party shall act solely as an independent contractor, and nothing in this Agreement shall be construed to give any Party the power or authority to act for, bind or commit the other.

17.9 Notices. All notices, consents or waivers under this Agreement shall be in writing and will be deemed to have been duly given when delivered in person, transmitted by email (receipt verified) or by express courier service (signature required) to the Party to which it is directed at its address or email shown below (or to such other addresses and fax numbers as a Party may designate by notice). This Section 17.9 is not intended to govern the day-to-day business communications necessary between the Parties in performing their obligations under the terms of this Agreement.

If to Stoke:

Stoke Therapeutics, Inc.
45 Wiggins Avenue
Bedford, MA 01730
Email: [***]
Attention: Chief Executive Officer

With a copy to:

Stoke Therapeutics, Inc.
45 Wiggins Avenue
Bedford, MA 01730
Email: [***]
Attention: Legal

If to Acadia:

Acadia Pharmaceuticals Inc
12830 El Camino Real, Suite 400
San Diego, CA 92130
Email: [***]
Attention: Steve Davis, Chief Executive Officer

With a copy to:

Acadia Pharmaceuticals Inc
12830 El Camino Real, Suite 400
San Diego, CA 92130
Email: [***]
Attention: Austin Kim, General Counsel

17.10 Further Assurances. Acadia and Stoke hereby covenant and agree without the necessity of any further consideration, to execute, acknowledge and deliver any and all documents and take any ministerial action as may be reasonably necessary to carry out the intent and purposes of this Agreement.

17.11 No Third Party Beneficiary Rights. This Agreement is not intended to and shall not be construed to give any Third Party any interest or rights (including any Third Party beneficiary rights) with respect to or in connection with any agreement or provision contained herein or contemplated hereby, except as otherwise expressly provided for in this Agreement.

17.12 Entire Agreement. This Agreement, including all Exhibits and Schedules hereto, and each Pharmacovigilance Agreement, SYNGAP1 Co-Co Clinical Supply Agreement and SYNGAP1 Co-Co Commercial Supply Agreement set forth the entire agreement and understanding of the Parties as to the subject matter hereof and supersedes all proposals, oral or written, and all other communications between the Parties with respect to such subject matter. The Parties acknowledge and agree that, as of the Effective Date, all Confidential Information disclosed pursuant to the Confidentiality Agreement by a Party or its Affiliates to the extent related to the subject matter hereof shall be included in the Confidential Information subject to this Agreement and the Confidentiality Agreement is hereby superseded to the extent related to the subject matter hereof, provided that the foregoing shall not relieve any Person of any right or obligation accruing under the Confidentiality Agreement prior to the Effective Date. "**Confidentiality Agreement**" means the Non-Disclosure Agreement between Stoke and Acadia dated July 7, 2020 as amended.

17.13 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. A facsimile or scanned copy of this Agreement that includes a Party's signature will be deemed an original. Facsimile, PDF or other electronic execution and delivery of this Agreement by any Party shall constitute a legal, valid and binding execution and delivery of this Agreement by such Party.

17.14 Expenses. Each Party shall pay its own costs, charges and expenses incurred in connection with the negotiation, preparation and signing of this Agreement.

17.15 Construction; Interpretation.

(a) Construction. The Parties hereto acknowledge and agree that (i) each Party and its counsel reviewed and negotiated the terms and provisions of this Agreement and have contributed to its revision, (ii) the rule of construction to the effect that any ambiguities are resolved against the drafting Party shall not be employed in the interpretation of this Agreement, and (iii) the terms and provisions of this Agreement shall be construed fairly as to all Parties hereto and not in a favor of or against any Party, regardless of which Party was generally responsible for the preparation of this Agreement.

(b) Interpretation. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words "include", "includes" and "including" shall be deemed to be followed by the phrase "without limitation". The word "will" shall be construed to have the same meaning and effect as the word "shall" and *vice versa*. The word "any" shall mean "any and all" unless otherwise clearly indicated by context. The term "or" will be interpreted in the inclusive sense commonly associated with the term "and/or." Unless the context requires otherwise, (i) any definition of or reference to any agreement, instrument or other document herein shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein or therein), (ii) any reference to any Applicable Laws herein shall be construed as referring to such Applicable Laws as from time to time enacted, repealed or amended, (iii) any reference herein to any Person shall be construed to include the Person's successors and permitted assigns, (iv) the words "herein", "hereof" and "hereunder", and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof, and (v) all references herein to Articles, Sections, Exhibits or Schedules, unless otherwise specifically provided, shall be construed to refer to Articles, Sections, Exhibits and Schedules of this Agreement. The headings of Articles and Sections of this Agreement are for ease of reference only and shall not affect the meaning or interpretation of this Agreement in any way.

