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UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

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

For the quarterly period ended September 30, 2022

OR

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

For transition period from _____ to _____.

Commission File Number: 001-31918

IDERA PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**04-3072298**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
505 Eagleview Blvd., Suite 212 **Exton, Pennsylvania**	**19341**
(Address of principal executive offices)	(Zip code)

(484) 348-1600

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.001 per share	**IDRA**	**Nasdaq Capital 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, a 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 ☒

Common Stock, par value $.001 per share	62,355,434
Class	Outstanding as of November 14, 2022

IDERA PHARMACEUTICALS, INC.
FORM 10-Q

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Unless the context otherwise indicates, references in this Quarterly Report on Form 10-Q to "Idera," the "Company," "we," "us," and "our" refer to Idera Pharmaceuticals, Inc.

IMO® and Idera® are our trademarks. All other trademarks and service marks appearing in this Quarterly Report on Form 10-Q are the property of their respective owners.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q (this "Form 10-Q") contains forward-looking statements within the meaning of 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 historical fact, included or incorporated in this report regarding, among other things, our strategy, strategic alternatives, future operations, clinical trials, collaborations, intellectual property, cash resources and projected cash runways, financial position, future revenues, projected costs, fundraising and/or financing plans, prospects, the ongoing impacts of the coronavirus ("COVID-19") pandemic, the benefits related to the Company's acquisition of Aceragen, Inc. ("Aceragen"), the Special Meeting (as defined below), including with respect to stockholder approval of the conversion rights of the Series Z Preferred Stock, and the reverse stock split, and the plans and objectives of management are forward-looking statements. The words "believes," "anticipates," "estimates," "plans," "expects," "intends," "may," "could," "should," "potential," "likely," "projects," "continue," "will," "schedule," "would," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We cannot guarantee that we will actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties, and other factors, which may be beyond our control, and which may cause the actual results, performance, or achievements of the Company to be materially different from future results, performance, or achievements expressed or implied by such forward-looking statements.

There are a number of important factors that could cause our actual results to differ materially from those indicated or implied by forward-looking statements. These important factors include those set forth under Part I, Item 1A "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, which was filed with the Securities and Exchange Commission ("SEC") on March 31, 2022 (the "2021 Form 10-K"), in this Form 10-Q, and in our other disclosures and filings with the SEC. These factors and the other cautionary statements made in this Form 10-Q should be read as being applicable to all related forward-looking statements whenever they appear in this Form 10-Q.

In addition, any forward-looking statements represent our estimates only as of the date that this Form 10-Q is filed with the SEC and should not be relied upon as representing our estimates as of any subsequent date. All forward-looking statements included in this Form 10-Q are made as of the date hereof and are expressly qualified in their entirety by this cautionary notice. We disclaim any intention or obligation to update or revise any forward-looking statement, whether as a result of new information, future events, or otherwise, except as may be required by law.

PART I — FINANCIAL INFORMATION

Item 1. Condensed Consolidated Financial Statements.

IDERA PHARMACEUTICALS, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS
(UNAUDITED)

(In thousands)	September 30, 2022	December 31, 2021*
ASSETS		
Current assets:		
Cash and cash equivalents	$ 26,795	$ 32,545
Accounts receivable	1,964	—
Prepaid expenses and other current assets	1,311	1,493
Total current assets	30,070	34,038
Property and equipment, net	11	22
Intangible assets	63,067	—
Goodwill	9,934	—
Operating lease right-of-use assets	600	734
Other assets	—	70
Total assets	$ 103,682	$ 34,864
LIABILITIES, CONVERTIBLE REDEEMABLE PREFERRED STOCK, AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 6,761	$ 565
Accrued expenses	10,691	4,088
Acquisition obligation, net	1,534	—
Operating lease liability	245	209
Total current liabilities	19,231	4,862
Acquisition obligation, net	5,942	—
Series X preferred stock liability	20,400	—
Operating lease liability	380	549
Deferred tax liability	3,895	—
Warrant liabilities	3,750	—
Other liabilities	141	—
Total liabilities	53,739	5,411
Commitments and contingencies		
Series Z convertible redeemable preferred stock, $0.01 par value, Authorized — 150 shares: Issued and outstanding — 81 shares at September 30, 2022	29,175	—
Stockholders' equity:		
Preferred stock, $0.01 par value, Authorized — 5,000 shares:		
Series A convertible preferred stock; Designated — 1,500 shares, Issued and outstanding — 1 share	—	—
Common stock, $0.001 par value, Authorized — 140,000 shares; Issued and outstanding — 59,018 and 52,818 at September 30, 2022 and December 31, 2021, respectively	59	53
Additional paid-in capital	768,754	764,861
Accumulated deficit	(748,045)	(735,461)
Total stockholders' equity	20,768	29,453
Total liabilities, convertible redeemable preferred stock, and stockholders' equity	$ 103,682	$ 34,864

* The condensed consolidated balance sheet at December 31, 2021 has been derived from the audited financial statements at that date.

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

IDERA PHARMACEUTICALS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(UNAUDITED)

(In thousands, except per share amounts)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Government contracts revenue	$ 49	$ —	$ 49	$ —
Operating expenses:				
Research and development	1,470	3,507	5,960	14,271
General and administrative	2,268	2,331	7,325	7,959
Acquisition-related costs	2,836	—	2,836	—
Restructuring and other costs	2,802	130	2,802	1,322
Total operating expenses	9,376	5,968	18,923	23,552
Loss from operations	(9,327)	(5,968)	(18,874)	(23,552)
Other income (expense):				
Interest income	111	2	156	7
Interest expense	—	—	—	(7)
Warrant revaluation gain	116	—	116	6,983
Future tranche right revaluation gain	—	—	—	118,803
Foreign currency exchange and other gain (loss)	(38)	1	(21)	(24)
(Loss) income before income tax benefit	$ (9,138)	$ (5,965)	$ (18,623)	$ 102,210
Income tax benefit	6,039	—	6,039	—
Net (loss) income	$ (3,099)	$ (5,965)	$ (12,584)	$ 102,210
Net (loss) income applicable to common stockholders (Note 15)				
— Basic	$ (3,099)	$ (5,965)	$ (12,584)	$ 100,574
— Diluted	$ (3,099)	$ (5,965)	$ (12,584)	$ (23,576)
Net (loss) income per share applicable to common stockholders (Note 15)				
— Basic	$ (0.06)	$ (0.11)	$ (0.24)	$ 2.10
— Diluted	$ (0.06)	$ (0.11)	$ (0.24)	$ (0.46)
Weighted-average number of common shares used in computing net (loss) income per share applicable to common stockholders				
— Basic	53,286	52,740	53,052	47,990
— Diluted	53,286	52,740	53,052	51,613

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

IDERA PHARMACEUTICALS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)

(In thousands)	Nine Months Ended September 30, 2022	2021
Cash Flows from Operating Activities:		
Net (loss) income	$ (12,584)	$ 102,210
Adjustments to reconcile net income (loss) to net cash used in operating activities:		
Stock-based compensation	1,518	1,990
Warrant liability revaluation gain	(116)	(6,983)
Future tranche right liability revaluation gain	—	(118,803)
Issuance of common stock for services rendered	66	130
Accretion of discounts on short-term investments	—	(1)
Depreciation and amortization expense	11	17
Deferred tax benefit	(6,039)	—
Changes in operating assets and liabilities, net of effects from Acquisition:		
Accounts receivable	(49)	—
Prepaid expenses and other assets	806	1,930
Accounts payable, accrued expenses, and other liabilities	4,954	(1,040)
Other	142	5
Net cash used in operating activities	(11,291)	(20,545)
Cash Flows from Investing Activities:		
Cash acquired in acquisition of Aceragen	5,482	—
Proceeds from maturity of available-for-sale securities	—	4,500
Net cash provided by investing activities	5,482	4,500
Cash Flows from Financing Activities:		
Proceeds from common stock financings, net	—	19,534
Proceeds from employee stock purchases	43	48
Proceeds from exercise of common stock options and warrants	16	271
Payments on seller-financed purchases	—	(435)
Net cash provided by financing activities	59	19,418
Net (decrease) increase in cash and cash equivalents	(5,750)	3,373
Cash and cash equivalent, beginning of period	32,545	33,229
Cash and cash equivalents, end of period	$ 26,795	$ 36,602
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ —	$ 5
Supplemental disclosure of non-cash financing and investing activities:		
Offering costs in accounts payable and accrued expenses	$ 15	$ —

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

IDERA PHARMACEUTICALS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF REDEEMABLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)
(UNAUDITED)

	For the Nine Months Ended September 30, 2021						
	Series B1 Preferred		Common Stock		Additional		Total
(In thousands)	Number of Shares	$0.01 Par Value	Number of Shares	$0.001 Par Value	Paid-In Capital	Accumulated Deficit	Stockholders' Equity (Deficit)
Balance, December 31, 2020	24	$ —	38,291	$ 38	$ 742,342	$ (833,552)	$ (91,172)
Sale of common stock, net of issuance costs	—	—	3,195	3	16,258	—	16,261
Conversion of Series B1 preferred stock	(14)	—	1,415	1	(1)	—	—
Issuance of common stock under employee stock purchase plan	—	—	8	—	28	—	28
Issuance of common stock under equity incentive plan (vesting of restricted stock units)	—	—	237	—	—	—	—
Issuance of common stock upon exercise of common stock options and warrants	—	—	3,375	4	267	—	271
Issuance of common stock for services rendered	—	—	16	—	67	—	67
Stock-based compensation	—	—	—	—	1,111	—	1,111
Net income	—	—	—	—	—	115,738	115,738
Balance, March 31, 2021	10	$ —	46,537	$ 46	$ 760,072	$ (717,814)	$ 42,304
Sale of common stock, net of issuance costs	—	—	2,076	2	2,510	—	2,512
Conversion of Series B1 preferred stock	(10)	—	953	1	(1)	—	—
Issuance of common stock under employee stock purchase plan	—	—	6	—	6	—	6
Issuance of common stock upon exercise of common stock options and warrants	—	—	2,496	3	(3)	—	—
Issuance of common stock for services rendered	—	—	47	—	63	—	63
Stock-based compensation	—	—	—	—	404	—	404
Net loss	—	—	—	—	—	(7,563)	(7,563)
Balance, June 30, 2021	—	$ —	52,115	$ 52	$ 763,051	$ (725,377)	$ 37,726
Sale of common stock and prefunded warrants, net of issuance costs	—	—	647	1	760	—	761
Issuance of commitment shares	—	—					—
Issuance of common stock under employee stock purchase plan	—	—	15	—	14	—	14
Stock-based compensation	—	—	—	—	475	—	475
Net loss	—	—	—	—	—	(5,965)	(5,965)
Balance, September 30, 2021	—	$ —	52,777	$ 53	$ 764,300	$ (731,342)	$ 33,011

IDERA PHARMACEUTICALS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF REDEEMABLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT) (CONTINUED)
(UNAUDITED)

	For the Nine Months Ended September 30, 2022						
	Series Z Preferred		Common Stock		Additional		Total
(In thousands)	Number of Shares	$0.01 Par Value	Number of Shares	$0.001 Par Value	Paid-In Capital	Accumulated Deficit	Stockholders' Equity (Deficit)
Balance, December 31, 2021	—	$ —	52,818	$ 53	$ 764,861	$ (735,461)	$ 29,453
Sale of common stock, net of issuance costs	—	—			(15)	—	(15)
Issuance of common stock under employee stock purchase plan	—	—	42	—	16	—	16
Issuance of common stock under equity incentive plan (vesting of restricted stock units)	—	—	27	—	—	—	—
Issuance of common stock for services rendered	—	—	37	—	22	—	22
Stock-based compensation	—	—	—	—	545	—	545
Net loss	—	—	—	—	—	(4,178)	(4,178)
Balance, March 31, 2022	—	$ —	52,924	$ 53	$ 765,429	$ (739,639)	$ 25,843
Issuance of common stock under employee stock purchase plan	—	—	34	—	12	—	12
Issuance of common stock for services rendered	—	—	41	—	22	—	22
Stock-based compensation	—	—	—	—	562	—	562
Net loss	—	—	—	—	—	(5,307)	(5,307)
Balance, June 30, 2022	—	$ —	52,999	$ 53	$ 766,025	$ (744,946)	$ 21,132
Issuance of common stock under employee stock purchase plan			36	—	15		15
Issuance of common stock upon exercise of common stock options and warrants	—	—	1,533	2	14	—	16
Issuance of common stock for services rendered	—	—	50	—	22	—	22
Stock-based compensation	—	—	—	—	411	—	411
Issuance of preferred stock upon Acquisition of Aceragen	81	29,175					
Issuance of common stock upon Acquisition of Aceragen			4,399	4	2,267		2,271
Net loss	—	—	—	—	—	(3,099)	(3,099)
Balance, September 30, 2022	81	$ 29,175	59,018	$ 59	$ 768,754	$ (748,045)	$ 20,768

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

IDERA PHARMACEUTICALS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

September 30, 2022

Note 1. Business and Organization

Business Overview

Idera Pharmaceuticals, Inc. ("Idera" or the "Company"), a Delaware corporation, is a biopharmaceutical company with a business strategy focused on the clinical development, and ultimately the commercialization, of drug candidates for rare disease indications characterized by small, well-defined patient populations with significant unmet medical needs. The Company's strategic focus has been to identify and acquire rights to novel development and commercial stage rare disease programs through business development opportunities, including additional strategic alternatives. In these notes, the terms "we," "our," "our company" and "us" may refer, as the context requires, to Idera or collectively to Idera and its subsidiaries.

On September 28, 2022, the Company acquired Aceragen, Inc. ("Aceragen"), a Delaware corporation and its wholly owned subsidiaries. Aceragen is a privately-held biotechnology company addressing severe, rare, and orphan pulmonary and rheumatic diseases for which there are limited or no available treatments. The Company acquired Aceragen as a strategic extension of its rare disease business and focus with the primary objective of further developing Aceragen's portfolio of rare disease product candidates. Specifically, as a result of the Acquisition (as defined below), the Company will focus on developing ACG-701 to treat pulmonary exacerbations associated with cystic fibrosis and melioidosis, a severe, life-threatening infection, and ACG-801 to treat a rare lysosomal storage disorder known as Farber disease. For additional information on the Acquisition of Aceragen, see Note 4.

Tilsotolimod Update

Until December 2021, the Company was developing tilsotolimod, via intratumoral injection, for the treatment of solid tumors in combination with nivolumab, an anti-PD1 antibody marketed as Opdivo® by Bristol Myers Squibb Company ("BMS"), and/or ipilimumab, an anti-CTLA4 antibody marketed as Yervoy® by BMS. Due to Phase 3 results in anti-PD-1 refractory advanced melanoma, reported in March 2021, which showed the study failed to meet its primary endpoint, as well as a decision in December 2021 to discontinue enrollment in ILLUMINATE-206, the Company's Phase 2 study in solid tumors, Company-sponsored development of tilsotolimod has been discontinued.

Although clinical trials with tilsotolimod have not yet translated into a new treatment alternative for patients, the Company believes that data supporting tilsotolimod's mechanism of action and encouraging safety profile from across the array of pre-clinical and clinical work to date, together with its intellectual property protection, are noteworthy. As a result, in December 2021, the Company announced it would consider, and continues to consider, additional development opportunities for the compound in alignment with the Company's rare disease business and/or out-licensing arrangements such that tilsotolimod's full potential might continue to be explored on behalf of patients.

Nasdaq Compliance

As previously disclosed in the Current Report on Form 8-K filed with the SEC on December 1, 2021, on November 26, 2021, Idera received a deficiency letter from the Nasdaq Listing Qualifications Department (the "Staff") of The Nasdaq Stock Market, LLC ("Nasdaq"), notifying the Company that it is not in compliance with Nasdaq Listing Rule 5550(a)(2), which requires the Company to maintain a minimum bid price of at least $1 per share for continued listing on The Nasdaq Capital Market (the "Minimum Bid Requirement").

On May 26, 2022, the Company received notice (the "Nasdaq Notice") from the Staff indicating that, while the Company has not regained compliance with the Minimum Bid Requirement, the Staff has determined that the Company is eligible for an additional 180-day period, or until November 21, 2022, to regain compliance. If at any time during this second 180-day compliance period, the closing bid price of the Company's common stock is at least $1 per share for a minimum of ten consecutive business days, the Staff will provide the Company with written confirmation of compliance. If compliance cannot be demonstrated by November 21, 2022, the Staff will provide written notification that the Company's common stock will be subject to delisting. The Company would then be entitled to appeal the Staff's determination to a Nasdaq hearings panel. The Company intends to monitor the closing bid price of its common stock and consider implementing available options to regain compliance with the Minimum Bid Requirement.

Liquidity, Financial Condition and Consideration as a Going Concern

The Company has incurred substantial losses and negative cash flows from operations since its inception and has an accumulated deficit of $748.0 million as of September 30, 2022. The Company's cash and cash equivalents at September 30, 2022 of $26.8 million are expected to fund its operations into the third quarter of fiscal 2023. In connection with the Acquisition of Aceragen, the Company assumed a debt obligation that has a final payment of $6.0 million due in October 2023. In addition, the newly-designated Series Z non-voting convertible preferred stock, par value $0.01 per share (the "Series Z"), issued to Aceragen stockholders could be redeemed for cash in the event the Company is unable to obtain an affirmative stockholder vote within six months following the closing of the Acquisition to convert the shares of Series Z into shares of common stock, there can be no assurance that the Series Z stockholders will not exercise their right to demand redemption. These factors raise substantial doubt about the Company's ability to continue as a going concern. The accompanying unaudited interim condensed consolidated financial statements have been prepared on a going concern basis, which contemplate the realization of assets and satisfaction of liabilities in the normal course of business. The unaudited interim condensed consolidated financial statements do not include any adjustments related to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of this uncertainty.

The Company anticipates incurring additional losses until such time, if ever, that it can generate significant sales of its product candidates currently in development. Substantial additional financing will be needed by the Company to fund its operations and to commercially develop its product candidates. Management is currently evaluating different strategies to obtain the required funding for future operations. These strategies may include, but are not limited to: private placements of equity and/or debt, payments from potential strategic research and development, licensing and/or marketing arrangements with pharmaceutical companies, and public offerings of equity and/or debt securities. There can be no assurance that these future funding efforts will be successful.

Note 2. Summary of Significant Accounting Policies

Basis of Presentation

The unaudited interim condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All material intercompany balances and transactions have been eliminated in consolidation. The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") for interim financial information and the instructions to Form 10-Q. Accordingly, certain information and footnote disclosures normally included in consolidated financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. In the opinion of management, all adjustments, consisting of normal recurring adjustments, and disclosures considered necessary for a fair presentation of interim period results have been included. Interim results for the nine months ended September 30, 2022 are not necessarily indicative of results that may be expected for the year ending December 31, 2022. For further information, refer to the consolidated financial statements and footnotes thereto included in the Company's 2021 Form 10-K.

Use of Estimates

The preparation of the Company's unaudited condensed consolidated financial statements in conformity with GAAP requires the Company to make estimates and assumptions that affect the reported amounts of assets

and liabilities and disclosure of contingent assets and liabilities at the date of the unaudited condensed consolidated financial statements and reported amounts of revenues and expenses during the reporting period. The Company bases its estimates and assumptions on historical experience when available and on various factors that it believes to be reasonable under the circumstances and are periodically reviewed in light of changes in circumstances, facts and experience. Changes in estimates are recorded in the period in which they become known. Actual results could differ from these estimates. Estimates that are critical to the accompanying unaudited condensed consolidated financial statements include the estimated fair value of the net assets acquired in connection with the Acquisition of Aceragen, the estimated fair value of the liability classified warrants issued to Aceragen warrant holders and accrued clinical trial expenses.

Cash and Cash Equivalents

The Company considers all highly liquid investments with maturities of 90 days or less when purchased to be cash equivalents. Cash and cash equivalents at September 30, 2022 and December 31, 2021 consisted of cash and money market funds.

Financial Instruments

At September 30, 2022 and December 31, 2021, the Company's financial instruments included accounts payable, accrued expenses, stockholder notes and debt. The carrying amount of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses approximates fair value due to the short-term maturities of these instruments. Each of the carrying values of the preferred stock warrant liabilities and Series X preferred stock liability issued to Aceragen stockholders and the acquisition obligation assumed in connection with the Acquisition of Aceragen are recorded at their estimated fair values. As of September 30, 2022, the Company did not have any derivatives, hedging instruments or other similar financial instruments.

Accounts Receivable

Accounts receivables are recorded net of an estimated expected credit losses. The Company's measurement of expected credit losses is based on relevant information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. To date, there have been no expected credit losses as the Company's customer is the U.S. government. Unbilled accounts receivable at September 30, 2022 which is included in accounts receivables is $1.1 million and relates to revenue recognized for work that has been performed but the invoicing has not yet occurred.

Foreign Currency

Upon completion of the Acquisition of Aceragen in September 2022, the Company has a wholly-owned subsidiary in Switzerland and the functional currency is the Swiss Franc. The results of the Company's non-US dollar based functional currency operations are translated to US dollars at the average exchange rates during the period. Assets and liabilities are translated at the exchange rate prevailing at the balance sheet date. Equity is translated at the prevailing exchange rate at the date of the equity transaction. Translation adjustments are included in stockholders' equity, as a component of accumulated other comprehensive income.

The Company realizes foreign currency transaction gains (losses) in the normal course of business based on movements in the applicable exchange rates. These gains (losses) are included as a component of other (expense) income, net.

Business Combinations

The Company evaluates acquisitions of assets and other similar transactions to assess whether or not the transaction should be accounted for as a business combination or asset acquisition by first applying a screen to determine if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets. If the screen is met, the transaction is accounted for as an asset acquisition. If the screen is not met, further determination is required as to whether or not the Company has acquired inputs and processes that have the ability to create outputs, which would meet the requirements of a business. If determined to be a business combination, the Company accounts for the transaction under the acquisition method of accounting as indicated in Accounting Standard Update ("ASU") 2017-01, *Business*

Combinations, which requires the acquiring entity in a business combination to recognize the fair value of all assets acquired, liabilities assumed, and any non-controlling interest in the acquiree and establishes the acquisition date as the fair value measurement point. Accordingly, the Company recognizes assets acquired and liabilities assumed in business combinations based on the fair value estimates as of the date of acquisition. In accordance with ASC 805, Business Combinations, the Company recognizes and measures goodwill as of the acquisition date, as the excess of the fair value of the consideration paid over the fair value of the identified net assets acquired.

Goodwill

Goodwill represents the amount of consideration paid in excess of the fair value of net assets acquired as a result of the Company's business acquisitions accounted for using the acquisition method of accounting. The intangible assets acquired represented the fair value of in-process research and development (IPR&D) which has been recorded on the accompanying condensed consolidated balance sheet as indefinite-lived intangible assets. A deferred tax liability was recorded for the difference between the fair value of the acquired IPR&D and its tax basis which was recognized as goodwill in applying the purchase method of accounting. Goodwill is not amortized and is subject to impairment testing at a reporting unit level on an annual basis or when a triggering event occurs that may indicate the carrying value of the goodwill is impaired. An entity is permitted to first assess qualitative factors to determine if a quantitative impairment test is necessary. Further testing is only required if the entity determines, based on the qualitative assessment, that it is more likely than not that the fair value of the reporting unit is less than its carrying amount.

We evaluate goodwill for impairment at least annually on October 1 and whenever facts and circumstances indicate that their carrying amounts may not be recoverable. For the nine months ended September 30, 2022, the Company determined that there was no impairment to goodwill.

Indefinite-Lived Intangible Assets

Indefinite-lived intangible assets consist of In-Process Research and Development("IPR&D"). The fair values of IPR&D project assets acquired in business combinations are capitalized. The Company generally utilizes the Multi-Period Excess Earning Method to determine the estimated fair value of the IPR&D assets acquired in a business combination. The projections used in this valuation approach are based on many factors, such as relevant market size and share, probabilities of success, anticipated patent protection, and expected pricing. The estimated future net cash flows are then discounted to the present value using an appropriate discount rate. These assets are treated as indefinite-lived intangible assets until completion or abandonment of the projects, at which time the assets are amortized over the remaining useful life or written off, as appropriate.

Intangible assets with indefinite lives, including IPR&D, are tested for impairment if impairment indicators arise and, at a minimum, annually. However, an entity is permitted to first assess qualitative factors to determine if a quantitative impairment test is necessary. Further testing is only required if the entity determines, based on the qualitative assessment, that it is more likely than not that an indefinite-lived intangible asset's fair value is less than its carrying amount. Otherwise, no further impairment testing is required. The indefinite-lived intangible asset impairment test consists of a one-step analysis that compares the fair value of the intangible asset with its carrying amount. If the carrying amount of an intangible asset exceeds its fair value, an impairment loss is recognized in an amount equal to that excess. We consider many factors in evaluating whether the value of our intangible assets with indefinite lives may not be recoverable, including, but not limited to, expected growth rates, the cost of equity and debt capital, general economic conditions, our outlook and market performance of our industry and recent and forecasted financial performance.

We evaluate indefinite-lived intangible assets for impairment at least annually on October 1 and whenever facts and circumstances indicate that their carrying amounts may not be recoverable. For the nine months ended September 30, 2022, the Company determined that there was no impairment to IPR&D.

Concentration of Credit Risk

Financial instruments that subject the Company to credit risk primarily consist of cash and cash equivalents. The Company's credit risk is managed by investing in highly rated money market instruments, U.S. treasury bills, corporate bonds, commercial paper and/or other debt securities. Due to these factors, no significant additional

credit risk is believed by management to be inherent in the Company's assets. As of September 30, 2022, all the Company's cash and cash equivalents were held at five high credit-quality financial institutions.

Operating Lease Right-of-Use Assets and Lease Liability

The Company accounts for leases under ASC 842, Leases. Operating leases are included in "Operating lease right-of-use assets" within the Company's consolidated balance sheets and represent the Company's right to use an underlying asset for the lease term. The Company's related obligation to make lease payments are included in "Operating lease liability" and "Operating lease liability, net of current portion" within the Company's consolidated balance sheets. Operating lease right-of-use ("ROU") assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As most of the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rates, which are the rates incurred to borrow on a collateralized basis over a similar term, an amount equal to the lease payments in a similar economic environment. Lease expense for lease payments is recognized on a straight-line basis over the lease term. The ROU assets are tested for impairment according to ASC 360, *Property, Plant, and Equipmen*t. Leases with an initial term of 12 months or less are not recorded on the balance sheet and are recognized as lease expense on a straight-line basis over the lease term.

As of September 30, 2022 and December 31, 2021, the Company's operating lease ROU assets and corresponding short-term and long-term lease liabilities primarily relate to its existing Exton, PA facility operating lease which expires on May 31, 2025. In connection with the Aceragen Acquisition, as defined and described in Note 4, the Company acquired an operating lease for an office in Basel, Switzerland which expires on March 31, 2023.

Acquisition-Related Costs

Acquisition-related costs include direct expenses incurred in connection with the Acquisition of Aceragen as well as integration-related professional fees and other incremental costs directly associated to the acquisition.

Restructuring and Other Charges

The Company accounts for exit or disposal activities in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 420, Exit or Disposal Cost Obligations ("ASC 420"). A business restructuring is defined as an exit or disposal activity that includes, but is not limited to, a program that is planned and controlled by management and materially changes either the scope of a business or the manner in which that business is conducted. Business restructuring charges include (i) one-time termination benefits related to employee separations (i.e. severance costs), (ii) contract termination costs, and (iii) other related costs associated with exit or disposal activities. In the third quarter of 2022, the Company implemented a restructuring plan to streamline the organization, reduce costs, and direct resources to advance the Company's primary operating goals.

The Company recognizes and measures a liability for one-time termination benefits, for which no future service is required, once the plan of termination meets all of the following criteria for an established communication date: (i) management commits to a plan of termination, (ii) the plan identifies the number of employees to be terminated and their job classifications or functions, locations and the expected completion date, (iii) the plan establishes the terms of the benefit arrangement, and (iv) it is unlikely that significant changes to the plan will be made or the plan will be withdrawn. For one-time termination benefits for which future service is required, a liability is measured at the communication date based on its value as of the termination date and recognized ratably over the future service period. The Company recognizes and measures a liability for other related costs in the period in which the liability is incurred.

Series X Preferred Stock Liability

In conjunction with the Acquisition of Aceragen, the Company evaluated the newly issued Series X preferred stock and determined its revised terms represents a sale of future revenues and is classified as a liability under ASC 470, Debt and the Company has elected to account for the Series X preferred stock liability under the fair value option. The fair value of the Series X preferred stock liability represents the present value of estimated future payments, including royalty payments, as well as estimated payments that are contingent upon the achievement of

specified milestones. The fair value of the Series X preferred stock liability is based on the cumulative probability of the various estimated payments. The fair value measurement is based on significant Level 3 unobservable inputs such as the probability of achieving the milestones, anticipated timelines, probability and timing of an early redemption of all obligations under Series X preferred liability and the discount rate. Any changes in the fair value of the liability in each reporting period are recognized in the consolidated statement of operations until it is settled.

Warrant Liability

In connection with the Aceragen Acquisition, a portion of the consideration paid to Aceragen warrant holders was in the form of warrants to purchase shares of Series Z (the "Series Z warrants"). The Series Z warrants were classified as a liability on the condensed consolidated balance sheet at September 30, 2022 because the underlying Series Z are contingently redeemable. The fair value of the Series Z warrants on the date of issuance was recorded as a component to the carrying value of the shares Series Z and as a long-term liability in the condensed consolidated balance sheet. The warrants are remeasured to fair value at each balance sheet date until the warrants are exercised, reclassified, expire or otherwise settled. Changes in the fair values of the Series Z warrants are recognized as other income or expense in the consolidated statements of operations and comprehensive loss.

The Company used the Black-Scholes option pricing model, which incorporated assumptions and estimates, to value the Series Z warrants. Estimates and assumptions impacting the fair value measurement of the Series Z warrants included the remaining contractual term of the warrants, risk-free interest rate, expected dividend yield and expected volatility of the price of the underlying shares of Series Z. The estimated the expected stock volatility based on the Company's historical volatility for a term equal to the remaining contractual term of the warrants at the time of issuance and again at the remeasurement date. The risk-free interest rate was determined by reference to the US Treasury yield curve for time periods approximately equal to the remaining contractual term of the warrants. Expected dividend yield was determined based on the fact that the Company had never paid cash dividends and did not expect to pay any cash dividends in the foreseeable future.

Redeemable Preferred Stock

The Company applies ASC 480 when determining the classification and measurement of its preferred stock. Preferred shares subject to mandatory redemption are classified as liability instruments and are measured at fair value. Conditionally redeemable preferred shares (including preferred shares that feature redemption rights that are either within the control of the holder or subject to redemption upon the occurrence of uncertain events not solely within the Company's control) are classified as temporary equity. At all other times, preferred shares are classified as stockholders' equity.

The carrying value of the shares of Series Z is accreted to redemption value using the estimated fair value of the redemption value at each reporting period until the redeemable convertible preferred stock cease to be outstanding or the redemption right has expired.

The accretion for the three and nine months ended September 30, 2022 was immaterial.

Revenue Recognition

The Company recognizes revenue when the Company's customers obtain control of promised goods or services, in an amount that reflects the consideration which the Company expects to receive in exchange for those goods or services by analyzing the following five steps: (i) identify the contract with a customer(s); (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.

Revenues from reimbursable contracts are recognized as costs are incurred, generally based on allowable direct costs incurred during the period, plus allocable overheads together with any recognizable earned fee. The Company uses this input method to measure progress as the customer has access to the development research under these projects and benefits incrementally as R&D activities occur.

Income Taxes

In accordance with ASC 270, *Interim Reporting*, and ASC 740, *Income Taxes*, the Company is required at the end of each interim period to determine the best estimate of its annual effective tax rate and then apply that rate in providing for income taxes on a current year-to-date (interim period) basis. At September 30, 2022, the Company evaluated the realizability of its deferred tax assets and determined that the valuation allowance should be decreased by approximately $6.0 million in consideration of positive and negative evidence bearing upon its ability to realize certain of its deferred tax assets. Such is reflected as an income tax benefit for the three and nine months ended September 30, 2022 in the condensed consolidated statement of operations. As of September 30, 2022 and December 31, 2021, the Company had no uncertain tax positions.

As a result of the Aceragen Acquisition, the Company will have a significant change in ownership. In general, if the Company experiences a greater than 50% aggregate change in ownership of certain significant stockholders over a three-year period (a "Section 382 ownership change"), utilization of its pre-change net operating loss and credit carryforwards is subject to an annual limitation under Section 382 of the Internal Revenue Code of 1986, as amended (the "Code") (and similar state laws). The annual limitation generally is determined by multiplying the value of the Company's stock at the time of such Section 382 ownership change (subject to certain adjustments) by the applicable long-term tax-exempt rate. Such limitations may result in expiration of a portion of the net operating loss and credit carryforwards before utilization and may be substantial. The ability of the Company to use its net operating loss and credit carryforwards may be limited or lost if the Company experiences a Section 382 ownership change in connection with offerings or as a result of future changes in its stock ownership. Losses from a specific period may be subject to multiple limitations and would generally be limited by the lowest of those limitations. As of September 30, 2022, the Company had not completed a Section 382 ownership change assessment to determine the amount of any potential limitations. A formal analysis of ownership changes and associated tax impacts will be completed prior to utilization of any tax net operating losses or other tax credits.

New Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the FASB and rules are issued by the SEC that the Company has or will adopt as of a specified date. Unless otherwise noted, management does not believe that any other recently issued accounting pronouncements issued by the FASB or guidance issued by the SEC had, or is expected to have, a material impact on the Company's present or future consolidated financial statements.

Recently Adopted Accounting Pronouncements

In August 2020, the FASB issued ASU No. 2020-06, Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity ("ASU 2020-06"), which simplifies the guidance on an issuer's accounting for convertible instruments and contracts in its own equity. The Company adopted ASU 2020-06 in the first quarter of 2021. The adoption of ASU 2020-06 did not have a material effect on the Company's consolidated financial statements.

Note 3. Fair Value Measurements

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The Company applies the guidance in ASC 820, *Fair Value Measurement*, to account for financial assets and liabilities measured on a recurring basis. Fair value is measured at the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. As such, fair value is a market-based measurement that is determined based on assumptions that market participants would use in pricing an asset or liability.

The Company uses a fair value hierarchy, which distinguishes between assumptions based on market data (observable inputs) and an entity's own assumptions (unobservable inputs). The guidance requires that fair value measurements be classified and disclosed in one of the following three categories:

- Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;
- Level 2: Quoted prices in markets that are not active or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability; or
- Level 3: Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e., supported by little or no market activity).

Determining which category an asset or liability falls within the hierarchy requires significant judgment. The Company evaluates its hierarchy disclosures each reporting period. There were no transfers between Level 1, 2, and 3 during the nine months ended September 30, 2022.

The table below presents the assets and liabilities measured and recorded in the condensed consolidated financial statements at fair value on a recurring basis at September 30, 2022 and December 31, 2021 categorized by the level of inputs used in the valuation of each asset and liability.

	September 30, 2022			
(In thousands)	**Total**	**Level 1**	**Level 2**	**Level 3**
Assets				
Cash	$ 4,680	$ 4,680	$ —	$ —
Cash equivalents – money market funds	22,115	22,115	—	—
Total assets	$ 26,795	$ 26,795	$ —	$ —
Liabilities				
Warrant liability	$ 3,750	$ —	$ —	$ 3,750
Series X preferred stock liability	20,400	—	—	20,400
Total liabilities	$ 24,150	$ —	$ —	$ 24,150

	December 31, 2021			
(In thousands)	**Total**	**Level 1**	**Level 2**	**Level 3**
Assets				
Cash	$ 250	$ 250	$ —	$ —
Cash equivalents – money market funds	32,295	32,295	—	—
Total assets	$ 32,545	$ 32,545	$ —	$ —

The Level 1 assets consist of money market funds, which are actively traded daily.

There was no significant change in the fair value of the Series X preferred stock liability from the date of issuance on September 28,2022 to September 30, 2022. A reconciliation of the change in the fair value of the warrant liability for the three and nine months ended September 30, 2022 is as follows:

(In thousands)	
Balance, December 31, 2021	$ —
Issuance in connection with Acquisition of Aceragen	3,866
Change in fair value	(116)
Balance, September 30, 2022	$ 3,750

The fair value of the Series X preferred stock represents the present value of estimated future payments, including royalty payments, as well as estimated payments that are contingent upon the achievement of specified milestones. The fair value of the Series X preferred stock liability is based on the cumulative probability of the various estimated payments. The fair value measurement is based on significant Level 3 unobservable inputs such

as the probability of achieving the milestones, anticipated timelines, probability and timing of an early redemption of all obligations under the agreement and discount rate. Any changes in the fair value of the liability are recognized in the consolidated statement of operations until it is settled.

Note 4. Business Acquisition

On September 28, 2022, in accordance with the terms of an Agreement and Plan of Merger (the "Merger Agreement"), the Company acquired 100% of the outstanding security interests of Aceragen in a "stock-for-stock" transaction whereby all Aceragen outstanding equity interests were exchanged for a combination of shares of Idera common stock, shares of Series Z, and shares of the newly designated Series X non-voting preferred stock, par value $0.01 per share (the "Series X) (such acquisition, the "Aceragen Acquisition", "of the Acquisition"). Under the terms of the Merger Agreement, Aceragen stockholders received (i) 4,398,762 shares of the Company's common stock, (ii) 80,656 shares of Series Z and (iii) five shares of Series X. In addition, all outstanding restricted shares subject to repurchase, options and warrants to purchase Aceragen common stock were converted into restricted shares, stock options and warrants to purchase shares of the Company's common stock and Series Z on terms substantially identical to those in effect prior to the Aceragen Acquisition, except for adjustments to the underlying number of shares and the exercise price based on the Merger Agreement exchange ratio. Subject to stockholder approval of the conversion and an increase in authorized shares and certain beneficial ownership limitations set by each holder, each share of Series Z will automatically convert into 1,000 shares of common stock. Holders of shares of Series X are entitled to receive distributions on shares of Series X. The Acquisition was unanimously approved by the Board of Directors of the Company and the Board of Directors of Aceragen. The closing of the transaction was not subject to the approval of the Company's stockholders.

Pursuant to the Merger Agreement, the Company has agreed to hold a stockholders' meeting (the "Special Meeting") to submit certain matters to its stockholders for their consideration, including: (i) the approval of the conversion of the Series Z preferred stock into shares of common stock in accordance with Nasdaq Listing Rule 5635(a) (the "Conversion Proposal") and (ii) the approval to effect a reverse stock split of all of the Company's issued and outstanding shares of common stock (the "Reverse Stock Split Proposal" and, together with the Conversion Proposal, the "Merger Agreement Meeting Proposals"). In accordance with the Term Sheet (as defined below), the Company will also ask its stockholders at the Special Meeting to consider approving the issuance of common stock in connection with certain Convertible Notes (as defined below) that the Company expects to issue to certain former stockholders of Arrevus, Inc. In connection with these matters, the Company intends to file with the SEC a proxy statement and other relevant materials.

The Company's transaction costs of $2.8 million were expensed as incurred and included in the "Acquisition-related costs" financial statement line item in the Company's condensed consolidated statement of operations.

The transaction was accounted for under the acquisition method of accounting. Under the acquisition method, the total purchase price of the acquisition is allocated to the net tangible and identifiable intangible assets acquired and liabilities assumed based on the fair values as of the date of the acquisition. The preliminary fair value of the consideration totaled approximately $55.7 million, summarized as follows:

(In thousands)		
Common stock issued to Aceragen stockholders	$	1,672
Series Z issued to Aceragen stockholders (Note 9)		26,971
Series X liability in connection with Aceragen Acquisition (Note 8)		20,400
Stock options, restricted stock and warrants allocated to consideration paid		6,670
Total Consideration paid	$	55,713

The Company recorded the assets acquired and liabilities assumed as of the date of the acquisition based on the information available at that date. The following table presents the preliminary allocation of the purchase price to the estimated fair values of the assets acquired and liabilities assumed as of the acquisition date:

(In thousands)	
Assets acquired:	
Cash, cash equivalents and restricted cash	$ 5,482
Receivables	1,914
Prepaid expenses and other assets	575
In-process research and development assets	63,067
Goodwill	9,934
	$ 80,972
Liabilities assumed:	
Accounts Payable and accrued expenses	$ 7,827
Acquisition Obligation (Note 7)	7,476
Operating lease liabilities	22
Deferred tax liabilities	9,934
	$ 25,259
Net assets acquired	$ 55,713

The above allocation of the purchase price is based upon certain preliminary valuations and other analyses that have not been completed as of the date of this filing. Any changes in the estimated fair values of the net assets recorded for this business combination upon the finalization of more detailed analyses of the facts and circumstances that existed at the date of the transaction will change the allocation of the purchase price. As such, the purchase price allocations for the Acquisition are preliminary estimates, which are subject to change within the measurement period.