17.16 Cumulative Remedies. No remedy referred to in this Agreement is intended to be exclusive unless explicitly stated to be so, and each shall be cumulative and in addition to any other remedy referred to in this Agreement or otherwise available under law.

17.17 Export. This Agreement is made subject to any restrictions concerning the export of products or technical information from the United States or other countries which may be imposed upon or related to Stoke or Acadia from time to time. Each Party agrees that it will not export, directly or indirectly, any technical information acquired from the other Party under this Agreement or any products using such technical information to a location or in a manner that at the time of export requires an export license or other Governmental Authority approval, without first obtaining the written consent to do so from the appropriate Governmental Authority.

[*Signature Pages follow*]

IN WITNESS WHEREOF, the Parties intending to be bound have caused this Agreement to be executed by their duly authorized representatives as of the Effective Date.

STOKE THERAPEUTICS, INC.

By: /s/ Edward M. Kaye
Name: Edward M. Kaye
Title: Chief Executive Officer

By: /s/ Huw M. Nash
Name: Huw M. Nash
Title: Chief Operating Officer & Chief Business Officer

IN WITNESS WHEREOF, the Parties intending to be bound have caused this Agreement to be executed by their duly authorized representatives as of the Effective Date.

ACADIA PHARMACEUTICALS INC.

By: /Stephen R. Davis
Name: Stephen R. Davis
Title: Chief Executive Officer

List of Exhibits and Schedules

Schedule 1.67	Manufacturing Cost
Schedule 1.107	Stoke Existing In-License
Schedule 1.110	Stoke MECP2 Patents
Schedule 1.113	Stoke [***] Patents
Schedule 1.116	Stoke SYNGAP1 Patents
Schedule 4.1	Initial Research Plans and Research Budgets
Schedule 11.2	Press Release
Schedule 16.3	Partnership Tax Related Provisions

Schedule 1.67

Manufacturing Cost

"**Manufacturing Cost**" means the fully burdened cost of Manufacturing the applicable SYNGAP1 Co-Co Product (or other component(s) contained therein or placebo, as applicable), including any devices and other delivery technologies that are packaged or otherwise distributed with such SYNGAP1 Co-Co Product, which equals the sum of (a) Direct Costs and Indirect Costs (each as defined below) incurred by a Party, (b) the amounts paid by a Party to a Third Party contract manufacturer as invoiced to such Party, including any fees paid to such Third Party as prepayments or to reserve capacity for the Clinical Candidate or SYNGAP1 Co-Co Product and any cancellation or early termination fees (provided that the Party incurring any cancellation or early termination fees used commercially reasonable efforts to mitigate such fees), and any value-added tax or similar tax due for amounts paid to such Third Party directly attributable to such Clinical Candidate or SYNGAP1 Co-Co Product, and any capital expenditures to the extent incurred for the Clinical Candidate or SYNGAP1 Co-Co Product, (c) the Parties shall share depreciation of any internal capital expenditures, if any, to the extent incurred for the Clinical Candidate or SYNGAP1 Co-Co Product, and (d) direct distribution expense (including without limitation, freight, postage, shipping, customs, duties and insurance charges) incurred for such Clinical Candidate or SYNGAP1 Co-Co Product, except to the extent such expenses were included in calculating Net Sales without any mark-up; provided that any Direct Costs or Indirect Costs incurred by a Party to supervise and coordinate the foregoing activities performed by a Third Party. Manufacturing Cost shall include costs incurred with respect to, or as a result of, spoilage, and obsolescence, of inventory associated with such SYNGAP1 Co-Co Product as well as failed or destroyed batches of SYNGAP1 Co-Co Product except to the extent attributable to a Party's or any of its Affiliates' negligence or willful misconduct. Notwithstanding anything to the contrary contained herein, Manufacturing Costs shall exclude any and all costs incurred in connection with establishing, or otherwise causing to become operational, any Manufacturing facilities, including any validation, technology transfer (other than the Manufacturing technology transfer costs as included under Other Expenses) and licensure costs, and such costs shall be borne solely by the Party who is establishing or operationalizing (itself or through its Affiliate or Third Party contract manufacturer) such Manufacturing facilities, and ownership of any capital equipment for Manufacturing shall reside with the Party that ultimately paid for such capital equipment (factoring in any reimbursements between the Parties).