The fair value of IPR&D was capitalized as of the Acquisition date and accounted for as indefinite-lived intangible assets until completion or disposition of the assets or abandonment of the associated research and development efforts. Upon successful completion of the development efforts, the useful lives of the IPR&D assets will be determined based on the anticipated period of regulatory exclusivity and will be amortized within operating expenses. Until that time, the IPR&D assets will be subject to impairment testing and will not be amortized. The goodwill recorded related to the acquisition is the excess of the fair value of the consideration transferred by the acquirer over the fair value of the net identifiable assets acquired and liabilities assumed at the date of acquisition. The goodwill recorded is not deductible for tax purposes.

Pro Forma Financial Information

The following unaudited pro forma financial information reflects the consolidated results of operations of the Company as if the Acquisition of Aceragen had taken place on January 1, 2021. The pro forma financial information is not necessarily indicative of the results of operations as they would have been had the transactions been effected on the assumed date.

(In thousands)	**Three Months Ended September 30,**		**Nine Months Ended September 30,**	
	2022	2021	2022	2021
Net revenues	$ 3,865	$ 79	$ 13,334	$ 79
Net (loss) income	$ (10,229)	$ (2,982)	$ (27,646)	$ 100,723

Nonrecurring pro forma transaction costs directly attributable to the acquisition were $7.8 million and $0 for the three and nine months ended September 30, 2022 and 2021, respectively, have been deducted from the

net loss presented above. The costs deducted included a success fee of $3.4 million to be paid to a financial advisor following the closing of the Acquisition. Additionally, the Company incurred $0.8 million in retention costs as a result of stay bonuses to employees immediately following the closing of the Acquisition. The Company also incurred $2.8 million restructuring costs related to the 2022 reduction-in-workforce. These costs are excluded from the pro forma financial information for the three and nine months ended September 30, 2022. In addition, the Company recognized the $6.0 million income tax benefit for the three and nine months ended September 30, 2021 as if the transaction was completed on January 1, 2021.

Note 5. Property and Equipment

At September 30, 2022 and December 31, 2021, property and equipment, net, consisted of the following:

(In thousands)	September 30, 2022	December 31, 2021
Leasehold improvements	$ 107	$ 107
Equipment and other	712	712
Total property and equipment, at cost	$ 819	$ 819
Less: Accumulated depreciation and amortization	808	797
Property and equipment, net	$ 11	$ 22

Depreciation and amortization expense on property and equipment was less than $0.1 million for each of the three and nine months ended September 30, 2022 and 2021. Additionally, there were no non-cash property additions or impairment-related charges recognized during the three and nine months ended September 30, 2022 and 2021.

Note 6. Accrued Expenses

At September 30, 2022 and December 31, 2021, accrued expenses consisted of the following:

(In thousands)	September 30, 2022	December 31, 2021
Payroll and related costs	$ 1,467	$ 477
Clinical and nonclinical trial expenses	2,289	2,909
Professional and consulting fees	1,216	591
Restructuring and other costs (Note 12)	2,660	—
Acquisition-related costs	2,826	—
Other	233	111
Total accrued expenses	$ 10,691	$ 4,088

Note 7. Acquisition Obligation

As a result of the Aceragen Acquisition, the Company assumed an obligation pursuant to the Arrevus Merger Agreement (as defined below), Aceragen is obligated to make an aggregate future payment of $7.5 million to the former stockholders Arrevus, Inc., $6.0 million and $1.5 million of which was originally due in October 2022 and January 2023, respectively. The estimated fair value of the acquisition obligation at the Aceragen acquisition date was $7.5 million. The Company imputes interest expense using the effective interest method and based on the difference between the estimated fair value and the notional value. Interest expense for the three and nine months ended September 30, 2022 was immaterial.

In connection with the closing of the Acquisition of Aceragen, Aceragen entered into a binding term sheet (the "Term Sheet") with the representative of certain former stockholders of Arrevus, Inc. (the "Former Stockholders"), pursuant to which Aceragen and the Former Stockholders agreed to defer certain payments owed by Aceragen to the Former Stockholders under that certain Agreement and Plan of Merger, dated October 18, 2021, by and among Aceragen, Arrevus, Inc., and their respective affiliates (the "Arrevus Merger Agreement"), in an aggregate amount of $6.0 million (the "Deferred Payments") until October 24, 2023. The Deferred Payments will bear annual interest at 12%, paid quarterly beginning on April 1, 2023. Aceragen may prepay the Deferred Payments at any time, subject to payment in full in cash of the Deferred Payments, plus accrued interest up until the date of such prepayment. Any prepayment of the Deferred Payments must be made on a pro-rata basis among

the holders of the Convertible Notes (as defined below) in proportion to their respective shares of the Deferred Payments; provided that prior to any such prepayment, the holder of each Convertible Note shall be given written notice thereof and the option to convert the principal balance into shares of common stock pursuant to the terms of the Convertible Note.

The Term Sheet provides that the Deferred Payments will be memorialized in an unsecured promissory note to be issued by the Company, pursuant to which each Former Stockholder will have the right to convert such Former Stockholder's portion of its right to receive the Deferred Payments into shares of common stock (the "Convertible Notes"), provided that issuance of any common stock in a subsequent conversion is expressly contingent on approval by the Company's stockholders of the issuance of the common stock underlying the Convertible Notes, which shall be contingent on approval of the Charter Amendment Proposal and the Reverse Stock Split Proposal by the Company's stockholders at the Special Meeting. The Term Sheet further provides that the Company will provide customary registration rights for such converted common stock. Aceragen, the Company, and the Former Stockholder expect to enter into definitive agreements with respect to the Convertible Notes as soon as practicable, which definitive agreements are expected to replace and supersede the Term Sheet

Future principal payments as of September 30, 2022 are as follows:

(In thousands)	Amounts
2022	$ 1,534
2023	5,942
Total	$ 7,476

Note 8. Series X Preferred Stock Liability

In connection with the Acquisition of Aceragen, the Company issued five shares of its Series X. The Series X shares are non-convertible and non-voting and are entitled to discrete development and commercial milestone payments as well as royalty payments on net product sales of ACG-801 for Farber disease. The royalty rates range between low single digits to low double digits and expire, unless terminated earlier, upon the later of the expiration of the last valid claim in the licensed patent rights in such country covering such product and the expiration of data exclusivity in such country for such product. In addition, the payments due to the holders of the Series X shares are secured by substantially all of the assets related to ACG-801. the underlying products related to ACG-801.

The Company concluded the Series X shares do not represent a residual interest in the Company and are accounted for as debt. The liabilities associated with the Series X shares require the Company to make certain estimates and assumptions, particularly about the achievement of future development and regulatory milestones and future product sales. Such estimates and assumptions are utilized in determining the expected repayment term, accretion of interest expense and classification between current and long-term portions of amounts outstanding. The Company elected to carry the Series X preferred stock liability at fair value, and the debt instrument is outside the scope of ASC 480, Distinguishing Liabilities from Equity, and thus will be classified as a liability under ASC 470,
Debt, in the Company's condensed consolidated financial statements. The fair value of the Series X represents the present value of estimated future payments, including royalty payments, as well as estimated payments that are contingent upon the achievement of specified milestones. The fair value of the Series X Preferred Stock Liability is based on the cumulative probability of the various estimated payments. The fair value measurement is based on significant Level 3 unobservable inputs such as the probability of achieving the milestones, anticipated timelines, probability and timing of an early redemption of all obligations under the agreement and discount rate. Any changes in the fair value of the liability are recognized in the consolidated statement of operations until it is settled.

Note 9. Redeemable Convertible Preferred Stock

December 2019 Private Placement

On December 23, 2019, the Company entered into the December 2019 Securities Purchase Agreement, under which the Company sold 23,684 shares of Series B1 convertible preferred stock ("Series B1 Preferred Stock") and warrants to purchase 2,368,400 shares of the Company's common stock at an exercise price of $1.52 per share (or, if the holder elected to exercise the warrants for shares of Series B1 Preferred Stock, 23,684 shares of Series B1 Preferred Stock at an exercise price of $152 per share) for aggregate gross proceeds of $3.9 million (the "Initial Closing").

In addition, the Company agreed to sell to the purchasers, at their option and subject to certain conditions, (i) 98,685 shares of Series B2 convertible preferred stock ("Series B2 Preferred Stock") and 9,868,500 warrants to purchase common stock at an exercise price of $1.52 per share (or, at the election of the holder, 98,685 shares of Series B2 Preferred Stock at an price of $152 per share), for aggregate gross proceeds of $15 million (the "Series B2 Tranche"), (ii) 82,418 shares of Series B3 convertible preferred stock ("Series B3 Preferred Stock") and 6,593,440 warrants to purchase common stock at an exercise price of $1.82 per share (or, at the election of the holder, 65,934 shares of Series B3 Preferred Stock at a price of $182 per share), for aggregate gross proceeds of $15 million (the "Series B3 Tranche"), and (iii) 82,418 shares of Series B4 convertible preferred stock ("Series B4 Preferred Stock") and 6,593,440 warrants to purchase common stock at an exercise price of $1.82 per share (or, at the election of the holder, 65,934 shares of Series B3 Preferred Stock at a price of $182 per share), for aggregate gross proceeds of $15 million (the "Series B4 Tranche") over a period of up to 21 months following the Company's 2020 Annual Meeting of Stockholders held on May 12, 2020, where stockholders of the Company voted to approve an amendment to the Company's Restated Certificate of Incorporation to increase the authorized number of shares of the Company's common stock to 140,000,000. As consideration for the future tranche rights, the Company received aggregate gross proceeds of $6.2 million in December 2019.

The purchase and sale of the securities issuable under the Series B2, B3, and B4 tranches described above were subject to three separate closings, each to be conducted at the purchasers' discretion. The right of the purchasers to purchase Series B2, Series B3, and Series B4 Preferred Stock was set to expire on the 10th business day following the Company's ORR Data Announcement (as defined in the December 2019 Securities Purchase Agreement) for its ILLUMINATE-301 study. As a result of the purchasers not exercising the Series B2 Tranche prior to expiration, all future tranche rights and outstanding warrants previously issued pursuant to the December 2019 Securities Purchase Agreement were terminated during the three months ended March 31, 2021. Accordingly, the Company is no longer eligible to receive additional proceeds pursuant to the December 2019 Securities Purchase Agreement and the related warrant liability and future tranche right liability were derecognized during the three months ended March 31, 2021.

Accounting Considerations

The Company determined that the Series B1 Preferred Stock, the accompanying Series B1 warrants, and each of the future tranche rights represent freestanding financial instruments. The Series B1 warrants and the future tranche rights were classified as liabilities until their termination in March 2021 as the underlying shares were potentially redeemable and such redemption was deemed to be outside of the Company's control.

Due to the redeemable nature of the Series B1 Preferred Stock, the Series B1 Preferred Stock was classified as temporary equity and the carrying value was being accreted to its redemption value as of December 31, 2020 and while the Series B1 Preferred Stock was outstanding during 2021. During the nine months ended September 30, 2021, all the Company's 23,684 shares of Series B1 Preferred Stock outstanding were converted into shares of the Company's common stock. See Note 10 for details. For the three and nine months ended September 30, 2022 and 2021, accretion was de minimis.

Series Z Redeemable Preferred Stock

In connection with the Acquisition of Aceragen, the Company issued 80,656 shares of Series Z. Series Z shares are not entitled to vote except for specific corporate matters including (i) changes to the rights and preferences of the Series Z shares, (ii) issuance of additional Series Z shares, and (iii) enter into a fundamental transaction such as a sale of the Company. Certain provisions of the outstanding Series Z are as follows:

- Conversion: Upon obtaining stockholder approval, each share of Series Z will automatically convert into 1,000 shares of common stock, subject to beneficial ownership limitations.

- Dividends: Series Z participates in any dividends with common stockholders on an as-converted basis.

- Liquidation: In the event of the liquidation, dissolution, or winding up of the affairs of the Company (a "Liquidity Event"), the holders of Series Z are entitled to receive a liquidation preference prior to any payment to the holders of common stock.

- Redemption: In the event the Company is unable to obtain an affirmative stockholder vote to permit conversion, each holder of Series Z may elect, at the holder's option, to have the shares of Series Z be redeemed by the Company and equal to the estimated fair value of the Series Z share at the time of redemption. Due to this redemption feature, the Series Z has been classified within temporary equity on the consolidated balance sheet at September 30, 2022.

Note 10. Stockholders' Equity

Equity Financings

Common Stock Purchase Agreement

On March 4, 2019, the Company entered into a Purchase Agreement with Lincoln Park Capital Fund, LLC ("Lincoln Park"), which was amended on September 2, 2020 (as amended to date, the "LPC Purchase Agreement"), pursuant to which, upon the terms and subject to the conditions and limitations set forth therein, Lincoln Park committed to purchase an aggregate of $35.0 million of shares of Company common stock from time to time at the Company's sole discretion over a 36-month period (the "Purchase Period"). As consideration for entering into the LPC Purchase Agreement, the Company issued 269,749 shares of its common stock to Lincoln Park as a commitment fee (the "Commitment Shares"). The closing price of the Company's common stock on March 4, 2019 was $2.84 and the Company did not receive any cash proceeds from the issuance of the Commitment Shares.

During the nine months ended September 30, 2022, the Company did not sell any shares under the LPC Purchase Agreement. The Purchase Period expired on March 4, 2022. Accordingly, the Company no longer has access to additional capital under the LPC Purchase Agreement.

During the nine months ended September 30, 2021, the Company sold 800,000 shares of common stock, pursuant to the LPC Purchase Agreement, resulting in net proceeds of $4.2 million.

"At-The-Market" Equity Program

In November 2018, the Company entered into an Equity Distribution Agreement (the "ATM Agreement") with JMP Securities LLC ("JMP") pursuant to which the Company may issue and sell shares of its common stock having an aggregate offering price of up to $50.0 million (the "Shares") through JMP as its agent. Subject to the terms and conditions of the ATM Agreement, JMP will use commercially reasonable efforts to sell the Shares from time to time, based upon the Company's instructions, by methods deemed to be an "at the market offering" as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, or if specified by the Company, by any other method permitted by law, including but not limited to in negotiated transactions. The Company has no obligation to sell any of the Shares, and the Company or JMP may at any time suspend sales under the ATM Agreement or terminate the ATM Agreement. JMP is entitled to a fixed commission of 3.0% of the gross proceeds from Shares sold.

During the nine months ended September 30, 2022, the Company sold no Shares pursuant to the ATM Agreement.

During the nine months ended September 30, 2021, the Company sold 5,117,357 Shares pursuant to the ATM Agreement, resulting in net proceeds, after deduction of commissions and other offering expenses, of $15.3 million. As of September 30, 2022, the Company may sell up to an additional $19.5 million of Shares under the ATM Agreement, subject to applicable securities laws and related rules and regulations.

April 2020 Private Placement

On April 7, 2020, the Company entered into a Securities Purchase Agreement with Pillar Partners (as defined below), a related party as more fully described in Note 14, which was amended on December 11, 2020 (as amended to date, the "April 2020 Securities Purchase Agreement"), under which the Company sold 3,039,514 shares of common stock and accompanying warrants to purchase 3,039,514 shares of the Company's common stock with an exercise price of $2.28 per share, for aggregate gross proceeds of $5.0 million. Each share and the accompanying warrant had a combined purchase price of $1.645, which included $0.125 for each share of

common stock underlying each warrant. The April 2020 Securities Purchase Agreement also provided for the option for Pillar Partners to purchase 2,747,252 shares of the Company's common stock (or pre-funded warrants to purchase shares of the Company's common stock at an exercise price of $0.01 in lieu of certain shares to the extent that purchasing such shares will cause Pillar Investment Entities (as defined below) to beneficially own in excess of 19.99% of the total number of shares of common stock outstanding post-transaction) and warrants to purchase up to 1,373,626 shares of the Company's common stock (with an exercise price of $2.71), for aggregate gross proceeds of $5.0 million (the "April 2020 Private Placement Second Closing"). Subsequently, in December 2020, the April 2020 Private Placement Second Closing was consummated. Total net proceeds received pursuant to the April 2020 Securities Purchase Agreement, after deduction of offering expenses, was $9.8 million.

July 2020 Private Placement

On July 13, 2020, the Company entered into a Securities Purchase Agreement (the "July 2020 Securities Purchase Agreement") with Pillar Partners Foundation, L.P. ("Pillar Partners"), Pillar Pharmaceuticals 6, L.P. ("Pillar 6"), and Pillar Pharmaceuticals 7 L.P. ("Pillar 7") (collectively, the "July 2020 Purchasers"), each a related party as more fully described in Note 10, pursuant to which, among other things, provided the July Purchasers the option to purchase, at their sole discretion, pre-funded warrants to purchase up to 784,615 shares of the Company's common stock, at an exercise price of $0.01 per share, and warrants to purchase up to 274,615 shares of the Company's common stock, at an exercise price of $9.75, for aggregate gross proceeds of $5.1 million (the "July 2020 Private Placement Second Closing"). During the three months ended March 31, 2021, the option to purchase securities in the July 2020 Private Placement Second Closing terminated. As a result, the Company is no longer eligible to receive additional proceeds from the sale of additional securities pursuant to the July 2020 Securities Purchase Agreement. However, the July 2020 Purchasers still hold outstanding warrants previously issued under the July 2020 Securities Purchase Agreement, as detailed below under the heading "Common Stock Warrants".

Warrants

In connection with various financing transactions, the Company has issued warrants to purchase shares of the Company's common stock and preferred stock. The Company accounts for common and preferred stock warrants as equity instruments or liabilities, depending on the specific terms of the warrant agreement.

In connection with the Acquisition of Aceragen, the Company issued warrants to former Aceragen warrant holders to purchase shares of its common stock and Series Z. Series Z warrants are liability classified and remeasured at each reporting period.

The following table summarizes outstanding warrants to purchase shares of the Company's common stock and/or preferred stock as of September 30, 2022 and December 31, 2021:

Description	Number of Shares		Weighted-Average Exercise Price	Expiration Date
	September 30, 2022	December 31, 2021		
Equity-classified warrants				
May 2013 warrants	15,437	15,437	$ 0.08	None
September 2013 warrants	4,096	4,096	$ 0.08	None
February 2014 warrants	2,171	2,171	$ 0.08	None
April 2020 Private Placement first closing warrants	3,039,514	3,039,514	$ 2.28	Apr 2023
April 2020 Private Placement second closing warrants	1,373,626	1,373,626	$ 2.71	Dec 2023
April 2020 Private Placement second closing warrants	—	1,143,428	$ 0.01	None
July 2020 Private Placement first closing warrants	—	389,731	$ 0.01	None
July 2020 Private Placement first closing warrants	2,764,227	2,764,227	$ 2.58	Jul 2023
	7,199,071	8,732,230		
Liability-classified warrants				
Aceragen Acquisition warrants:				
Convertible to common stocks	1,353,143	—	$ 0.46	3/23/2031
Convertible to preferred stocks	14,215	—	$ 460.00	3/23/2031
	1,367,358	—		
Total outstanding	8,566,429	8,732,230		

Note 11. Collaboration and License Agreements

Scriptr Collaboration and Option Agreement

In February 2021, the Company entered into a collaboration and option agreement with Scriptr Global, Inc. ("Scriptr"), pursuant to which (i) the Company and Scriptr conduct a research collaboration utilizing Scriptr Platform Technology ("SPT") to identify, research and develop gene therapy candidates (each, a "Collaboration Candidate") for the treatment, palliation, diagnosis or prevention of (a) myotonic dystrophy type 1 ("DM1 Field") and (b) Friedreich's Ataxia ("FA Field") on a Research Program-by-Research Program (as defined below) basis, as applicable, and (ii) the Company was granted an exclusive option, in its sole discretion, to make effective the Scriptr License Agreement, as defined below, for a given Research Program, as defined below, to make use of Collaboration Candidates and related intellectual property (collectively, the "Scriptr Agreement").

Pursuant to the Scriptr Agreement, Scriptr will use commercially reasonable efforts to carry out research activities set forth in accordance with the applicable DM1 Field and FA Field research plans, including certain pre-clinical proof of concept studies, to identify research Collaboration Candidates utilizing SPT (each, a "Research Program"). Following the completion of activities under a given Research Program, Scriptr will prepare and submit to the Company a comprehensive data package (each, a "Data Package") that summarizes, on a Research Program-by-Research Program basis, any Collaboration Candidates researched under the Research Program, including any data and results. Upon receipt of a Data Package, the Company has, in its sole discretion, up to two-hundred seventy (270) calendar days to make effective the exclusive license agreement entered into by and between the Company and Scriptr, pursuant to which, among other things, Scriptr grants the Company exclusive rights and licenses with respect to the development, manufacture and commercialization of licensed candidates and products, subject to certain conditions and limitations (the "Scriptr License Agreement"), for a given Research Program (each licensed Research Program, a "Licensed Program"). The Scriptr License Agreement provides for customary development milestones on candidates developed under a Licensed Program and royalties on licensed products, if any.

In partial consideration of the rights granted by Scriptr to the Company under the Scriptr Agreement, the Company made a one-time, non-creditable and non-refundable payment to Scriptr during the first quarter of 2021. The Company reimburses Scriptr for costs incurred by or on behalf of Scriptr in connection with the conduct of each Research Program during the research term in accordance with the applicable Research Program budget and payment schedule. The Company incurred approximately $0.1 million and $0.5 million in research and development expenses under the Scriptr Agreement during the three and nine months ended September 30, 2022, respectively. In comparison, the Company incurred approximately $0.4 million and $1.7 million in research and development expenses under the Scriptr Agreement during the three and nine months ended September 30, 2021, respectively.

Note 12. Restructuring and Other Costs

On September 28, 2022, in connection with the Aceragen Acquisition, the Company determined to restructure its operations and reduce the workforce (the "2022 reduction-in-workforce"). In connection with the 2022 reduction-in-workforce, five positions were eliminated, representing approximately 38% of the Company's pre-merger employees. All five of the positions were eliminated on or before September 30, 2022.

Restructuring-related charges for both the three and nine months ended September 30, 2022 totaled approximately $2.8 million and were comprised of the one-time termination costs in connection with the 2022 reduction-in-workforce, including severance, benefits and related costs.

As of September 30, 2022, the short-term portion of the accrued restructuring balance, or $2.7 million, is included in "Accrued expenses" in the accompanying condensed consolidated balance sheets. The long-term portion of $0.1 million is included within "Other liabilities" in the accompanying condensed consolidated balance sheets.

In the second quarter of 2021, following the announcement that the Company's ILLUMINATE-301 trial did not meet its primary endpoint of objective response rate ("ORR"), the Company implemented a reduction in force which affected approximately 50% of its workforce (the "2021 reduction-in-workforce"). In total, sixteen positions were eliminated, primarily in the area of research and development. The 2021 reduction-in-force was undertaken

in order to align the Company's workforce with its needs in light of the outcome of ILLUMINATE-301's ORR endpoint and other business development activities focused on identifying new portfolio opportunities.

In connection with these actions, the Company incurred and paid one-time termination costs for the 2021 reduction-in-workforce, which includes severance, benefits and related costs, of approximately $0.1 million during third quarter of 2021.

Note 13. Stock-Based Compensation

As of September 30, 2022, the equity compensation plans under which the Company may currently issue new awards are the Company's 2013 Stock Incentive Plan (as amended to date, the "2013 Plan"), 2017 Employee Stock Purchase Plan (as amended to date, the "2017 ESPP"), and the Aceragen, Inc. 2021 Stock Incentive Plan (the "Aceragen Plan"), which was assumed by the Company in connection with the Acquisition, each as more fully described below.

Equity Incentive and Employee Stock Purchase Plans

Stock options issued in connection with Aceragen Acquisition (Assumed Aceragen, Inc. 2021 Stock Incentive Plan)

In connection with the Aceragen Acquisition, all options existing under the pre-acquisition Aceragen Plan and held by Continuing Employees (as defined in the Merger Agreement) were assumed by the Company and converted into options to purchase shares of common stock and Series Z on the same terms and conditions as applied to such options and warrants immediately prior to the Aceragen Acquisition.

The Aceragen Plan provides for the grant of incentive stock options, non-incentive stock options, restricted stock, restricted stock units and other stock-based awards to eligible recipients. Eligible recipients include employees, officers, directors, and individual consultants and advisors. The maximum term of options granted under the Aceragen Plan is ten years. Historically, option grants under the Aceragen Plan to employees have vested 25% on the first anniversary of grant date, with the balance vesting proportionally for a duration of three years thereafter, and grants to non-employee option holders have vested in quarterly increments over two years. The vesting schedule applicable to options granted under the Aceragen Plan and assumed in the Acquisition was unaffected by the Acquisition and such assumed options shall continue to vest according to the applicable vesting schedule. The Company does not plan to issue any additional awards under this plan.

As of September 30, 2022, there was $4.7 million of total unrecognized compensation cost related to unvested time vesting awards under the Aceragen Plan, which is expected to be recognized over the remaining period up to 3.75 years.

In addition, the Company issued 3,278,859 shares of its common stock to Aceragen stockholders that are subject to forfeiture if future services are not provided. Shares subject to forfeiture are recognized as outstanding when vested and no longer subject to forfeiture or repurchase. As of September 30, 2022, there was $0.7 million of total unrecognized compensation cost related to these unvested, time vesting restricted shares which is expected to be recognized over the remaining 2 years.

2013 Stock Incentive Plan

The 2013 Plan allows for the issuance of incentive stock options intended to qualify under the amended Section 422 of the Code, non-statutory stock options, stock appreciation rights, restricted stock awards, restricted stock units ("RSUs"), other stock-based awards and performance awards.

At the 2022 Annual Meeting of stockholders of the Company held on June 23, 2022 (the "Annual Meeting"), the Company's stockholders approved an amendment (the "2022 Stock Plan Amendment") to the Company's 2013 Plan to increase the number of shares reserved for issuance under the 2013 Plan by 4,600,000 shares of the Company's common stock. Accordingly, the total authorized shares of common stock under the 2013 Plan increased to 10,253,057 shares of the Company's common stock, plus such additional number of shares of common stock (up to 155,968 shares) as is equal to the number of shares of common stock subject to awards granted under the Company's 2008 Stock Incentive Plan (the "2008 Plan"), to the

extent such awards expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased by the Company at their original issuance price pursuant to a contractual repurchase right.

As of September 30, 2022, options to purchase a total of 5,312,800 shares of common stock and 831,698 RSUs were outstanding and up to 3,806,601 shares of common stock remained available for grant under the 2013 Plan.

Other Awards and Inducement Grants

The Company has not made any awards pursuant to other equity incentive plans, including the 2008 Plan, since the Company's stockholders approved the 2013 Plan. As of September 30, 2022, options to purchase a total of 145,968 shares of common stock were outstanding under the 2008 Plan. In addition, as of September 30, 2022, non-statutory stock options to purchase an aggregate of 325,000 shares of common stock were outstanding that were issued outside of the 2013 Plan to certain employees in 2015 and 2014 pursuant to the Nasdaq inducement grant exception as a material component of new hires' employment compensation.

2017 *Employee Stock Purchase Plan*

The 2017 ESPP is intended to qualify as an "employee stock purchase plan" as defined in Section 423 of the Code, and is intended to encourage the Company's employees to become stockholders of the Company, to stimulate increased interest in the Company's affairs and success, to afford employees the opportunity to share in the Company's earnings and growth, and to promote systematic savings by participants.

At the Annual Meeting, the Company's stockholders approved an amendment (the "2022 ESPP Amendment") to the Company's 2017 ESPP to increase the number of shares authorized for issuance under the 2017 ESPP by 600,000 shares of common stock. Accordingly, the total authorized shares of common stock under the 2017 ESPP increased to 1,012,500 shares of common stock, subject to adjustment as described in the 2017 ESPP. As of September 30, 2022, 683,788 shares remained available for issuance under the 2017 ESPP.

For the nine months ended September 30, 2022 and 2021, the Company issued 112,437 and 29,016 shares of common stock, respectively, under the 2017 ESPP and received proceeds of less than $0.1 million during each period, as a result of employee stock purchases.

Accounting for Stock-based Compensation

The Company recognizes non-cash compensation expense for stock-based awards under the Company's equity incentive plans and employee stock purchases under the Company's 2017 ESPP as follows:

- Stock Options: Compensation cost is recognized over an award's requisite service period, or vesting period, using the straight-line attribution method, based on the grant date fair value determined using the Black-Scholes option-pricing model.
- RSUs: Compensation cost for time-based RSUs, which vest over time based only on continued service, is recognized on a straight-line basis over the requisite service period based on the fair value of the Company's common stock on the date of grant. Compensation cost for awards that are subject to market considerations is recognized on a straight-line basis over the implied requisite service period, based on the grant date fair value estimated using a Monte Carlo simulation. Compensation cost for awards that are subject to performance conditions is recognized over the period of time commencing when the performance condition is deemed probable of achievement based on the fair value of the Company's common stock on the date of grant.
- Employee Stock Purchases: Compensation cost is recognized over each plan period based on the fair value of the look-back provision, calculated using the Black-Scholes option-pricing model, considering the 15% discount on shares purchased.

Total stock-based compensation expense attributable to stock-based awards made to employees and directors and employee stock purchases included in operating expenses in the Company's condensed consolidated statements of operations for the three and nine months ended September 30, 2022 and 2021 were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
(in thousands)	2022	2021	2022	2021
Stock-based compensation:				
Research and development				
Employee Stock Purchase Plan	$ 6	$ 7	$ 21	$ 22
Equity Incentive Plan	53	51	194	469
	$ 59	$ 58	$ 215	$ 491
General and administrative				
Employee Stock Purchase Plan	$ 2	$ —	$ 5	$ 3
Equity Incentive Plan	350	417	1,298	1,496
	$ 352	$ 417	$ 1,303	$ 1,499
Total stock-based compensation expense	$ 411	$ 475	$ 1,518	$ 1,990

During the nine months ended September 30, 2022 and 2021, the weighted average fair market value of stock options granted was $0.35 and $1.54, respectively.

The following weighted average assumptions apply to the options to purchase 1,169,800 and 1,356,700 shares of common stock granted to employees and directors during the three and nine months ended September 30, 2022 and 2021, respectively:

	2022	2021
Average risk-free interest rate	2.6%	0.4%
Expected dividend yield	—	—
Expected lives (years)	3.8	3.6
Expected volatility	104%	94%
Weighted average exercise price (per share)	$ 0.49	$ 2.68

All options granted during the nine months ended September 30, 2022 and 2021 were granted at exercise prices equal to the fair market value of the Company’s common stock on the dates of grant**.** As further described below, the vesting of certain options granted to employees during the nine months ended September 30, 2021 were accelerated during the period.

Stock Option Activity

The following table summarizes stock option activity for the nine months ended September 30, 2022:

($ in thousands, except per share data)	Common Stock Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Outstanding at December 31, 2021	5,202,006	$ 8.06	5.9	$ 2,949
Granted	1,169,800	0.49		
Exercised	—	—		
Forfeited	—	—		
Expired	(588,038)	2.87		
Options assumed in connection with Aceragen Acquisition	1,887,860	4.15	9.3	
Outstanding at September 30, 2022	7,671,628	$ 6.34	7.3	$ —
Exercisable at September 30, 2022	4,218,823	$ 9.29	5.7	$ —

	Preferred Stock Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Outstanding at December 31, 2021	—	$ —	—	—
Options assumed in connection with Aceragen Acquisition	19,826	394.82	9.3	
Outstanding at September 30, 2022	19,826	$ 394.82	9.3	$ —
Exercisable at September 30, 2022	2,187	$ 142.05	8.9	$ —

As of September 30, 2022, there was $1.0 million of unrecognized compensation cost related to unvested options, which the Company expects to recognize over a weighted average period of 2.4 years.

During the three months ended March 31, 2021, the Company accelerated the vesting of 1,535,578 options, which were previously granted during 2019 through 2021 (the “2021 Option Acceleration”). The modification resulted in an incremental stock-based compensation charge that was not significant. In January 2022, for members of the Company’s Leadership team, the Compensation Committee of the Board of Directors implemented a post-exercise holding period prohibiting the sale of shares associated with the 2021 Option Acceleration on any schedule more favorable than the original vesting schedule (i.e., 6.25% of the total option grant every quarter and 25% of the total RSU grant every year). This post-exercise holding period has no financial statement impact.

Restricted Stock Activity

The following table summarizes restricted stock activity for the nine months ended September 30, 2022:

	Time-based Awards		Market/Performance-based Awards	
($ in thousands, except per share data)	Number of Shares	Weighted-Average Grant Date Fair Value	Number of Shares	Weighted-Average Grant Date Fair Value
Nonvested shares at December 31, 2021	68,675	$ 2.30	507,028	$ 1.54
Granted	283,207	0.40	—	—
Cancelled	—	—	—	—
Vested	(27,212)	2.43	—	—
Nonvested shares at September 30, 2022	324,670	$ 0.63	507,028	$ 1.54

Time-based Restricted Stock Units

During the three months ended March 31, 2021, the Company accelerated the vesting of 137,872 unvested time-based RSUs which were previously granted during 2019 and 2020. The modification resulted in an incremental stock-based compensation charge that was not significant.

During the nine months ended September 30, 2022, the Company recognized $0.1 million of compensation expense related to these awards. As of September 30, 2022, there was $0.2 million of unrecognized compensation expense related to the Company's time-based RSUs, which is expected to be recognized over a weighted-average period of one year.

Market/Performance-based Restricted Stock Units

In July 2020, the Company granted RSUs to certain employees, including executive officers, under the 2013 Plan, with vesting that may occur upon a combination of specific performance and/or market conditions. Accordingly, the Company views these RSUs as two separate awards: (i) an award that vests if the market condition is achieved, and (ii) an award that vests whether or not the market condition is achieved, so long as the performance condition is achieved. The Company is currently recognizing compensation expense for these awards over the estimated requisite service period of 2.36 years based on the estimated fair value when considering the market condition of the award, which was determined using a Monte Carlo simulation.

During the nine months ended September 30, 2022, the Company recognized $0.1 million of compensation expense related to these awards. As of September 30, 2022, the remaining unrecognized compensation cost for the market-based component of these awards, which is expected to be recognized over a weighted-average period of 0.2 years, was $0.1 million. In addition, should the performance condition be achieved, the Company would recognize an additional $0.3 million of compensation expense.

Note 14. Related Party Transactions

Pillar Investment Entities

Youssef El Zein, a member of the Company's Board of Directors until his resignation in October 2017, is a director and controlling stockholder of Pillar Invest Corporation ("Pillar Invest"), which is the general partner of Pillar Pharmaceuticals I, L.P., Pillar Pharmaceuticals II, L.P., Pillar Pharmaceuticals III, L.P., Pillar Pharmaceuticals IV, L.P., Pillar Pharmaceuticals V, L.P., Pillar 6, Pillar 7, and Pillar Partners (collectively, the "Pillar Investment Entities"). As of September 30, 2022, the Pillar Investment Entities owned approximately 16% of the Company's common stock and beneficially owned approximately 19.99% of the Company's common stock.

As of September 30, 2022, the Pillar Investment Entities held (i) warrants to purchase up to 3,039,514 shares of the Company's common stock at an exercise price of $2.28 per share, (ii) warrants to purchase up to 2,764,227 shares of the Company's common stock at an exercise price of $2.58 per share, and (iii) warrants to purchase up to 1,373,626 shares of the Company's common stock at an exercise price of $2.71 per share.

During the nine months ended September 30, 2022, certain of the Pillar Investment Entities exercised warrants to purchase 1,533,159 shares of the Company's common stock at an exercise price of $0.01 per share for a total exercise price of less than $0.1 million.

During the nine months ended September 30, 2021, certain of the Pillar Investment Entities exercised warrants to purchase 3,158,386 shares of the Company's common stock at an exercise price of $0.01 per share for a total exercise price of less than $0.1 million. 19,052 shares were used to fund the exercise costs.

Board Fees Paid in Stock

Pursuant to the Company's director compensation program, in lieu of director board and committee fees of $0.1 million during each of the nine months ended September 30, 2022 and 2021, the Company issued 149,757 and 68,699 shares of common stock, respectively, to certain of its directors. Director board and committee fees are paid in arrears and the number of shares issued was calculated based on the market closing price of the Company's common stock on the issuance date.

Note 15. Net Income (Loss) per Common Share

During periods the Company realizes net income, it uses the two-class method to compute net income per common share and has securities outstanding (redeemable convertible preferred stock) that entitle the holder to participate in dividends and earnings of the Company. In addition, the Company analyzes the potential dilutive

effect of outstanding redeemable convertible preferred stock under the "if-converted" method when calculating diluted earnings per share and reports the more dilutive of the approaches (two class or "if-converted"). The two-class method is not applicable during periods with a net loss, as the holders of the redeemable convertible preferred stock have no obligation to fund losses.

The Company also analyzes the potential dilutive effect of stock options, restricted stock units, warrants and shares underlying future tranche rights under the treasury stock method (as applicable), during periods of income, or during periods in which income is recognized related to changes in fair value of its liability-classified securities.

For the nine months ended September 30, 2021, the Company used the two-class method to compute net income per common share. Under this method, net income is reduced by the amount of any dividends earned and the accretion of redeemable convertible preferred stock to its redemption value, if any, during the period. The remaining earnings (undistributed earnings) are allocated to common stock and each series of redeemable convertible preferred stock to the extent that each preferred security may share in earnings as if all the earnings for the period had been distributed. The total earnings allocated to common stock is then divided by the number of outstanding shares to which the earnings are allocated to determine the earnings per share.

However, during periods the Company realizes net loss, basic and diluted net loss per common share applicable to common stockholders is calculated by dividing net loss applicable to common stockholders by the weighted-average number of shares of common stock outstanding during the period, without consideration of common stock equivalents. The Company’s potentially dilutive shares, which include outstanding stock option awards, common stock warrants and convertible preferred stock, are considered to be common stock equivalents and are only included in the calculation of diluted net loss per share when their effect is dilutive.

For the three and nine months ended September 30, 2022, diluted net loss per common share applicable to common stockholders was the same as basic net loss per common share applicable to common stockholders as the effects of the Company’s potential common stock equivalents were antidilutive.

Details in the computation of basic and diluted net income (loss) per common share were as follows:

($ in thousands except per share data)	Three Months Ended September 30, 2022	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2022	Nine Months Ended September 30, 2021
Net (loss) income per share — Basic:				
Net (loss) income	$ (3,099)	$ (5,965)	$ (12,584)	$ 102,210
Less: Undistributed earnings to preferred stockholders	—	—		(1,636)
Net (loss) income applicable to common stockholders - basic	$ (3,099)	$ (5,965)	$ (12,584)	$ 100,574
Numerator for basic net (loss) income applicable to common stockholders	$ (3,099)	$ (5,965)	$ (12,584)	$ 100,574
Denominator for basic net (loss) income applicable to common stockholders	53,286	52,740	53,052	47,990
Net (loss) income applicable to common stockholders - basic	$ (0.06)	$ (0.11)	$ (0.24)	$ 2.10
Net (loss) income per share — Diluted:				
Net (loss) income	$ (3,099)	$ (5,965)	$ (12,584)	$ 102,210
Less: Warrant revaluation gain applicable to dilutive liability-classified warrants	—	—	—	(6,983)
Less: Future tranche right revaluation gain applicable to dilutive liability-classified future tranche rights	—	—	—	(118,803)
Numerator for diluted net (loss) income applicable to common stockholders	$ (3,099)	$ (5,965)	$ (12,584)	$ (23,576)
Denominator for basic net (loss) income applicable to common stockholders	53,286	52,740	53,052	47,990
Plus: Incremental shares underlying “in the money” liability-classified warrants outstanding	—	—	—	223
Plus: Incremental shares underlying “in the money” liability-classified future tranche rights outstanding	—	—	—	3,400
Denominator for diluted net income (loss) applicable to common stockholders	53,286	52,740	53,052	51,613
Net (loss) income applicable to common stockholders - diluted	$ (0.06)	$ (0.11)	$ (0.24)	$ (0.46)

Total antidilutive securities excluded from the calculation of diluted net loss per share for the three and nine months ended September 30, 2022 and 2021 were as follows:

(in thousands)	Three Months Ended September 30, 2022	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2022	Nine Months Ended September 30, 2021
Stock options	5,783	5,329	5,783	5,329
Restricted stock units	832	576	832	576
Common stock warrants	8,566	8,732	8,566	8,732
Total	15,181	14,637	15,181	14,637

Note 16. Subsequent Events

The Company has evaluated all subsequent events through November 14, 2022, the date the condensed consolidated financial statements were available to be issued and determined that there were no subsequent events or transactions that required recognition or disclosure in the condensed consolidated financial statements.

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with:

- *our unaudited condensed consolidated financial statements and accompanying notes included in Part I, Item 1 of this Form 10-Q; and*
- *our audited financial statements and accompanying notes included in the 2021 Form 10-K, as well as the information contained under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our 2021 Form 10-K.*

In addition to historical information, this discussion and analysis contains forward-looking statements. These forward-looking statements are subject to risks and uncertainties, including those discussed in the section titled "Risk Factors," set forth in Item 1A of our 2021 Form 10-K and this Form 10-Q, that could cause actual results to differ materially from historical results or anticipated results.

Overview

We are a biopharmaceutical company with a business strategy focused on the clinical development, and ultimately the commercialization, of drug candidates for severe and rare disease indications characterized by small, well-defined patient populations with significant unmet medical needs. Our strategic focus has been to identify and acquire rights to novel development and commercial stage rare disease programs through business development opportunities, including additional strategic alternatives. We have in the past and may in the future explore collaborative alliances to support development and commercialization of any or our drug candidates.

Until December 2021, we were developing tilsotolimod, via intratumoral injection, for the treatment of solid tumors in combination with nivolumab, an anti-PD1 antibody marketed as Opdivo® by Bristol Myers Squibb Company ("BMS"), and/or ipilimumab, an anti-CTLA4 antibody marketed as Yervoy® by BMS. Due to Phase 3 results in anti-PD-1 refractory advanced melanoma (ILLUMINATE-301), reported in March 2021, which showed the study failed to meet its primary endpoint, as well as a decision in December 2021 to discontinue enrollment in ILLUMINATE-206, our Phase 2 study in solid tumors, Company-sponsored development of tilsotolimod in oncology has been discontinued. Although clinical trials with tilsotolimod have not yet translated into a new treatment alternative for patients, we believe that data supporting tilsotolimod's mechanism of action and encouraging safety profile from across the array of pre-clinical and clinical work to date, together with its intellectual property protection, are noteworthy. As a result, in December 2021, we announced that we would consider an out-licensing arrangement so that tilsotolimod's full potential might continue to be explored on behalf of patients who did not respond to traditional immunotherapy, together with other alternatives.

As discussed in greater detail below, in September 2022, we acquired Aceragen, a privately-held biotechnology company addressing rare, orphan pulmonary, and rheumatic diseases for which there are limited or no available treatments. Aceragen owned or controlled the intellectual property related to ACG-701 (patented formulation of sodium fusidate) and ACG-801 (recombinant human acid ceramidase (rhAC)). As a result of our Acquisition of Aceragen, our business strategy is to develop and optimize commercial value of ACG-701 and ACG-801 for appropriate patients. Accordingly, we are developing ACG-701 to treat cystic fibrosis ("CF") and melioidosis, a severe, life-threatening infection, and ACG-801 to treat patients suffering from a genetic mutation in the ASAH 1 gene, also known as Farber disease.

Business Acquisition

On September 28, 2022, in accordance with the terms of an Agreement and Plan of Merger (the "Merger Agreement"), the Company acquired 100% of the outstanding security interests of Aceragen in a "stock-for-stock" transaction, whereby all Aceragen outstanding equity interests were exchanged for a combination of shares of Idera common stock, shares of Series Z, and shares of the newly-designated Series X non-voting preferred stock, par value $0.01 per share (the "Series X") (such acquisition, the "Aceragen Acquisition" of the "Acquisition"). Under the terms of the Merger Agreement, Aceragen stockholders received (i) 4,398,762 shares of the Company's common stock, (ii) 80,656 shares of the Series Z, and (iii) five shares of Series X. In addition, all

outstanding restricted shares subject to repurchase, options and warrants to purchase Aceragen common stock were converted into restricted shares, stock options and warrants to purchase shares of the Company's common stock and Series Z on terms substantially identical to those in effect prior to the Aceragen Acquisition, except for adjustments to the underlying number of shares and the exercise price based on the Merger Agreement exchange ratio. Subject to stockholder approval of the conversion and an increase in authorized shares and certain beneficial ownership limitations set by each holders, each share of Series Z will automatically convert into 1,000 shares of common stock. Holders of shares of Series X are entitled to receive distributions on shares of Series X. On a pro forma basis and based upon the number of shares of the Company's common stock and preferred stock issued in the Acquisition, the Company's equity holders immediately prior to the Acquisition will own approximately 33% of the combined Company (on an as-converted, fully-diluted basis and excluding certain out-of-the-money options and warrants held by the Company's equity holders) immediately after the Series Z conversion. The Acquisition was unanimously approved by the Board of Directors of the Company and the Board of Directors of Aceragen. The closing of the transaction was not subject to the approval of the Company's stockholders.

Pursuant to the Merger Agreement, the Company has agreed to hold a stockholders' meeting (the "Special Meeting") to submit certain matters to its stockholders for their consideration, including: (i) the approval of the conversion of the Series Z preferred stock into shares of common stock in accordance with Nasdaq Listing Rule 5635(a) (the "Conversion Proposal") and (ii) the approval to effect a reverse stock split of all of the Company's issued and outstanding shares of common stock (the "Reverse Stock Split Proposal" and, together with the Conversion Proposal, the "Merger Agreement Meeting Proposals"). In accordance with the Term Sheet (as defined in Note 7 of the notes to the condensed consolidated financial statements in this Form 10-Q), the Company will also ask its stockholders at the Special Meeting to consider approving the issuance of common stock in connection with certain Convertible Notes (as defined in Note 7 of the notes to the condensed consolidated financial statements in this Form 10-Q) that the Company expects to issue to certain former stockholders of Arrevus, Inc. In connection with these matters, the Company intends to file with the SEC a proxy statement and other relevant materials.

Nasdaq Compliance

As previously disclosed in the Current Report on Form 8-K filed with the SEC on December 1, 2021, on November 26, 2021, we received a deficiency letter from the Nasdaq Listing Qualifications Department (the "Staff") of The Nasdaq Stock Market, LLC ("Nasdaq"), notifying that we are not in compliance with Nasdaq Listing Rule 5550(a)(2), which requires the Company to maintain a minimum bid price of at least $1 per share for continued listing on The Nasdaq Capital Market (the "Minimum Bid Requirement").

On May 26, 2022, we received notice (the "Nasdaq Notice") from the Staff indicating that, while we have not regained compliance with the Minimum Bid Requirement, the Staff has determined that we are eligible for an additional 180-day period, or until November 21, 2022, to regain compliance. If at any time during this second 180-day compliance period, the closing bid price of our common stock is at least $1 per share for a minimum of ten consecutive business days, the Staff will provide us with written confirmation of compliance. If compliance cannot be demonstrated by November 21, 2022, the Staff will provide written notification that our common stock will be subject to delisting. We would then be entitled to appeal the Staff's determination to a Nasdaq hearings panel. We intend to monitor the closing bid price of its common stock and consider implementing available options to regain compliance with the Minimum Bid Requirement.

ACG-701 for Cystic Fibrosis

ACG-701 is a proprietary formulation of sodium fusidate being developed as a potential treatment for acute pulmonary exacerbations ("PEx") associated with CF. CF is a progressive, genetic disease hallmarked by the inflammatory and infectious pulmonary exacerbations that are the primary cause of morbidity and mortality for CF patients. There are over 70,000 patients living with CF globally, with approximately 30,000 patients in the United States. If approved, ACG-701 would represent the first oral product in the United States indicated for the treatment of CF PEx, a major factor behind lung function decline in patients living with CF.

The Phase 2 trial of ACG-701 in CF PEx (the REPRIEVE study) is a randomized, double-blinded, placebo-controlled study evaluating ACG-701 in newly diagnosed pulmonary exacerbations in CF patients. This study, which is funded in part by an award from the Cystic Fibrosis Foundation, will capture multiple clinical events inclusive of patient-reported outcomes, FEV1, and antimicrobial regimen changes through day 14. The REPRIEVE study is

expected to begin in the fourth quarter of 2022. The active component of ACG-701, sodium fusidate, has never been approved in the United States, but has been used for 50+ years with an established clinical efficacy and safety profile ex-US, including as part of CF PEx treatment guidelines in the United Kingdom and Australia. ACG-701 has received Orphan drug and Fast Track designations for the treatment of CF patients from the FDA. In addition, we have also received a Qualified Infectious Disease Product ("QIDP") designation for ACG-701 for the treatment of CF pulmonary exacerbations. If approved, QIDP will provide an additional 5-year extension of regulatory exclusivity.

ACG-701 for Melioidosis

ACG-701 is also being developed for the treatment of melioidosis, a life-threatening infection that can affect numerous organ systems, including the lungs. The pathogen that causes melioidosis, *B. pseudomallei*, is endemic in Southeast Asia and is classified as a Category A biothreat agent by the U.S. government. U.S. Department of Defense's Defense Threat Reduction Agency ("DTRA") is supporting the development of ACG-701 as a potential medical countermeasure against this pathogen with funding up to $49.7 million, of which $13.2 million has been received by the Company.

The Company is conducting the TERRA study (NCT05105035), a phase 2 randomized, double-blind, placebo-controlled study for the treatment of melioidosis in hospitalized patients with melioidosis. The TERRA study will capture multiple clinical events inclusive of mortality, organ failure, sepsis and treatment modifications through day 14. An independent data monitoring committee has responsibility for overseeing the safety and efficacy data from the TERRA study, and will meet by the end of 2022 to determine whether the study should continue as planned or, if efficacy and safety data are compelling, to be unblinded for full analysis.

ACG-801 for Farber Disease

ACG-801, recombinant human acid ceramidase, is an investigational biological enzyme replacement therapy being developed for the treatment of Farber disease. Farber disease is a severe, progressive monogenic lysosomal storage disorder, involving mutations in the acid ceramidase gene that lead to toxic levels of ceramide accumulation. Acid ceramidase acts in the lysosome to metabolize ceramide, a pro-inflammatory lipid. Loss of acid ceramidase function leads to abnormal accumulation of ceramide, causing macrophage-driven inflammation and multi-organ disease affecting bone, cartilage, the immune system, central nervous system, and the lungs. Patients with the most severe phenotype of Farber disease die early in life, most commonly respiratory failure. The worldwide prevalence of Farber disease is expected to exceed 1000 patients. The Company is not aware of any competitive development programs seeking to treat Farber disease and there are no Farber disease-specific treatments currently approved by the FDA.

The Company is planning a single, harmonized trial for regulatory submission for both FDA and EMA approval, known as the ADVANCE study. A randomized, double-blind, placebo-controlled study of Farber patients, the ADVANCE study will measure nodule changes and capture patient-specific disease burden improvement through week 28. The Company has had regular interactions with the FDA, and most recently, had its request for a clinical-focused Type C meeting granted. Following resolution of the clinical hold pertaining to manufacturing and quality issued, the Company expects to initiate the ADVANCE clinical study for ACG-801 in Farber disease in the second half of 2023. The FDA has granted Orphan, Fast Track, and Rare Pediatric Disease designations for ACG-801, which is anticipated to be eligible for a Rare Pediatric Disease priority review voucher (PRV). Additionally, ACG-801 was granted Orphan Drug Designation by the EMA for Farber disease.

Tilsotolimod (IMO-2125)

Tilsotolimod is a synthetic phosphorothioate oligonucleotide that acts as a direct agonist of TLR9 to stimulate the innate and adaptive immune systems. It was developed for administration via intratumoral injection in combination with systemically administered checkpoint inhibitors and costimulation therapies for the treatment of various solid tumors. We referred to our tilsotolimod development program as the ILLUMINATE development program. As previously reported in our 2021 Form 10-K, as of December 31, 2021, all Company-sponsored development has been discontinued and study-related activities are in the process of being concluded.

See additional information under the heading "Collaborative Alliances" in our 2021 Form 10-K for information on the development of tilsotolimod in collaboration with AbbVie Inc. ("AbbVie") for patients with head and neck squamous cell carcinoma ("HNSCC").

Collaborative Alliances

Our current alliances include collaborations with Scriptr, AbbVie and BMS, each described under the caption “Item 1. Business — Collaborative Alliances” in our 2021 Form 10-K. In addition to our current alliances, we may seek to enter into additional collaborative alliances to support development and commercialization of additional drug candidates.

Critical Accounting Policies and Estimates

This management’s discussion and analysis of financial condition and results of operations is based on our condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. On an ongoing basis, management evaluates its estimates and judgments which are affected by the application of our accounting policies.

Management bases its estimates and judgments on historical experience and on various other factors that are believed to be appropriate under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

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

(i) the nature of the estimate or assumption is material due to the level of subjectivity and judgment necessary to account for highly uncertain matters or the susceptibility of such matters to change; and

(ii) the impact of the estimates and assumptions on financial condition or operating performance is material.

Our significant accounting policies are described in Note 2 of the notes to our financial statements included in our 2021 Form 10-K. However, please refer to Note 2 in the accompanying notes to the condensed consolidated financial statements contained in this Form 10-Q for updated policies and estimates, if applicable, that could impact our results of operations, financial position, and cash flows.

Not all these significant policies, however, fit the definition of critical accounting policies and estimates. We believe that our accounting policies relating to (i) business combinations, including estimates related to intangible assets (including IPR&D and goodwill) and the fair value of the Series X, (ii) impairment of goodwill and indefinite-lived intangible assets, (iii) warrant and future tranche right liabilities and related revaluation gain (loss), (iv) research and development prepayments, accruals and related expenses, and (v) stock-based compensation, as described under the caption “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Policies and Estimates” in our 2021 Form 10-K, fit the description of critical accounting estimates and judgments.

As a result of the Acquisition of Aceragen, we believe that the following should be added to our critical accounting polices given the level of judgments and estimates used in the preparation of our condensed consolidated financial statements:

Indefinite-lived Intangible Assets

Indefinite-lived intangible assets consist of In-Process Research & Development (IPR&D). The fair values of IPR&D project assets acquired in business combinations are capitalized. We generally utilize the Multi-Period Excess Earning Method to determine the estimated fair value of the IPR&D assets acquired in a business combination. The projections used in this valuation approach are based on many factors, such as relevant market size and share, probabilities of success, anticipated patent protection, and expected pricing. The estimated future net cash flows are then discounted to the present value using an appropriate discount rate. These assets are treated as indefinite-lived intangible assets until completion or abandonment of the projects, at which time the assets are amortized over the remaining useful life or written off, as appropriate.

Intangible assets with indefinite lives, including IPR&D, are tested for impairment if impairment indicators arise and, at a minimum, annually. However, an entity is permitted to first assess qualitative factors to determine if a quantitative impairment test is necessary. Further testing is only required if the entity determines, based on the qualitative assessment, that it is more likely than not that an indefinite-lived intangible asset's fair value is less than its carrying amount. Otherwise, no further impairment testing is required. The indefinite-lived intangible asset impairment test consists of a one-step analysis that compares the fair value of the intangible asset with its carrying amount. If the carrying amount of an intangible asset exceeds its fair value, an impairment loss is recognized in an amount equal to that excess. We consider many factors in evaluating whether the value of our intangible assets with indefinite lives may not be recoverable, including, but not limited to, expected growth rates, the cost of equity and debt capital, general economic conditions, our outlook and market performance of our industry and recent and forecasted financial performance.

Series X Preferred Stock Liability

In conjunction with the Acquisition of Aceragen, we evaluated the newly issued Series X preferred stock and determined its revised terms represents a sale of future revenues and is classified as a liability under ASC 470, Debt and we have elected to account for the Series X preferred stock liability under the fair value option. The fair value of the Series X preferred stock liability represents the present value of estimated future payments, including royalty payments, as well as estimated payments that are contingent upon the achievement of specified milestones. The fair value of the Series X preferred stock liability is based on the cumulative probability of the various estimated payments. The fair value measurement is based on significant Level 3 unobservable inputs such as the probability of achieving the milestones, anticipated timelines, probability and timing of an early redemption of all obligations under Series X preferred liability and the discount rate. Any changes in the fair value of the liability in each reporting period are recognized in the consolidated statement of operations until it is settled.

New Accounting Pronouncements

New accounting pronouncements are discussed in Note 2 in the notes to the condensed consolidated financial statements in this Form 10-Q.

Financial Condition, Liquidity and Capital Resources

Financial Condition

As of September 30, 2022, we had an accumulated deficit of $748.0 million. To date, substantially all of our revenues have been from collaboration and license agreements and we generated less than $0.1 million of revenue for the quarter ended September 30, 2022.

We have devoted substantially all of our efforts to research and development, including clinical trials, and we have not completed development of any commercial products. Our research and development activities, together with our general and administrative expenses, are expected to continue to result in substantial operating losses for the foreseeable future. These losses, among other things, have had and will continue to have an adverse effect on our stockholders' equity, total assets and working capital. Due to the numerous risks and uncertainties associated with developing drug candidates, and if approved, commercial products, we are unable to predict the extent of any future losses, whether or when any of our drug candidates will become commercially available or when we will become profitable, if at all.

Liquidity and Capital Resources

Overview

We require cash to fund our operating expenses and to make capital expenditures. Historically, we have funded our cash requirements primarily through the following:

(i) sale of common stock, preferred stock, future tranche rights and warrants (including pre-funded warrants);

(ii) exercise of warrants;

(iii) debt financing, including capital leases;

(iv) license fees, research funding and milestone payments under collaborative and license agreements; and

(v) interest income.

LPC Purchase Agreement

On March 4, 2019, we entered into a Purchase Agreement with Lincoln Park Capital Fund, LLC ("Lincoln Park"), pursuant to which, upon the terms and subject to the conditions and limitations set forth therein, Lincoln Park committed to purchase an aggregate of $35.0 million of shares of Company common stock from time to time at our sole discretion (the "LPC Purchase Agreement").

During the nine months ended September 30, 2022, we did not sell any shares under the LPC Purchase Agreement. The LPC Purchase Agreement had a 36-month term that expired on March 4, 2022. Accordingly, we no longer have access to capital under the LPC Purchase Agreement.

During the nine months ended September 30, 2021, we sold 800,000 shares of common stock, pursuant to the LPC Purchase Agreement, resulting in net proceeds of $4.2 million.

ATM Agreement

In November 2018, we entered into an Equity Distribution Agreement (the "ATM Agreement") with JMP Securities LLC ("JMP") pursuant to which we may issue and sell shares of our common stock having an aggregate offering price of up to $50.0 million through JMP as our agent.

During the nine months ended September 30, 2022, we did not sell any shares under the ATM Agreement.

During the nine months ended September 30, 2021, we sold 5,117,357 shares of common stock pursuant to the ATM Agreement, resulting in net proceeds, after deduction of commissions and other offering expenses, of $15.3 million. In addition, from July 1, 2021 through July 7, 2021, the Company sold an additional 646,764 shares for $0.7 million in net proceeds under the ATM Agreement. As of September 30, 2022, we may sell up to an additional $19.5 million of shares under the ATM Agreement, subject to applicable securities law and related rules and regulations.

The LPC Purchase Agreement and ATM Agreement are more fully described in Note 11 of the notes to our condensed consolidated financial statements included elsewhere in this Form 10-Q.

Funding Requirements

We had unrestricted cash and cash equivalents of approximately $26.8 million at September 30, 2022. We believe, based on our current operating plan, our existing cash and cash equivalents on hand as of September 30, 2022 will enable us to fund our operations into the third quarter of 2023. Specifically, we believe our available funds will be sufficient to enable us to perform the following:

(i) fund clinical development activities with the goal of commercialization;

(ii) conclude acquisition-related activities in connection with the Acquisition of Aceragen;

(iii) conclude on our Company-sponsored development activities related to tilsotolimod;

(iv) fund certain research including investigator initiated clinical trials of tilsotolimod and the Scriptr Agreement;

(v) fund business development related activities, such as identifying and potentially acquiring rights to novel development and commercial stage rare disease programs, including additional strategic alternatives; and

(vi) maintain a level of general and administrative expenses to support the business.

In addition, we are seeking and expect to continue to seek additional funding through collaborations, the sale or license of assets or financings of equity or debt securities. We believe the key factors which will affect our ability to obtain funding are:

(i) the results of our clinical development activities in our drug candidates we develop on the timelines anticipated;

(ii) the receptivity of the capital markets to financings by biotechnology companies generally and companies with drug candidates and technologies similar to ours specifically;

(iii) the receptivity of the capital markets to any in-licensing, product acquisition or other transaction we may enter into;

(iv) competitive and potentially competitive products and technologies and investors' receptivity to our drug candidates we develop and the technology underlying them in light of competitive products and technologies;

(v) the cost, timing, and outcome of regulatory reviews;

(vi) our ability to enter into additional collaborations with biotechnology and pharmaceutical companies and the success of such collaborations; and

(vii) the impact of the COVID-19 pandemic to global economy and capital markets, and to our business and our financial results.

In addition, increases in expenses may adversely impact our cash position and require additional funds or cost reductions.

Financing may not be available to us when we need it or may not be available to us on favorable or acceptable terms or at all. We could be required to seek funds through collaborative alliances or through other means that may require us to relinquish rights to some of our technologies, drug candidates or drugs that we would otherwise pursue on our own. In addition, if we raise additional funds by issuing equity securities, our then existing stockholders may experience dilution. The terms of any financing may adversely affect the holdings or the rights of existing stockholders. An equity financing that involves existing stockholders may cause a concentration of ownership. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends, and are likely to include rights that are senior to the holders of our common stock. Any additional debt or equity financing may contain terms which are not favorable to us or to our stockholders, such as liquidation and other preferences, or liens or other restrictions on our assets. As discussed in Note 13 to the financial statements included in our 2021 Form 10-K, additional equity financings may also result in cumulative changes in ownership over a three-year period in excess of 50% which would limit the amount of net operating loss and tax credit carryforwards that we may utilize in any one year.

If we are unable to obtain adequate funding on a timely basis or at all, we will be required to terminate, modify or delay our clinical trials of our drug candidates, or relinquish rights to portions of our technology, drug candidates and/or products.

Cash Flows

The following table presents a summary of the primary sources and uses of cash for the nine months ended September 30, 2022 and 2021:

(in thousands)	Nine Months Ended September 30, 2022	2021
Net cash provided by (used in):		
Operating activities	$ (11,291)	$ (20,545)
Investing activities	5,482	4,500
Financing activities	59	19,418
Increase (decrease) in cash and cash equivalents	**$ (5,750)**	**$ 3,373**

Operating Activities. The net cash used in operating activities for all periods presented consists primarily of our net income adjusted for non-cash charges and changes in components of working capital. The decrease in cash used in operating activities for the nine months ended September 30, 2022, as compared to 2021, was primarily due to timing of cash outflows related to our IMO-2125 development program, including payments to contract research organizations for the conclusion of the program.

Investing Activities. Cash provided by investing activities for the nine months ended September 30, 2022 consisted of $5.5 million in proceeds received from the Acquisition of Aceragen.

Cash provided by investing activities for the nine months ended September 30, 2021 consisted of $4.5 million in proceeds received from the maturity of available for-sale securities.

Financing Activities. Net cash provided by financing activities primarily consisted of the following amounts received in connection with the following transactions:

- for the nine months ended September 30, 2022, $0.1 million in proceeds received from employee stock purchases and the exercise of warrants by Pillar Investment Entities; and
- for the nine months ended September 30, 2021, $19.4 million in aggregate net proceeds from financing arrangements consisting of $15.3 million received pursuant to the ATM Agreement and $4.2 million received under the LPC Purchase Agreement and $0.3 million received from the exercise of stock options and warrants, partially offset by $0.4 million in payments related to our short-term insurance premium financing arrangement.

Material Cash Requirements

During the nine months ended September 30, 2022, there were no material changes outside the ordinary course of our business to our material cash requirements as disclosed in our 2021 Form 10-K.

Results of Operations

Three and Nine Months Ended September 30, 2022 and 2021

Overview

During the three months ended September 30, 2022, our loss from operations totaled $9.3 million, a 56% increase compared to a loss from operations of $6.0 million for the three months ended September 30, 2021. During the nine months ended September 30, 2022, our loss from operations totaled $18.9 million, a 20% decrease compared to a loss from operations of $23.6 million for the nine months ended September 30, 2021. General and administrative expenses comprise the most significant portion of our total operating expenses, as shown in the table below.

($ in thousands)	Three months ended September 30, 2022	2021	% Change	Nine months ended September 30, 2022	2021	% Change
Government contracts revenue	$ 49	—	100%	$ 49	—	100%
Operating expenses:						
Research and development	1,470	3,507	(58%)	5,960	14,271	(58%)
General and administrative	2,268	2,331	(3%)	7,325	7,959	(8%)
Acquisition-related costs	2,836	—	100%	2,836	—	100%
Restructuring and other costs	2,802	130	2052%	2,802	1,322	112%
Total operating expenses	$ 9,376	$ 5,968	57%	$ 18,923	$ 23,552	(20%)
Loss from operations	$ (9,327)	$ (5,968)	56%	$ (18,874)	$ (23,552)	(20%)

Research and Development Expenses

For each of our research and development programs, we incur both direct and indirect expenses. We track direct research and development expenses by program, which include third-party costs such as contract research, consulting, and clinical trial and manufacturing costs. We do not allocate indirect research and development expenses, which may include regulatory, laboratory (equipment and supplies), personnel, facility and other overhead costs (including depreciation and amortization), to specific programs.

During the three and nine months ended September 30, 2022, our overall research and development expenses declined by 58%, as compared to the same periods in 2021, primarily due to decreases in external development costs associated with tilsotolimod (IMO-2125) and other drug development costs. This decrease is primarily related to: (i) costs incurred with contract research organizations during the three and nine months ended September 30, 2022 to support and conclude our ILLUMINATE-301 trial, which reported top-line results in March 2021 and was discontinued by the Company in the second quarter of 2021; (ii) lower costs incurred with drug manufacturing activities; (iii) less costs associated with ILLUMINATE-206, which discontinued its enrollment in December 2021; and (iv) lower expenses incurred in connection with the Scriptr Agreement.

We expect that Tilsotolimod (IMO-2125) external development expenses, as well as expenses related to the Scriptr Agreement, will continue to be a significant portion of our total research and development spending in 2022. We also expect that our research and development costs will increase in future periods as we proceed with the development of ACG-701 and ACG-801.

In the table below, research and development expenses are set forth in the following categories: Tilsotolimod (IMO-2125) external development expenses and other drug development expenses.

($ in thousands)	Three months ended September 30, 2022	2021	% Change	Nine months ended September 30, 2022	2021	% Change
Tilsotolimod (IMO-2125) external development expense	$ 700	$ 2,336	(70%)	$ 3,246	$ 8,277	(61%)
Other drug development expense	770	1,171	(34%)	2,714	5,994	(55%)
Total research and development expenses	$ 1,470	$ 3,507	(58%)	$ 5,960	$ 14,271	(58%)

Tilsotolimod (IMO-2125) External Development Expenses

These expenses include external expenses that we have incurred in connection with the development of tilsotolimod as part of our immuno-oncology program. These external expenses include payments to independent contractors and vendors for drug development activities conducted after the initiation of tilsotolimod clinical development in immuno-oncology, but exclude internal costs such as payroll and overhead expenses.

We commenced clinical development of tilsotolimod as part of our immuno-oncology program in July 2015, and from July 2015 through September 30, 2022, we incurred approximately $94.3 million in tilsotolimod external development expenses, including costs associated with the preparation for and conduct of ILLUMINATE-204, ILLUMINATE-101, ILLUMINATE-301, ILLUMINATE-206, and the manufacture of additional drug substance for use in our clinical trials and additional nonclinical studies.

Other Drug Development Expenses

These expenses include internal costs, such as payroll and overhead expenses, associated with all of our clinical development programs. In addition, these expenses include external expenses, such as payments to contract vendors, associated with compounds that were previously being developed but are not currently being developed, as well as all the clinical development expenses related to the Aceragen Acquisition. For the three and nine months ended September 30, 2022, we incurred $0.8 million and $2.7 million, respectively. Within other drug development expenses, there are expenses related to our research collaboration with Scriptr. Since the inception of the Scriptr collaboration in the first quarter of 2021 through September 30, 2022, we have incurred $2.5 million of expenses within other drug development expenses.

General and Administrative Expenses

General and administrative expenses consist primarily of payroll, stock-based compensation expense, consulting fees and professional legal fees associated with our patent applications and maintenance, our corporate regulatory filing requirements, our corporate legal matters, and our business development initiatives. For the three months ended September 30, 2022 and 2021, general and administrative expenses totaled $2.3 million and $2.3 million, respectively. For the nine months ended September 30, 2022 and 2021, general and administrative expenses totaled $7.3 million and $8.0 million, respectively.

The slightly increase in general and administrative expenses during the three months ended September 30, 2022, as compared to the same period in 2021, was primarily due to an increase in general consulting and legal expenses for the business development initiatives and the employee related costs.

The slightly decrease in general and administrative expenses during the nine months ended September 30, 2022, as compared to the same period in 2021, was due to lower salary expenses and other employee related expense for the terminated employees due to the 2021 reduction-in-workforce that occurred in the 2021 period, partially offset by increased consulting and legal expenses.

Following the completion of the Aceragen Acquisition, we expect our general and administrative expenses to increase in future periods, as we have a larger headcount and incur expenses relating to the development of a larger product pipeline.

Acquisition-related Costs

Acquisition-related costs consists of charges for transaction, integration-related professional fees, retention bonuses and other incremental costs directly related to these activities.

Acquisition-related costs, for the three and nine months ended September 30, 2022 was $2.8 million. Expense comprised mainly of $2.0 million legal and transactions fees related to the successful Acquisition of Aceragen and $0.8 million retention bonus to certain employees. No such costs were incurred during 2021.

Restructuring and Other Costs

For the three and nine months ended September 30, 2022, restructuring costs is related to the 2022 reduction-in-workforce.

Restructuring costs totaled approximately $2.8 million for the three and nine months ended September 30, 2022, and were comprised primarily of the one-time termination costs, including severance, benefits, and related costs associated with our restructuring after the Acquisition of Aceragen in September 2022.

For the three and nine months ended September 30, 2021, restructuring costs is related to the 2021. reduction-in-workforce.

For the three and nine months ended September 30, 2021, restructuring costs totaled approximately $0.1 million and $1.3 million, respectively, and are comprised primarily of the termination costs including severance, benefits and related costs associated with our decision in April 2021 to implement a reduction-in-force.

Interest Income

We recognized nominal interest income for the three and nine months ended September 30, 2022. Interest income was also nominal for the three and nine months ended September 30, 2021. The increase in interest income during the three and nine months ended September 30, 2022 was primarily due to higher interest rates. Amounts may fluctuate from period to period due to changes in interest rate and average investment balances, including commercial paper and money market funds classified as cash equivalents, and composition of investments.

Warrant Revaluation Gain or Loss

During the three and nine months ended September 30, 2022, we recorded $0.1 million non-cash warrant revaluation gain. During the nine months ended September 30, 2021, we recorded a non-cash warrant revaluation gain of approximately $7.0 million. The non-cash gain for the nine months ended June 30, 2021 related to the derecognition of the warrant liability during the first quarter of 2021 associated with our liability-classified warrants issued in connection with the December 2019 Private Placement, as more fully described in Note 6 of the notes to condensed consolidated financial statements appearing elsewhere in this Form 10-Q, due to the termination of such liability-classified warrants during the quarter.

Future Tranche Right Revaluation Gain or Loss

During the three and nine months ended September 30, 2022, we recorded no non-cash future tranche right revaluation gain or loss. There was no non-cash future tranche right revaluation gain or loss recorded during the three months ended September 30, 2021. In comparison, we recorded a non-cash future tranche right revaluation gain of approximately $118.8 million during the nine months ended September 30, 2021.

The non-cash gain for the nine months ended September 30, 2021 related to the derecognition of the future tranche right liability during the first quarter of 2021 associated with the future tranche rights issued in connection with the December 2019 Private Placement, as more fully described in Note 10 of the notes to condensed consolidated financial statements appearing elsewhere in this Form 10-Q, due to the termination of the future tranche rights during the quarter.

Income Tax Benefit or Expense

During the three and nine months ended September 30, 2022, we recorded $6.0 million non-cash income tax benefit, and was related to our evaluation of the realizability of our deferred tax assets and determined that the valuation should be decreased in consideration of positive and negative evidence bearing upon our ability to realize certain of our deferred tax assets.

There was no income tax benefit or expense recorded during the three and nine months ended September 30, 2021.

Net Income or Loss Applicable to Common Stockholders

As a result of the factors discussed above, our net loss for the three and nine months ended September 30, 2022 was $3.1 million and $12.6 million, respectively. In comparison, net loss for the three months ended September 30, 2021 was $6.0 million and net income for the nine months ended September 30, 2021 was $102.2 million.

Basic net loss applicable to common stockholders for the three and nine months ended September 30, 2022 was $3.1 million, and $12.6 million, respectively. In comparison, basic net loss applicable to common stockholders for the three months ended September 30, 2021 was $6.0 million and the net income applicable to common stockholders for the nine months ended September 30, 2021 was $100.6 million. Excluding the non-cash warrant revaluation gain of $7.0 million and future tranche right revaluation gain of $118.8 million, for the nine months ended September 30, 2021, basic net loss applicable to common stockholders was $23.6 million.

For the three and nine months ended September 30, 2022, diluted net loss applicable to common stockholders was $3.1 million and $12.8 million, respectively. In comparison, diluted net loss for the three and nine months ended September 30, 2021 was $6.0 million and $23.6 million, respectively.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

There were no material changes in our exposure to market risk from December 31, 2021. Our market risk profile as of December 31, 2021 is disclosed in Item 7A, *Quantitative and Qualitative Disclosures About Market Risk*, of our 2021 Form 10-K.

Item 4. Controls and Procedures.

(a) *Evaluation of Disclosure Controls and Procedures.* Our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of September 30, 2022. In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and our management necessarily applied its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, our principal executive officer and principal financial officer concluded that as of September 30, 2022, our disclosure controls and procedures were (1) designed to ensure that material information relating to us is made known to our principal executive officer and principal financial officer by others, particularly during the period in which this report was prepared, and (2) effective, in that they provide reasonable assurance that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

(b) *Changes in Internal Controls*. On September 28, 2022, we completed the Acquisition of Aceragen, Inc. SEC guidance permits management to exclude acquisitions from their assessment of internal control over financial reporting during the first year of an acquisition. In conducting our evaluation of the effectiveness of our internal control over financial reporting, we excluded Aceragen from our evaluation during the three-month period ended September 30, 2022. We are in the process of incorporating Aceragen into our system of internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1A. Risk Factors.

There is no guarantee that the Acquisition of Aceragen by us will increase stockholder value.

On September 28, 2022, we acquired Aceragen. See *"Note 4. Business Acquisition."* We cannot guarantee our integration efforts as a result of the Acquisition and the related transactions will not impair stockholder value or otherwise adversely affect our business. The Acquisition poses significant integration challenges between our businesses and management teams which could result in management and business disruptions, any of which could harm our results of operation, business prospects, and impair the value of such Acquisition to our stockholders. In addition, as a result of the Acquisition of Aceragen, our future business, prospects, financial position and operating results could be significantly different than those in historical periods or projected by our management.

Any acquisitions we pursue could disrupt our business and harm our financial condition and results of operations.

As part of our business strategy, we review and intend to continue to review acquisition opportunities that we believe would be advantageous or complementary to the development of our business. During the third quarter of 2022, we acquired Aceragen, and we may acquire additional businesses, assets, or technologies in the future. If we make any acquisitions, we could take any or all of the following actions, any one of which could adversely affect our business, financial condition, results of operations or share price:

- use a significant portion of our available cash, if any;
- require a significant devotion of management's time and resources in the pursuit or consummation of any acquisition;
- incur debt, which may not be available to us on favorable terms and may adversely affect our liquidity;
- issue equity or equity-based securities that would dilute existing stockholders' ownership percentage;
- assume contingent and other liabilities; and
- take charges in connection with such acquisitions.

Acquisitions also entail numerous other risks, including, without limitation: difficulties in assimilating acquired operations, products, technologies and personnel; unanticipated costs; diversion of management's attention from existing operations; risks of entering markets in which we have limited or no prior experience; regulatory approvals; unanticipated costs or liabilities; and potential loss of key employees from either our existing business or the acquired organization. Acquisitions may result in accounting charges for restructuring and other expenses, amortization of purchased technology and intangible assets and stock-based compensation expense, any of which could materially and adversely affect our operating results. We may not be able to realize the anticipated synergies, innovation, operational efficiencies, benefits of or successfully integrate with our existing business the businesses, products, technologies or personnel that we acquire, and our failure to do so could harm our business and operating results.

Pursuant to the terms of the Merger Agreement to acquire Aceragen, we are required to recommend that our stockholders approve the conversion of all outstanding shares of our Series Z preferred stock into shares of our common stock. We cannot guarantee that our stockholders will approve this matter, and if they fail to do so our operations may be materially harmed.

Under the terms of our Acquisition of Aceragen, we agreed to use reasonable best efforts to call and hold a meeting of our stockholders to obtain the requisite approval for the conversion of all outstanding shares of Series Z Preferred Stock issued in the Acquisition into shares of our common stock, as required by the Nasdaq listing rules, within 90 days after the date of the Merger Agreement and, if such approval is not obtained at that meeting, to seek to obtain such approval at an annual or special stockholders meeting to be held at least every six months

thereafter until such approval is obtained, which would be time consuming and costly. Additionally, if our stockholders do not timely approve the conversion of our Series Z preferred stock, then the holders of our Series Z preferred stock may be entitled to require us to redeem their shares of Series Z preferred stock for cash at a price per share equal to the then-current fair value (as such term is defined in the Series Z Certificate of Designation) of the Series Z preferred stock, as described in the Series Z Certificate of Designation. If we are forced to redeem a significant amount of shares of Series Z preferred stock for cash as described above, such cash settlement could materially affect our results of operations, including raising a substantial doubt about our ability to continue as a going concern within one year from November 14, 2022.

Our Series X preferred stock have rights, preferences and privileges that are not held by, and are preferential to, the rights of our common stock, which could adversely affect our liquidity and financial condition, and may result in the interests of the holders of our Series X preferred stock differing from those of the holders of common stock.

The Series X preferred stock ranks senior to our common stock with respect to dividend rights on the distribution of assets on any voluntary or involuntary liquidation, dissolution, or winding up of our affairs. The holders of our Series X preferred stock are entitled to receive distributions on shares of Series X preferred stock as set forth in (a) the Stock and Warrant Purchase Agreement, dated as of March 24, 2021, by and between Aceragen and NovaQuest Co-Investment Fund XV, L.P. ("NovaQuest"), as amended by that Amendment, dated October 25, 2021, and as such agreement may be amended from time to time (the "Purchase Agreement"), and (b) the Sales Distribution and PRV Agreement dated as of October 25,2021, by and between Aceragen and NovaQuest, as such agreement may be amended from time to time (the "PRV Agreement") (any such distributions under the Purchase Agreement and the PRV Agreement, the "Preferred Distributions"), prior and in preference to any declaration or payment of any other distribution or dividend (other than dividends on shares of common stock payable in shares of common stock).

In addition, holders of Series X preferred stock are entitled to receive a distribution in the event either (i) Aceragen receives any proceeds from the sale of a priority review voucher ("PRV") granted by the FDA in connection with regulatory approval of a ACG-801 (recombinant human acid ceramidase) or ACG-701 (sodium fusidate) product or (ii) Aceragen does not receive such a PRV or does not complete a PRV sale within a certain period after receipt. The holders of Series X preferred stock are also entitled to net sales distributions based upon future net sales of the ACG-801 and ACG-701.