For purposes of this Schedule 1.67, "**Direct Costs**" equals the sum of the following as incurred for the applicable Clinical Candidate or SYNGAP1 Co-Co Product:

(a) Direct labor, based on the actual hours or like methodology consumed by manufacturing, facility, and customer service personnel for the Clinical Candidate or SYNGAP1 Co-Co Product applied at an average hourly wage rate that is designed to approximate actual cost for each employee's position.

(b) Direct labor fringe benefits, including, compensation expense (other than wages included in direct labor cost in clause (x)(i)), payroll taxes and benefits allocated based on a proportionate percentage of direct labor costs applied to the Clinical Candidate or SYNGAP1 Co-Co Product to

total actual plant-wide labor costs, plus Clinical Candidate-specific or SYNGAP1 Co-Co Product-specific travel.

(c) Materials and supplies for making the applicable Clinical Candidate or SYNGAP1 Co-Co Product, based on actual costs including any applicable freight, taxes, duties, customs or import fees, less any discounts or free goods.

(d) Other costs directly associated with or actually consumed for the applicable Clinical Candidate or SYNGAP1 Co-Co Product, including handling, storage, distribution, and transportation costs, facility costs, depreciation, waste removal, miscellaneous supplies, outside testing, consulting fees, occupancy costs, maintenance, rent, insurance, site service support, warehouse, customer services including order entry, billing and adjustments, inquiry and credit and collection, serialization, return and recall management, but for clarity, excluding in each case any such amounts to the extent included as a deduction in calculating Net Sales, as applicable.

For purposes of this Schedule 1.67, "**Indirect Costs**" equals the sum of the following as incurred for the applicable Clinical Candidate or SYNGAP1 Co-Co Product:

(i) Plant support services, which includes quality control, process sciences, quality assurance, regulatory and validation. All general costs for each plant support service department, which includes, labor, payroll taxes, fringe benefits, materials and supplies, outside testing, consulting fees, contractor costs, depreciation, maintenance and occupancy costs, shall be allocated to the cost of such Clinical Candidate or SYNGAP1 Co-Co Product based on the proportion of actual labor hours consumed by each plant support service department on the Clinical Candidate or SYNGAP1 Co-Co Product to total actual labor hours consumed by each plant support service department on all of the applicable Party's products.

(ii) Overhead costs required to support the Manufacture of such Clinical Candidate or SYNGAP1 Co-Co Product. These overhead costs are allocated either based on actual labor hours, average headcount, space occupied, or other activity-based method, solely to the extent such allocation is attributable to the Clinical Candidate or SYNGAP1 Co-Co Product and not to other products. Overhead costs primarily include general materials and supplies, consulting costs, and other labor costs such as general plant maintenance, management, engineering, janitorial services and administration, information services, human relations, travel and training, and vacation, holiday, personal and sick time, general facility costs which include facility services and supplies, utilities, rent, real estate taxes, depreciation, general and preventative maintenance, insurance and waste removal.

Schedule 1.107

Stoke Existing In-License

[***]

ACTIVE/113590270.14

Schedule 1.110

Stoke MECP2 Patents

[***]

ACTIVE/113590270.14

Schedule 1.113

Stoke [***] Patents

[***]

ACTIVE/113590270.14

Schedule 1.116

Stoke SYNGAP1 Patents

[***]

ACTIVE/113590270.14

Schedule 4.1

Initial Research Plans and Research Budgets

[***]

Schedule 11.2

Press Release

ACTIVE/113590270.14

Schedule 16.3

Partnership Tax Related Provisions

Section 1.1. Tax Partnership. The activities of the Partners pursuant to the Agreement in respect of the SYNGAP1 Co-Co Products shall be deemed to be conducted by the Tax Partnership. The Tax Partnership, and the rights and obligations set forth in this Schedule 16.3, shall remain in existence until the Agreement is terminated.