The holders of our Series X preferred stock also have the right, subject to certain exceptions, to require us to repurchase all or any portion of the Series X preferred stock upon certain chain of control events or Product Divestiture (as defined in the PRV Agreement) of a ACG-701 product, and Aceragen may, and NovaQuest may require us to, redeem the Series X preferred stock at a price equal to the fair market value thereof or make certain distributions to the holders of Series X preferred stock.

These dividend, distribution, and share repurchase obligations could impact our liquidity and reduce the amount of cash flows available for general corporate purposes. Our obligations to the holders of the Series X Preferred Stock could also limit our ability to obtain additional financing or increase our borrowing costs, which could have an adverse effect on our financial condition. These preferential rights could also result in divergent interests between the holders of shares of Series X Preferred Stock and holders of our Common Stock.

We may not be able to comply with Nasdaq's initial listing standards.

Our common stock trades on The Nasdaq Capital Market ("Nasdaq") under the symbol "IDRA." We cannot assure you that our securities will continue to be listed on Nasdaq.

As previously reported, on November 26, 2021, we received a deficiency letter from the Nasdaq Listing Qualifications Department, notifying us that we were not in compliance with Nasdaq Listing Rule 5550(a)(2), which requires us to maintain a minimum bid price of at least $1 per share for continued listing (the "Minimum Bid Requirement"). Also as previously reported, on May 26, 2022, we received a second notice indicating that, while we had not regained compliance with the Minimum Bid Requirement, we were eligible for an additional 180-day period, or until November 21, 2022, to regain compliance with the Minimum Bid Requirement.

Furthermore, on October 21, 2022, we received a letter from the Nasdaq Listing Qualifications Department notifying us that our acquisition of Aceragen will, upon stockholder approval of conversion of the Series Z preferred stock, be considered a “change of control” transaction under Nasdaq rules. As such, the Company must meet Nasdaq’s initial listing requirements. Accordingly, the Company must meet all the requirements set forth in Nasdaq Rule 5505(a) and at least one of the standards in set forth in Nasdaq Rule 5505(b).

The listing standards of Nasdaq Rule 5505(a) requires the Company to have, among other things:

- a minimum bid price that is greater than or equal to $4.00 per share;
- at least 1,000,000 unrestricted publicly held shares;
- at least 300 round lot holders, and at least 50% of such round lot holders must each hold unrestricted securities with a market value of at least $2,500;
- at least three registered and active market makers; and
- a minimum average daily trading volume of 2,000 shares over the 30-trading day period prior to listing, with trading occurring on more than half of those 30 days, unless such security is listed on Nasdaq in connection with a firm commitment underwritten public offering of at least $4 million.

The Company must also satisfy at least one of the following Rule 5505(b) requirements:

- stockholders’ equity of at least $5 million, a market value of unrestricted publicly held shares of at least $15 million, and two years of operating history;
- a market value of listed securities of at least $50 million, stockholders' equity of at least $4 million, and a market value of unrestricted publicly held shares of at least $15 million; or
- net income from continuing operations of $750,000 in the most recently completed fiscal year or in two of the three most recently completed fiscal years, stockholders' equity of at least $4 million, and a market value of unrestricted publicly held shares of at least $5 million.

There is no assurance that we will be able to comply with the requisite Nasdaq requirements to maintain our listing of common stock on Nasdaq. If Nasdaq delists our securities from trading on its exchange and we are not able to list our securities on Nasdaq or any other national securities exchange, we could face significant material adverse consequences, including:

- a limited availability of market quotations for our common stock;
- reduced liquidity for our common stock;
- a determination that our common stock is a “penny stock,” which will require brokers trading in our common stock to adhere to more stringent rules and possibly result in a reduced level of trading activity in the secondary trading market for its securities;
- a limited amount of news and analyst coverage for us;
- a decreased ability to issue additional securities or obtain additional financing in the future; and
- the incurring of additional costs under state blue sky laws in connection with any sales of our securities.

If our common stock is delisted by Nasdaq, our common stock may be eligible to trade on an over-the-counter quotation system, such as the OTCQB Market, where an investor may find it more difficult to sell our stock or obtain accurate quotations as to the market value of our common stock. In the event our common stock is delisted from

Nasdaq, we may not be able to list our common stock on another national securities exchange or obtain quotation on an over-the counter quotation system.

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

Pursuant to the Merger Agreement, the Company issued shares of common stock and Series Z preferred stock to the common stockholders of Aceragen and shares of Series X preferred stock to NovaQuest. Such issuances were exempt from registration under the Securities Act of 1933, as amended (the "Securities Act"), in reliance on Section 4(a)(2) thereof and Regulation D promulgated thereunder. Each of the common stockholders of Aceragen and NovaQuest represented that it was an "accredited investor," as defined in Regulation D, and is acquiring the securities for investment only and not with a view towards, or for resale in connection with, the public sale or distribution thereof. The securities have not been registered under the Securities Act and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the Securities Act and any applicable state securities laws.

Item 6. Exhibits.

Exhibit No.	Description
2.1	Agreement and Plan of Merger, by and among Idera Pharmaceuticals, Inc., Bell Merger Sub I, Inc., Bell Merger Sub II, LLC, and Aceragen, Inc., dated September 28, 2022 (Incorporated herein by reference to Exhibit 2.1 to the Current Report on Form 8-K, filed on September 30, 2022).(1)
2.2*	Agreement and Plan of Merger, by and among Aceragen, Inc., Aceragen Merger Sub, Inc., Arrevus, Inc., and Carl Kraus, dated October 18, 2021.(1)
3.1	Certificate of Designations of Series Z Non-Voting Convertible Preferred Stock (Incorporated herein by reference to Exhibit 3.1 to the Current Report on Form 8-K, filed on September 30, 2022).
3.2	Certificate of Designations of Series X Preferred Stock (Incorporated herein by reference to Exhibit 3.2 to the Current Report on Form 8-K, filed on September 30, 2022).
10.1†	Executive Transition and Separation Agreement, by and among Vincent Milano and Idera Pharmaceuticals, Inc., dated September 28, 2022 (Incorporated herein by reference to Exhibit 10.1 to the Current Report on Form 8-K, filed on September 30, 2022).
10.2†	Letter Agreement, by and among John Taylor and Aceragen, Inc., dated February 25, 2021 (Incorporated herein by reference to Exhibit 10.2 to the Current Report on Form 8-K, filed on September 30, 2022).
10.3†	Letter Agreement, by and among Dan Salain and Aceragen, Inc., dated February 25, 2021 (Incorporated herein by reference to Exhibit 10.3 to the Current Report on Form 8-K, filed on September 30, 2022).
10.4†	Employment Continuation and Retention Bonus Letter Agreement, by and among John Kirby and Idera Pharmaceuticals, Inc., dated September 28, 2022 (Incorporated herein by reference to Exhibit 10.4 to the Current Report on Form 8-K, filed on September 30, 2022).
10.5†	Employment Continuation and Retention Bonus Letter Agreement, by and among Bryant Lim and Idera Pharmaceuticals, Inc., dated September 28, 2022 (Incorporated herein by reference to Exhibit 10.5 to the Current Report on Form 8-K, filed on September 30, 2022).
10.6†	Executive Transition and Separation Agreement, by and among Daniel Soland and Idera Pharmaceuticals, Inc., dated September 28, 2022 (Incorporated herein by reference to Exhibit 10.6 to the Current Report on Form 8-K, filed on September 30, 2022).
10.7*	Side Letter Agreement, by and among Idera Pharmaceuticals, Inc., Bell Merger Sub II, LLC and NovaQuest Co-Investment Fund XV, L.P., dated September 28, 2022.

Exhibit No.	Description
10.8*	Stock and Warrant Purchase Agreement, by and between Aceragen, Inc. and NovaQuest Co-Investment Fund XV, L.P., dated March 24, 2021.(1)
10.9*	Amendment to Stock and Warrant Purchase Agreement, by and between Aceragen, Inc. and NovaQuest Co-Investment Fund XV, L.P., dated October 25, 2021.(1)
10.10*	Sales Distribution and PRV Agreement, by and between Aceragen, Inc. and NovaQuest Co-Investment Fund XV, L.P., dated October 25, 2021.
10.11*	Therapeutic Development Award Agreement, by and between Arrevus, Inc. and Cystic Fibrosis Foundation, dated December 13, 2021.(1)
10.12*	Base Agreement, by and between Advanced Technology International and Arrevus, Inc., dated May 28, 2021.
10.13*	Project Agreement No. 01, by and between Advanced Technology International and Arrevus, Inc., dated August 24, 2021.(1)
10.14*†	Aceragen, Inc. 2021 Stock Incentive Plan and Forms of Award Agreements.
10.15*†	First Amendment to Aceragen, Inc. 2021 Stock Incentive Plan Form of Stock Option Agreement.
31.1*	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14 and 15d-14, as adopted pursuant to Section 302 of Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14 and 15d-14, as adopted pursuant to Section 302 of Sarbanes-Oxley Act of 2002.
32.1**	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	Inline XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101)

† Indicates management contract or compensatory plan or arrangement.

(1) Schedules have been omitted from this filing pursuant to Item 601(b)(2) of Regulation S-K. Idera agrees to furnish supplementally a copy of any omitted schedule to the SEC upon its request; provided, however, that Idera may request confidential treatment pursuant to Rule 24b-2 of the Exchange Act for any schedule so furnished.

* Filed herewith.

** Furnished herewith.

SIGNATURES

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

IDERA PHARMACEUTICALS, INC.

Date: November 14, 2022

/s/ John Taylor

John Taylor
Chief Executive Officer
(Principal Executive Officer)

Date: November 14, 2022

/s/ John J. Kirby

John J. Kirby
Chief Financial Officer
(Principal Financial and Accounting Officer)

EXHIBIT 2.2

AGREEMENT AND PLAN OF MERGER

THIS AGREEMENT AND PLAN OF MERGER (as may be amended from time to time, this "**Agreement**") is made and entered into as of October 18, 2021, by and among Aceragen, Inc., a Delaware corporation ("**Parent**"), Aceragen Merger Sub, Inc., a Delaware corporation and a wholly owned subsidiary of Parent ("**Merger Sub**"), Arrevus, Inc., a Delaware corporation (the "**Company**"), Carl Kraus, solely in his capacity as the Securityholders' Representative. Certain capitalized terms used in this Agreement are defined in Exhibit A.

RECITALS

WHEREAS, (i) The parties intend to effect a merger of Merger Sub into the Company (the "**Merger**") in accordance with this Agreement and the Delaware General Corporation Law, as amended (the "**DGCL**"); and (ii) upon consummation of the Merger, Merger Sub will cease to exist as a separate corporate entity, and the Company will become a wholly owned indirect subsidiary of Parent;

WHEREAS, the board of directors of the Company has determined that the Merger is in the best interest of the Company and its stockholders and has approved and declared advisable this Agreement, the Merger and the other transactions contemplated hereby; and

WHEREAS, prior to the execution and delivery of this Agreement, the Company has delivered to Parent and Merger Sub irrevocable written consents of Company Stockholders holding at least 90% of the Company Common Stock (on an as converted to Company Common Stock basis) that includes irrevocable waivers of any right to demand for appraisal in accordance with Section 262 of the DGCL, conditioned only upon the execution and delivery of this Agreement (the "**Written Consent**"), adopting this Agreement and approving each of the transactions contemplated hereby, including the Merger.

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth, the parties to this Agreement agree as follows:

SECTION 1. DESCRIPTION OF TRANSACTION

1.1 The Merger. Upon the terms and subject to the conditions set forth in this Agreement, at the Effective Time, Merger Sub shall be merged with and into the Company, and the separate existence of Merger Sub shall cease. The Company will continue as the surviving corporation in the Merger (the "**Surviving Entity**").

1.2 Effect of the Merger. The Merger shall have the effects set forth in this Agreement and in the applicable provisions of the DGCL. Without limiting the generality of the foregoing, and subject thereto, at the Effective Time, except as otherwise agreed pursuant to the terms of this Agreement, all of the property, rights, privileges, powers and franchises of the Company and

Merger Sub shall vest in the Surviving Entity, and all debts, liabilities and duties of the Company shall become the debts, liabilities and duties of the Surviving Entity.

1.3 Closing; Effective Time. The consummation of the transactions contemplated by this Agreement (the "**Closing**") shall take place remotely via electronic exchange of closing deliveries, on a date to be mutually designated by the Company and Parent (the "**Closing Date**"), which shall be no later than the third Business Day after the satisfaction or waiver of the last to be satisfied or waived of the conditions set forth in Sections 6 and 7 (other than those conditions that by their nature are to be satisfied at the Closing, but subject to the satisfaction or waiver of such conditions). Subject to the provisions of this Agreement, a certificate of merger satisfying the applicable requirements of the DGCL, substantially in the form attached hereto as Exhibit B (the "**Certificate of Merger**"), shall be duly executed by the Company and, concurrently with or as soon as practicable following the Closing, delivered to and filed with the Secretary of State of the State of Delaware in accordance with the DGCL. The Merger shall become effective upon the date and time of the filing of the Certificate of Merger with the Secretary of State of the State of Delaware, or at such later time as may be mutually agreed in writing by the Company and Parent and specified in the Certificate of Merger (the "**Effective Time**").

1.4 Certificate of Incorporation and Bylaws; Directors and Officers.

(a) The certificate of incorporation of the Surviving Entity shall be amended and restated as of the Effective Time to read as set forth on Exhibit A to the Certificate of Merger, until thereafter amended as provided by applicable Laws and as provided in such certificate of incorporation.

(b) The bylaws of the Surviving Entity of the Merger shall be amended and restated immediately as of the Effective Time to conform to the bylaws of Merger Sub as in effect immediately prior to the Effective Time, until thereafter amended in accordance with applicable Laws and as provided in the bylaws.

(c) The directors and officers of the Surviving Entity of the Merger immediately after the Effective Time shall be the respective individuals who are directors and officers of Merger Sub immediately prior to the Effective Time.

1.5 Conversion of Shares. At the Effective Time, by virtue of the Merger and without any further action on the part of Parent, Merger Sub, the Company or any stockholder of the Company:

(a) any shares of Company Capital Stock, if any, then held by the Company (or held in the Company's treasury) shall be canceled and retired and shall cease to exist, and no consideration shall be delivered in exchange therefor;

(b) except as provided in Section 1.5(a) and subject to Sections 1.9 and 1.12, each share of Company Preferred Stock issued and outstanding immediately prior to the Effective Time, including any shares of Company Preferred Stock issued upon the Company Warrant Exercise referenced in Section 1.6(d), shall cease to be an existing and issued share of Company Preferred Stock, and shall be converted, by virtue of the Merger and without any action on the part

of the holders thereof, into the right to receive, without interest, an amount equal to the applicable Per Share Merger Consideration payable as set forth in Section 1.9;

(c) except as provided in Section 1.5(a) and subject to Sections 1.9 and 1.12, each share of Company Common Stock issued and outstanding immediately prior to the Effective Time, shall cease to be an existing and issued share of Company Common Stock and shall be converted, by virtue of the Merger and without any action on the part of the holders thereof, into the right to receive, without interest, an amount equal to the applicable Per Share Merger Consideration payable as set forth in Section 1.9; and

(d) each share of the common stock, $0.001 par value per share, of Merger Sub issued and outstanding immediately prior to the Effective Time shall be converted into one share of validly issued, fully paid and nonassessable common stock of the Surviving Entity, such that immediately following the Effective Time, Parent shall become the sole and exclusive owner of all of the issued and outstanding capital stock of the Company as the Surviving Entity.

1.6 Treatment of Company Options, Company Warrants and Company Convertible Notes.

(a) Contingent on and effective immediately prior to the Effective Time, each Company Option that is outstanding and unexercised immediately prior to the Effective Time, whether under the Option Plan or otherwise, whether or not vested or exercisable, shall become fully vested and exercisable immediately prior to the Effective Time. To the extent a Company Option is not exercised prior to the Effective Time, and its per share exercise price is less than the Per Share Merger Consideration applicable to a share of Company Common Stock, such Company Option shall, without any action on the part of the holder thereof, be deemed cancelled and, in consideration of such cancellation, the holder thereof, subject to Sections 1.9 and 1.12, shall, subject to the execution of an Option Termination Agreement in substantially the form attached hereto as Exhibit C (an "**Option Termination Agreement**"), be entitled to receive payment in an amount equal to the product of the number of shares of Company Common Stock subject to such Company Option multiplied by the Option Per Share Merger Consideration payable as set forth in Section 1.9. To the extent a Company Option is not exercised prior to the Effective Time and its per share exercise price is equal to or greater than the Per Share Merger Consideration applicable to a share of Company Common Stock, such Company Option shall be cancelled at the Effective Time without any payment to the holder thereof.

(b) Contingent on and effective immediately prior to the Effective Time, each Company Convertible Note outstanding as of immediately prior to the Effective Time will, without any action on the part of the holder thereof, be deemed cancelled, and, in consideration of such cancellation, the holder thereof, subject to Sections 1.9 and 1.12, shall, subject to the execution of a Convertible Note Cancellation Agreement in substantially the form attached hereto as Exhibit D (a "**Note Cancellation Agreement**"), be entitled to receive payment in an amount equal to the number of shares of Company Preferred Stock issuable at the Closing under the terms of such Company Convertible Note *multiplied* by the applicable Per Share Merger Consideration payable as set forth in Section 1.9.

(c) The Company agrees that the Board of Directors of the Company shall adopt such resolutions or take such other actions (including obtaining any required consents) prior to the Effective Time as may be required to effect the transactions described in this Section 1.6.

(d) The Company has taken all actions necessary to cause each Company Warrant to be "net exercised" with respect to payment of the Company Warrant exercise price into shares of Company Preferred Stock, with such net exercise to be effective immediately prior to and contingent upon the Closing (the "**Company Warrant Exercise**").

1.7 Further Action. If, at any time after the Effective Time, any further action is necessary or desirable to carry out the purposes of this Agreement or to vest the Surviving Entity with full right, title and possession of and to all rights and property of Merger Sub and the Company, the officers and directors of the Surviving Entity and Parent shall take such action, so long as such action is not inconsistent with this Agreement.

1.8 Closing of the Company's Transfer Books. At the Effective Time: (a) all shares of Company Capital Stock outstanding immediately prior to the Effective Time shall automatically be canceled and retired and shall cease to exist, and all holders of certificates representing shares of Company Capital Stock that were outstanding immediately prior to the Effective Time shall cease to have any rights as Company Stockholders, and each certificate representing any such Company Capital Stock (a "**Company Stock Certificate**") shall thereafter represent the right to receive the consideration referred to in Section 1.5, if any; and (b) the stock transfer books of the Company shall be closed with respect to all shares of Company Capital Stock outstanding immediately prior to the Effective Time. No further transfer of any such shares of Company Capital Stock shall be made on such stock transfer books after the Effective Time. If, after the Effective Time, a Company Stock Certificate is presented to the Payment Agent or to the Surviving Entity or Parent, such Company Stock Certificate shall be canceled and shall be exchanged as provided in Section 1.9.

1.9 Exchange/Payment.

(a) The Parties agree that Acquiom Financial LLC shall act as payment agent in the Merger (the "**Payment Agent**"). Prior to the Closing and no later than the Closing Date, Parent shall deposit or cause to be deposited with the Payment Agent cash in the amount of the Closing Date Amount for disbursement to the Participating Securityholders based on the respective amounts set forth in the Closing Payment Schedule. No later than three Business Days after the Effective Time, the Payment Agent shall transmit to the holders of Company Capital Stock as of immediately prior to the Effective Time: (i) a letter of transmittal in substantially the form attached hereto as Exhibit E, (ii) instructions for use in effecting the surrender of Company Stock Certificates in exchange for the amounts payable in accordance with Section 1.5. Upon surrender of a Company Stock Certificate to the Payment Agent for payment, together with a duly executed letter of transmittal and IRS Form W-9 or W-8, (A) the holder of such Company Stock Certificate shall be entitled to receive in exchange therefor the Per Share Merger Consideration for each share evidenced by such Company Stock Certificate, as determined pursuant to Section 1.5 and payable as set forth in this Section 1.9 and (B) the Company Stock Certificate so surrendered shall be canceled. If any Company Stock Certificate shall have been lost, stolen or destroyed, Parent may, as a condition to the payment of the consideration hereunder with respect to each share of Company

Capital Stock evidenced by such Company Stock Certificate, require the owner of such Company Stock Certificate to provide a reasonably appropriate affidavit to Parent (which may include an indemnity or bond in customary form).

(b) Any amounts payable in accordance with Sections 1.5 or 1.6 that remain undistributed by the Payment Agent to holders of Company Securities as of June 20, 2023 shall be delivered to Parent upon demand, and any holders of Company Securities who have not theretofore surrendered the documentation contemplated under this Section 1.9 shall thereafter only look to Parent for satisfaction of their claims for the cash amounts payable in accordance with Sections 1.5 or 1.6.

(c) The Parent shall retain portions of the Merger Consideration Amount as follows:

(i) A portion of the Merger Consideration Amount equal to the Holdback Amount shall be retained by Parent for purposes of satisfying indemnification claims pursuant to Section 8 herein. On the first Business Day following the date that is 12 months after the Closing Date, the entire balance of the then remaining Holdback Amount, less any amount thereof subject to any pending claim by Parent in respect of Section 8 hereof (which amount, if any, shall be released as promptly as possible following resolution of such claim), shall be distributed to the Payment Agent for disbursement to the Participating Securityholders based on the respective amounts set forth in the Closing Payment Schedule.

(ii) A portion of the Merger Consideration Amount equal to the 2022 Deferred Amount shall be retained by Parent. On the first Business Day following the date that is 12 months after the Closing Date, the entire balance of the 2022 Deferred Amount, as adjusted pursuant to Section 1.10, shall be distributed to the Payment Agent for disbursement to the Participating Securityholders based on the respective amounts to be distributed to them as set forth in the Closing Payment Schedule.

(iii) A portion of the Merger Consideration Amount equal to the 2023 Deferred Amount shall be retained by Parent. On January 16, 2023, the entire balance of the 2023 Deferred Amount shall be distributed to the Payment Agent for disbursement to the Participating Securityholders based on the respective amounts set forth in the Closing Payment Schedule.

(d) Neither Parent, the Surviving Entity nor any of their respective Affiliates shall be liable to any holder or former holder of Company Capital Stock, Company Option. Company Warrant or Company Convertible Note with respect to any amounts properly delivered to any public official pursuant to any applicable abandoned property Law or escheat Law; provided that all reasonable efforts to notify such holder have been made prior to such delivery.

(e) Each of Parent, the Surviving Entity, the Payment Agent, and their respective agents (each a "**Withholding Agent**") will be entitled to deduct and withhold from any amount payable to any Person under this Agreement or any other documents associated with the transaction, the amounts such Withholding Agent is required to deduct and withhold under the Code or any other Law. To the extent that amounts are so withheld and paid over to the applicable

Governmental Body or other Person, such withheld amounts will be treated as having been paid to the applicable Person in respect of whom such amounts were withheld.

(f) In paying any consideration payable under Sections 1.5, 1.6, 1.9 or 1.10, Parent shall be entitled to rely on any Closing Payment Schedule. Notwithstanding anything else to the contrary contained in this Agreement, in no event shall the aggregate consideration payable by Parent, Merger Sub or the Surviving Entity to the Participating Securityholders in connection with the transactions contemplated hereby exceed the Merger Consideration Amount. For purposes of clarity, the preceding sentence shall not be construed to limit the indemnification obligations of Parent under Section 8 of this Agreement.

1.10 Closing Statement; Adjustment to Merger Consideration Amount.

(a) Not less than three Business Days prior to the Closing Date, the Company shall deliver to Parent a written schedule (the "**Closing Statement**") setting forth in reasonable detail the Company's good faith estimate of (i) the Closing Date Indebtedness, (ii) the Closing Date Transaction Expenses, and (iii) the Closing Working Capital (the "Estimated Closing **Working Capital**"). The Closing Statement and all components thereof shall be calculated in accordance with GAAP, except as set forth on Exhibit G, and such Closing Statement shall include such schedules and data with respect to the determinations set forth therein as may be appropriate to support the calculations set forth therein. Without limiting the generality of the foregoing, the Closing Working Capital shall: (w) not include any purchase accounting or other adjustment arising out of the consummation of the transactions contemplated hereby, (x) other than Pre-Closing Taxes, be based on facts and circumstances as they exist prior to the Closing and shall exclude the effect of any act, decision or event occurring on or after the Closing and (y) calculate any reserves, accruals or other non-cash expense items on a pro rata (as opposed to monthly accrual) basis to account for a Closing that occurs on any date other than the last day of a calendar month. During the period beginning on the date of delivery of the Closing Statement by the Company until the Closing Date, the Company shall consult with Parent (including by giving Parent an opportunity to provide comments on the Closing Statement), shall work in good faith to resolve any differences the Company and Parent may have with respect to any of the amounts or calculations set forth in the Closing Statement, and the Company will make available to Parent and its Representatives the work papers and other books and records used in preparing the Closing Statement and afford Parent and its Representatives reasonable access to the relevant personnel and external Representatives of the Company to verify the accuracy of such amounts to the extent deemed reasonably necessary by Parent.

(b) On the Closing Date, Parent shall (i) cause the payment of the Closing Date Transaction Expenses, if any, to the Persons identified on the Closing Statement and (ii) cause the payment of the Closing Date Indebtedness, if any, to the Persons identified on Schedule 1.10(b). The Company shall deliver all applicable wire instructions for the payment of any Closing Date Transaction Expenses or Closing Date Indebtedness to Parent at least three Business Days prior to the Closing.

(c) The Closing Statement shall control solely for the purposes of determining the payments to be made on the Closing Date pursuant to Section 1.9 and shall not limit or otherwise affect Parent's remedies under this Agreement or otherwise or constitute an

acknowledgement by Parent of the accuracy thereof. The Merger Consideration Amount, including the 2022 Deferred Amount, will thereafter be subject to adjustment as provided in this Agreement, including Section 1.10(d) and Section 1.10(e). For the sake of clarity, any adjustment to the Merger Consideration Amount in connection with Section 1.10(d) and Section 1.10(e) will not be used in calculating whether either the Basket has been met or the indemnification limitations set forth in Section 8.6 have been met.

(d) Within one hundred eighty (180) days after the Closing Date, Parent will prepare and deliver to the Securityholders' Representative Parent's good faith determination of the actual Closing Working Capital (the "**Post-Closing Statement**") and the calculation of the resulting Closing Working Capital Excess or Closing Working Capital Shortfall, if any (such final calculation as determined under this Section 1.10(d), the "**Final Closing Working Capital**"). If the Securityholders' Representative does not object to the calculation of the Final Closing Working Capital set forth in the Post-Closing Statement within thirty (30) days after the Securityholders' Representative's receipt thereof, or accepts the Parent's determination of the Final Closing Working Capital as set forth in the Post-Closing Statement during such thirty (30) day period, then the Final Closing Working Capital as set forth on the Post-Closing Statement shall be final, binding and non-appealable. If the Securityholders' Representative objects to the calculation of the Final Closing Working Capital in the Post-Closing Statement, then the Securityholders' Representative must notify the Parent in writing of such objection within thirty (30) days after the Securityholders' Representative's receipt thereof (such notice setting forth in reasonable detail the basis for such objection, an "**Objection Notice**"). During such thirty (30) day period, the Parent will permit the Securityholders' Representative access to such work papers relating to the preparation of the Post-Closing Statement and such Parent and Surviving Entity personnel, as may be reasonably necessary to permit the Securityholders' Representative to review in detail the manner in which the Post-Closing Statement was prepared. The Parent and the Securityholders' Representative will thereafter negotiate in good faith to resolve any such objections. If the Parent and the Securityholders' Representative are unable to resolve all of such differences within thirty (30) calendar days of the Parent's receipt of the Objection Notice, then upon request of either party the Parent and the Securityholders' Representative will engage a mutually agreed upon nationally or regionally recognized accounting firm that is not affiliated with, or retained by, any of the parties to this Agreement (the "**Accounting Firm**") to resolve any remaining disputes between Parent and the Securityholders' Representative specified in the Objection Notice. The Accounting Firm shall be instructed by Parent and the Securityholders' Representative to use commercially reasonable efforts to determine and report to Parent and the Securityholders' Representative, within thirty (30) days after such submission, upon such remaining disputed items, and only with respect to the remaining disputed items, specified in the Objection Notice. The report of the Accounting Firm shall, except in the case of manifest mathematical error or fraud, be final, binding and conclusive on the parties, and the Post-Closing Statement, together with the calculation of Final Closing Working Capital, as modified by the Accounting Firm, shall be deemed to have been accepted by all of the parties to this Agreement as the final Post-Closing Statement and the Final Closing Working Capital, respectively. The Parent and the Securityholders' Representative shall each cooperate in good faith with and provide such documents and other information as the Accounting Firm may reasonably request (to the extent such documents and other information are within such parties' respective control or to which they reasonably have access). The fees and expenses of the Accounting Firm shall be paid by the Securityholders' Representative (on behalf of the Stockholders), on the one hand, and by Parent, on the other hand, based upon the percentage that

the amount actually contested but not awarded to the Securityholders' Representative or Parent, respectively, bears to the aggregate amount actually contested by the Securityholders' Representative and Parent, in each case as determined by the Accounting Firm.

(e) Upon the determination of the Final Closing Working Capital pursuant to Section 1.10(d), the Merger Consideration Amount, including the 2022 Deferred Amount, shall be recalculated by giving effect to such Final Closing Working Capital and the Securityholders' Representative shall deliver to the Parent a revised Closing Payment Schedule based thereon. If the Final Closing Working Capital results in a Closing Working Capital Shortfall, then Parent shall reduce by the amount of such Closing Working Capital Shortfall the payment of the 2022 Deferred Amount to the Payment Agent pursuant to Section 1.9(c)(ii), and the Payment Agent shall correspondingly reduce the 2022 Deferred Amount distributed to the Participating Securityholders as set forth in the revised Closing Payment Schedule. If the actual Closing Working Capital Amount results in a Closing Working Capital Excess, then Parent shall increase by the amount of such Closing Working Capital Excess the payment of the 2022 Deferred Amount to the Payment Agent pursuant to Section 1.9(c)(ii), and the Payment Agent shall correspondingly increase the 2022 Deferred Amount distributed to the Participating Securityholders as set forth in the revised Closing Payment Schedule.

1.11 Securityholders' Representative.

(a) In order to efficiently administer certain matters contemplated hereby following the Closing, including any actions that the Securityholders' Representative may, in its sole discretion, determine to be necessary, desirable or appropriate in connection with the matters set forth in Sections 1.10 and 8, the Participating Securityholders, by the adoption of this Agreement, acceptance of consideration under this Agreement and/or the completion and execution of the letters of transmittal shall be deemed to have designated Carl Kraus as the representative of the Participating Securityholders (the "**Securityholders' Representative**").

(b) In the event the Securityholders' Representative dies, becomes unable to perform his, her or its responsibilities hereunder or resigns from such position, the Participating Securityholders who hold at least a majority in interest of the Participation Percentages at such time shall be authorized to and shall select another representative to fill such vacancy and such substituted representative shall be deemed to be the Securityholders' Representative for all purposes of this Agreement and the documents delivered pursuant hereto.

(c) By their adoption of this Agreement, acceptance of consideration under this Agreement and/or the delivery of the letter of transmittal contemplated by Section 1.9, the Participating Securityholders shall be deemed to have agreed, in addition to the foregoing, that:

(i) the Securityholders' Representative shall be appointed and constituted the true and lawful attorney-in-fact of each Participating Securityholder, with full power in his, her or its name and on his, her or its behalf to act according to the terms of this Agreement and in general to do all things and to perform all acts including, without limitation, executing and delivering any agreements, certificates, receipts, instructions, notices or instruments contemplated by or deemed advisable in connection with this Agreement. The Securityholders' Representative hereby accepts such appointment;

(ii) the Securityholders' Representative shall have full authority to, after the Closing (A) execute, deliver, acknowledge, certify and file on behalf of the Participating Securityholders (in the name of any or all of the Participating Securityholders or otherwise) any and all documents that the Securityholders' Representative may, in its sole discretion, determine to be necessary, desirable or appropriate, in such forms and containing such provisions as the Securityholders' Representative may, in its sole discretion, determine to be appropriate, (B) do all things and to perform all acts, including amending the Ancillary Agreements, revising the Closing Payment Schedule, waiving rights, discharging liabilities and obligations, making all decisions relating to the determination of the Merger Consideration Amount, including the 2022 Deferred Amount, pursuant to Section 1.10 and the disbursement of the Holdback Amount, the 2022 Deferred Amount and the 2023 Deferred Amount (or any portion thereof) in accordance with this Agreement, and resolve disputes, including with respect to indemnification claims hereunder (C) give and receive notices and other communications relating to this Agreement and the transactions contemplated hereby (except to the extent that this Agreement contemplates that such notice or communication shall be given or received by the Participating Securityholder individually), (D) take or refrain from taking any actions (whether by negotiation, settlement, litigation or otherwise) to resolve or settle all matters and disputes arising out of or related to this Agreement and the transactions contemplated hereby and thereby and (E) engage attorneys, accountants, financial and other advisors, paying agents and other persons necessary or appropriate in the judgment of the Securityholders' Representative for the accomplishment of the foregoing;

(iii) Parent shall be entitled to rely conclusively on the instructions and decisions given or made by the Securityholders' Representative as to any of the matters described in this Section 1.11, and no party shall have any cause of action against Parent or its Affiliates for any action taken by Parent or its Affiliates in reliance upon any such instructions or decisions;

(iv) all actions, decisions and instructions of the Securityholders' Representative, including any agreement between the Securityholders' Representative and Parent relating to the determination of the Merger Consideration Amount pursuant to Section 1.10, or the defense or settlement of any claims for which the Participating Securityholders may be required to indemnify the Parent Indemnified Parties pursuant to Section 8 hereof, shall be conclusive and binding upon each of the Participating Securityholders, and no Participating Securityholders shall have any cause of action against the Securityholders' Representative and the Securityholders' Representative shall not be liable for any action taken, decision made or instruction given by the Securityholders' Representative under this Agreement, except for fraud or willful breach of this Agreement on the part of the Securityholders' Representative;

(v) the provisions of this Section 1.11 are independent and severable, are irrevocable and coupled with an interest, and shall be enforceable notwithstanding any rights or remedies that any Participating Securityholder may have in connection with the transactions contemplated by this Agreement; and

(vi) the provisions of this Section 1.11 shall be binding upon the executors, heirs, legal representatives successors and assigns of each Participating Securityholder, and any references in this Agreement to a Participating Securityholder or the Participating Securityholders shall mean and include the successors to the Participating Securityholders' rights

hereunder, whether pursuant to testamentary disposition, the laws of descent and distribution or otherwise.

(d) As between the Participating Securityholders and the Securityholders' Representative, the Securityholders' Representative shall not be liable for any act done or omitted hereunder as Securityholders' Representative while acting in good faith, and any act done or omitted to be done pursuant to the advice of counsel shall be conclusive evidence of such good faith. The Participating Securityholders shall severally, based on such Participating Securityholder's Participation Percentage, indemnify the Securityholders' Representative and defend and hold him, her or it harmless against any and all losses, liability, damages, claims, penalties, fines, forfeitures, actions, fees, costs, judgments, amounts paid in settlement and expenses (including any reasonable out-of-pocket costs and expenses of counsel and experts and their staffs, all expense of document location, duplication and shipment, and in connection with seeking recovery from insurers) (collectively, **"Representative Losses**") arising out of or in connection with the acceptance or administration of his, her or its duties hereunder and under the Ancillary Agreements, in each case as such Representative Loss is suffered or incurred; *provided*, that in the event that any such Representative Loss is finally adjudicated to have been directly caused by the gross negligence or willful misconduct of the Securityholders' Representative, the Securityholders' Representative will reimburse the Participating Securityholders the amount of such indemnified Representative Loss to the extent attributable to such gross negligence or willful misconduct. An amount equal to $25,000 shall be set aside (as set forth in the definition of "**Closing Date Amount**") to fund the Representative Losses (the "**Representative Expense Fund**") and wired to the account designated by the Securityholders' Representative at Closing. If not paid from the Representative Expense Fund or directly to the Securityholders' Representative by the Participating Securityholders, any such Representative Loss may be recovered by the Securityholders' Representative, at any time from the Participating Securityholders according to each Participating Securityholder's Participation Percentage. In no event will the Securityholders' Representative be required to advance its own funds on behalf of the Participating Securityholders or otherwise. The Participating Securityholders acknowledge and agree that the foregoing indemnities will survive the resignation or removal of the Securityholders' Representative or the termination of this Agreement. Any remaining portion of the Securityholders' Representative Expense Fund not used for the foregoing purposes shall be paid to the Participating Securityholders in accordance with each Participating Securityholders' respective Participation Percentage on or before June 30, 2023.

1.12 Dissenting Shares.

(a) Notwithstanding any other provision of this Agreement to the contrary, shares of Company Capital Stock that are outstanding immediately prior to the Effective Time and that are held by Company Stockholders who shall have not voted in favor of the Merger or consented thereto in writing and who shall have properly demanded appraisal for such shares in accordance with Section 262 of the DGCL (collectively, the "**Dissenting Shares**") shall not be converted into or represent the right to receive a portion of the Merger Consideration Amount. Holders of Dissenting Shares shall instead be entitled to receive payment from the Company of the appraised value of such shares of Company Capital Stock held by them in accordance with the provisions of Section 262 of the DGCL.

(b) Notwithstanding the provisions of Section 1.12(a), if any holder of Dissenting Shares shall effectively withdraw or lose (through failure to perfect or otherwise) his, her or its appraisal rights, then, as of the later of the Effective Time and the occurrence of such event, such holder's shares of Company Capital Stock shall automatically be converted into and represent only the right to receive the consideration for Company Capital Stock to which such holder of Company Capital Stock would otherwise be entitled under Section 1.5, without interest thereon, upon surrender of the Company Stock Certificate representing such shares.

(c) The Company shall give Parent: (i) prompt notice of: (A) any written demand received by the Company prior to the Effective Time for appraisal rights pursuant to Section 262 of the DGCL; (B) any withdrawal of any such demand; and (C) any other demand, notice or instrument delivered to the Company prior to the Effective Time pursuant to the DGCL; and (ii) the opportunity to participate in all negotiations and proceedings with respect to any such demand, notice or instrument. The Company shall not, except with the prior written consent of Parent (to be given in Parent's sole discretion) make any payment with respect to any such demands or offer to settle or settle any such demands.

(d) Notwithstanding the foregoing, to the extent that Parent, the Surviving Entity or the Company is required by applicable Law to make any per share payment or payments in respect of Dissenting Shares in excess of the consideration to which such Person would have been entitled under Section 1.5 if and to the extent paid or released and only when paid or released pursuant to the terms of this Agreement and reasonable out-of-pocket costs or expenses (including specifically, but without limitation, reasonable out-of-pocket attorneys' fees, costs and expenses in connection with any Legal Proceeding commenced by a holder of Dissenting Shares or a person claiming to be a holder of Dissenting Shares) incurred in respect of any Dissenting Shares (such excess, the "Dissenting Share Payments"), Parent shall be entitled to recover the amount of such Dissenting Share Payments in accordance with Section 8.

SECTION 2. REPRESENTATIONS AND WARRANTIES OF THE COMPANY

As an inducement to Parent to consummate the transactions contemplated hereby, the Company represents and warrants to Parent and Merger Sub, except as set forth in the Company Disclosure Schedule (subject to the qualifications set forth in Section 10.13), as of the date of this Agreement and as of the Closing Date (except, in each case, to the extent such representations and warranties are specifically made as of a particular date, in which case the Company makes the representations and warranties as of such particular date), as follows:

2.1 Due Incorporation; No Subsidiaries Etc.

(a) The Company does not have any Subsidiaries and does not hold any equity interests, or rights to acquire any equity interests, in any other Entity.

(b) The Company is a corporation duly incorporated, validly existing and in good standing under the Laws of the State of Delaware and has all necessary corporate power and authority to conduct its business in the manner in which its business is currently being conducted.