Section 1.2. Definitions. Capitalized terms used, but not defined, herein will have the meanings ascribed to them in the Agreement. For purposes of this Schedule 16.3:

(a) "Adjusted Capital Account" has the meaning set forth in Section 1.4(f) of this Schedule 16.3.

(b) "BBA" has the meaning set forth in Section 16.3 of the Agreement.

(c) "Book" means the method of accounting prescribed for compliance with the capital account maintenance rules set forth in Section 1.704-1(b)(2)(iv) of the Treasury Regulations, as distinguished from any accounting method which a Party may adopt for other purposes such as financial reporting.

(d) "Capital Account" has the meaning set forth in Section 1.4(a) of this Schedule 16.3.

(e) "Capital Contribution" means, for each Partner, such Partner's cash or property deemed contributed to the Tax Partnership.

(f) "Fiscal Year" means the calendar year.

(g) "Gross Asset Value" means, with respect to any asset of the Tax Partnership, the asset's adjusted basis for federal income tax purposes, adjusted to reflect any adjustments required or permitted by Sections 1.704-1(b)(2)(iv)(d) through (g), (m) and (s) of the Treasury Regulations, as determined by the Partner Representative and mutually agreed upon by the Partners; provided, that in the case of any asset (other than cash) deemed contributed to the Tax Partnership, the initial Gross Asset Value of such property shall be equal to the fair market value of such asset as of the date of contribution, as determined by the Partnership Representative and mutually agreed upon by the Partners.

(h) "Net Income" and "Net Losses" shall mean the Book income, gain, loss, deductions and credits of the Tax Partnership in the aggregate or separately stated, as appropriate, as of the close of each Taxable Year on the Tax Partnership's tax return filed for federal income tax purposes (or other allocation period).

(i) "Partner" shall refer to a Party in its capacity as a member of the Tax Partnership.

(j) "Partnership Representative" has the meaning set forth in Section 16.2.

(k) "Percentage Interest" shall mean each Partner's respective interest as determined in accordance with Section 9.5(b) of the Agreement.

(l) "Tax Code" means the Internal Revenue Code of 1986, as amended.

(m) "Taxable Year" means the Tax Partnership's Fiscal Year or such other year as may be required by Section 706 of the Tax Code.

(n) "Treasury Regulations" means regulations (whether in final, proposed or temporary form) promulgated by the U.S. Department of the Treasury under the Tax Code, as amended.

Section 1.3. Capital Contributions.

(a) The amount of any Capital Contributions deemed contributed by each Partner to the Tax Partnership shall be determined by the Partnership Representative and mutually agreed upon by the Partners, including the deemed Capital Contributions addressed in **(b)** below.

(b) Each Partner shall be deemed to have contributed to the Tax Partnership its share of costs borne by such Partner, as determined by the Partnership Representative.

Section 1.4. Capital Accounts.

(a) The Tax Partnership shall maintain a separate capital account for each Partner according to the rules set forth in Section 1.704-1(b)(2)(iv) of the Treasury Regulations (a "Capital Account").

(b) Each Partner's Capital Account:

(i) shall be increased by (A) the deemed Capital Contributions by such Partner to the Tax Partnership (net of liabilities secured by the contributed property that the Tax Partnership is considered to assume or take subject to under Section 752 of the Tax Code), and (B) such Partner's distributive share of Net Income and other items of income and gain allocated to such Partner, and

(ii) shall be decreased by (A) the amount of money deemed distributed to such Partner by the Tax Partnership, (B) the fair market value of property (as determined by the Partnership Representative and mutually agreed upon by the Partners) deemed distributed to such Partner by the Tax Partnership (net of liabilities secured by the distributed property that the Partner is considered to assume or take subject to under Section 752 of the Tax Code)and (C) such Partner's distributive share of Net Losses and other items of loss and deduction allocated to such Partner.

(c) Any Milestone Payment under Section 9.4 of the Agreement shall be treated as additional contingent consideration for the licenses and rights granted by Stoke to Acadia with respect to the SYNGAP1 Co-Co Products under the Agreement. For purposes of maintaining the

Capital Accounts of the Partners, a Milestone Payment (other than any portion treated as interest for US federal income tax purposes) shall be taken into account as an increase in the adjusted basis and fair market value of the property contributed by Acadia to the Tax Partnership and a commensurate increase in the fair market value of the property contributed by Stoke to the Tax Partnership.