(c) The Company is qualified to do business as a foreign corporation, and is in good standing, under the Laws of all states where the nature of its business requires such

qualification, except where the failure to be so qualified or in such good standing has not had and would not reasonably be expected to have a Company Material Adverse Effect. Schedule 2.1(c) of the Company Disclosure Schedule sets forth the states in which the Company is qualified to do business as a foreign corporation.

2.2 Certificate of Incorporation and Bylaws; Corporate Documents. The Company has delivered or otherwise made available to Parent or its counsel true, correct and complete copies of the Company Charter, the Company's bylaws and Company Investor Agreements, and organizational documents of each of the Company's Subsidiaries including all amendments thereto. The Company is not in violation of, in conflict with, or in default under any of the respective terms of the Company Charter, the Company's bylaws and the organizational documents of each of the Company's subsidiaries, and there exists no condition or event which, after notice, lapse of time or both, would result in any such violation, conflict or default. The Company is not in violation of, in conflict with, or in default under, in any material respect, any of the respective terms of the Company Investor Agreement, and there exists no condition or event which, after notice, lapse of time or both, would result in any such violation, conflict or default. The copy of the minute books of the Company provided to Parent contains minutes of all meetings of directors and stockholders and all actions by written consent without a meeting by the directors and stockholders since the date of incorporation and accurately reflects in all material respects all actions by the directors (and any committee of directors) and stockholders with respect to all transactions referred to in such minutes.

2.3 Capitalization, Etc.

(a) Schedule 2.3(a) of the Company Disclosure Schedule sets forth the authorized capital stock of the Company.

(b) Schedule 2.3(b) of the Company Disclosure Schedule sets forth (i) the shares of Company Common Stock issued and outstanding, all of which were validly issued, fully paid and nonassessable, including those reserved for issuance upon the conversion of Company Convertible Notes, those reserved for issuance upon the exercise of the Company Warrants and those reserved for issuance pursuant to the Option Plan, (ii) the shares of Company Preferred Stock issued and outstanding, all of which were validly issued, fully paid and nonassessable, including those reserved for conversion of Company Convertible Notes and the number of shares of Company Common Stock such Company Preferred Stock are convertible into, (iii) the shares of Company Common Stock or Company Preferred Stock held in the treasury of the Company; and (iv) any other outstanding equity interests in the Company.

(c) Schedule 2.3(c) of the Company Disclosure Schedule contains a correct and complete list of each outstanding Company Convertible Note, including the holder, date of issuance, the agreement under which such Company Convertible Note was issued and the number of shares, and series in the case of Company Preferred Stock, of Company Capital Stock subject thereto. Copies of all such agreements have been made available to Parent or its counsel.

(d) Schedule 2.3(d) of the Company Disclosure Schedule contains a correct and complete list of each outstanding Company Warrant, including the holder, date of issuance, the

number of shares of Company Capital Stock subject thereto, the exercise price and the expiration date. Copies of all such Company Warrants have been made available to Parent or its counsel.

(e) Except as set forth in Schedule 2.3(e) of the Company Disclosure Schedule, (A) there are no other existing options, warrants, calls, rights (including conversion rights, preemptive rights, co-sale rights, rights of first refusal or other similar rights) issued or granted by the Company or Contracts to which the Company or any holder of Company Securities is a party requiring, and there are no securities of the Company outstanding which upon conversion or exchange would require, the issuance, sale or transfer of any additional shares of capital stock or other equity securities of the Company or other securities convertible into, exchangeable for or evidencing the right to subscribe for or purchase shares of Company Capital Stock or other equity securities of the Company, (B) there are no obligations, contingent or otherwise, of the Company to (1) repurchase, redeem or otherwise acquire any shares of Company Capital Stock or (2) to make any material investment in (in the form of a loan, capital contribution or otherwise), or to provide any guarantee (excluding indemnification obligations) with respect to the obligations of, any Person and (C) there are no outstanding stock appreciation, phantom stock, profit participation or similar rights with respect to the Company.

(f) There are no bonds, debentures, notes or other Debt of the Company having the right to vote or consent (or, convertible into, or exchangeable for, securities having the right to vote or consent) on any matters on which the Company Stockholders may vote. Except as set forth in Schedule 2.3(f) of the Company Disclosure Schedule, there are no voting trusts, irrevocable proxies or other Contracts or understandings to which the Company or any holder of Company Securities is a party or is bound with respect to the voting or consent of any shares of Company Capital Stock.

(g) All of the outstanding shares of Company Capital Stock are and have been duly authorized and validly issued, and are fully paid and nonassessable, are not subject to any preemptive rights, purchase options, call options, rights of first refusal or similar rights or any other Liens and have been issued and granted in all material respects in compliance with all applicable securities Laws. Each share of Company Preferred Stock is convertible into one share of Company Common Stock.

(h) Schedule 2.3(h) of the Company Disclosure Schedule sets forth, with respect to each Company Option that is outstanding (i) the name of the holder of such Company Option; (ii) the total number of shares of Company Common Stock that are subject to each such Company Option, and (iii) the exercise price per share of Company Common Stock purchasable under such Company Option. Copies of all such agreements have been made available to Parent or its counsel.

2.4 Financial Statements. The Company has delivered or otherwise made available to Parent the Company's unaudited financial statements for the fiscal years ended December 31, 2018, December 31, 2019 and December 31, 2020 (the "**Balance Sheet Date**") and their unaudited financial statements (including the balance sheet and the related statements of income and cash flows) as of August 31, 2021 (such date, the "**Interim Balance Sheet Date**," and the balance sheet of the Company as of such date, the "**Interim Balance Sheet**") and for the interim period beginning on January 1, 2021, and ending on the Interim Balance Sheet Date (all of the foregoing

financial statements of the Company and any notes thereto are hereinafter collectively referred to as the "**Company Financial Statements**"). The Company Financial Statements (x) except as set forth on Schedule 2.4 of the Company Disclosure Schedule, were prepared in accordance with GAAP and fairly present in all material respects the financial condition of the Company at the dates therein indicated and the results of operations of the Company for the periods therein specified in accordance with GAAP, except (i) as may be indicated in the footnotes to such financial statements (which footnotes are not, individually or in the aggregate, material to the Company's business) and (ii) that the unaudited financial statements do not contain footnotes and are subject to normal year-end adjustments and (y) are consistent with, and were prepared from, the books and records of the Company, which books and records are complete in all material respects.

2.5 Absence of Certain Changes. Except as expressly contemplated by this Agreement, since the Balance Sheet Date: (a) no event or action has occurred that would require the consent of Parent pursuant to Section 4.2 if such event or action occurred during the Pre-Closing Period; and (b) except in connection with the transactions contemplated by this Agreement, the Company has used or held its assets and properties for use, and has operated and conducted its business in all material respects, in the ordinary course of business. Since the Interim Balance Sheet Date, no event or series of related events has had or would reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect.

2.6 Title to Assets. The Company has good and valid title to all assets owned by it, other than Intellectual Property assets which are covered by Section 2.9, including all such assets (other than capitalized or operating leases) reflected on the Interim Balance Sheet (except for assets sold or otherwise disposed of since the date of the Interim Balance Sheet in the ordinary course of business). All of such assets are owned by the Company free and clear of any Liens (other than Permitted Liens) and such assets (excluding working capital and assets consumed in the ordinary course of business) constitute all of the assets, rights and properties necessary, and are sufficient, for the conduct of the Company's business as presently conducted in all material respects. All of the material tangible assets of the Company have been maintained in a reasonably prudent manner and are in good condition and repair (ordinary wear and tear and ordinary maintenance excepted).

2.7 Equipment. All material items of equipment and other tangible assets owned by or leased to the Company are adequate for the uses to which they are being put and are in good condition and repair (ordinary wear and tear and ordinary maintenance excepted).

2.8 Real Property; Leasehold. The Company does not own any real property, and the Company does not own any interest in real property, except for the leaseholds created under the real property leases (including all amendments, extensions, renewals, guarantees, and other agreements with respect thereto) identified in Schedule 2.8 of the Company Disclosure Schedule (the "**Leased Real Property**"). The Company has made available to Parent or its counsel a true, correct and complete copy of each lease and document related thereto listed in Schedule 2.8 of the Company Disclosure Schedule. The Company are in material compliance with such real property leases, and has a valid and subsisting leasehold interest in all Leased Real Property, in each case free and clear of all Liens, other than Permitted Liens. The Company has not granted any other Person the right to occupy or use any Leased Real Property and the Company's quiet enjoyment of the Leased Real Property under the lease has not been disturbed in any material respect. There

are no written or oral subleases, licenses, concessions, occupancy agreements or other Contracts granting to any other Person the right of use or occupancy of any Leased Real Property. The Company has not received written notice of (a) default, or intention to terminate or not renew, any real property lease or (b) any eminent domain, condemnation or similar proceeding pending or threatened, against all or any portion of any Leased Real Property.

2.9 Intellectual Property.

(a) Schedule 2.9(a)(i) of the Company Disclosure Schedule identifies: (x) each item of Company Registered IP; (y) the jurisdiction in which such item of Company Registered IP has been registered or filed and the applicable registration or serial number; and (z) each Person that is an owner (including any joint owner) of such item of Company Registered IP, and, if Company is not the sole owner thereof, (i) the corresponding license agreement pursuant to which the Company has the right to use or practice such Company Registered IP, and (ii) if any such Person has a joint ownership interest in such Company Registered IP with Company, any agreement(s) between Company and such Person relating to such joint ownership. Each of the Patents included in the Company Registered IP that is solely owned or purported to be solely owned by the Company, and to the Company's Knowledge each of the jointly owned Patents included in the Company Registered IP, properly identifies by name each and every inventor of the inventions claimed by such Patents as determined in accordance with United States patent law (and the inventors listed in each such Patent collectively constitute the entire inventive entity, as the term 'inventive entity' is defined and interpreted under United States patent law). The Company has complied in all material respects with all of its obligations and duties to the respective patent offices, including the duty of candor and disclosure to the U.S. Patent and Trademark Office, and all applicable Laws, with respect to all Patents included in the Company Registered IP. The Company has no Knowledge of any information, facts or circumstances that would reasonably be expected to result in any challenge to, or otherwise adversely impact, in any material respect, the ownership, use, patentability, registrability, enforceability or validity of any Company Registered IP, including any Intellectual Property that is the subject matter thereof. The Company Registered IP owned or purported to be owned by the Company, and to the Company's Knowledge all other Company Registered IP, is subsisting. To the Company's Knowledge, the issued Patents included in the Company Registered IP are valid and enforceable. Schedule 2.9(a)(ii) of the Company Disclosure Schedule describes each filing, payment, and action that, to the Company's Knowledge, must be made or taken on or before the date that is 120 days after the date of this Agreement in order to maintain each such item of Company Registered IP that is listed or required to be listed on Schedule 2.9(a)(i) of the Company Disclosure Schedule, excluding any such item of Company Registered IP that Company has no right or responsibility to maintain. No Registered IP that is listed or required to be listed on Schedule 2.9(a)(i) of the Company Disclosure Schedule has been, and the Company has received no notice that any Registered IP that is listed or required to be listed on Schedule 2.9(a)(i) of the Company Disclosure Schedule is, involved in any nullity, inter partes, interference, opposition, reissue, reexamination, revocation, or equivalent proceeding, in which the inventorship, scope, validity or enforceability of any such Registered IP is being or has been contested or challenged, and to the Company's Knowledge, no such proceeding has been threatened with respect to any such Registered IP.

(b) The Company owns, and has good, valid, unexpired and enforceable title (free and clear of all Liens other than Permitted Liens) to, all right, title and interest in and to all

Company Owned IP that is solely owned or purported to be solely owned by the Company. With respect to each item of Company Owned IP that is jointly owned or is purported to be jointly owned by the Company and one or more other Person(s), (i) Company owns, and has good, valid, unexpired and enforceable title (free and clear of all Liens other than Permitted Encumbrances) to, its joint ownership interest in such Company Owned IP, and (ii) each other Person with a joint ownership interest in such Company Owned IP has granted Company an exclusive (even as to such Person) license to use and otherwise exploit, including to practice, patent, register, prosecute, maintain and enforce, such Company Owned IP pursuant to a valid and enforceable written agreement between Company and such Person set forth in Schedule 2.9(b)(i) of the Company Disclosure Schedule. Each owner of Company Owned IP in which the Company neither has nor purports to have an ownership interest, has granted Company an exclusive (even as to such Person) license to use and otherwise exploit, including to practice, patent, register, prosecute, maintain and enforce, such Company Owned IP, pursuant to a valid and enforceable written agreement set forth in Schedule 2.9(b)(ii) of the Company Disclosure Schedule. The Company possesses adequate rights to use and otherwise exploit, pursuant to a valid and enforceable written agreement, each item of other Intellectual Property (i.e., each item of Intellectual Property that is not already within the scope of any of the foregoing representations and warranties set forth above in this Section 2.9(b)) that is used or held for use in the conduct of its business as currently conducted, including all Intellectual Property that is non-exclusively licensed to the Company. No Person has any right of first refusal, option and/or other right to acquire any right, title or interest in or to, or has any other Lien (other than Permitted Liens) with respect to, any Company Owned IP. In each case where the Company has acquired ownership of Registered IP from any other Person, the Company has obtained a valid and enforceable assignment sufficient to irrevocably transfer all rights, title and interest in and to such Registered IP to the Company, and the Company has recorded each such assignment with the applicable patent or trademark office, or other applicable Governmental Body, in the jurisdiction in which such Registered IP is registered. There is no Intellectual Property owned in whole or in part by any Third Party, and/or any other Intellectual Property, other than the Company Intellectual Property, that is required or otherwise necessary for the Company to conduct its business as currently being conducted (other than Intellectual Property owned by a Third Party to which the Company has a license or other right or authorization to use pursuant to an Inbound License listed in Schedule 2.9(f)(i) of the Company Disclosure Schedule).

(c) The conduct of the business of the Company (including through any consultant, employee or other Person that is or was working for the Company) has not infringed or misappropriated or otherwise violated any Intellectual Property rights of any other Person, and, to the Company's Knowledge, the conduct of its business as currently proposed to be conducted will not infringe, misappropriate or otherwise violate the Intellectual Property rights of any other Person. Since September 1, 2016, no Person has asserted any written action, proceeding or other claim (or to the Company's Knowledge, any oral claim), and no action, proceeding or claim is pending or, to the Company's Knowledge, threatened, (i) challenging the Company's ownership or other right, title or interest in or to, or the use, validity, enforceability, patentability or registrability of, any of the Company Intellectual Property or any other Intellectual Property used or held for use in the business of the Company by or on behalf of the Company, (ii) alleging infringement or misappropriation or other violation of any Intellectual Property rights by the Company, including any demand that the Company license Intellectual Property of any Third Party, or (iii) involving any allegations that a current or former employee, officer, director, consultant, contractor, service provider or advisor of the Company (each, a "**Company**

Representative") misappropriated, infringed or otherwise violated any Intellectual Property rights of any Person that had previously employed or otherwise engaged such Company Representative (such Person, a "**Former Employer**") or breached any agreement with its Former Employer in connection with such Company Representative's employment by, or other engagement with, or that otherwise relates to, the Company; and, to the Company's Knowledge, with respect to clause (i) (solely with respect to Company Owned IP), clause (ii) and clause (iii) immediately above, there is no reasonable basis for any such claim.

(d) The Company has never assumed, or agreed to discharge or otherwise take responsibility for, any existing or potential Liability of another Person for infringement, misappropriation or other violation of any Intellectual Property rights and is not contractually obligated to do so. None of the Company Registered IP or other Company Owned IP is subject to any pending or outstanding consent, settlement, injunction, directive, order, judgment, or other disposition of dispute that adversely impacts or restricts the use, ownership, transfer, registration or licensing or other disposition of any such Intellectual Property by the Company, or otherwise adversely affects the validity, scope, use, registrability, or enforceability of any Company Intellectual Property.

(e) To the Company's Knowledge, since September 1, 2016, no Person has infringed or misappropriated or otherwise violated, and no Person is currently infringing or misappropriating or otherwise violating, any Company Intellectual Property.

(f) Schedule 2.9(f)(i) of the Company Disclosure Schedule identifies each Contract pursuant to which any Intellectual Property is or has been licensed, sold, assigned, or otherwise conveyed or provided to the Company (other than non-exclusive licenses to unmodified commercially available third-party software ("**Standard Software Licenses**")) ("**Inbound Licenses**"). Except with respect to the agreements listed in Schedule 2.9(f)(ii) of the Company Disclosure Schedule and Standard Software Licenses, the Company is not obligated under any contract or other agreement to make any payments by way of royalties, fees, or otherwise to any owner or licensor of, or other claimant to, any Intellectual Property.

(g) Schedule 2.9(g) of the Company Disclosure Schedule lists each outbound license of Company Intellectual Property ("**Outbound Licenses**").

(h) Schedule 2.9(h) of the Company Disclosure Schedule lists all Contracts (other than those disclosed or required to be disclosed on Schedule 2.9(f) or 2.9(g) of the Company Disclosure Schedule) in effect as of the date of this Agreement containing any (i) restrictions on the Company's rights to patent, register, enforce, use or otherwise exploit any Company Intellectual Property or other Intellectual Property used or held for use in the business of the Company by or on behalf of the Company, including covenants not to sue and settlement and co-existence agreements, (ii) right of first refusal, option or any other right to acquire any right, title or interest, including any license, in or to any Company Owned IP or (iii) payment obligation of Company in connection with any change in control of the Company or any earn-out, milestone or other contingent payment obligation under any Inbound License or any Contract pursuant to which any Intellectual Property is or has been licensed, sold, assigned, or otherwise conveyed or provided to the Company (collectively, clauses (i), (ii) and (iii), the "**Other IP Contracts**").

(i) The Company has taken reasonable security and other measures to protect the Company Owned IP, including measures against unauthorized disclosure and unauthorized use, to protect the secrecy, confidentiality, and value of its trade secrets and other technical or proprietary information.

(j) All Company Representatives who have been involved in the creation or development of Intellectual Property for or otherwise on behalf of the Company have executed valid and enforceable written Contracts with the Company that include (i) present assignments to the Company of the entire right, title and interest in and to all inventions and other Intellectual Property created for or otherwise on behalf of the Company, and (ii) obligations of confidentiality that require such Persons to maintain and protect the confidential information of the Company and not to use such confidential information for any unauthorized purpose (an "**IP Agreement**"). The Company has secured written assignments from all Company Representatives who contributed to the creation or development of any Company Intellectual Property owned or purported to be owned by the Company, of the entire right, title and interest in and to such Company Intellectual Property arising from such contributions that the Company does not already own by operation of law. To the Company's Knowledge, no Company Representative (i) has any right, title, license, claim, option or other similar interest whatsoever in or with respect to any Company Intellectual Property owned or purported to be owned by the Company (or to the Company's Knowledge, any other Company Intellectual Property), or (ii) is in material violation of any IP Agreement. No Company Representative or scientific advisor of the Company has excluded, in any agreement with the Company, any inventions, methods, processes, compounds, developments or other Intellectual Property that relate to the business of the Company, including any Company Intellectual Property.

(k) Except as set forth on Schedule 2.9(k) of the Company Disclosure Schedules, no Governmental Body or academic institution has any rights in or to, ownership of, or right to royalties and/or other payments for, any Company Intellectual Property, nor has the Company used, directly or indirectly, any funding, grants, facilities, IP or personnel or other similar resources of any such Person in connection with any research or development activities of the Company, including with respect to any Company Intellectual Property.

(l) The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby (alone or in combination with any other event), and the compliance by the Company with the provisions of this Agreement, do not and will not conflict with, alter, or impair, any of the rights of the Company in or to any Company Intellectual Property or the validity, enforceability, registrability, use, right to use, ownership, priority, duration, scope, or effectiveness of any Company Intellectual Property.

(m) The Company is, and to the Company's Knowledge, each Person acting for or otherwise on behalf of the Company (including any Third Party Services Provider) is, and since September 1, 2016 has been, in material compliance with (i) all applicable Laws relating to the privacy, data protection and security of all personal information and data, including with respect to the collection or use, including the storage, sharing, transfer, disposition, protection and processing thereof (collectively, and together with all data and other information that is subject to any such Laws, "**Personal Information**")), (ii) all privacy, data protection and security policies of the Company concerning Personal Information, and (iii) any contractual requirements to which the Company is subject that relate to any of the foregoing. Neither the Company, nor to the

Company's Knowledge, any service provider of, or other Person acting for or otherwise on behalf of, the Company that may collect, store, process, analyze or otherwise have access to any Personal Information or confidential information of the Company (a "**Third Party Service Provider**"), has been subject to any security breaches with respect to (including any that have resulted in the public disclosure of or any other unauthorized access to) any Personal Information or any confidential information of the Company. The Company has, and, to the Company's Knowledge, each of its Third Party Service Providers has, taken reasonable actions and implemented policies and procedures which, in each case, are reasonably appropriate to protect and maintain the security of all Personal Information and confidential information of the Company, including from any unauthorized access or use. Since September 1, 2016, there have not been any written, or, to the Company's Knowledge, other, complaints or notices, or any audits, proceedings, investigations or claims conducted or asserted, or to the Company's Knowledge, threatened by any Governmental Body or other Person against the Company, and none are pending, regarding any collection, use, storage, disclosure, transfer or other disposition of any Personal Information by or on behalf of the Company (including by any Third Party Service Provider).

(n) The software and related systems, if any, owned, leased or licensed by the Company used or for use in the conduct of its business as currently conducted (collectively, the "**Company Systems**") are in good working order, and the Company Systems are backed up on a regular basis. The Company does not own any proprietary software and all other software used by the Company is unmodified commercially available off-the-shelf software having a replacement cost and annual license fee of less than $5,000 in the aggregate, and the Company has complied with the terms of all such software licenses. In the 24-month period preceding the date of this Agreement, to the Company's Knowledge, there have not been any security breaches or other adverse events affecting any Company Systems.

2.10 Non-Contravention; Consents. With respect to clauses (b) and (c) only, except for violations and defaults that would not reasonably be expected to be material to the Company, except as set forth in in Schedule 2.10 of the Company Disclosure Schedule, the execution and delivery of this Agreement by the Company and the consummation by the Company of the transactions contemplated by this Agreement will not cause a: (a) violation of any of the provisions of the Company Charter or the bylaws of the Company; (b) violation by the Company of any Law applicable to the Company; or (c) default (or an event that, with or without notice or lapse of time or both would constitute a default) on the part of the Company under, result in a material modification or termination under, or give to others any rights of termination, modification, acceleration, reacquisition, transfer or cancellation of, or result in the creation of a Lien on, any of the properties or assets of the Company, including any Company Intellectual Property (other than a Permitted Liens) pursuant to, any Material Contract. Except as may be required by the DGCL, the Company is not required to obtain any Consent from any Governmental Body or party to a Material Contract at any time prior to the Closing in connection with the execution and delivery of this Agreement or the consummation by the Company of the Merger.

2.11 Material Contracts.

(a) Schedule 2.11(a) of the Company Disclosure Schedule lists each Contract in effect as of the date of this Agreement to which the Company is a party or by which any of its properties or assets are otherwise bound of the following categories (such Contracts required to be

disclosed under Schedule 2.11(a) of the Company Disclosure Schedule, the "**Material Contracts**"):

(i) any Contract (or group of related Contracts) that require future payments by or to the Company in excess of $25,000 in any calendar year, including any Contract (or group of related Contracts) for the purchase or sale of real property, raw materials, goods, commodities, utilities, equipment, supplies, products or other personal property, or for the provision or receipt of services, in each case to the extent the Contract is not terminable without penalty on 90 days' or shorter notice;

(ii) (A) any Contract relating to the acquisition or disposition by the Company of any operating business or assets; (B) any Contract relating to the acquisition or disposition by the Company of any operating business or assets under which the Company has any executory covenants or indemnification or other obligations or rights (including put or call options); or (C) any Contract under which the Company has any indemnification obligations, other than any such Contract entered into in the ordinary course of business (including, without limitation, Standard Software Licenses, clinical trial agreements, service agreements and research and development agreements with universities and other academic institutions);

(iii) (A) any guaranty, surety or performance bond or letter of credit issued or posted, as applicable, by the Company; (B) any Contract evidencing or relating to Debt of the Company or providing for the creation of or granting any Lien upon any of the property or assets of the Company (excluding Permitted Liens); (C) any Contract (1) relating to any loan or advance to any Person which is outstanding as of the date of this Agreement (other than immaterial advances to employees and consultants in the ordinary course of business consistent with past practices) or (2) obligating or committing the Company to make any such loans or advances; and (D) any currency, commodity or other hedging or swap Contract;

(iv) (A) any Contract creating or purporting to create any partnership or joint venture or any sharing of profits or losses by the Company with any Third Party; or (B) any Contract that provides for "earn-outs" or other contingent payments by or to the Company;

(v) any collective bargaining agreement or similar Contract with any trade union, works council or other labor organization;

(vi) any Contract that is a settlement, conciliation, or similar agreement with any Governmental Body or that imposes any monetary or other material obligations upon the Company to any Governmental Body after the date of this Agreement;

(vii) any Government Contract;

(viii) (A) any Contract containing covenants restricting or purporting to restrict competition which, in either case, have, would have or purport to have the effect of prohibiting the Company or, after the Closing, Parent or the Surviving Entity from engaging in any business or activity in any geographic area or other jurisdiction, other than in connection with this Agreement; (B) any Contract in which the Company has granted "exclusivity" or that requires the Company to deal exclusively with, or grant exclusive rights or rights of first refusal to, any customer, vendor, supplier, distributor, contractor or other Person or that is a requirements

contract; (C) any Contract that includes minimum purchase conditions or other requirements, in either case that exceed $25,000 in any calendar year to the extent the Contract is not terminable without penalty on 90 days' or shorter notice; or (D) any Contract containing a "most-favored-nation," "best pricing" or other similar term or provision by which another party to such Contract or any other Person is, or could become, entitled to any benefit, right or privilege which, under the terms of such Contract, must be at least as favorable to such party as those offered to another Person;

(ix) any Contract with a Major Supplier;

(x) any Contract involving a sales agent, representative, distributor, reseller, middleman, marketer, broker, franchisor or similar Person who is entitled to receive commissions, fees or markups related to the provision or resale of goods or services of the Company;

(xi) any Contract involving commitments to make capital expenditures or to Contract, purchase or sell assets involving $25,000 or more individually;

(xii) any lease, sublease, rental or occupancy agreement, license, installment, and conditional sale agreement or agreement under which the Company is lessee or lessor of, or owns, uses or operates any leasehold or other interest in any real or personal property;

(xiii) any Inbound License, Outbound License, or Other IP Contract;

(xiv) any power of attorney granted by the Company that is currently in effect;

and

(xv) any Contract not otherwise listed or required to be listed in Schedule 2.11(a) of the Company Disclosure Schedule that, if terminated, or if expired without being renewed, would have a Company Material Adverse Effect.

(b) With respect to each Material Contract listed in Schedule 2.11(a) of the Disclosure Schedule: (i) such Material Contract is binding and enforceable against the Company and, to the Company's Knowledge, against each party thereto other than the Company, in accordance with its terms, subject to (A) laws of general application relating to bankruptcy, insolvency and the relief of debtors, and (B) rules of Law governing specific performance, injunctive relief and other equitable remedies; and (ii) the Company is not in material breach or material default of such Material Contract or, with the giving of notice or the giving of notice and passage of time without a cure would be, in material breach or material default of such Material Contract, and, to the Company's Knowledge, no other party to such Material Contract is in material breach or material default of such Material Contract. The Company has delivered or otherwise made available to Parent or its counsel a true, correct and complete copy of each such Material Contract.

(c) As of the date of this Agreement, no Third Party to any Material Contract has indicated to the Company in writing or, to the Knowledge of the Company, orally that it desires to materially modify, renew, renegotiate or cancel any Material Contract to which it is a party.

2.12 Liabilities. The Company has no Liabilities other than: (a) those specifically set forth on the face of the Interim Balance Sheet; (b) those incurred in the ordinary course of business, consistent with past practice, since the date of the Interim Balance Sheet (none of which arose out of, in connection with or as a result of any breach of Contract, tort, infringement of Intellectual Property or violation of Law, and none of which are, individually or in the aggregate, material to the business of the Company as presently operated); and (c) those incurred pursuant to performance of this Agreement. Schedule 2.12 of the Company Disclosure Schedule sets forth all of the Debt of the Company outstanding as of the date of this Agreement.

2.13 Compliance with Laws.

(a) The Company is in material compliance with, and since September 1, 2016 has been in material compliance with, applicable Laws, including those relating to employment, and the Company has not received any written notices of any violation with respect to such Laws.

(b) The Company holds all material permits, approvals, registrations, franchises, licenses, certificates, accreditations and other authorizations of all Governmental Bodies (collectively, "**Permits**") required for the conduct of its business as presently conducted. As of the date of this Agreement, no written notices have been received by the Company alleging the failure to hold any Permit. The Company is in compliance in all material respects with all terms and conditions of all Permits which it may hold.

2.14 Certain Business Practices. Each of the Company, and the employees or other Representatives of the Company (a) has not used and is not using any funds for any unlawful contributions, unlawful gifts, unlawful entertainment or other unlawful expenses; (b) has not made any direct or indirect unlawful payments to any foreign or domestic Government Official; (c) has not violated and is not violating any Anti-Corruption Laws; (d) has not established or maintained, and is not maintaining, any unlawful or unrecorded fund of monies or other properties; (e) has not made, and is not making, any false or fictitious entries on its accounting books and records; (f) has not made, and is not making, any bribe, rebate, payoff, influence payment, kickback or other unlawful payment of any nature, and has not paid, and is not paying, any fee, commission or other payment that has not been properly recorded on its accounting books and records as required by the Anti-Corruption Laws; and (g) has not otherwise given or received anything of value to or from a Government Official, an intermediary for payment to any individual including Government Officials, any political party or customer for the purpose of obtaining or retaining business.

2.15 Tax.

(a) The Company has duly and timely filed (after giving effect to any extensions of time in which to make such filings) all Tax Returns that it was required to file under applicable Laws. All such Tax Returns were true, correct and complete in all material respects, and have been prepared in compliance with applicable Law. All Taxes due and owing by the Company (whether or not shown on any Tax Return) have been timely paid. The Company is not

currently the beneficiary of any extension of time within which to file any Tax Return that has not been filed. There are no Liens for Taxes (other than statutory liens for current Taxes not yet due and payable) upon any of the assets of the Company.

(b) The unpaid Taxes of the Company (i) did not, as of the Interim Balance Sheet Date, exceed the reserve for Tax Liability (rather than any reserve for deferred Taxes established to reflect timing differences between book and Tax income) set forth on the face of the Interim Balance Sheet (rather than in any notes thereto), and (ii) do not exceed that reserve as adjusted for the passage of time through the Closing Date in accordance with the past custom and practice of the Company in filing its Tax Returns. Since the Interim Balance Sheet Date, the Company has not incurred any Liability for Taxes outside the ordinary course of business.

(c) There is no past, pending or, to the Knowledge of the Company, threatened action, suit, claim, complaint, litigation, investigation, audit, proceeding, arbitration or other similar dispute associated with any Tax Return that has been or is being conducted by a Governmental Body. The Company has not received from any Governmental Body (including jurisdictions where the Company has not filed Tax Returns) any written (or, to the Company's Knowledge, oral): (i) notice indicating an intent to open an audit or other review, (ii) request for information related to Tax matters, or (iii) notice of deficiency or proposed adjustment for any amount of Tax proposed, asserted, or assessed by any Governmental Body against the Company. The Company has not waived any statute of limitations in respect of Taxes or agreed to any extension of time with respect to a Tax assessment or deficiency, which waiver or extension is still in effect.

(d) The Company has withheld or collected and properly reported and timely paid over to the appropriate Governmental Body all Taxes required to have been withheld or collected, reported and paid in connection with any amounts paid or owing to any employee, independent contractor, creditor, customer, stockholder, or other Third Party, and has timely filed all withholding and information Tax Returns (including IRS Forms W-2, 1099 and 1042) for all periods through and including the Closing Date. All persons who have provided services to the Company that have been classified by the Company as independent contractors for Tax purposes were properly so classified.

(e) The Company is not and has never been a United States real property holding corporation within the meaning of Section 897(c)(2) of the Code.

(f) The Company has not constituted either a "distributing corporation" or a "controlled corporation" in a distribution of stock intended to qualify for tax-free treatment under Section 355 of the Code. The Company has not consummated or participated in, nor is it currently participating in, any transaction which was or is a "reportable transaction" as defined in Section 6707A(c)(1) of the Code or the Treasury Regulations promulgated thereunder, or any other transaction requiring disclosure under analogous provisions of state, local or non-U.S. Tax Law. The Company has disclosed on its Tax Returns any Tax reporting position taken in any Tax Return that could reasonably be expected to result in the imposition of penalties under Section 6662 of the Code or any comparable provisions of state, local or non-U.S. applicable Law.

(g) The Company will not be required to include an item of income in, or exclude an item of deduction from, taxable income for any Tax period (or portion thereof) ending after the Closing as a result of any: (i) change in, or improper, method of accounting for a Tax period ending on or prior to the Closing Date; (ii) "closing agreement" as described in Section 7121 of the Code (or any comparable or similar provisions of applicable Law) executed prior to the Closing; (iii) election pursuant to Section 108(i) of the Code; (iv) installment sale or open transaction disposition made on or prior to the Closing Date; (v) intercompany transactions or any excess loss account described in Treasury Regulations under Section 1502 of the Code (or any corresponding or similar provision of state, local or non-U.S. income Tax Law); or (vi) prepaid amount or deferred revenue received on or prior to the Closing Date.

(h) The Company has delivered or made available to Parent complete and accurate copies of all income and other material Tax Returns for which the applicable statute of limitations has not expired, and complete and accurate copies of all audit or examination reports and statements of deficiencies assessed against the Company. Schedule 2.15(h) of the Company Disclosure Schedule sets forth each jurisdiction where the Company will be required to file a Tax Return following the Closing with respect to any Pre-Closing Tax Period, including the type of Tax Return and the type of Tax required to be paid. The Company has not received or requested any private letter ruling from the IRS (or any comparable Tax ruling from any other Governmental Body). No power of attorney with respect to Taxes has been granted with respect to the Company that will have any effect after the Closing Date.

(i) The Company is not a party to any agreement with any Third Party relating to allocating, indemnifying or sharing the payment of, or Liability for, Taxes. The Company has never been a member of a group filing a consolidated, combined, or unitary income Tax Return. The Company does not have any Liability for the Taxes of any other Person (i) under Treasury Regulation Section 1.1502-6 (or any similar provision of state, local, or non-U.S. Law); (ii) as a transferee or successor; (iii) by Contract, or (iv) by operation of Law or otherwise.

(j) The Company does not have, and never have had, any direct or indirect interest in any trust, joint venture, partnership, corporation, limited liability company, or other business entity for U.S. federal income Tax purposes (including a Contract or arrangement that could be treated as a partnership for U.S. federal income Tax purposes). The Company uses the accrual method of accounting for income Tax purposes.

(k) No claim has ever been made by any Governmental Body in a jurisdiction where the Company does not file Tax Returns that the Company is or may be subject to taxation by that jurisdiction. The Company is not subject to Tax in any jurisdiction outside of the United States by virtue of having employees, a permanent establishment, an office or fixed place of business, or other contacts with such jurisdiction.

(l) Schedule 2.15(l) of the Company Disclosure Schedule lists each Tax holiday or incentive to which the Company is entitled, the period for which such Tax incentive applies, and the nature of such Tax incentive. The Company is in material compliance with the requirements for any applicable Tax holidays or incentives, and no such Tax holidays or incentives will terminate or be subject to repayment, recapture or clawback because of the transactions contemplated by this Agreement.

(m) Other than as a result of the transactions contemplated by this Agreement, the Company is not subject to any limitations on the use of net operating losses, unrealized losses, or credits under Code section 269, Code section 382, Code section 383, Code section 384, or any other provision of the Code or Treasury Regulations.

(n) No Company Security is a "covered security" within the meaning of Section 6045(g) of the Code. To the Knowledge of the Company, a valid and timely election under Section 83(b) of the Code was made for each share of Company Capital Stock that was issued in connection with the performance of services and that is or was subject to a substantial risk of forfeiture within the meaning of Section 83 of the Code. The Company has made available to Parent or its counsel true, correct, and complete copies of all election statements under Section 83(b) of the Code received by the Company in accordance with Treasury Regulation Section 1.83-2(d), together with evidence of timely filing of such election statements with the appropriate IRS office.

2.16 Employee Benefit Plans.

(a) Schedule 2.16(a) of the Company Disclosure Schedule sets forth a list of all Company Plans.

(b) With respect to each Company Plan and Company Service Provider Agreement, the Company has delivered or otherwise made available to Parent a true, correct and complete copy of: (i) each writing constituting a part of any written Company Plan and Company Service Provider Agreement and all amendments thereto, and all trusts or service agreements relating to the administration and recordkeeping of the Company Plan or Company Service Provider Agreement, and written summaries of the material terms of all unwritten Company Plans and Company Service Provider Agreements; (ii) the three most recent Annual Reports (Form 5500 Series or otherwise in a form in accordance with applicable Law) including all applicable schedules, if any, for each Company Plan or Company Service Provider Agreement that is subject to such reporting requirements; (iii) the current summary plan description and any summaries of material modifications thereto, if any, or any written summary provided to participants with respect to any plan or agreement for which no summary plan description exists; (iv) the most recent determination letter (or if applicable, advisory or opinion letter) from the IRS, if any, and any pending applications for a determination or opinion letter; (v) all non-discrimination testing for the three most recent completed plan years, (vi) all Section 83(b) elections filed pursuant to the Code, (vii) all employee handbooks, and (viii) all written correspondence given to such Company Plan or Company Service Provider Agreement, the Company or any Company ERISA Affiliate by any Governmental Body (including any foreign Governmental Body responsible for the regulation of such Company Plan or Company Service Provider Agreement) during the three years preceding the date of this Agreement relating to such Company Plan or Company Service Provider Agreement or provided to any such entity by the Company Plan or Company Service Provider Agreement, the Company or a Company ERISA Affiliate during the three years preceding the date of this Agreement with respect to such Company Plan or Company Service Provider Agreement.

(c) In all material respects, each Company Plan and Company Service Provider Agreement has been established, funded and maintained in accordance with its terms and in compliance with all applicable Laws, including but not limited to ERISA and the Code. Any Company Plan intended to be qualified under Section 401(a) of the Code and any trust intended to

qualify under Section 501(a) of the Code are so qualified and have received a determination letter from the IRS to the effect that they meet the requirements of Section 401(a) of the Code and Section 501(a) of the Code, and nothing has occurred that would reasonably be expected to adversely affect the qualification of such Company Plan. No "prohibited transaction," within the meaning of Section 4975 of the Code or Sections 406 and 407 of ERISA, and no breach of fiduciary duty (as determined under ERISA) has occurred with respect to any Company Plan or Company Service Provider Agreement that would reasonably be expected to result in any Liability to the Company or any Company ERISA Affiliate. There are no Legal Proceedings or claims pending, or, to the Company's Knowledge, threatened or reasonably anticipated (other than routine claims for benefits) with respect to any Company Plan or Company Service Provider Agreement. There are no audits, inquiries, investigations or proceedings pending or, to the Company's Knowledge, threatened by any Governmental Body with respect to any Company Plan or Company Service Provider Agreement. None of the Company nor any Company ERISA Affiliate is subject to any penalty or Tax with respect to any Company Plan or Company Service Provider Agreement under Section 502(i) of ERISA or Sections 4975 through 4980 of the Code. The Company and each Company ERISA Affiliate have timely made all contributions, distributions, reimbursements and payments that are due with respect to each Company Plan and Company Service Provider Agreement, and all contributions, distributions, reimbursements and payments for any period ending on or before the Closing Date that are not yet due have been made or properly accrued with respect to each Company Plan. Each Company Plan and Company Service Provider Agreement can be amended, terminated or otherwise discontinued at any time in accordance with its terms, without Liability to Parent, the Company or any Company ERISA Affiliate (other than ordinary administration expenses).