(d) Other adjustments shall be made to the Capital Accounts of the Partners to accord with the regulations promulgated under Section 704(b) of the Tax Code as mutually agreed upon by the Partners.

(e) The Capital Account of each Partner as of the date of the Agreement shall be equal to the amount reflected on Annex 1 to this Schedule 16.3.

(f) With respect to any Partner, the balance of such Partner's Capital Account as of the end of the relevant fiscal year or other period, may be adjusted in accordance with the provisions of Regulations Section 1.704-1(b)(2)(ii)(d) (an "Adjusted Capital Account").

Section 1.5. Distributions.

(a) Non-Liquidating Distributions. For purposes of maintaining Partners' Capital Accounts, any payments made to the Partners in accordance with the provisions of Section 9.6(b) of the Agreement shall be treated as distributions described in Section 1.4(b)(ii) of this Schedule 16.3. Such distributions shall be deemed to have been made for tax purposes with respect to a Calendar Quarter when the amounts due or from each Party, as determined under Sections 9.6(b)(iii) and 9.6(b)(vi) of the Agreement, are paid.

(b) Liquidating Distribution. Upon the termination of the Agreement, the distribution or division of assets pursuant to the applicable governing provisions of the Agreement shall be treated as distributions in liquidation of the Tax Partnership.

(c) Withholding for Taxes. In the manner described in Section 9.9(b) of the Agreement, any Partner is authorized to withhold from distributions described in Section 1.5(a) or Section 1.5(b) of this Schedule 16.3 that are made or deemed made to the Partners, and with respect to allocations pursuant to Section 1.6 of this Schedule 16.3 to the Partners, and to pay over to any federal, state, local or foreign government, any such taxes as are required to be deducted or withheld under any provision of Applicable Law. Any amounts so withheld shall be treated as actually distributed pursuant to Section 9.6(b) of the Agreement and Section 1.5(a) or Section 1.5(b) of this Schedule 16.3, to the extent applicable.

Section 1.6. Allocation of Net Income or Net Losses. Except as required by Section 1.7 of this Schedule 16.3, for purposes of adjusting the Capital Accounts of the Partners, the Net Income or Net Loss and, to the extent necessary, individual items of income, gain, loss, credit and deduction, for any Taxable Year or other period shall be allocated among the Partners in a manner that as closely as possible corresponds to the economic effect of the provisions of Section 9.5(b) and the other relevant provisions of the Agreement as reasonably determined by the Partnership Representative and subject to the consent of the other Partners (such consent not to be unreasonably withheld, conditioned or delayed). For the avoidance of doubt, the allocation of Net

Income or Net Loss is not intended to alter the economic effect of the provisions of Section 9.5(b) and other relevant provisions of the Agreement.

Section 1.7. Regulatory Allocations.

(a) In the event any Partner unexpectedly receives any adjustments, allocations or distributions described in Sections 1.704-1(b)(2)(ii)(*d*)(*4*), 1.704-1(b)(2)(ii)(*d*)(*5*) or 1.704-1(b)(2)(ii)(*d*)(*6*) of the Treasury Regulations, items of income (including gross income) and gain shall be specially allocated to such Partner in an amount and manner sufficient to eliminate the deficit balance in such Partner's Capital Account (in excess of (i) the amount such Partner is obligated to restore upon liquidation of the Tax Partnership or upon liquidation of such Partner's interest in the Tax Partnership and (ii) such Partner's share of the Minimum Gain (as defined in Section 1.704-2 of the Treasury Regulations)) created by such adjustments, allocations or distributions as quickly as possible. Additionally, there are hereby incorporated herein such special allocation provisions governing the allocation of income, deduction, gain, and loss for U.S. federal income tax purposes as may be necessary under, and in the manner required by, the Treasury Regulations to ensure that this Schedule 16.3 complies with all requirements of Section 1.704-2 of the Treasury Regulations relating to "minimum gain" and "partner nonrecourse debt minimum gain" and the allocation and chargeback of so-called "nonrecourse deductions" and "partner nonrecourse deductions", including a "qualified income offset".

(b) If the allocation of Net Loss (or items of loss or deduction) to a Partner as provided in Section 1.6 of this Schedule 16.3 would create or increase an Adjusted Capital Account deficit, then there shall be allocated to such Partner only that amount of Net Loss (or items of loss or deduction) as will not create or increase an Adjusted Capital Account deficit. The Net Loss (or items of loss or deduction) that would, absent the application of the preceding sentence, otherwise be allocated to such Partner shall be allocated to the other Partner, subject to the limitations of this Section 1.7(b).