(d) Except as set forth in Schedule 2.16(d) of the Company Disclosure Schedule, no payment or benefit which will or may be made with respect to any "disqualified individual" (as defined in Section 280G of the Code and the regulations thereunder) in connection with the consummation of the Merger (either alone or in combination with any other event) will be characterized as a parachute payment within the meaning of Section 280G(b)(2) of the Code. There is no Contract, agreement, plan or arrangement to which the Company nor any Company ERISA Affiliates is bound to provide a gross-up or otherwise reimburse any employee or consultant for any taxes. Except as set forth in Schedule 2.16(d) of the Company Disclosure Schedule, neither the execution or delivery of this Agreement nor the consummation of the Merger, either alone or in combination with any other event, will increase the benefits or compensation payable under any Company Plan or any Company Service Provider Agreement or to any current or former director, officer, employee or other individual service provider of the Company, or will result in any acceleration of the time of payment, funding or vesting of any benefits or compensation under any Company Plan or any Company Service Provider Agreement or for any current or former director, officer, employee or other individual service provider of the Company.

(e) No Company Plan or Company Service Provider Agreement is, and neither the Company nor any Company ERISA Affiliate has or has ever sponsored, maintained contributed to, been required to contribute to or had or has any obligations or Liability (current or contingent) under or with respect to any plan that is or was (i) subject to Section 302 or Title IV of ERISA or Section 412 or 430 of the Code (including any "defined benefit plan" within the meaning of Section 3(35) of ERISA), (ii) a "multiemployer plan" within the meaning of Section 3(37) of ERISA, (iii) a "funded welfare plan" within the meaning of Section 419 of the Code, (iv)

a “multiple employer welfare arrangement” (as defined under Section 3(40)(A) of ERISA (without regard to Section 514(b)(6)(B) of ERISA)); (v) a multiple employer plan or to any plan described in Section 413 of the Code, or (vi) a self-insured plan that provides benefits to employees, directors, consultants or independent contractors. Neither the Company nor any Company ERISA Affiliate has ever maintained, established, sponsored, participated in or contributed to, any Company Plan in which stock of the Company or any Company ERISA Affiliate is or was held as a plan asset. The Company and the Company ERISA Affiliates have complied and are in compliance with COBRA. The Company has no current or contingent Liability or obligation as a consequence of at any time being considered a single employer under Section 414 of the Code with any other Person.

(f) No Company Plan or Company Service Provider Agreement promises or provides, nor does the Company or any Company ERISA Affiliate have any Liability or obligation to provide, post-termination or post-employment payments (whether of severance pay, change of control or otherwise), equity acceleration, forgiveness of indebtedness, vesting, medical, health or life insurance or other welfare-type benefits, increase in benefits or obligation to fund benefits, with respect to any Person except as required by (i) applicable Law or (ii) the terms of any plan qualified under Section 401(a) of the Code, and in each case, at no cost to the Company.

(g) No Company Plan, Company Service Provider Agreement, employment agreement, or other compensation arrangement of the Company that constitutes a “nonqualified deferred compensation plan” subject to Section 409A of the Code has been written, executed, and operated in compliance with Section 409A of the Code and the regulations thereunder. The Company does not have any obligation to gross-up or otherwise reimburse any person for any tax incurred by such person pursuant to Section 409A or Section 280G of the Code. Each Company Option is exempt from the requirements of Section 409A.

(h) No Company Plan or Company Service Provider Agreement is, and neither the Company nor any Company ERISA Affiliate has or has ever sponsored, maintained contributed to, been required to contribute to or had or has any obligations or Liability (current or contingent) under or with respect to any Foreign Benefit Plan.

2.17 Employee Matters.

(a) The Company has made available to Parent or its counsel a complete and correct list, as of the date of this Agreement, of all Company Service Providers who are employed or engaged by the Company as of the date of this Agreement, which sets forth the following information with respect to each, as applicable: (i) name, (ii) status as an employee, consultant, independent contractor, advisor, director, or individual service provider; (iii) title or position, (iv) current annual or hourly base compensation or retention rate, (v) target bonus or incentive compensation rates for current fiscal year, (vi) active or inactive status and, if applicable, the reason for inactive status, (vii) full-time or part-time status, (ix) exempt or non-exempt status; and (x) employment or engagement location (the “**Company Service Provider Census**”).

(b) The Company: (i) is, and since September 1, 2016 has been, in compliance, in all material respects, with all applicable Laws, and with any order, ruling, decree, judgment or arbitration award of any arbitrator or any court or other Governmental Body, relating to

employment and employment practices, including, but not limited to those related to terms and conditions of employment, payment of wages, pay equity, hours of work, employment taxes and withholdings, discrimination, worker classification (including the proper classification of workers as employees or independent contractors and/or consultants), labor relations, leave of absence requirements, occupational health and safety, privacy, harassment, retaliation, immigration, wrongful discharge, or other violation of the rights of any prospective employees or Company Service Providers; (ii) has withheld and reported all amounts required by any Law or Contract to be withheld and reported with respect to wages, salaries, compensation and other payments to any Company Service Provider; and (iii) has no Liability for any payment to any trust or other fund governed by or maintained by or on behalf of any Governmental Body with respect to unemployment compensation benefits, social security or other benefits or obligations for any Company Service Provider (other than routine payments to be made in the normal course of business). The Company has not effectuated a "mass layoff," "plant closing," partial "plant closing," "relocation" or "termination" (each as defined in the Worker Adjustment and Retraining Notification Act or any similar Law) affecting any site of employment or one or more facilities or operating units within any site of employment or facility of the Company.

(c) The Company is not and has never been a party to or otherwise bound by any collective bargaining agreement, Contract or other agreement or understanding with a labor union, labor organization, works council or similar body, nor is any such Contract or agreement presently being negotiated, nor, to the Company's Knowledge, is there, nor has there ever been, a representation campaign or organizing activity with respect to any Company Service Providers. Neither the Company nor any of its Representatives, employees or Company Service Providers has committed or engaged in any unfair labor practice in connection with the operation of the business of the Company. There are no, nor have there ever been, any Legal Proceedings pending, or, to the Knowledge of the Company, threatened or reasonably anticipated, relating to employment and employment practices, including, but not limited to, any collective bargaining obligation or agreement, wages and hours, leave of absence, plant closing notification, employment statutes or regulations, privacy rights, labor disputes, workers' compensation, safety, retaliation, harassment, immigration, discrimination, retaliation, harassment, or any other matter involving any applicant for employment or Company Service Provider.

(d) No Company Service Provider who is employed or engaged by the Company as of the date of this Agreement has provided written notice to the Company of his, her or its intent to terminate his, her, or its relationship with the Company as of the date of this Agreement, and to the Company's Knowledge, no such Company Service Provider intends to terminate his, her, or its relationship with the Company following the Closing.

(e) The Company has made available to Parent or its counsel accurate and complete copies of all employee manuals and handbooks, disclosure materials, policy statements and other materials relating to the employment of all Company Service Providers.

(f) The employment, engagement, or service relationship of each current Company Service Provider is terminable at-will by the Company without any penalty, Liability, advance notice requirement, or severance obligation.

(g) No Company Service Provider is a misclassified employee of the Company pursuant to applicable Law. The Company does not have any Liability as a result of the failure to properly classify any current or former independent contractor, consultant, or advisor as an employee of the Company. The Company is, and at all times has been, in compliance with all Contracts, Company Service Provider Agreements, and any other obligations due to or in connection with any Company Service Provider. There are no sums owing to any Company Service Provider, other than earned and accrued compensation and reimbursements of expenses and fees for the applicable current work period.

2.18 Environmental Matters. The Company is and since September 1, 2016 has been in material compliance with all applicable Environmental Laws. Since September 1, 2016, the Company has not received any written notices, demand letters or requests for information from any Governmental Body or any other Person indicating that the Company is or may be in violation of, or may be liable under, any Environmental Law, and the Company is not subject to any pending or, to Company's Knowledge, threatened action or investigation by any Governmental Body under any Environmental Law. To the Company's Knowledge, no current or prior owner of any property leased or controlled by the Company has received any written notice from a Governmental Body or any other Person since September 1, 2016 that alleges that such current or prior owner or the Company is materially violating or has materially violated, or is liable under any Environmental Law. The Company is and since September 1, 2016 has been in compliance in all material respects with, and has no material liability under, any provisions of leases relating in any way to any Environmental Laws or to the use, management, handling, disposal or release of Hazardous Substances under such leases. All Environmental Permits, if any, required to be obtained and maintained by the Company under any Environmental Law in connection with its operations as they have been or are currently being conducted, including those relating to the management of Hazardous Substances, have been obtained and maintained by the Company, are in full force and effect, and the Company is and since September 1, 2016 has been in material compliance with the terms thereof. The Company has not treated, stored, disposed of, arranged for or permitted the disposal of, handled, released or exposed any Person to any Hazardous Substances on, in or under any real property, or owned or operated any property contaminated by any such Hazardous Substances, in each case that has resulted in or would result in liability to the Company under Environmental Laws. The Company has delivered or otherwise made available to Parent or its counsel copies of any environmental investigation, study, test, audit, review or other analysis in its possession in relation to the current or prior business or real properties of the Company.

2.19 Insurance. The Company has the insurance of the types and in the amounts set forth in Schedule 2.19 of the Company Disclosure Schedule (the **"Insurance Policies**"). The Insurance Policies are in full force and effect and all premiums due and payable under such Insurance Policies have been paid on a timely basis. There is no material claim pending under any of the Insurance Policies as to which coverage has been questioned, denied or disputed by the underwriters of such policies. The Company is in compliance in all material respects with the terms of such policies. The Company has no Knowledge of any threatened termination of, or material premium increase with respect to, any of such policies.

2.20 Legal Proceedings; Orders. There is no pending Legal Proceeding, and, to the Company's Knowledge, no Person has threatened to commence any Legal Proceeding: (a) that involves the Company or any of the assets owned or used by the Company or any Person whose

Liability the Company has retained or assumed, either contractually or by operation of law; or (b) that challenges, or that may have the effect of preventing, delaying, making illegal or otherwise interfering with, the Merger or any of the other transactions contemplated by this Agreement. There is no order, writ, injunction, judgment or decree to which the Company, any of the assets owned or used by the Company, or any of the Company's officers or directors (in their respective capacities as such), is subject.

2.21 No Brokers. No broker, finder or investment banker is entitled to any brokerage or finder's fee in connection with the Merger or any of the other transactions contemplated by this Agreement based upon arrangements made by or on behalf of the Company.

2.22 Authority; Binding Nature of Agreement. The Company has all necessary corporate power and authority to enter into and to perform its obligations under this Agreement. The Board of Directors of the Company has (a) determined that the Merger is advisable and fair and in the best interests of the Company and its stockholders, (b) authorized and approved the execution, delivery and performance of this Agreement by the Company and approved the Merger, and (c) recommended the adoption of this Agreement by the Company Stockholders and directed that this Agreement be submitted for consideration by the Company Stockholders by written consent. This Agreement constitutes the legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, subject to (i) laws of general application relating to bankruptcy, insolvency and the relief of debtors, and (ii) rules of law governing specific performance, injunctive relief and other equitable remedies.

2.23 Vote Required.

(a) The affirmative vote or written consent of the holders of a majority of the outstanding shares of Company Common Stock and the holders of a majority of the outstanding shares of Company Preferred Stock (the "**Required Company Stockholder Vote**") are the only votes of the holders of any class or series of Company Capital Stock necessary to adopt and approve this Agreement and approve the other transactions contemplated by this Agreement. The Required Company Stockholder Vote has been obtained prior to the date of this Agreement in accordance with the requirements of Section 228 of the DGCL.

(b) In connection with the Required Company Stockholder Vote, the Company (i) prepared an information statement accurately describing this Agreement, the Merger and the other transactions contemplated by this Agreement and the provisions of Section 262 of the DGCL (the "**Information Statement**") and (ii) provided Parent a true, complete and correct copy of the Information Statement. The information furnished in any document mailed, delivered or otherwise furnished to Company Stockholders in connection with the solicitation of their consent to, and adoption of, this Agreement and the approval of the principal terms of the Merger and the other transactions contemplated by this Agreement, including the statements in the Information Statement, complied in all material respects with applicable Law.

2.24 Suppliers. Schedule 2.24 of the Company Disclosure Schedule sets forth a complete and accurate list of the top 5 suppliers of goods or services to the Company (based on the amount paid by the Company to that supplier since the Balance Sheet Date) (each, a "**Major Supplier**"), together with the amount paid during such period. The Company is not engaged in

any dispute with any Major Supplier and, to the Company's Knowledge, no Major Supplier intends to terminate, limit or reduce its business relations with the Company. Except as set forth in Schedule 2.24 of the Company Disclosure Schedule, no Major Supplier has terminated or reduced its relationship with the Company since the Balance Sheet Date. To the Knowledge of the Company, the relationships of the Company with their customers, suppliers and subcontractors and with manufacturers are satisfactory.

2.25 Related Party Transactions. Except as set forth in Schedule 2.25 of the Company Disclosure Schedule, there are no obligations of the Company to, or Contracts with, current or former officers, directors, stockholders or employees of the Company or their respective Affiliates or family members other than (a) for payment of ordinary course salaries and bonuses for services rendered, (b) reimbursement of customary and reasonable expenses incurred on behalf of the Company, and (c) benefits due under Company Plans, Company Service Provider Agreements and ordinary course fringe benefits not required to be listed on Schedule 2.16(a) of the Company Disclosure Schedule (each Contract required to be set forth on Schedule 2.25 of the Company Disclosure Schedule, an "**Affiliated Agreement**"). Except as set forth in Schedule 2.25 of the Company Disclosure Schedule, to the Company's Knowledge, no officer, director or employee of the Company or Company Stockholder is directly interested in any Material Contract. Except as set forth in Schedule 2.25 of the Company Disclosure Schedule, neither the Company nor any of its Affiliates, directors, officers or employees of the Company possess, directly or indirectly, any financial interest in, or is a director, officer or employee of, any entity that is a material supplier, contractor, lessor, lessee or competitor of the Company.

2.26 Government Contracts.

(a) The Company has complied in all material respects with all terms and conditions of each Government Contract to which it is or has been a party since September 1, 2016, and has performed all obligations required to be performed by it thereunder, including, all provisions regarding notices, pricing, timekeeping, time recordation, business systems, internal controls, assignment or change of control and all provisions incorporated by reference or by operation of applicable Law. The representations, certifications and warranties made by the Company with respect to Government Contracts were accurate as of their effective dates and the Company has complied in all material respects with all such certifications.

(b) With respect to any Government Contract, no Governmental Body or other Person has notified the Company of any actual or alleged violation or breach of any Law, representation, certification, disclosure obligations, contract term, condition, clause provision or specification.

(c) The Company has not taken or failed to take any action, is not party to any litigation, and has not received any allegations from any customer or Company Service Provider regarding conduct that could reasonably expect to give rise to liability under the Federal False Claims Act, 31 U.S.C. § 3729 et seq., and all regulations promulgated thereunder.

(d) Since September 1, 2016, with respect to any Government Contract, (i) the Company has not received any written or oral show cause, cure, deficiency, default or similar notice, (ii) no termination for default, cure notice or show cause notice has been issued or

threatened and remains unresolved and no event, condition or omission has occurred or exists that would constitute grounds for such action, (iii) no past performance evaluation received by the Company has set forth a default or other failure to perform thereunder or termination or default thereof, (iv) there has not been any material withholding or setoff, (v) all invoices and claims submitted were current, accurate and complete in all material respects as of their submission date, and (vi) none of the execution, delivery or performance of this Agreement and the Ancillary Agreements does or will conflict with or result in a breach of or default or cause a termination of such Government Contract. The Company has not received any written or oral notice terminating any of the Government Contracts for convenience or indicating an intent to terminate any of the Government Contracts for convenience.

(e) Neither the Company nor any Company Service Provider who is employed or engaged by the Company as of the date of this Agreement has been debarred, suspended or proposed for suspension or debarment from bidding on any Government Contract, declared non-responsible or ineligible or otherwise excluded from participation in the award of any Government Contract, or for any reason listed on the List of Parties Excluded from Federal Procurement and Non-procurement Programs as maintained by the General Services Administration. To the Company's Knowledge, no circumstances exist that would warrant the institution of suspension or debarment proceedings against the Company or any Company Service Provider in connection with the performance of their duties for or on behalf of the Company.

(f) Since September 1, 2016, (i) the Company has not been subject to and has not received written notice of or otherwise become aware of, and is not currently subject to, any indictment, audit, review, inspection, investigation, civil investigative demand, discovery request, survey or examination of records by any Governmental Body relating to any Government Contract, (ii) the Company has not undergone, and is not currently undergoing, any internal investigation, audit or review relating to any Government Contract, (iii) the Company has not received any written notice or otherwise obtained Knowledge that any audit, review, inspection, investigation, survey or examination of records has revealed any fact, occurrence or practice that could reasonably be expected to adversely affect the Company, and (iv) there have been no civil or criminal penalties, charges or notifications in writing or orally of any charge against the Company or, to the Knowledge of the Company, and of its Representatives.

(g) Since September 1, 2016, the Company has not made any voluntary or involuntary disclosure to any Governmental Body or other customer related to any apparent or alleged irregularity, misstatement or omission arising under or relating to a Government Contract or any violation of Law applicable thereto.

(h) None of the Government Contracts have security requirements such that the Company would be required to have facility security clearance under the National Industrial Security Program Operating Manual.

(i) Neither the Company nor any Company Service Provider in their capacity as such has violated any legal, administrative or contractual restriction concerning the employment of (or discussions concerning possible employment with) current or former officials or employees of a state, local or federal government, including the "revolving door" restrictions set forth at 18 U.S.C. § 207.

2.27 Preclinical Development and Clinical Trials. The studies, tests, preclinical development and clinical trials, if any, conducted by or on behalf of the Company are being conducted in all material respects in accordance with experimental protocols, procedures and controls pursuant to accepted professional and scientific standards for products or product candidates comparable to those being developed by the Company and all applicable Laws, including the Federal Food, Drug, and Cosmetic Act and 21 C.F.R. parts 50, 54, 56, 58, 312, and 812. The descriptions of, protocols for, and data and other results of, the studies, tests, development and trials conducted by or on behalf of the Company that have been furnished or made available to the Purchasers are accurate and complete in all material respects. The Company does not have Knowledge of any studies, tests, development or trials the results of which reasonably call into question the results of the studies, tests, development and trials conducted by or on behalf of the Company, and the Company has not received any notices or correspondence from the U.S. Food and Drug Administration ("**FDA**") or any other Governmental Body or any institutional review board or comparable authority requiring the termination, suspension or material modification of any studies, tests, preclinical development or clinical trials conducted by or on behalf of the Company.

2.28 FDA Approvals. The Company possesses all Permits required by the FDA or any other Governmental Body engaged in the regulation of drugs, pharmaceuticals, medical devices or biohazardous materials. The Company has not received any written notice of proceedings relating to the suspension, modification, revocation or cancellation of any such Permit. Neither the Company nor, to the Company's Knowledge, any Company Service Provider has been convicted of any crime or engaged in any conduct that has previously caused or would reasonably be expected to result in (i) disqualification or debarment by the FDA under 21 U.S.C. Sections 335(a) or (b), or any similar Law of any other Governmental Body, (ii) debarment, suspension, or exclusion under any federal healthcare programs or by the General Services Administration, or (iii) exclusion under 42 U.S.C. Section 1320a-7 or any similar Law of any Governmental Body. Neither the Company nor any Company Service Provider who is employed or engaged by the Company as of the date of this Agreement is the subject of any pending or threatened investigation by FDA pursuant to its "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" policy as stated at 56 Fed. Reg. 46191 (September 10, 1991) (the "**FDA Application Integrity Policy**") and any amendments thereto, or by any other similar Governmental Body pursuant to any similar policy. Neither the Company nor any Company Service Provider in their capacity as such has committed any act, made any statement or failed to make any statement that would reasonably be expected to provide a basis for FDA to invoke the FDA Application Integrity Policy or for any similar Governmental Body to invoke a similar policy. Neither the Company nor any Company Service Provider in their capacity as such has made any materially false statements on, or material omissions from, any notifications, applications, approvals, reports and other submissions to FDA or any similar Governmental Body.

2.29 FDA Regulation. The Company is, and since September 1, 2016 has been, in compliance in all material respects with all applicable Laws administered or issued by the FDA or any similar Governmental Body, including the Federal Food, Drug, and Cosmetic Act and all other Laws regarding developing, testing, manufacturing, marketing, distributing or promoting the products of the Company, or complaint handling or adverse event reporting.

2.30 Acknowledgement Regarding Representations. The representations and warranties of each of Parent and Merger Sub set forth in this Agreement constitute the sole and exclusive representations and warranties of each of Parent and Merger Sub in connection with the transactions contemplated hereunder and Company understands, acknowledges and agrees that all other representations and warranties of any kind or nature whether express, implied or statutory are specifically disclaimed by Parent and Merger Sub and, except for the representations and warranties set forth in this Agreement, and Company is not relying, and Company has not relied on, any representations or warranties whatsoever regarding the subject matter of this Agreement, express or implied. Without limiting the generality of the foregoing, the Company acknowledges and agrees that, except as specifically contained in Section 3, neither Parent nor Merger Sub makes any representations or warranties relating to the operation of the Company by Parent after the Closing.

SECTION 3. REPRESENTATIONS AND WARRANTIES OF PARENT AND MERGER SUB

Parent and Merger Sub represent and warrant to the Company as of the date hereof and the Closing Date (in each case, unless the representation or warranty speaks expressly as of a particular date, in which case it is true and correct only as of such date), as follows:

3.1 Due Incorporation; Subsidiaries. Parent is a corporation duly organized and validly existing and in good standing under the laws of the State of Delaware and has all necessary corporate power and authority to conduct its business in the manner in which its business is currently being conducted. The Company is qualified to do business as a foreign corporation under the Laws of all states where the nature of its business requires such qualification, except where the failure to be so qualified has not and would not be reasonably expected to have a material adverse effect. Merger Sub is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. Merger Sub was formed solely for the purpose of effecting the Merger and has not engaged in any business activities or conducted any operations other than in connection with the transactions contemplated by this Agreement.

3.2 Authority; Binding Nature of Agreement. Parent and Merger Sub have all necessary corporate power and authority to perform their obligations under this Agreement, and the execution, delivery and performance by Parent and the Merger Sub of this Agreement have been duly authorized by all necessary action on the part of Parent, Merger Sub and their respective boards of directors. This Agreement constitutes the legal, valid and binding obligation of Parent and Merger Sub, enforceable against them in accordance with its terms, subject to (a) laws of general application relating to bankruptcy, insolvency and the relief of debtors and (b) rules of law governing specific performance, injunctive relief and other equitable remedies.

3.3 Non-Contravention; Consents. The execution and delivery of this Agreement by Parent and Merger Sub and the consummation by Parent and Merger Sub of the transactions contemplated by this Agreement will not: (a) cause a violation of any of the provisions of the certificate of incorporation or bylaws of Parent or Merger Sub, (b) cause a violation by Parent or Merger Sub of any Law applicable to Parent or Merger Sub, except as would not reasonably be expected to materially and adversely impact Parent’s or Merger Sub’s ability to consummate the transactions contemplated hereby, or (c) cause a default on the part of Parent or Merger Sub under

any material contract of Parent or Merger Sub, except as would not reasonably be expected to materially and adversely impact Parent's or Merger Sub's ability to consummate the transactions contemplated hereby. Except as may be required by the DGCL, neither Parent nor Merger Sub is required to obtain any Consent from any Governmental Body or party to a material contract of Parent or Merger Sub at any time prior to the Closing in connection with the execution and delivery of this Agreement or the consummation of the Merger.

3.4 Litigation. As of the date of this Agreement, there is no Legal Proceeding pending (or, to the knowledge of Parent or Merger Sub, being threatened) against Parent or Merger Sub challenging the Merger.

3.5 Merger Sub. Merger Sub (a) was incorporated solely for the purpose of engaging in the transactions contemplated by this Agreement, (b) has engaged in no other business activities and (c) has conducted its operations only as contemplated by this Agreement.

3.6 Acknowledgement Regarding Representations. The representations and warranties of the Company set forth in this Agreement constitute the sole and exclusive representations and warranties of the Company in connection with the transactions contemplated hereunder and each of Parent and Merger Sub understands, acknowledges and agrees that all other representations and warranties of any kind or nature whether express, implied or statutory are specifically disclaimed by the Company and, except for the representations and warranties set forth in this Agreement, and neither Parent nor Merger Sub is relying, and neither Parent nor Merger Sub has relied on, any representations or warranties whatsoever regarding the subject matter of this Agreement, express or implied.

SECTION 4. CERTAIN COVENANTS OF THE COMPANY

4.1 Access. During the period from the date of this Agreement through the earlier of the Effective Time or the termination of this Agreement pursuant to Section 9.1 (the "**Pre-Closing Period**"), the Company shall afford to the officers, employees and authorized Representatives of Parent (including independent public accountants, financial advisors, environmental consultants and attorneys) reasonable access under the supervision of appropriate personnel of the Company during normal business hours (and subject to receipt of reasonable notice) to the offices, properties, employees and other service providers, and scientific, business and financial records of the Company to the extent Parent shall deem necessary or desirable and shall furnish to Parent or their authorized Representatives such additional information concerning the assets, properties, operations and business of the Company as shall be reasonably requested, including all such information reasonably requested by Parent as shall be necessary to enable Parent or its Representatives to verify the accuracy of the representations and warranties contained in this Agreement, to verify that the covenants of the Company contained in this Agreement have been complied with and to determine whether the conditions set forth in Section 6 have been satisfied. Parent agrees that such investigation shall be conducted in such a manner as to not interfere unreasonably with the operations of the Company.

4.2 Conduct of the Business of the Company. During the Pre-Closing Period, except (x) to the extent necessary to comply with the Company's obligations under this Agreement, (y) as necessary to ensure that the Company complies with applicable Laws, or (z) with Parent's

consent, not to be unreasonably withheld or delayed: (i) the Company shall use commercially reasonable efforts to (A) carry on the Company's business in the ordinary course, (B) preserve substantially intact the Company's present business organization, (C) preserve the Company's material relationships with suppliers, distributors, licensors, licensees and others to whom the Company has contractual obligations, and (D) file all Tax Returns and pay all Taxes when due (unless contested in good faith in appropriate proceedings for which adequate reserves have been provided and Parent has been notified in writing); and (ii) the Company shall not:

(a) change or amend the Company Charter, the Company's bylaws, the Company Investor Agreements or authorize or propose the same;

(b) split, combine or reclassify any of its capital stock (except in connection with the conversion of Company Preferred Stock to Company Common Stock or the exercise of Company Options, Company Warrants or Company Convertible Notes); issue or authorize the issuance of any other securities in respect of, in lieu of or in substitution for shares of its capital stock; declare, set aside, or pay any dividend or make any distribution (whether in cash or in kind) with respect to any of its capital stock or other equity interests (as applicable) or redeem, purchase, or otherwise acquire, directly or indirectly, any of its capital stock or other equity interests (as applicable);

(c) issue, deliver, transfer or sell, or authorize to issue, deliver, transfer or sell, any shares of Company Capital Stock or securities convertible into, or subscriptions, rights, calls, conversion rights, warrants or options to acquire, or other agreements or commitments of any character obligating it to issue any such shares or other convertible securities, or authorize or propose any change in its equity capitalization or capital structure; provided, however, that (i) the Company may issue shares of Company Common Stock in connection with the exercise of Company Options or Company Warrants or other rights for Company Common Stock outstanding as of the date of this Agreement, and (ii) the Company may issue shares of Company Capital Stock in connection with the conversion of Company Preferred Stock or Company Convertible Notes, each outstanding as of the date of this Agreement;

(d) enter into or adopt any plan or agreement of complete or partial liquidation, restructuring, recapitalization or dissolution, or file a voluntary petition in bankruptcy or commence a voluntary legal procedure for reorganization, arrangement, adjustment, release or composition of Debt in bankruptcy or other similar Laws now or hereafter in effect;

(e) fundamentally alter through liquidation, reorganization, restructuring or otherwise its corporate structure, including through reincorporation into a state that is not Delaware;

(f) incur any Debt for borrowed money (other than borrowings in the ordinary course of business under existing lines of credit, letters of credit or similar arrangements issued for the benefit of suppliers or manufacturers), or guarantee any such Debt, or issue or sell any debt securities or guarantee any debt securities of others;

(g) make any capital expenditures, capital additions or capital improvements, in excess of (x) $10,000 individually or (y) $25,000 in the aggregate;

(h) knowingly waive any material right of the Company under any Material Contract;

(i) establish or acquire any Subsidiary;

(j) acquire or agree to acquire by merging with, or by purchasing a portion of the stock or assets of, or by any other manner, any business or any entity;

(k) (i) initiate any new line of business, (ii) make any loan or capital contribution to any Person (other than business-related advances to its employees in the ordinary course of business consistent with past practice) or (iii) otherwise acquire or agree to acquire any securities or assets that are material, individually or in the aggregate, to the Company;

(l) terminate, cancel, amend, waive, modify or fail to maintain, renew or comply with any material Permit;

(m) sell, assign, lease (as lessor), license, transfer or otherwise dispose of, or mortgage or pledge, or impose or suffer to be imposed any Lien (other than Permitted Liens) on, any of its assets;

(n) (i) sell, assign, transfer, license, abandon or otherwise dispose of any Company Intellectual Property, or (ii) acquire, in-license or otherwise obtain any right, title or interest in or to any pending or issued Patents, inventions, patent disclosures or other material Intellectual Property from any other Person (other than, with respect to each of clauses (i) and (ii), immaterial non-exclusive licenses, material transfer agreements, in each case, entered into in the ordinary course of business, and, as applicable, the Company's form agreement(s), provided that any Intellectual Property arising from any such form agreement will be solely owned by the Company), or (iii) acquire, in-license, file any patent application for, or otherwise obtain any right, title or interest in or to any Patent;

(o) enter into any Material Contract, amend or modify in any material respect any Material Contract or terminate any Material Contract;

(p) make, revoke, or change any election in respect of Taxes, change an annual Tax accounting period, adopt or change any accounting method in respect of Taxes, file any amended Tax Return, file any Tax Return outside the ordinary course of business or otherwise in a manner inconsistent with past practice, enter into any closing agreement or other Contract with respect to Taxes with any Governmental Body, enter into any Tax sharing or similar agreement, assume any Liability for the Taxes of any other Person (whether by Contract or otherwise), settle or compromise any claim or assessment in respect of Taxes, surrender or abandon any right to claim a refund of Taxes, or consent to any extension or waiver of the limitation period applicable to any material claim or assessment in respect of Taxes or take any similar action relating to the filing of any Tax Return or the payment of any Tax;

(q) (i) adopt, establish, enter into, amend or terminate any Company Plan or Company Service Provider Agreement or any plan, agreement, program, policy, trust, fund or other arrangement that would be a Company Plan or Company Service Provider Agreement if it were in existence as of the date of this Agreement (except for amendments to be required to comply

with applicable Law), (ii) increase the compensation or fringe benefits (including severance, termination, retention and change of control compensation or benefits) of, or grant any bonus or other incentive compensation to, any Company Service Provider, (iii) grant any severance or termination pay to any Company Service Provider, (iv) terminate the employment or engagement of any Company Service Provider other than for cause or (v) hire or engage any new Company Service Provider.

(r) waive, release, assign, compromise, commence, settle or agree to settle any Legal Proceeding, other than waivers, releases, compromises or settlements in the ordinary course of business consistent with past practice that (i) involve only the payment of monetary damages not in excess of (x) $10,000 individually or (y) $25,000 in the aggregate and (ii) do not include the imposition of equitable relief on, or the admission of wrongdoing by, the Company; or

(s) agree or commit to take any of the actions described in clauses above in this Section 4.2.

Notwithstanding the foregoing, Parent and Merger Sub acknowledge and agree that nothing contained in this Agreement shall give Parent or its Affiliates, directly or indirectly, the right to control or direct the operations of the Company prior to the Closing.

4.3 No Solicitation.

(a) During the Pre-Closing Period, the Company shall not, nor shall it authorize or instruct any of its officers, directors or employees or any investment banker, attorney or other advisor or representative retained by it to (i) solicit, initiate, discuss or knowingly encourage or facilitate the submission of any Takeover Proposal by any Person, (ii) participate in any discussions or negotiations regarding, or furnish to any Person any non-public information with respect to, or take any other action intended or reasonably expected to facilitate the making of any inquiry or proposal to the Company that constitutes, or is reasonably expected to lead to, any Takeover Proposal by any Person or (iii) enter into any agreement, arrangement, understanding or other Contract with any Person the terms of which require it to abandon or terminate the transactions contemplated hereby. Without limiting the foregoing, it is understood that any violation of the restrictions set forth in the preceding sentence by any officer, director or employee of the Company or any investment banker, attorney or other advisor or representative of the Company, acting on behalf of, and with the authorization of, the Company, shall be deemed to be a breach of this Section 4.3(a) by the Company.

(b) Neither the Board of Directors of the Company nor any committee thereof shall (i) withdraw or modify in a manner materially adverse to Parent or Merger Sub, the approval or recommendation by such Board of Directors or any such committee of this Agreement or the Merger, or (ii) approve or recommend any Takeover Proposal.

In addition to the obligations of the Company set forth in paragraphs (a) and (b) of this Section 4.3, the Company promptly (and in all events within 24 hours) shall advise Parent orally and in writing of any request by any Person to the Company for nonpublic information that the Company reasonably believes is likely to lead to a Takeover Proposal or of any Takeover Proposal submitted to the Company, or any inquiry by any Person directed to the Company with respect to

or which the Company reasonably believes is likely to lead to any Takeover Proposal and the material terms and conditions of such request or inquiry, and shall promptly provide Parent with a true, correct and complete copy of any Takeover Proposal that is received by the Company or on its behalf. The Company shall, promptly after the execution of this Agreement, request the return or destruction of any confidential information shared in connection with any terminated discussions or negotiations with respect to any Takeover Proposal. The Company shall (and shall cause its Affiliates and its and their respective Representatives to) immediately cease and cause to be terminated any existing discussions or negotiations with any Persons (other than Parent or an Affiliate of Parent) conducted heretofore with respect to any Takeover Proposal.

4.4 Takeover Statutes. If any state takeover statute or similar Law shall become applicable to the transactions contemplated by this Agreement or any Ancillary Agreements, each of the Company and Parent and their respective boards of directors shall grant such approvals and take such actions as are reasonably necessary so that the transactions contemplated hereby or thereby may be consummated as promptly as practicable on the terms contemplated hereby or thereby and otherwise act to eliminate or minimize the effects of such statute or regulation on the transactions contemplated hereby or thereby.

4.5 Termination of Affiliated Agreements. Prior to or contemporaneously with the Closing, the Company shall agree to the termination of, and shall use its reasonable best efforts to cause any counterparty to terminate, all Affiliated Agreements set forth on Schedule 4.5 hereto pursuant to the resolutions set forth in the Written Consent (effective as of the Closing).

SECTION 5. ADDITIONAL COVENANTS OF THE PARTIES

5.1 Section 280G. If applicable, the Company shall (i) secure from any Person who is a "disqualified individual", as defined in Section 280G of the Code, and who has a right to any payments and/or benefits or potential right to any payments and/or benefits in connection with the consummation of the Merger that would be deemed to constitute "parachute payments" pursuant to Section 280G of the Code, a waiver of such Person's rights to any such payments and/or benefits applicable to such Person to the extent that all remaining payments and/or benefits applicable to such Person shall not be deemed to be "parachute payments" pursuant to Section 280G of the Code (the "**Waived 280G Benefits**") and (ii) submit for approval by the Company Stockholders the Waived 280G Benefits, to the extent and in the manner required under Sections 280G(b)(5)(A)(ii) and 280G(b)(5)(B) of the Code (such vote the "**280G Stockholder Vote**"). The Company shall not pay any of the Waived 280G Benefits if such payment is not approved by the Company Stockholders as contemplated above. If applicable, prior to the Closing Date, the Company shall deliver to Parent evidence satisfactory to Parent that a vote of the Company Stockholders was received in conformance with Section 280G of the Code and the regulations thereunder, or that such requisite stockholder approval has not been obtained with respect to the Waived 280G Benefits, and, as a consequence, the Waived 280G Benefits have not been and shall not be made or provided. Not less than three Business Days before taking such actions, the Company shall deliver to Parent for review and comment copies of any documents or agreements necessary to effect this Section 5.1, including, but not limited to, any stockholder consent form, disclosure statement, or waiver, and the Company shall incorporate all comments received from Parent on such documents or agreements.

5.2 Further Assurances. Upon the terms and conditions set forth herein, each of the parties shall use reasonable best efforts to take, or cause to be taken, all actions and to do, or cause to be done, and to assist and cooperate with the other parties in doing, all things, necessary, proper or advisable to make effective as promptly as practicable, but in no event later than the End Date, the Merger and other transactions contemplated hereby in accordance with the terms hereof. Without limiting the generality of the foregoing, the Company shall use commercially reasonable efforts to obtain all consents and waivers with respect to (i) the Contracts set forth on Schedule 2.10 of the Company Disclosure Schedule, (ii) any and all Contracts entered into by the Company following the date of this Agreement and prior to the Closing and (iii) all other Contracts as reasonably requested by Parent, in each case, that are required to be obtained from parties to such Contracts to which the Company is a party in connection with the transactions contemplated by this Agreement and the Ancillary Agreements.

5.3 Indemnification of Officers and Directors.

(a) All rights to indemnification by the Company existing in favor of those Persons who are directors and officers of the Company as of the date of this Agreement (the "**D&O Indemnified Persons**") for their acts and omissions occurring prior to the Effective Time as provided in the Company Charter and the Company's bylaws (as in effect on the date of this Agreement) and as provided in those indemnification agreements between the Company and such D&O Indemnified Persons (as in effect on the date of this Agreement) listed in Schedule 5.3 and in the forms made available by the Company to Parent prior to the date of this Agreement (the "Indemnification Agreements"), in each case subject to the terms, conditions and limitations thereof, shall survive the Merger and shall be observed by the Surviving Entity to the fullest extent available under applicable Law, and any claim made requesting indemnification pursuant to such indemnification rights shall continue to be subject to this Section 5.3(a) and the indemnification rights provided under this Section 5.3(a) until disposition of such claim.

(b) Prior to the Closing, the Company shall purchase an extended reporting period endorsement (the "**Tail D&O Policy**") under the Company's existing directors' and officers' liability insurance coverage for the Company's directors and officers on terms reasonably acceptable to Parent that shall provide such directors and officers with coverage for six years following the Effective Time that provides at least the same coverage in scope and amount as the existing coverage and have other terms not materially less favorable in the aggregate to the insured persons than the directors' and officers' liability insurance coverage presently maintained by the Company and 100% of any premiums with respect to such Tail D&O Policy shall be paid by the Company (and shall be deemed a Closing Date Transaction Expense). After the Effective Time, Parent shall and shall cause the Surviving Entity to maintain such policy in full force and effect, and continue to honor the obligations thereunder.

(c) In the event that Parent, the Company or the Surviving Entity or any of their respective successors or assigns (i) consolidates with or merges into any other Person and shall not be the continuing or surviving corporation or entity of such consolidation or merger or (ii) transfers all or substantially all of its properties and assets to any Person, then, and in each such case, Parent shall ensure that the successors and assigns of Parent, the Company or the Surviving Entity, as the case may be, shall assume the obligations set forth in this Section 5.3.

(d) The provisions of this Section 5.3 shall survive the consummation of the Merger and are (i) intended to be for the benefit of, and will be enforceable by, each of the D&O Indemnified Persons and their successors, assigns and heirs and (ii) in addition to, and not in substitution for, any other rights to indemnification or contribution that any such D&O Indemnified Person may have by Contract or otherwise. This Section 5.3 may not be amended, altered or repealed after the Effective Time without the prior written consent of the affected D&O Indemnified Person.

5.4 Disclosure. During the Pre-Closing Period, the Company and Parent shall only issue press releases related to the activities contemplated by this Agreement that have been approved by both parties.

5.5 Tax Matters.

(a) The Company shall prepare and timely file, or shall cause to be prepared and timely filed, all Tax Returns that are required to be filed by the Company (taking into account any extension properly obtained) on or before the Closing Date, and shall pay, or cause to be paid, all Taxes of the Company due on or before the Closing Date. All such Tax Returns shall be prepared by treating items on such Tax Returns in a manner consistent with the past practices of the Company with respect to such items, except as otherwise required by applicable Law. At least 30 days prior to filing any such Tax Return that is an income or other material Tax Return, the Company shall submit a copy of each such Tax Return to Parent for Parent's review and approval and shall make such revisions to such Tax Returns as are requested by Parent.

(b) Parent shall file or cause to be filed when due (taking into account all extensions properly obtained) all Tax Returns of the Company for any Pre-Closing Tax Period that are listed on Schedule 2.15(h) of the Company Disclosure Schedule and are required to be filed after the Closing Date (each, a "**Parent Prepared Return**"). Such Parent Prepared Returns shall be prepared in a manner consistent with the Company's past practice, except as otherwise required by applicable Law. Parent will submit each Parent Prepared Return to the Securityholders' Representative for review and comment at least 30 days prior to the due date for filing such Parent Prepared Return (or, if such due date is within 45 days following the Closing Date, as promptly as practicable following the Closing Date), and will consider in good faith any reasonable comments received in writing within 20 days after Parent's delivery of a Parent Prepared Return to the Securityholders' Representative; provided, however, that any failure by Parent to so submit a Parent Prepared Return shall not relieve the Participating Securityholders of any Liability for Taxes with respect to such Parent Prepared Return (except to the extent the Participating Securityholders are materially prejudiced by such failure).

(c) With respect to any audit, litigation or other proceeding with respect to Taxes of the Company (each a "**Tax Claim**") Parent shall have the right to control such Tax Claim, including the defense and settlement thereof. With respect to any Tax Claim that relates solely to taxable periods or portions thereof that end on or before the Closing Date and involves Pre-Closing Taxes that are subject to indemnification in Section 8.1 (the "**Indemnification Tax Matters**"), Parent will (x) keep the Securityholders' Representative reasonably informed concerning the progress of such Tax Claim, (y) provide the Securityholders' Representative copies of all material correspondence and other documents relating solely to such Indemnification Tax Matters, and (z)

not settle such Indemnification Tax Matters without the consent of the Securityholders' Representative, which consent will not be unreasonably withheld, conditioned or delayed.

(d) Parent, the Company and their Affiliates, on the one hand, and the Securityholders' Representative, on the other hand, shall cooperate in connection with the preparation and filing of Tax Returns, and any proceeding, investigation, audit or review by a Governmental Body with respect to Taxes. Such cooperation shall include the retention and, upon Parent's request, the provision of records and information that are reasonably relevant to any such preparation, filing, proceeding, investigation, audit or review and access to employees on a mutually convenient basis to provide additional information and explanation of any material provided hereunder. Parent and the Company, on the one hand, and the Securityholders' Representative, on the other hand, agree to (to the extent applicable) (i) retain all books and records with respect to Tax matters pertinent to the Company relating to any Pre-Closing Tax Period, and to abide by all record retention agreements entered into with any Governmental Body and (ii) use commercially reasonable efforts to give the other party reasonable written notice prior to destroying or discarding any such books and records and, if the other party so requests, Parent and the Securityholders' Representative, as the case may be, shall allow the other party to take possession of such books and records.

(e) The Parent and the Participating Securityholders shall each pay 50% of all sales, use, value added, transfer, stamp, registration, documentary, conveyance, recording, excise, real property transfer or gains, or similar Taxes ("**Transfer Taxes**") incurred as a result of the transactions contemplated in this Agreement and the Securityholders' Representative shall file all related Tax Returns, and Parent shall cooperate with the Securityholders' Representative in connection with any such filings

5.6 Notification of Certain Events.

(a) During the Pre-Closing Period, the Company shall promptly notify Parent of, and furnish Parent with any information it may reasonably request with respect to, (i) the occurrence of any event or condition or the existence of any fact that may reasonably be expected to cause any of the conditions to the obligations of Parent to consummate the Merger set forth in Section 6 not to be satisfied (including any breaches or inaccuracies of the representations and warranties set forth in Section 2), (ii) any Knowledge of any notice from any Person alleging that the consent of such Person is or may be required in connection with any of the transactions contemplated by this Agreement, and (iii) any Legal Proceeding commenced, or, to its Knowledge threatened in writing, relating to or involving the Company that relates to the consummation of the transactions contemplated by this Agreement. The Company's satisfaction of its obligations in the foregoing sentence shall not relieve the Company of any of its other obligations under this Agreement and no disclosure by the Company pursuant to this Section 5.6 shall be deemed to prevent or cure any misrepresentation, breach of warranty or breach of covenant, or waive any rights under Section 8 hereof.

(b) During the Pre-Closing Period, Parent shall promptly notify the Company of, and furnish the Company with any information it may reasonably request with respect to, (i) the occurrence of any event or condition or the existence of any fact that may reasonably be expected to cause any of the conditions to the obligations of the Company to consummate the

Merger set forth in Section 7 not to be satisfied (including any breaches or inaccuracies of the representations and warranties set forth in Section 3), (ii) any knowledge of any notice from any Person alleging that the consent of such Person is or may be required in connection with any of the transactions contemplated by this Agreement, and (iii) any Legal Proceeding commenced, or, to its knowledge threatened in writing, relating to or involving Parent that relates to the consummation of the transactions contemplated by this Agreement. Parent's satisfaction of its obligations in the foregoing sentence shall not relieve Parent of any of its other obligations under this Agreement and no disclosure by Parent pursuant to this Section 5.6 shall be deemed to prevent or cure any misrepresentation, breach of warranty or breach of covenant, or waive any rights under Section 8 hereof.

5.7 Confidentiality.

(a) From and after the date hereof, each party will, and will cause each of its respective Affiliates and its and their respective Representatives (its "**Restricted Persons**") to, maintain the confidentiality of, and not use Confidential Information for their own benefit or the benefit of any other Person.

(b) Neither Parent nor the Company will, and Parent and the Company will cause each of their respective Restricted Persons not to, disclose to any Person any information with respect to the legal, financial or other terms or conditions of this Agreement, any of the Ancillary Agreements or any of the transactions contemplated hereby or thereby. The foregoing does not restrict the right of any party to disclose such information (i) to its respective Restricted Persons to the extent reasonably required in the performance of this Agreement and the Ancillary Agreements or as required for internal business, legal or tax reporting purposes, (ii) to any governmental authority to the extent reasonably required in connection with any proceeding relating to the enforcement of this Agreement or any Ancillary Agreement, and (iii) as required by the rules of any stock exchange or any applicable Law, subject in any event to Section 5.3. Each party will advise its respective Restricted Persons with respect to the confidentiality obligations under this Section 5.7 and will be responsible for any breach or violation of such obligations by its Restricted Persons.

(c) If a party or any of its respective Restricted Persons become legally compelled, in the written opinion of its legal counsel, to make any disclosure that is prohibited or otherwise restricted by this Agreement, then such party will (i) take all reasonable steps to preserve the privileged nature and confidentiality of the Confidential Information, including requesting that the Confidential Information not be disclosed to non-parties or the public, (ii) unless prohibited by law, promptly notify the disclosing party in writing so that the disclosing party may seek, at its sole cost and expense, an appropriate protective order or other remedy, and (iii) unless prohibited by law, consult with and assist the disclosing party, at the disclosing party's sole cost and expense, in obtaining an injunction or other appropriate remedy to prevent such disclosure. In the event that such protective order or other remedy is not obtained, such party (or such other persons to whom such request is directed) will furnish only that portion of the Confidential Information which, on the advice of its legal counsel, is legally required to be disclosed and, upon the disclosing party's request, use its best efforts to obtain assurances that confidential treatment will be accorded to such information.

5.8 Offer of Employment.

(a) Parent will make offers to at least 75% of the employees of the Company, with such offers to be subject to and contingent upon the Closing. Prior to the Closing Date, the Company will assist Parent with its efforts to enter into an offer letter and a confidential information and assignment agreement with such employees. The Company will consult with Parent (and will consider in good faith the advice of Parent) prior to sending any notices or other communication materials to its employees. Effective no later than immediately prior to the Closing (or at such other time designated by Parent), the Company will terminate the employment of each of those Company employees who have either not been made or declined an offer of continued employment with Parent or the Surviving Company prior to the Closing Date (the "**Designated Employees**"), and the Company will require such Designated Employees to execute a separation agreement as a condition to the receipt of any severance paid by the Company. The Company will be responsible for any severance or other amounts paid pursuant to a separation agreement to the Designated Employees as a Closing Date Transaction Expense.

(b) The Company will give all notices and other information required to be given (which notices and information will be in form and substance reasonably satisfactory to Parent) to the employees of the Company, any collective bargaining unit representing any group of employees of the Company, and any applicable Governmental Body under the WARN Act, the National Labor Relations Act, as amended, the Code, COBRA and other Applicable Law in connection with the Transactions.

(c) Effective as of the day immediately preceding the Closing Date, the Company will terminate all Company Plans that are "employee benefit plans" within the meaning of ERISA, including any Company Plans intended to include a Section 401(k) arrangement (unless Parent provides written notice to the Company no later than three Business Days prior to the Closing Date that such 401(k) plans will not be terminated). The Company will provide Parent with evidence that such Company Plan(s) and the Option Plan have been terminated (effective no later than the day immediately preceding the Closing Date) pursuant to resolutions of the Board or any applicable committee thereof. The form and substance of such resolutions will be subject to review and approval by Parent. The Company also will take such other actions in furtherance of terminating such Company Plan(s) as Parent may reasonably require. In the event that termination of the Company's 401(k) plan would reasonably be anticipated to trigger liquidation charges, surrender charges or other fees then the Company will take such actions as are necessary to reasonably estimate the amount of such charges and/or fees and provide such estimate in writing to Parent.

5.9 Return of Assets. If Parent materially breaches its payment obligations under Section 1.9(c) and, after receiving written notice identifying such material breach in reasonable detail from the Securityholders' Representative (a "**Default Notice**"), fails to cure such material breach within 60 days after delivery of the Default Notice, at the election of the Securityholders' Representative in his, her or its sole discretion, Parent shall, and shall cause its Affiliates to, for no consideration and at Parent's expense, convey, transfer, assign and deliver on an "as is" basis to a corporation or limited liability company designated by the Securityholders' Representative for the benefit of the Participating Stockholders all of Parent's and its Affiliates' right, title and interest in and to all assets held by the Company as of immediately prior to the Effective Time together

with all improvements thereto generated after the Effective Time. Parent and its Affiliates will provide any assistance reasonably requested by the Securityholders' Representative in order to give effect to the foregoing clause. Parent will, and will cause its Affiliates to, execute all documents and take all such further actions as may be reasonably requested by the Securityholders' Representative in order to give effect to the foregoing clauses. Interest shall accrue at a rate of 8% per annum on the amount of any unpaid payments due under Section 1.9(c) from the due date of such payments until paid by Parent to the Payment Agent. The provisions of this Section 5.9 shall be in addition to, and not in limitation of, any other rights the Securityholders' Representative or the Participating Securityholders may have with respect to any default or breach of this Agreement by Parent.

SECTION 6. CONDITIONS PRECEDENT TO OBLIGATIONS OF PARENT AND MERGER SUB

The obligations of Parent and Merger Sub to effect the Merger and otherwise consummate the transactions contemplated by this Agreement are subject to the satisfaction (or waiver by Parent), at or prior to the Closing, of each of the following conditions:

6.1 Accuracy of Representations and Warranties. (a) The Fundamental Representations and the Tax Representations shall be true and correct in all respects as of the date of this Agreement and as of the Closing Date with the same effect as though made on and as of the Closing (except, in each case, to the extent that such representation and warranty speaks only as of a particular date, in which case such representation and warranty shall be true and correct in all respects as of such particular date), (b) the representations of the Company set forth in Section 2 (other than the Fundamental Representations and the Tax Representations) that are qualified by materiality or Company Material Adverse Effect shall be true and correct in all respects as of the date of this Agreement and as of the Closing Date with the same effect as though made on and as of the Closing (except, in each case, to the extent that such representation and warranty speaks only as of a particular date, in which case such representation and warranty shall be true and correct in all respects as of such particular date), and (c) the representations and warranties of the Company set forth in Section 2 (other than the Fundamental Representations and the Tax Representations) that are not qualified by materiality or Company Material Adverse Effect shall be true and correct in all material respects as of the date of this Agreement and of the Closing Date with the same effect as though made on and as of the Closing (except, in each case, to the extent that such representation and warranty speaks only as of a particular date, in which case such representation and warranty shall be true and correct in all material respects as of such particular date).

6.2 Performance of Covenants. The Company shall have performed and complied with, in all material respects, all of its covenants hereunder at or before the Closing (to the extent that such covenants require performance by the Company at or before the Closing).

6.3 Stockholder Approval. This Agreement shall have been duly adopted by the Required Company Stockholder Vote and the Required Company Stockholder Vote shall not have been rescinded, cancelled or otherwise modified in any manner. Company Stockholders holding at least 90% of the Company Capital Stock will have executed the Written Consent.

6.4 No Restraints. No temporary restraining order, preliminary or permanent injunction or other order preventing the consummation of the Merger by Parent shall have been issued by any court of competent jurisdiction and remain in effect, and no material Law shall have been enacted that makes consummation of the Merger by Parent illegal.

6.5 No Litigation. There shall not be pending before any court of competent jurisdiction any lawsuit or other Legal Proceeding challenging the Merger.

6.6 Agreements and Documents. Parent shall have received the following agreements and documents, each of which shall be in full force and effect:

(a) written resignations of all directors and officers of the Company, effective as of the Effective Time;

(b) the Certificate of Merger, executed by the Company;

(c) at least five Business Days prior to the Closing Date, a spreadsheet (the "**Closing Payment Schedule**"),[1] duly certified by an officer of the Company setting forth: (i) the name, address and tax identification number of each holder of Company Securities immediately prior to the Effective Time, (ii) the respective acquisition date(s) of such Company Securities, (iii) whether such shares of Company Capital Stock were acquired upon prior exercise of a Company Option (and if so, whether such Company Option was an "incentive stock option" within the meaning of Section 422 of the Code), (iv) to the extent applicable, the vesting schedule applicable to such Company Securities, (v) a designation, with respect to each Company Option, as to whether such Company Option is an Employee Option or Non-Employee Option, (vi) the number of shares of Company Capital Stock held by each holder thereof immediately prior to the Effective Time (including the total number of shares of Company Capital Stock (A) for which Company Options are exercisable, (B) for which Company Warrants are exercisable, and (C) issuable under the terms of the Company Convertible Notes), (vii) the exercise price of each outstanding Company Option as of immediately prior to the Effective Time, (viii) a calculation of the Merger Consideration Amount, the Aggregate Option Exercise Amount, and the Per Share Merger Consideration for each class of Company Capital Stock as of the Closing Date, (ix) the portion of the Closing Date Amount, the Holdback Amount, the 2022 Deferred Amount, the 2023 Deferred Amount and the Representative Expense Fund, as of the Closing Date, which each holder of Company Securities is eligible to receive under the terms of the Company Charter (defined below) and in accordance with this Agreement, (x) any required withholding (if any) with respect to each Person to whom any payment shall be due and payable in connection with the Closing, and (xi) the Participation Percentage for each Participating Securityholder;

(d) a good standing certificate of the Company from the Secretary of State of the State of Delaware dated within ten days prior to the Closing Date;

(e) a copy of the amended and restated certificate of incorporation of the Company (the "**Company Charter**"), certified as of a recent date by the Secretary of State of the State of Delaware;

[1] NTD: The Company and its counsel to prepare.

(f) an invoice from each payee of Closing Date Transaction Expenses indicating that upon payment of the applicable Closing Date Transaction Expenses amount that such holder shall release all obligations with respect to the related Closing Date Transaction Expenses or other obligations shall be satisfied;

(g) employment agreements and non-competition and non-solicitation agreements, in substantially the form attached hereto as Exhibit F (the "**Employment Agreements**"), duly executed by each Key Employee;

(h) all Third Party consents, approvals, waivers and estoppel certificates listed in Schedule 6.6(h) in a form acceptable to Parent;

(i) evidence, reasonably satisfactory to Parent, as to the termination of the Contracts and Company Plans listed in Schedule 6.6(i), without any liabilities thereunder on the part of the Company;

(j) the Estimated Closing Working Capital shall be at least $400,000

(k) a Note Cancellation Agreement with respect to each Convertible Note; and

(l) an Option Termination Agreement with respect to each Company Option not exercised prior to the Effective Time with a per share exercise price less than the Per Share Merger Consideration applicable to a share of Company Common Stock.

6.7 Closing Statement. Parent shall have received the Closing Statement from the Company, which shall have been delivered to Parent not less than three Business Days prior to the Closing Date.

6.8 Closing Certificate. The President or Chief Financial Officer of the Company shall have delivered to Parent a certificate (the "**Company Officers Certificate**") to the effect that each of the conditions specified above in Sections 6.1, 6.2 and 6.9 is satisfied in all respects.

6.9 No Material Adverse Effect. Since the date of this Agreement no Company Material Adverse Effect shall have occurred or be occurring.

6.10 FIRPTA Certificate. Parent shall have received a statement from the Company, dated as of the Closing Date and signed by an authorized officer of the Company, that the Company is not, and has not been during the applicable period specified in Section 897(c)(1)(A)(ii) of the Code, a "United States real property holding corporation", as defined in Section 897(c)(2) of the Code, such statement in form and substance reasonably satisfactory to Parent and conforming to the requirements of Treasury Regulations Section 1.1445-2(c)(3) and 1.897-2(h), and a notice to the IRS, in accordance with the requirements of Treasury Regulation Section 1.897-2(h)(2) dated as of the Closing Date, together with written authorization for Parent to deliver such notice to the IRS on behalf of the Company after the Closing.

6.11 280G Stockholder Vote. To the extent that execution and delivery of this Agreement, the shareholder approval of this Agreement or the consummation of the transactions contemplated hereby could reasonably be expected to (either alone or in conjunction with any

other event) result in the payment of any "parachute payment" as defined in Section 280G(b)(2) of the Code, the 280G Stockholder Vote shall have occurred and any payments that could reasonably be expected to be non-deductible under Section 280G of the Code shall have been previously irrevocably waived by each of the applicable "disqualified individuals" (as defined under Section 280G of the Code and the regulations promulgated thereunder) unless approved in the 280G Stockholder Vote, and either approved or disapproved in the 280G Stockholder Vote.

6.12 Indebtedness. The Company shall have caused to be delivered a payoff letter from each holder of Debt of the Company in form reasonably satisfactory to Parent, confirming that all such Debt shall have been repaid in full or, upon payment of the Closing Date Indebtedness at Closing, will be repaid in full and that such holder shall release all Liens and other security interests in, and agree to execute and/or file Uniform Commercial Code Termination Statements and such other documents or endorsements reasonably necessary to release his, her or its Liens and other security interest in, the assets and properties of Company, and that all obligations with respect to the related Debt or other obligations shall be satisfied.

SECTION 7. CONDITIONS PRECEDENT TO OBLIGATION OF THE COMPANY

The obligation of the Company to effect the Merger and otherwise consummate the transactions contemplated by this Agreement is subject to the satisfaction (or waiver by the Company), at or prior to the Closing, of the following conditions:

7.1 Accuracy of Representations and Warranties. The representations and warranties of Parent and Merger Subset forth in Section 3 shall be true and correct in all material respects as of the date of this Agreement and of the Closing Date with the same effect as though made on and as of the Closing (except to the extent expressly made as of an earlier date, in which case such representations and warranties shall be true and correct as of such earlier date).

7.2 Performance of Covenants. Parent and Merger Sub shall have performed and complied with, in all material respects, all of their respective covenants hereunder at or before the Closing (to the extent that such covenants require performance by Parent or Merger Sub at or before the Closing).

7.3 No Restraints. No temporary restraining order, preliminary or permanent injunction or other order preventing the consummation of the Merger by the Company shall have been issued by any court of competent jurisdiction and remain in effect, and no material Law shall have been enacted since the date of this Agreement that makes consummation of the Merger by the Company illegal.

7.4 Closing Certificate. An authorized officer of Parent and Merger Sub shall have delivered to Company a certificate (the "**Parent Officers Certificate**") to the effect that each of the conditions specified above in Sections 7.1 and 7.2 is satisfied in all respects.

SECTION 8. INDEMNIFICATION

8.1 Indemnification by Participating Securityholders. Subject to the other provisions of this Section 8, following the Closing, each Participating Securityholder shall, severally (in proportion to its respective Participation Percentage) and not jointly, indemnify

Parent and the Surviving Entity, their respective Affiliates, and each of their respective officers, directors, employees, stockholders, agents, Representatives, successors and permitted assigns (each a "**Parent Indemnified Party**") in respect of, and hold them harmless against, any Losses suffered, incurred or sustained by any Parent Indemnified Party directly or indirectly resulting from or arising out of:

(a) any inaccuracy in or breach, as of the date of this Agreement and/or as of the Closing Date (as if such representation or warranty had been made as of the Closing Date), of any representation or warranty made by the Company in this Agreement or in certificates delivered to Parent or Merger Sub by or on behalf of the Company in connection herewith;

(b) any breach or nonfulfillment by the Company or the Securityholders' Representative of any of their respective covenants, obligations or agreements contained in this Agreement;

(c) any Pre-Closing Taxes;

(d) any claims by (i) any current or former Participating Securityholder or alleged current or former holder of any interest or security of the Company, relating to or arising out of (x) this Agreement or the transactions contemplated hereby, including the allocation, misallocation, miscalculation or inaccuracy of the Merger Consideration Amount amongst the Participating Securityholders, including as a result of any inaccuracy or error in the Closing Payment Schedule, (y) the allocation, misallocation, miscalculation or inaccuracy of any distribution prior to the Effective Time to the Participating Securityholders or (z) such Person's status or alleged status as an equity holder or ownership of interests or securities in the Company at any time at or prior to the Closing, whether for breach of fiduciary duty or otherwise, or (ii) any Person to the effect that such Person is entitled to any interest or security or any payment in connection with the Merger other than as specifically provided for in this Agreement;

(e) any claim by a current or former holder of any Company Capital Stock, Company Option, Company Warrant or Company Convertible Note, other than claims based on the rights of any such Person to receive a portion of the payments contemplated to be made to such Person hereby as and to the extent set forth herein, including any option, preemptive rights or rights to notice or to vote;

(f) any Closing Date Indebtedness or Closing Date Transaction Expenses in each case, to the extent not taken into account in the calculation of the Merger Consideration Amount (as adjusted pursuant to Section 1.10);

(g) any Dissenting Share Payments; and

(h) matters set forth in Schedule 8.1(h).

8.2 Indemnification by Parent. Subject to the other provisions of this Section 8, following the Closing, Parent shall indemnify the Participating Securityholders in respect of, and hold them harmless against, any Losses suffered by the Participating Securityholders resulting from or arising out of:

(a) any inaccuracy in or breach of any representation or warranty, as of the date of this Agreement and/or as of the Closing Date (as if such representation or warranty had been made as of the Closing Date), made by Parent or Merger Sub in this Agreement or in any certificate delivered to the Company by or on behalf of Parent or Merger Sub in connection herewith; and/or

(b) any breach or nonfulfillment by Parent or Merger Sub of any of their respective covenants, obligations or agreements contained in this Agreement.

8.3 Third-Party Claims.

(a) In the event Parent becomes aware of a third-party claim (including any action or proceeding commenced or threatened to be commenced by any Third Party) that Parent reasonably believes may result in an indemnification pursuant to Section 8.1 (any such claim, a "**Third-Party Claim**"), Parent shall promptly (and in any event within 10 Business Days after becoming aware of such claim) notify the Securityholders' Representative in writing of such Third-Party Claim (such notice, the "**Claim Notice**"). The Claim Notice shall be accompanied by copies of any relevant and material documentation submitted by the Third Party making such Third-Party Claim and shall describe in reasonable detail (to the extent known by Parent) the facts constituting the basis for such Third-Party Claim and the amount of the claimed Losses; *provided*, *however*, that no delay or failure on the part of Parent in delivering a Claim Notice shall relieve the Participating Securityholders from any liability hereunder except and only to the extent they shall have been actually and materially prejudiced as a result of such delay or failure.

(b) Parent Indemnified Parties shall have the right to conduct and control, through counsel of its own choosing, the defense, compromise or settlement of any Third-Party Claim against the Parent Indemnified Parties as to which indemnification will be sought by any Parent Indemnified Party from the Participating Securityholders hereunder, and in any such case the Participating Securityholders shall cooperate in connection therewith and shall furnish such records, information and testimony and attend such conferences, discovery proceedings, hearings, trials and appeals as may be reasonably requested and subject to reasonable notice by the Parent Indemnified Parties in connection therewith; provided; that:

(i) the Parent Indemnified Parties shall keep the Securityholders' Representative reasonably informed of all material events related to such Third-Party Claim;

(ii) the Securityholders' Representative may participate, through counsel chosen by it and at its own expense, in the defense of any such Third-Party Claim as to which the Parent Indemnified Party so elected to conduct and control the defense thereof and such Parent Indemnified Party shall consider in good faith recommendations made by the Securityholders' Representative with respect thereto; and

(iii) the Parent Indemnified Parties shall not, without the prior written consent of the Securityholders' Representative (which written consent shall not be unreasonably withheld or delayed), pay, compromise or settle any such Third-Party Claim without such consent; provided, that in such event the Parent Indemnified Parties shall waive any right to indemnity therefor hereunder unless such consent is unreasonably withheld or delayed.

8.4 Procedure for Indemnification.

(a) In order to seek indemnification under this Section 8, the Indemnified Party shall deliver a written notice (an "**Indemnification Demand**") to the Securityholders' Representative (if the Indemnified Party is Parent or the Surviving Entity) or Parent (if the Indemnified Party is a Participating Securityholder) which contains (i) a description and the amount of any Losses incurred or reasonably expected to be incurred by the Indemnified Party (to the extent then known) and (ii) a statement that the Indemnified Party is entitled to indemnification under Section 8.1 or Section 8.2 for such Losses and a reasonable explanation of the basis therefor (to the extent then known).

(b) Upon reasonable request, the Indemnified Party shall furnish the Securityholders' Representative or Parent, as applicable, with any information to the extent that such information is reasonably necessary in order to evaluate the Indemnification Demand. If the Securityholders' Representative or Parent, as applicable, in good faith objects to any claim made by the Indemnified Party in the Indemnification Demand, then the Securityholders' Representative or Parent, as applicable, shall deliver a written notice (an "**Indemnification Dispute Notice**") to the Indemnified Party within 30 calendar days following receipt by the Securityholders' Representative or Parent, as applicable, of an Indemnification Demand from such Indemnified Party. The Indemnification Dispute Notice shall set forth in reasonable detail the principal basis for the dispute of any claim made by the Indemnified Party in the Indemnification Demand. If the Securityholders' Representative or Parent, as applicable, fails to deliver an Indemnification Dispute Notice prior to the expiration of such 30-calendar day period, then the indemnity claim set forth in the Indemnification Demand shall be conclusively determined in the Indemnified Party's favor for purposes of this Section 8, and the Indemnified Party shall be indemnified for the amount of the Losses stated in such Indemnification Demand (or, in the case of any notice in which the Losses (or any portion thereof) are estimated, the amount of such Losses (or such portion thereof) as finally determined) on demand or, in the case of any notice in which the Losses (or any portion thereof) are estimated, on such later date when the amount of such Losses (or such portion thereof) becomes finally determined, in either case, subject to the limitations of this Section 8.

(c) If the Securityholders' Representative or Parent, as applicable, delivers an Indemnification Dispute Notice, then the Indemnified Party and the Securityholders' Representative or Parent, as applicable, shall attempt in good faith to resolve any such objections raised by the Securityholders' Representative or Parent, as applicable, in such Indemnification Dispute Notice. If the Indemnified Party and the Securityholders' Representative or Parent, as applicable, agree to a resolution of such objection, then a memorandum setting forth the matters conclusively determined by the Indemnified Party and the Securityholders' Representative or Parent, as applicable, shall be prepared and signed by both parties, and shall be binding and conclusive upon the parties hereto.

(d) If no such resolution can be reached during the 30-day period following the Indemnified Party's receipt of a given Indemnification Dispute Notice, then upon the expiration of such 30-day period (or such longer period as may be mutually agreed), the Indemnified Parties shall be entitled to pursue all remedies available to them under this Agreement or otherwise at law or in equity with respect to such claims (in each case subject to the terms and limitations set forth in this Agreement, including Section 10.5).

(e) Subject to the limitations set forth in Section 8.6, the indemnification claims of the Parent Indemnified Parties under Section 8.1 shall be satisfied as follows:

(i) Prior to the payment of the Holdback Amount pursuant to Section 1.9(c)(i) and the 2022 Deferred Amount pursuant to Section 1.9(c)(ii), the indemnification claims of the Parent Indemnified Parties under Section 8.1 shall be satisfied (A) first, through a reduction of the Holdback Amount until such amount is exhausted, (B) second, through a reduction of the 2022 Deferred Amount until such amount is exhausted, (C) third, through a reduction of the 2023 Deferred Amount until such amount is exhausted, and (D) finally, by the Participating Securityholders in cash, severally and not jointly.

(ii) Following the payment of the Holdback Amount pursuant to Section 1.9(c)(i) and the 2022 Deferred Amount pursuant to Section 1.9(c)(ii), but prior to the payment of the 2023 Deferred Amount pursuant to Section 1.9(c)(iii), the indemnification claims of the Parent Indemnified Parties under Section 8.1 shall be satisfied (A) first, through a reduction of the 2023 Deferred Amount until such amount is exhausted, and (B) finally, by the Participating Securityholders in cash, severally and not jointly.

(iii) Following the payment of the 2023 Deferred Amount pursuant to Section 1.9(c)(iii), the indemnification claims of the Parent Indemnified Parties under Section 8.1 shall be satisfied by the Participating Securityholders in cash, severally and not jointly.

8.5 Survival of Representations and Warranties. All representations and warranties contained in this Agreement shall (a) survive the Closing and remain in full force and effect and (b) expire at 5:00 p.m. ET on the date that is 12 months after the Closing Date; provided, however, that the Fundamental Representations shall survive the Closing and remain in full force and effect until three years after the Closing Date and the Tax Representations shall survive the Closing and remain in full force and effect until the later of (x) day that is 60 days following the expiration of the applicable statute of limitations and (y) three years after the Closing Date; *provided, further*, that, with respect to any claim as to which an Indemnified Party shall have, on or prior to such date, delivered an Indemnification Demand, the indemnification obligations hereunder with respect to the claim asserted in such Indemnification Demand, shall survive until such time as such claim is fully and finally resolved and payment in respect thereof, if any is required to be made under the terms of this Agreement, shall have been made. All covenants and agreements of the parties contained in this Agreement (i) that are to be performed at or prior to the Closing shall survive the Closing and remain in full force and effect until the date that is 12 months after the Closing Date and (ii) that are to be performed following the Closing shall continue in effect and expire in accordance with their respective terms. The parties further acknowledge that the time periods set forth in this Section 8.5 for the assertion of claims under this Agreement are the result of arms'-length negotiation among the parties and that they intend for the time periods to be enforced as agreed by the parties.

8.6 Limitations.

(a) Other than for common law fraud and claims for Losses based on breaches of Fundamental Representations and Tax Representations, in no event shall the Participating Securityholders' aggregate liability to the Parent Indemnified Parties for indemnification claims

pursuant to Section 8.1(a) exceed $1,200,000, and, for any Participating Securityholder, shall not exceed such Participating Securityholder's Participation Percentage of $1,200,000. Other than with respect to a Participating Securityholder's own common law fraud, in no event shall any Participating Securityholder's liability to the Parent Indemnified Parties for indemnification claims pursuant to Sections 8.1(b)–(h) and breaches of the Fundamental Representations and the Tax Representations exceed the Merger Consideration Amount actually received by such Participating Securityholder. Subject to Section 8.6(b), other than for common law fraud, in no event shall Parent's aggregate liability to the Participating Securityholders for indemnification claims pursuant to Section 8.2(a) exceed an amount equal to $1,200,000. The parties acknowledge that there shall not be any duplicative recovery for any Losses arising from the same facts and circumstances.

(b) Notwithstanding anything to the contrary contained in this Agreement, no Indemnified Party shall be entitled to recover any Losses under Section 8.1(a) and Section 8.2(a) unless and until the aggregate Losses for which they would otherwise be entitled to indemnification under Section 8.1(a) or Section 8.2(a) exceeds $100,000 (the "**Basket**") (at which point the Indemnified Party shall become entitled to be indemnified only for such Losses in excess of the Basket); provided, however, that the Basket shall not apply to (x) any claims for common law fraud or (y) any Losses related to the inaccuracy in or breach of any of the Fundamental Representations or the Tax Representations.

(c) Notwithstanding anything contained in this Agreement or elsewhere to the contrary, "material" and "Company Material Adverse Effect" or similar materiality type qualifications contained in the representations and warranties of the Company set forth in this Agreement shall be taken into account under this Section 8 for purposes of determining whether or not a breach or inaccuracy of a representation or warranty has occurred, but shall not be taken into account in determining the amount of any Losses with respect to such breach or inaccuracy.

8.7 Exclusive Remedy. Except as expressly provided otherwise in this Agreement, the rights of the Indemnified Parties to indemnification under this Section 8 will constitute the sole and exclusive remedy for Losses in respect of claims of the Indemnified Parties from and after the Closing with respect to this Agreement and the Ancillary Agreements and the transactions contemplated hereby and thereby, except (a) for any claim against a Participating Securityholder based on the common law fraud of such Participating Securityholder (but not for the common law fraud of the Company, any other Participating Securityholder or any other Person) and (b) that any party to this Agreement may pursue specific performance or other appropriate equitable relief; provided, that no Indemnified Party shall be entitled to recover more than once for the same Loss.

8.8 Tax Treatment of Payments. The parties hereto agree to treat any payments made pursuant to this Section 8 as adjustments to the Merger consideration for all U.S. federal, state and local income Tax purposes to the maximum extent permitted by applicable Law.

SECTION 9. TERMINATION

9.1 Termination. This Agreement may be terminated prior to the Effective Time (whether before or after the adoption of this Agreement by the Required Company Stockholder Vote):

(a) by mutual written consent of Parent and the Company;

(b) by either Parent or the Company if the Merger shall not have been consummated by the End Date; provided, however, that a party shall not be permitted to terminate this Agreement pursuant to this Section 9.1(b) if the failure to consummate the Merger by the End Date is primarily attributable to a failure on the part of such party to perform any covenant in this Agreement required to be performed by such party at or prior to the Effective Time;

(c) by either Parent or the Company if a court of competent jurisdiction or other Governmental Body shall have issued a final and non-appealable order, decree or ruling, or there shall exist any Law, in each case, having the effect of permanently restraining, enjoining or otherwise prohibiting or making illegal the Merger; provided, however, that a party shall not be permitted to terminate this Agreement pursuant to this Section 9.1(c) if, prior to the End Date, such party did not use commercially reasonable efforts to have such order vacated prior to its becoming final and non-appealable;

(d) by Parent, if the Company or the Securityholders' Representative shall have breached or failed to perform in any material respect any of their respective representations, warranties, covenants, obligations or agreements contained in this Agreement, which material breach or failure to perform (i) would give rise to the failure of a condition set forth in Section 6.1 or Section 6.2 and (ii) cannot be or has not been cured within 30 calendar days following receipt by the Company of written notice of such material breach or failure to perform; provided that Parent may not terminate this Agreement pursuant to this Section 9.1(d) if Parent is in breach of this Agreement such that the Company has the right to terminate this Agreement pursuant to Section 9.1(e) but for the proviso thereto; or

(e) by the Company, if Parent or Merger Sub shall have breached or failed to perform in any material respect any of their respective representations, warranties, covenants, obligations or agreements contained in this Agreement, which material breach or failure to perform (i) would give rise to the failure of a condition set forth in Section 7.1 or Section 7.2 and (ii) cannot be or has not been cured within 30 calendar days following receipt by Parent of written notice of such material breach or failure to perform; provided that the Company may not terminate this Agreement pursuant to this Section 9.1(e) if the Company is in breach of this Agreement such that Parent has the right to terminate this Agreement pursuant to Section 9.1(d) but for the proviso thereto.

9.2 Effect of Termination. In the event of the termination of this Agreement as provided in Section 9.1, this Agreement shall be of no further force or effect and no party hereto (or any of its Affiliates, directors, trustees, executors, officers, agents or representatives) shall have any liability or obligation hereunder; provided, however, that (i) this Section 9.2 and Section 10 shall survive the termination of this Agreement and shall remain in full force and effect, and (ii) nothing herein shall relieve any party from any liability for any breach by such party prior to the termination of this Agreement.

SECTION 10. MISCELLANEOUS PROVISIONS

10.1 Amendment. This Agreement may be amended with the approval of the respective boards of directors of the Company (or the Securityholders' Representative following the Closing) and Parent at any time (whether before or after the adoption of this Agreement by the Required Company Stockholder Vote); provided, however, that after any such adoption of this Agreement by the Required Company Stockholder Vote, no amendment shall be made which by Law requires further approval of the Company Stockholders without the further approval of such Company Stockholders. This Agreement may not be amended except by an instrument in writing signed on behalf of the Company and Parent (prior to the Closing) or Parent and the Securityholders' Representative (after the Closing).

10.2 Expenses. All fees and expenses incurred in connection with this Agreement and the transactions contemplated by this Agreement shall be paid by the party incurring such expenses, whether or not the Merger is consummated, except that fifty percent (50%) of all fees and expenses of the Payment Agent shall be paid by Parent and the remaining fifty (50%) of such fees and expenses shall be paid by the Company as a Closing Date Transaction Expense.

10.3 Waiver.

(a) No failure on the part of any party to exercise any power, right, privilege or remedy under this Agreement, and no delay on the part of any party in exercising any power, right, privilege or remedy under this Agreement, shall operate as a waiver of such power, right, privilege or remedy; and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy.

(b) No party shall be deemed to have waived any claim arising out of this Agreement, or any power, right, privilege or remedy under this Agreement, unless the waiver of such claim, power, right, privilege or remedy is expressly set forth in a written instrument duly executed and delivered on behalf of such party; and any such waiver shall not be applicable or have any effect except in the specific instance in which it is given.

10.4 Entire Agreement; Counterparts. This Agreement constitutes the entire agreement and supersedes all prior agreements and understandings, both written and oral, among or between any of the parties with respect to the subject matter hereof and thereof. This Agreement may be executed in several counterparts, each of which shall be deemed an original and all of which shall constitute one and the same instrument. This Agreement may be executed by facsimile or electronic transmission, each of which shall be deemed an original.

10.5 Applicable Law; Jurisdiction; Waiver of Jury Trial. This Agreement shall be governed by, and construed in accordance with, the laws of the State of North Carolina, without regard to conflict of laws provisions that would require the application of the laws of any other jurisdiction . Except as set forth in Section 1.10, in any action between any of the parties arising out of or relating to this agreement or any of the transactions contemplated hereby: (a) each of the parties irrevocably and unconditionally consents and submits to the exclusive jurisdiction and venue of the federal courts of the state of North Carolina located in Raleigh, NC; and (b) if any such action is commenced in a state court, then, subject to applicable law, no party shall object to

the removal of such action to any federal court located in Raleigh, NC. Each of the parties waives any defense of inconvenient forum to the maintenance of any action so brought and waives any bond, surety or other security that might be required of any other party with respect thereto. EACH PARTY HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY RIGHT TO TRIAL BY JURY OF ANY CLAIM, DEMAND, ACTION, OR CAUSE OF ACTION (I) ARISING UNDER THIS AGREEMENT OR (II) IN ANY WAY CONNECTED WITH OR RELATED OR INCIDENTAL TO THE DEALINGS OF THE PARTIES IN RESPECT OF THIS AGREEMENT OR ANY OF THE TRANSACTIONS RELATED HERETO, IN EACH CASE, WHETHER NOW EXISTING OR HEREAFTER ARISING, AND WHETHER IN CONTRACT, TORT, EQUITY, OR OTHERWISE. EACH PARTY HEREBY FURTHER AGREES AND CONSENTS THAT ANY SUCH CLAIM, DEMAND, ACTION, OR CAUSE OF ACTION SHALL BE DECIDED BY COURT TRIAL WITHOUT A JURY AND THAT THE PARTIES MAY FILE A COPY OF THIS AGREEMENT WITH ANY COURT AS WRITTEN EVIDENCE OF THE CONSENT OF THE PARTIES TO THE WAIVER OF THEIR RIGHT TO TRIAL BY JURY.