(c) Any special allocations pursuant to Section 1.7(a) or Section 1.7(b) shall be taken into account by the Partners in computing subsequent Book allocations under the Agreement so that the net amount of the Book items allocated to each Partner shall, to the extent permitted under the Tax Code and Treasury Regulations, be equal to the net amount that would have been allocated to each Partner if such special allocations had not occurred.

Section 1.8. Tax Allocations.

(a) Except as otherwise provided in this Section 1.8(a) and Section 1.8(b) of this Schedule 16.3, for U.S. federal income tax purposes, all items of income gain, loss deduction and credit shall be allocated among the Partners in the same manner the corresponding Book item was allocated pursuant to Section 1.6(a) or Section 1.7(a) of this Schedule 16.3. In the case of contributed property, items of income, gain, loss, deduction and credit, as determined for federal income tax purposes, shall be allocated first in a manner consistent with the requirements of Section 704(c) of the Tax Code to take into account the difference between the Gross Asset Value of such property and its adjusted tax basis at the time of contribution. If the Gross Asset Value of any asset of the Tax Partnership is adjusted pursuant to the terms of this Schedule 16.3, then subsequent allocations of income, gain, loss, deduction and credit, as determined for federal

income tax purposes, shall be allocated with respect to such assets so as to take into account such adjustment in the same manner as under Section 704(c) of the Tax Code and the Treasury Regulations promulgated thereunder.

(b) The method under Section 704(c) of the Tax Code and the Treasury Regulations promulgated thereunder shall be the "traditional method" (as described in Section 1.704-3 of the Treasury Regulations), unless otherwise agreed by both Partners. For the sake of clarity, the allocations required by Section 1.7 and this Section 1.8(b) of this Schedule 16.3 are solely for purposes of federal, state and local income taxes and will not affect the allocation of Net Income or Net Losses as between the Partners or any Partner's Capital Account.

Section 1.9. Tax Reports, Tax Elections and Partnership Representative.

(a) The Partnership Representative shall prepare and file, or cause to be prepared and filed, all necessary U.S. federal, state or local income tax returns for the Tax Partnership. Within 120 days after the end of each Taxable Year, the Partnership Representative shall submit a copy of such tax return to Stoke for its review and consent, not to be unreasonably withheld, conditioned or delayed. The Partnership Representative shall not unreasonably refuse to incorporate any comments from Stoke on such Tax Return that are submitted by Stoke no fewer than 30 days prior to the due date of such tax return. The Partnership Representative shall cause the Tax Partnership to furnish each Partner with an IRS Form K-1 for such Taxable Year. In addition, the Partnership Representative shall deliver or cause to be delivered not later than the 45th day after the end of each Taxable Year to each Partner all information that is reasonably necessary for the preparation of such Partner's federal income tax returns and any state, local and foreign income tax returns that such Partner is required to file, and related financial reporting obligations of such Partner with respect to its ownership of the Tax Partnership.

The Partnership Representative will determine whether to make or revoke any available election pursuant to the Tax Code, *provided*, *however*, that any action on the part of the Partnership Representative with respect to such election in its capacity as Partnership Representative shall require the prior written consent of Stoke if such action would reasonably be expected to have a disproportionate adverse impact on Stoke. Notwithstanding the foregoing, nothing in the Agreement or this Schedule 16.3 shall prevent the Partnership Representative from making any of the following elections:

(i) Adoption of any method of accounting within the meaning of Section 446 of the Tax Code, provided that such method is adopted in good faith and would be reasonable if all Partners were corporations subject to tax on their income at the same tax rate under Section 11(b) of the Tax Code;

(ii) The election described in Section 754 of the Tax Code;

(iii) An election for the Tax Partnership to be treated as a partnership under Treasury Regulations § 301.7701-3 (or any comparable provision of state or local tax law, in each case, if necessary).

(b) The Partners hereby agree to cooperate in good faith regarding any matters related to any tax elections or tax reporting positions of the Tax Partnership.

(c) In the event that the Tax Partnership is ineligible to make an election out of the BBA under §6221(b), then the Partnership Representative is authorized to (i) represent the Tax Partnership (at the Tax Partnership's expense) in connection with all examinations of the Tax Partnership's affairs by U.S. federal (and any applicable state) income tax authorities, including resulting administrative and judicial proceedings, and to expend Tax Partnership funds for professional services and costs associated therewith, (ii) take any other actions permitted or necessary under the BBA, and (iii) make any available election under the BBA, including an election under Section 6226 of the Tax Code to push out any adjustments to the Partners, provided that the Partnership Representative shall keep the other Partners reasonably informed, shall provide the other Partners the opportunity to participate in any such matters, and shall not make an election under the BBA that could reasonably be anticipated to have a disproportionate adverse impact on a Partner without such Partner's consent (such consent not to be unreasonably withheld, conditioned or delayed). Each Partner agrees to (i) cooperate with the Partnership Representative as reasonably requested by the Partnership Representative with respect to the conduct of such proceedings and (ii) provide any information necessary to allow the Partnership Representative to make any election or decision permitted under the BBA. The Partnership Representative will, in its reasonable discretion, determine whether the Tax Partnership (either on its own behalf or on behalf of the Partners) will contest or continue to contest any tax deficiencies assessed or proposed to be assessed by any taxing authority provided, however, that the Partnership Representative shall keep the other Partners reasonably informed and shall not agree or consent to compromise or settle such matters without the prior written consent of any affected Partner, which consent shall not be unreasonably delayed, conditioned or withheld. Any deficiency for taxes imposed on any Partner (including penalties, additions to tax or interest imposed with respect to such taxes) will be paid by such Partner, and if paid by the other Partner, will be recoverable from such Partner (including by offset against distributions otherwise payable to such Partner). The Partners agree to cooperate in good faith to notify each other regarding any tax notices or audits relating to the Tax Partnership.

Section 1.10. Tax Position. Unless otherwise required by Applicable Law, no Partner will take a position on such Partner's federal income tax return, in any claim for refund or in any administrative or legal proceedings that is inconsistent with the Agreement or with any information return filed by the Tax Partnership. If any Partner believes that such a position is required by Applicable Law, such Partner must promptly notify the other Partner in writing, citing such Applicable Laws or any interpretation thereof.

Section 1.11. Termination of Tax Partnership. The Tax Partnership shall terminate upon the earlier of (i) the termination of the Agreement or (ii) the Parties' termination of all activities with respect to the SYNGAP1 Co-Co Products.

Section 1.12. Costs and Expenses. The Partnership Representative is authorized to engage professional advisors on behalf of the Tax Partnership in connection with the preparation and filing of tax returns, the defense and conduct of any tax audits or examinations and other tax compliance and reporting matters, and the costs and expenses associated therewith shall be considered and included as Development Costs (even if not included in the applicable Development budget).

Section 1.13. Books and Records. The Tax Partnership shall keep or cause to be kept at the office of the Partnership Representative (or at such other place as the Partners in their discretion

shall determine) full and accurate books and records regarding the status of the business and financial condition of the Tax Partnership and shall make the same available to the Partners upon request, subject to the provisions of the Act. Such books and records shall be maintained in accordance with generally accepted accounting principles and section 704(b) of the Tax Code and the Treasury Regulations promulgated thereunder.

Exhibit 31.1

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Edward M. Kaye, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Stoke 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 10, 2022

/s/ Edward M. Kaye, M.D.
Edward M. Kaye, M.D.
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Stephen J. Tulipano, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Stoke 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 10, 2022

/s/ Stephen J. Tulipano, CPA

Stephen J. Tulipano, CPA
Chief Financial Officer
(Principal Financial Officer and Principal 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

I, Edward M. Kaye, Chief Executive Officer of Stoke Therapeutics, Inc. (the "Company"), do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. the Quarterly Report on Form 10-Q of the Company for the fiscal quarter ended March 31, 2022 (the "Report") 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.

Dated: May 10, 2022

/s/ Edward M. Kaye, M.D.
Edward M. Kaye, M.D.
Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

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

I, Stephen J. Tulipano, Chief Financial Officer of Stoke Therapeutics, Inc. (the "Company"), do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. the Quarterly Report on Form 10-Q of the Company for the fiscal quarter ended March 31, 2022 (the "Report") 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.

Dated: May 10, 2022

/s/ Stephen J. Tulipano, CPA
Stephen J. Tulipano, CPA
Chief Financial Officer
(Principal Financial Officer and
Principal Accounting Officer)