10.6 Attorneys' Fees. In any action at law or suit in equity to enforce this Agreement or the rights of any of the parties hereunder, the prevailing party in such action or suit, as determined by a court of competent jurisdiction in a final, non-appealable order, shall be entitled to receive a reasonable sum for its out-of-pocket attorneys' fees and all other reasonable costs and expenses incurred in such action or suit.

10.7 Assignability. Neither this Agreement nor any of the rights, interests or obligations under this Agreement may be assigned, in whole or in part, by either the Company (prior to the Effective Time) or Parent without the prior written consent of the other party; provided, that, (a) Parent may assign this Agreement to any of its Affiliates and (b) Parent may assign this Agreement as a whole without such consent in connection with the acquisition (whether by merger, consolidation, sale or otherwise) of Parent or that part of Parent's business to which this Agreement relates, as long as the assignee thereof agrees in writing to assume and be bound as Parent hereunder. Any assignment in violation of the preceding sentence will be void. This Agreement will be binding upon, inure to the benefit of, and be enforceable by, the parties and their respective successors and permitted assigns.

10.8 Third Party Beneficiaries. Except as provided in Sections 5.3 and 8.2, nothing in this Agreement, express or implied, is intended to or shall confer upon any Person (other than the parties hereto) any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

10.9 Notices. Any notice or other communication required or permitted to be delivered to any party under this Agreement shall be in writing and shall be deemed properly delivered, given and received (a) upon receipt when delivered by hand, (b) upon transmission, if sent by electronic mail (in each case with receipt verified by electronic confirmation), or (c) one Business Day after being sent by courier or express delivery service, provided that in each case the notice or other communication is sent to the address or facsimile telephone number set forth beneath the name of such party below (or to such other address or facsimile telephone number as such party shall have specified in a written notice given to the other parties hereto):

if to Parent or Merger Sub:

Aceragen, Inc.
15 T.W. Alexander Drive, Suite 318
Research Triangle Park, NC 22709

Attention: John Taylor
E-mail: jtaylor@aceragen.com

if to the Company (prior to Closing):

Arrevus, Inc.
15 TW Alexander Dr.
Durham, NC 27709
Attention: Carl Kraus, President and CEO
E-mail: ckraus@arrevus.com

or the Securityholders' Representative (after the Closing):

Carl Kraus
8215 Cushing St.
Raleigh, NC 27613

E-mail: ckraus@arrevus.com

in the case of notices to the Company (prior to Closing) or to the Securityholders' Representative (after the Closing), with a copy to (which shall not constitute notice):

Forrest Firm, P.C.
3700 Glenwood Ave, Suite 240
Raleigh, North Carolina 27612
Attention: D. Adam Wanee
E-mail: adam.wanee@forrestfirm.com

in the case of notices to Parent or to the Surviving Entity (after the Closing), with a copy to (which shall not constitute notice):

Hutchinson PLLC
701 Corporate Center Dr., Suite 250
Raleigh, North Carolina 27612
Attention: William Wofford
E-mail: bwofford@hutchlaw.com

10.10 Severability. Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If the final judgment of a court of competent jurisdiction declares that any term or provision hereof is invalid or unenforceable, the

parties hereto agree that the court making such determination shall have the power to limit the term or provision, to delete specific words or phrases, or to replace any invalid or unenforceable term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Agreement shall be enforceable as so modified. In the event such court does not exercise the power granted to it in the prior sentence, the parties hereto agree to replace such invalid or unenforceable term or provision with a valid and enforceable term or provision that will achieve, to the extent possible, the economic, business and other purposes of such invalid or unenforceable term.

10.11 Specific Performance. Each of the parties hereto agrees that this Agreement is intended to be legally binding and specifically enforceable pursuant to its terms and that Parent and the Company would be irreparably harmed if any of the provisions of this Agreement are not performed in accordance with their specific terms and that monetary damages would not provide adequate remedy in such event. Accordingly, in addition to any other remedy to which a non-breaching party may be entitled at law, a non-breaching party shall be entitled to seek injunctive relief to prevent breaches of this Agreement and to specifically enforce the terms and provisions hereof, in each case without posting a bond or undertaking, this being in addition to any other remedy to which they are entitled at law or in equity. Each of the parties agrees that it will not oppose the granting of an injunction, specific performance and other equitable relief when expressly available pursuant to the terms of this Agreement on the basis that the other parties have an adequate remedy at law or an award of specific performance is not an appropriate remedy for any reason at law or equity.

10.12 Construction. For purposes of this Agreement, whenever the context requires: the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter gender shall include masculine and feminine genders. The parties hereto agree that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be applied in the construction or interpretation of this Agreement. As used in this Agreement, the words “include” and “including,” and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words “without limitation.” As used in this Agreement, the word “or” is inclusive and means “and/or” unless the context requires otherwise. Except as otherwise indicated, all references in this Agreement to “Sections,” “Exhibits” and “Schedules” are intended to refer to Sections of this Agreement and Exhibits or Schedules to this Agreement. The bold-faced headings contained in this Agreement are for convenience of reference only, shall not be deemed to be a part of this Agreement and shall not be referred to in connection with the construction or interpretation of this Agreement. The term “**Company**”, as such term is used to refer the conduct, action, inaction or state of the Company prior to the date hereof, shall be deemed to include any predecessor of the Company. Any document uploaded to the online data room utilized for the transactions contemplated hereby at least three Business Days prior to the date of this Agreement shall be considered “made available”, “furnished”, “delivered” or “provided” for purposes of this Agreement. All amounts payable under this Agreement, including the amounts to be set forth in the Closing Statement, shall be calculated and paid in U.S. Dollars.

10.13 Company Disclosure Schedule. The Company Disclosure Schedule of the Company (the “**Company Disclosure Schedule**”) has been arranged, for purposes of convenience

only, as separate sections corresponding to the subsections of Section 2 of this Agreement. The representations and warranties contained in Section 2 of this Agreement are subject to (a) the exceptions and disclosures set forth in the section of the Company Disclosure Schedule corresponding to the particular subsection of Section 2 in which such representation and warranty appears; (b) any exceptions or disclosures explicitly cross-referenced in such section of the Company Disclosure Schedule by reference to another section of the Company Disclosure Schedule; and (c) any exception or disclosure set forth in any other section of the Company Disclosure Schedule to the extent the relationship and relevance of such exception or disclosure to another section of the Company Disclosure Schedule is reasonably apparent on the face of such disclosure.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed as of the date first above written.

ACERAGEN, INC.

By: /s/ John Taylor
Name: John Taylor
Title: Chief Executive Officer

ACERAGEN MERGER SUB, INC.

By: /s/ John Taylor
Name: John Taylor
Title: Chief Executive Officer

ARREVUS, INC.

By: _____
Name: _____
Title: _____

CARL KRAUS, SOLELY IN HIS CAPACITY AS THE SECURITYHOLDERS' REPRESENTATIVE

By: _____
Name: _____
Title: _____

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed as of the date first above written.

ACERAGEN, INC.

By: _____
Name: _____
Title: _____

ACERAGEN MERGER SUB, INC.

By: _____
Name: _____
Title: _____

ARREVUS, INC.

By: /s/ Carl N. Kraus
Name: Carl N. Kraus
Title: CEO

CARL KRAUS, SOLELY IN HIS CAPACITY AS THE SECURITYHOLDERS' REPRESENTATIVE

By: /s/ Carl N. Kraus
Name: Carl N. Kraus
Title: _____

EXHIBIT 10.7

SIDE LETTER AGREEMENT

This Side Letter Agreement (this "***Agreement***") is made and entered into as of September 28, 2022, by and between Idera Pharmaceuticals, Inc., a Delaware corporation ("***Parent***"), Bell Merger Sub II, LLC, a Delaware limited liability company ("***Surviving Entity***") (solely with respect to Section 4 hereof), and NovaQuest Co-Investment Fund XV, L.P ("***NovaQuest***," and together with Parent, each a "***Party***," and collectively, the "***Parties***"). Capitalized terms used but not defined herein shall have the meanings ascribed to such terms in the Merger Agreement (as defined below).

RECITALS

WHEREAS, in connection with entry into that certain Agreement and Plan of Merger, dated on or about the date hereof (together with any and all exhibits and schedules thereto, the "***Merger Agreement***"), by and among Aceragen, Inc., a Delaware corporation (the "**I**"), Parent, Bell Merger Sub I, Inc., a Delaware corporation, and Surviving Entity, and contingent upon the consummation of the Closing, pursuant to a separate Termination Agreement, the Parties intend to terminate (i) that certain Investors' Rights Agreement, dated March 24, 2021 (the "***Investors' Rights Agreement***") between NovaQuest and the Company and (ii) that certain Voting Agreement, dated March 24, 2021 between NovaQuest and the Company (the "***Voting Agreement***" and together with the Investors' Rights Agreement, the "***Stockholder Agreements***");

WHEREAS, the Parent wishes to establish certain board observer and registration rights for the benefit of NovaQuest in respect of the Parent, as an inducement to terminate the Stockholder Agreements; and

WHEREAS, pursuant to the Merger Agreement, Parent has agreed to assume the Company's obligations under (i) that certain Stock and Warrant Purchase Agreement, dated March 24, 2021, by and between the Company and NovaQuest, as amended by Amendment to Stock and Warrant Purchase Agreement dated October 25, 2021 (together any attachments, additional amendments and other related agreements thereto, the "***SPA***"), (ii) that certain Sales Distribution and PRV Agreement, dated October 25, 2021, by and between the Company and NovaQuest (together any attachments, amendments and other related agreements thereto, the "***Sales Distribution and PRV Agreement***"), (iii) that certain Security Agreement, dated March 24, 2021, by and between the Company and NovaQuest (together any attachments, amendments and other related agreements thereto, the "***Security Agreement***") and (iv) that certain Patent Security Agreement, dated March 24, 2021, by and between the Company and NovaQuest (together any attachments, amendments and other related agreements thereto, the "***Patent Security Agreement***" and, collectively with the SPA, the Sales Distribution and PRV Agreement and the Security Agreement, the "***Prior Agreements***").

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Observer Rights & Obligations. Subject to Section 2 below:

1.1 Observer Rights. At such time as Ron Wooten is not serving on the Parent Board, the Parent shall allow one representative designated by NovaQuest and approved by the

Parent Board (the "***Observer***"), which approval shall not be unreasonably withheld, to attend all meetings of the Parent Board and the audit committee, the compensation committee and the nominating and corporate governance committee thereof (each a "***Parent Committee***" and together, the "***Parent Committees***") in a nonvoting capacity (including "executive sessions"). Such Observer shall be a managing director or an investment professional of NovaQuest Capital Management LLC. Prior to the termination of NovaQuest's observer rights as set forth in Section 1.6 hereof, and no more than once per calendar year, NovaQuest shall have the right to change the Observer (subject to the approval of the Parent Board specified above). Except as set forth in Section 2 below, the Observer may observe, take notes and participate fully in discussions at all meetings of the Parent Board and the Parent Committees, but in no event shall the Observer, in his or her capacity as such: (a) be deemed to be a director or a member of, or consultant or advisor to, the Parent Board or any Parent Committee; or (b) have the right to call a meeting of the Parent Board or any Parent Committee or vote on or propose any motions, resolutions or other actions for a vote or approval by the Parent Board or any Parent Committee. None of Parent, the Parent Board, or any Parent Committee shall have any obligation to act upon or consider any recommendations of or input from the Observer. Subject to Section 1.2 and Section 1.5 below, Parent shall allow the Observer to attend all meetings of the Parent Board and the Parent Committees in the same manner it allows any directors on the Parent Board, in accordance with the bylaws of the Parent, including in person (if an in-person meeting) or by telephone or other electronic means of communication by which such meeting is held and pursuant to which all participants in the meetings can hear and be heard by each other. Without limiting the notice and information rights and obligations in Section 1.5 below, the presence of the Observer shall not be required for purposes of establishing a quorum at any meeting of the Parent Board or any Parent Committee, or for the calling to order of any such meeting of the Parent Board or Parent Committee. For the avoidance of doubt, the Observer shall have no right to control the scheduling of any of the meetings described in this Section 1.1.

1.2 Compliance with Parent Policies and Applicable Laws. NovaQuest acknowledges that the Observer will be required to comply with all policies, processes, procedures, codes, rules, standards, and guidelines applicable, from time to time, to members of the Parent Board as if he or she was a board member, including, the Parent's Code of Business Conduct and Ethics, and policies on confidentiality, ethics, hedging and pledging of Parent's securities, public disclosures, stock trading, and stock ownership (collectively, the "Parent Policies and Procedures"). NovaQuest acknowledges that the Observer will also be required to comply with all applicable Laws. The Observer shall provide Parent with such information as is reasonably requested by Parent concerning the Observer as is required to be disclosed under applicable Law or stock exchange regulations, in each case as promptly as necessary as determined by Parent.

1.3 Compliance with Securities Laws. NovaQuest agrees that Confidential Information (as defined below) is given in confidence in accordance with the terms of this Agreement, and NovaQuest will not take any action relating to the securities of Parent which would constitute insider trading, market manipulation, or any other violation of applicable securities law.

1.4 Reimbursement. Parent hereby agrees to reimburse the Observer for all reasonable and appropriate out-of-pocket travel expenses incurred (consistent with Parent's travel policy applicable to Parent Board members) in connection with attending meetings of the Parent Board and Parent Committees.

1.5 Meeting Attendance Exceptions, Notice and Information Rights. Until the Observer ceases to serve in such capacity, Parent shall provide to the Observer copies of all notices, minutes, consents and other materials that Parent provides to the members of the Parent Board and Parent Committees (collectively, "***Board Materials***"), at the same time and in the same manner as such information is delivered to the other members of the Parent Board. Notwithstanding the immediately preceding sentence or anything else to the contrary contained herein, Parent may withhold certain Board Materials from the Observer or exclude the Observer from certain meetings (or portions of meetings) of the Parent Board and Parent Committees if the Parent Board determines, in its sole discretion and in good faith (i) that such action with respect to the Observer is necessary to avoid an actual or potential conflict of interest between Parent, on the one hand, and the Observer or any of his or her associates or Affiliates, on the other hand, comply with the terms and conditions of confidentiality agreements with third-parties or applicable law, comply with the Parent Board's fiduciary duties and/or preserve attorney-client privilege, work product, trade secrets or similar privilege or rights or (ii) that it would otherwise not be appropriate for the Observer to attend an "executive session" or any portion thereof.

1.6 Termination of Observer Rights. Subject to the Organizational Documents of Parent, this Section 1 and the rights and obligations hereunder shall immediately terminate and be of no further force and effect, upon the date on which NovaQuest no longer beneficially owns any Parent Series X Preferred Stock. Notwithstanding the foregoing, no termination of this Section 1 shall affect the rights or obligations provided in Sections 2 through 6 hereof, which shall survive such termination.

2. Confidential Information. To the extent any information obtained by the Observer from Parent is Confidential Information (as defined below), the Observer will treat any such Confidential Information in accordance with the terms and conditions of this Section 2.

2.1 Definition of Confidential Information. As used in this Agreement, "***Confidential Information***" means any and all information or data concerning Parent or any of its Affiliates, whether in verbal, visual, written, electronic or other form (including but not limited to all Board Materials that are or contain non-public, competitive or business sensitive or proprietary information), together with all notes or information discerned from, based on or relating to any of the foregoing that may be prepared or created by the Observer; provided, however, that "Confidential Information" shall not include information that: (a) is or becomes generally available to the public (other than as a result of the unauthorized disclosure of such information in violation of this Agreement by the Observer); (b) is independently developed by the Observer without the use of Confidential Information; (c) becomes available to the Observer at any time on a non-confidential basis from a third party that is not, to the Observer's knowledge after due inquiry, prohibited from disclosing such information to the Observer by any contractual, legal or fiduciary obligation; or (d) was known by the Observer prior to his receipt thereof from Parent as proven by written evidence.

2.2 Observer Obligations. The Observer shall be required to: (a) retain all Confidential Information in strict confidence and acknowledge and agree that the disclosure of such information could cause irreparable harm to Parent and its stockholders; (b) not disclose Confidential Information in any manner to any other person or entity; and (c) use the Confidential Information solely in connection with: (i) the exercise of his or her right as a non-voting observer

of the Board as provided in this Agreement; or (ii) monitoring and enforcing the Observer's rights hereunder; provided, however, that the foregoing shall not apply to or limit any disclosure to the extent such disclosure is required to be disclosed by applicable Law, provided that, to the extent not prohibited by Law, the Observer shall give Parent prompt written notice of such requirement and cooperate with Parent to seek a protective order or other appropriate remedies to obtain assurance that confidential treatment will be accorded such Confidential Information.

2.3 Return of Confidential Information. Upon the time that an Observer shall cease to serve as a non-voting observer of the Board no matter the cause, the Observer shall, as promptly as reasonably practicable (but in any case no later than three (3) business days), return all Confidential Information to the Parent and provide written certification to Parent that such materials have been so returned, are no longer in his or her possession and no copies have been retained.

3. Registration Rights.

3.1 Grant of Registration Rights. In the event the Parent grants registration rights to any investor or equity holder in the Parent pursuant to a future agreement ("***Future Agreement***"), NovaQuest shall be granted the same registration rights with respect to its shares of Parent Common Stock issued or issuable upon exercise of that certain warrant to purchase common stock issued by the Company to NovaQuest on March 24, 2021, which is to be assumed by Parent pursuant to the Merger Agreement (the "***Underlying Common Stock***"), on the same terms set forth in the Future Agreement. NovaQuest shall become a party to the Future Agreement, or shall enter into a separate agreement on substantially the same terms as the Future Agreement, with respect to such registration rights, and all of NovaQuest's Underlying Common Stock shall be deemed to be "Registrable Securities" (or other similar term) as defined in the Future Agreement and be treated for all purposes on the same terms as all other holders of such "Registrable Securities". To the extent that the Parent, on or after the date of the execution of a Future Agreement, grants any superior or more favorable rights or terms to any investor of equity holder than those provided to NovaQuest as a result of the immediately preceding sentence, then any such superior or more favorable rights or terms shall also be deemed to have been granted simultaneously to NovaQuest, and the Company shall promptly prepare and execute such documents to reflect and provide NovaQuest with the benefit of such superior or more favorable rights and/or terms with respect to NovaQuest's Underlying Common Stock.

3.2 Termination of Registration Rights. Subject to the Organizational Documents of Parent, this Section 3 and the rights and obligations hereunder shall immediately terminate and be of no further force and effect upon the earlier of (i) the date on which NovaQuest shall have sold, either publicly pursuant to a registration statement or pursuant to Rule 144 under the Securities Act of 1933, as amended ("***Rule 144***"), all the Underlying Common Stock, and (ii) the date on which NovaQuest can sell all of its Underlying Common Stock under Rule 144 without volume or manner of sale restrictions. Notwithstanding the foregoing, no termination of this Section 3 shall affect the rights or obligations provided in Sections 1, 2 and 4 through 6 hereof, which shall survive such termination.

4. Assignment and Assumption; Amendment. In accordance with Section 1.6(a)(ii) of the Merger Agreement, effective upon and conditioned upon the Closing, Surviving Entity hereby

assigns and Parent hereby expressly assumes each of the Prior Agreements, and Parent undertakes to perform, pay, and satisfy the Company's obligations under each of the Prior Agreements, pursuant to and in accordance with the terms and conditions of each such Prior Agreement, as the same may be amended from time to time. The SPA is hereby amended, effective upon Parent's assumption of same, such that the term "Product Divestiture" shall include a Change of Control (as defined in the Sales Distribution and PRV Agreement) of an Affiliate of Parent that owns or controls any Product Assets or that is a Licensee.

5. Issuances of Preferred Stock.

5.1 Limitation on Preferred Stock. Parent shall not (a) create, or authorize the creation of, or issue or obligate itself to issue shares of, or reclassify, any capital stock unless the same ranks junior to the Parent Series X Preferred Stock with respect to its rights, preferences and privileges, or (b) increase the authorized number of shares of Parent Series X Preferred Stock or any additional class or series of capital stock of Parent unless the same ranks junior to the Parent Series X Preferred Stock with respect to its rights, preferences and privileges.

5.2 Termination of Limitation on Preferred Stock. The rights and obligations under Section 5.1 shall immediately terminate and be of no further force and effect, upon the date on which NovaQuest no longer beneficially owns any Parent Series X Preferred Stock. Notwithstanding the foregoing, no termination of this Section 5 shall affect the rights or obligations provided in Sections 1 through 4 and 6 hereof, which shall survive such termination.

6. Miscellaneous Provisions.

6.1 Amendment and Waivers. The Parties may amend, modify or supplement this Agreement only by a written agreement signed by Parent and NovaQuest. No failure or delay by a Party in enforcing any of such Party's rights under this Agreement will be deemed to be a waiver of such rights. No single or partial exercise of a Party's rights will be deemed to preclude any other or further exercise of such Party's rights under this Agreement. No waiver of any of a Party's rights under this Agreement will be effective unless it is in writing and signed by such Party (subject to the limitations herein).

6.2 Entire Agreement; Counterparts; Exchanges by Electronic Transmission. This Agreement, the Merger Agreement and the other schedules, exhibits, certificates, instruments and agreements referred to therein constitute the entire agreement and supersede all prior agreements and understandings, both written and oral, among or between any of the Parties with respect to the subject matter hereof and thereof. This Agreement may be executed in several counterparts, each of which shall be deemed an original and all of which shall constitute one and the same instrument. The exchange of a fully executed Agreement (in counterparts or otherwise) by all Parties by electronic transmission in .PDF format shall be sufficient to bind the Parties to the terms and conditions of this Agreement. Any conflict or inconsistency between this Agreement and the Merger Agreement and/or any other documents entered into in connection therewith shall be resolved in favor of this Agreement.

6.3 Applicable Law; Jurisdiction. This Agreement shall be governed by, and construed in accordance with, the Laws of the State of Delaware, regardless of the Laws that might

otherwise govern under applicable principles of conflicts of laws. In any action or proceeding between any of the Parties arising out of or relating to this Agreement, each of the Parties: (a) irrevocably and unconditionally consents and submits to the exclusive jurisdiction and venue of the Court of Chancery of the State of Delaware or, to the extent such court does not have subject matter jurisdiction, the United States District Court for the District of Delaware or, to the extent that neither of the foregoing courts has jurisdiction, the Superior Court of the State of Delaware; (b) agrees that all claims in respect of such action or proceeding shall be heard and determined exclusively in accordance with clause (a) of this Section 6.3; (c) waives any objection to laying venue in any such action or proceeding in such courts; (d) waives any objection that such courts are an inconvenient forum or do not have jurisdiction over any Party; (e) agrees that service of process upon such Party in any such action or proceeding shall be effective if notice is given in accordance with Section 6.5 of this Agreement; and (f) irrevocably and unconditionally waives the right to trial by jury.

6.4 Assignability. This Agreement shall be binding upon, and shall be enforceable by and inure solely to the benefit of, the Parties and their respective successors and permitted assigns; provided, however, that neither this Agreement nor any of a Party's rights or obligations hereunder may be assigned or delegated by such Party without the prior written consent of the other Party, and any attempted assignment or delegation of this Agreement or any of such rights or obligations by such Party without the other Party's prior written consent shall be void and of no effect.

6.5 Notices. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly delivered and received hereunder (a) one Business Day after being sent for next Business Day delivery, fees prepaid, via a reputable international overnight courier service, (b) upon delivery in the case of delivery by hand, or (c) on the date delivered in the place of delivery if sent by email (with a written or electronic confirmation of delivery) prior to 5:00 p.m. Eastern Time, otherwise on the next succeeding Business Day, in each case to the intended recipient as set forth below:

if to NovaQuest:

NovaQuest Co-Investment Fund XV, L.P.
4208 Six Forks Road, Suite 920
Raleigh, NC 27609
Attention: Jonathan Tunnicliffe
E-mail: jonathan.tunnicliffe@nqcapital.com

with a copy to:

Wyrick Robbins Yates & Ponton LLP
4101 Lake Boone Trail, Suite 300
Raleigh, North Carolina 27607
Attention: Daniel S. Porper
E-mail: dporper@wyrick.com

if to Parent or Surviving Entity:

Idera Pharmaceuticals, Inc.
505 Eagleview Blvd., Suite 212, Exton, PA 19341
Attention: John J. Kirby
Email Address: jkirby@iderapharma.com

with a copy to (which shall not constitute notice):

Morgan, Lewis & Bockius LLP
1701 Market Street
Philadelphia, PA 19103
Attention: Richard B. Aldridge
Email Address: Richard.aldridge@morganlewis.com

6.6 Cooperation. Each Party agrees to cooperate fully with the other Party and to execute and deliver such further documents, certificates, agreements and instruments and to take such other actions as may be reasonably requested by the other Party to evidence or to carry out the intent and purposes of this Agreement.

6.7 Severability. Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions of this Agreement or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If a final judgment of a court of competent jurisdiction declares that any term or provision of this Agreement is invalid or unenforceable, the Parties agree that the court making such determination shall have the power to limit such term or provision, to delete specific words or phrases or to replace such term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Agreement shall be valid and enforceable as so modified. In the event such court does not exercise the power granted to it in the prior sentence, the Parties agree to replace such invalid or unenforceable term or provision with a valid and enforceable term or provision that will achieve, to the extent possible, the economic, business and other purposes of such invalid or unenforceable term or provision.

6.8 Other Remedies; Specific Performance. Except as otherwise provided herein, any and all remedies herein expressly conferred upon a Party will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by law or equity upon such Party, and the exercise by a Party of any one remedy will not preclude the exercise of any other remedy. The Parties agree that irreparable damage for which monetary damages, even if available, would not be an adequate remedy, would occur in the event that any Party does not perform the provisions of this Agreement (including failing to take such actions as are required of it hereunder to consummate this Agreement) in accordance with its specified terms or otherwise breaches such provisions. Accordingly, the Parties acknowledge and agree that the Parties shall be entitled to an injunction, specific performance and other equitable relief to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof, in addition to any other remedy to which they are entitled at law or in equity. Each of the Parties agrees that it will not oppose the granting of an injunction, specific performance or other equitable relief on the basis that any other Party has an adequate remedy at law or that any award of specific performance is not an appropriate remedy for any reason at law or in equity. Any Party seeking an injunction or injunctions to prevent

breaches of this Agreement shall not be required to provide any bond or other security in connection with any such order or injunction.

6.9 No Third Party Beneficiaries. Nothing in this Agreement, express or implied, is intended to or shall confer upon any Person any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

6.10 Construction.

(a) For purposes of this Agreement, whenever the context requires: the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter gender shall include masculine and feminine genders.

(b) The Parties have participated jointly in the negotiating and drafting of this Agreement and agree that any rule of construction to the effect that ambiguities are to be resolved against the drafting Party shall not be applied in the construction or interpretation of this Agreement, and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any provision of this Agreement.

(c) As used in this Agreement, the words “include” and “including,” and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words “without limitation.”

(d) Except as otherwise indicated, all references in this Agreement to “Sections” are intended to refer to Sections of this Agreement.

(e) The headings contained in this Agreement are for convenience of reference only, shall not be deemed to be a part of this Agreement and shall not be referred to in connection with the construction or interpretation of this Agreement.

6.11 Expenses. Except as otherwise expressly provided in this Agreement, all expenses incurred in connection with this Agreement will be paid by the Party incurring such expenses.

[*signature page follows*]

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed as of the Effective Date.

NOVAQUEST:

NOVAQUEST CO-INVESTMENT FUND XV, L.P., a Delaware limited partnership

By: NQ POF V GP, Ltd., its general partner

By: /s/ John Bradley
Name: John Bradley
Title: Director

[Signature Page to Side Letter Agreement]

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed as of the Effective Date.

COMPANY:

ACERAGEN, INC.

By: /s/ John Taylor
Name: John Taylor
Title: Chief Executive Officer

[Signature Page to Side Letter Agreement]

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed as of the Effective Date.

PARENT:
IDERA PHARMACEUTICALS, INC.

By: /s/ Bryant D. Lim
Name: Bryant D. Lim
Title: Senior Vice President, General Counsel and Secretary

SURVIVING ENTITY:
BELL MERGER SUB II, LLC

By: /s/ Bryant D. Lim
Name: Bryant D. Lim
Title: Secretary

[Signature Page to Side Letter Agreement]

EXHIBIT 10.8

STOCK AND WARRANT PURCHASE AGREEMENT

This Stock and Warrant Purchase Agreement (this "**Agreement**") is entered into as of March 24, 2021 (the "**Effective Date**"), between Aceragen, Inc., a Delaware corporation with a principal place of business at 15 T.W. Alexander Drive, Suite 418, Research Triangle Park, NC 22709 ("**Aceragen**") and NovaQuest Co-Investment Fund XV, L.P., a Delaware limited partnership, with a place of business at 4208 Six Forks Road, Suite 920 Raleigh, NC 27609 ("**NovaQuest**"). Aceragen and NovaQuest are each referred to herein by name or, individually, as a "**Party**" or, collectively, as "**Parties**."

INTRODUCTION

A. Aceragen is dedicated to the research, development, and commercialization of products for the treatment of human diseases, disorders, and conditions.

B. Aceragen desires to sell and issue shares of its capital stock and warrants to purchase shares of its capital stock to raise funds to develop and commercialize certain pharmaceutical products under development.

C. NovaQuest is willing to purchase such shares and warrants pursuant to the terms and conditions of this Agreement.

D. As a condition to Closing and as a material inducement for NovaQuest's entry into this Agreement, NovaQuest and Aceragen will enter into a security agreement pursuant to which Aceragen will grant to NovaQuest a security interest in the Product Assets and the proceeds thereof in the form and substance as set forth on Exhibit A (the "***Security Agreement***").

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

ARTICLE I

DEFINITIONS

1.1 When used and capitalized in this Agreement (other than the headings of the Articles and Sections), including the foregoing recitals, exhibits and schedules hereto, the following terms shall have the meanings assigned to them in this Article and include the plural as well as the singular and include all participles of each such term, as applicable.

"***AAA***" has the meaning set forth in Section 11.3(b).

"***AAA Rules***" has the meaning set forth in Section 11.3(b).

"***Aceragen***" has the meaning set forth in the preamble hereto.

"***Act***" shall mean, collectively, the United States Federal Food, Drug, and Cosmetic Act of 1938, including any amendments thereto, and all regulations promulgated thereunder and any successor laws.

"***Affiliate***" means, with respect to an entity, any business entity controlling, controlled by, or under common control with, such entity, but only for so long as such control exists. For the purposes of this definition, "**controlling,**" "**controlled**", and "**control**" mean the possession, directly (or indirectly through one or more intermediary entities), of the power to direct the management or policies of an entity, including through ownership of fifty percent (50%) or more of the voting securities of such entity (or, in the case of an entity that is not a corporation, ownership of fifty percent (50%) or more of the corresponding interest for the election of the entity's managing authority). Notwithstanding the foregoing, Vizigen Therapeutics, Inc., a Delaware corporation ("***Vizigen***") shall not be deemed an "**Affiliate**" of Aceragen for purposes of the Transaction Agreements as a result of being "**controlled**" by the same stockholders as Aceragen.

"***Agreement***" has the meaning set forth in the preamble hereto.

"***Applicable Law***" means any applicable law, rule, or regulation of any Governmental Authority, or judgment, order, writ, decree, permit, or license of any Governmental Authority.

"***Approval Milestone Distribution***" has the meaning set forth in Section 4.1(b).

"***Arbitration***" has the meaning set forth in Section 11.3(b).

"***Arbitrator***" has the meaning set forth in Section 11.3(c).

"***BLA***" means a Biologics License Application, as defined in as defined in 21 C.F.R. 600 et seq., filed with the FDA, or any successor application thereto in the U.S.

"***Board***" means the Board of Directors of Aceragen.

"***Business Day***" means any day other than Saturday, Sunday, or any day on which banking institutions located in the State of New York are permitted or obligated by law to close.

"***Capital Contribution***" has the meaning set forth in Section 3.1.

"***Capital Request Amount***" means, with respect to a Fiscal Quarter, an amount equal to the lesser of (i) the total amount of Eligible Expenses incurred during such Fiscal Quarter, or (ii) the difference between the Total Funding Commitment and then-current Total Funded Amount.

"***Change of Control***" means, with respect to a party, (a) any merger, consolidation, share exchange, reorganization, or other transaction involving such party, or the sale by one or more stockholders or equity holders of stock or ownership interests of such party, except in each case any transaction in which the stockholders or equity holders of such party immediately prior to such transaction continue to own a majority of the voting power of the acquiring, surviving, or successor entity; or (b) the sale, transfer, or other disposition, in a single transaction or series of related transactions, by such party of all or substantially all the assets of such party.

"***Closing***" has the meaning set forth in Section 2.1.

"***Closing Date***" means the date on which the Closing actually occurs, in accordance with and as described in Section 2.1.

"***Commercialize***" means engaging in marketing, promoting, distributing, importing, exporting, offering to sell, or selling the Product, or any other activity directed towards the same, including commercial manufacturing activities.

"***Commercialization***" shall have a corresponding meaning.

"***Commercially Reasonable Efforts***" means (a) with respect to obligations relating to the Product, (i) before receipt of U.S. Approval, the level of effort and resources commonly dedicated in the pharmaceutical industry by a Permitted Company to the development of a product of similar commercial potential at a similar stage in its lifecycle to the Product, taking into account the CRE Considerations and (ii) after receipt of U.S. Approval, the level of effort and resources commonly dedicated in the pharmaceutical industry by a Permitted Company to manufacturing and commercialization of a product of similar commercial potential as determined on a market-by-market basis without regard to the particular circumstances of Aceragen or any other Responsible Party, any other product opportunities of Aceragen or any other Responsible Party, or any distributions due to Stockholder; and (b) with respect to obligations relating to a PRV, at least the level of effort and resources commonly dedicated in the pharmaceutical industry by a Permitted Company that desires to market and sell a priority review voucher granted by the FDA, the negotiation of an agreement for the sale or other monetization of such priority review voucher granted by the FDA, the consummation of such agreement, and the enforcement of the contract documents with respect to such agreement. Without limiting or derogating from the generality of the foregoing, Commercially Reasonable Efforts requires Aceragen and each other Responsible Party to: (A) promptly assign responsibility for all Development and Commercialization activities to specific employees who are held accountable for progress; (B) monitor the progress of such employees on an on-going basis; (C) set and consistently seek to achieve specific and meaningful objectives and timelines for carrying out such Development (including in accordance with the Development Plan) and Commercialization activities; (D) consistently make and implement decisions and allocate and spend sufficient resources designed to advance progress with respect to such objectives and timelines; (E) employ compensation systems for its sales representatives and other employees and agents that are no less favorable than the compensation systems that Aceragen and its Affiliates apply to their other comparable development and commercialization programs, in order to reasonably incentivize such sales representatives and other employees and agents to achieve such objectives and timelines; and (F) use reasonable care in (x) selecting any Third Party to whom it may grant any rights (by license or otherwise) to Develop or Commercialize the Product and (y) negotiating and enforcing the terms of any agreement entered into with respect thereto. "***Commercially Reasonable***" shall have a corresponding meaning.

"***Common Stock***" means the Common Stock of Aceragen.

"***Competing Product***" means any product that prevents or treats Farber disease other than the Product.

"***Confidential Information***" has the meaning set forth in Section 6.1.

"***Cover***" means that the use, manufacture, sale, offer for sale, development, commercialization, or importation of the subject matter in question by an unlicensed entity would infringe a claim of a Patent.

"***CRE Considerations***" means issues, considerations, and matters relating to safety, efficacy, the regulatory environment, and other relevant scientific and technical factors, all without regard to any distributions required to be made to Stockholder.

"***Develop***" or "***Developing***" means engaging in manufacturing, preclinical, clinical, or other research and development activities (including manufacturing activities related thereto) directed towards obtaining U.S. Approval or E.U. Approval.

"***Development***" means the process of Developing.

"***Development Budget***" means the budget included in the Development Plan for the performance of the Development Plan setting forth the estimated expenses associated with Developing the Product, as amended from time to time in accordance with the terms of this Agreement.

"***Development Plan***" means the plan attached hereto as Exhibit B, setting forth, in reasonable detail, the Product Development Activities, as amended from time to time in accordance with the terms of this Agreement.

"***Dispute***" has the meaning set forth in Section 11.3(a).

"***Dispute Notice***" has the meaning set forth in Section 11.3(a).

"***Distribution***" means each Approval Milestone Distribution, PRV Sharing Distribution, Non-Technical Failure Termination Distribution, and Required Net Sales Distribution made to Stockholder.

"***Distribution End Date***" means the date on which the last of the following has occurred: (a) the Satisfaction Milestone has been achieved, (b) the last valid Patent Covering the Product in both the U.S. and the European Union has expired, and (c) Regulatory Exclusivity for the Product in both the U.S. and the European Union has expired.

"***Effective Date***" has the meaning set forth in the preamble hereto.

"***Eligible Expenses***" means the reasonable and documented expenses (including reasonable general and administrative costs and corporate overhead) actually incurred by Aceragen in compliance with the Development Plan and Development Budget on or after the Effective Date in connection with the Product Development Activities during the Product Funding Period.

"***Encumbrance***" means any lien, charge, security interest, mortgage, option, privilege, pledge, right of first refusal, hypothecation, license, adverse ownership interest, charge, trust or deemed trust (whether contractual, statutory, or otherwise arising), or any other encumbrance,

right, or claim of any other Person of any kind whatsoever whether choate or inchoate. "***Encumber***" means to restrict, impose, suffer, or otherwise create any Encumbrance.

"***Enzyme***" means the lipid hydrolase Acid Ceramidase that is more particularly described in Exhibit C.

"***Enzyvant Asset Purchase Agreement***" means that certain Asset Purchase Agreement by and between Aceragen and Enzyvant Therapeutics GmbH *(*"***Enzyvant***") dated as of February 9, 2021.

"***Enzyvant Expenses***" has the meaning set forth in Section 8.6.

"***Enzyvant Failure***" means the "***Closing***" (as defined in the Enzyvant Asset Purchase Agreement) has not occurred by the end of the Business Day after the Closing.

"***Excluded Taxes***" means (i) federal withholding Taxes imposed by the U.S. federal government pursuant to the U.S. Internal Revenue Code of 1986, as amended, on amounts payable to or for the account of NovaQuest, (ii) with respect to NovaQuest (or any transferee of NovaQuest's interest under this Agreement), Taxes imposed as a result of any present, future or former connection between NovaQuest (or such transferee) and the jurisdiction imposing such Tax (other than connections arising from NovaQuest (or such transferee) having executed, delivered, become a party to, performed its obligations under, or received payments under this Agreement).

"***E.U. Approval***" means the receipt of Regulatory Approval in the European Union from the European Medicines Agency.

"***European Medicines Agency***" or "***EMA***" means the European Medicines Agency, or any successor agency thereto.

"***Fair Market Value***" means, with respect to a particular security or item of property, a value agreed upon in writing by the Parties in good faith. If the Parties are unable to so agree within twenty-one (21) days of first commencing discussions regarding such value, then each of NovaQuest and Aceragen shall select an independent appraiser experienced in the business of evaluating or appraising the fair market value of securities or the relevant item of property. The two (2) appraisers so selected (the "***Initial Appraisers***") shall appraise the fair market value of the securities or the item of property as of the date such securities are issued or such property is provided to Aceragen or any Affiliate of Aceragen. If the difference between the resulting two (2) appraisals is not greater than ten percent (10%), then the average of the appraisals shall be deemed the "**Fair Market Value**" of such securities or item of property. If the two (2) appraisals obtained pursuant to the foregoing differ by more than ten percent (10%), then the Initial Appraisers shall select a mutually agreeable additional appraiser (the "***Additional Appraiser***"), who shall be experienced in a manner similar to the Initial Appraisers. If the Initial Appraisers fail to select such Additional Appraiser as provided above within ten (10) Business Days following delivery of the initial fair market value calculations, then a Party may apply, after written notice to the other, to any judge of any court of general jurisdiction for the appointment of such Additional Appraiser. The Additional Appraiser shall then choose from the two (2) fair market value calculations determined by the Initial Appraisers the value that the Additional Appraiser reasonably considers to be closest to the fair market value of such securities or item of property and report such

determination in writing to the Parties. Such value selected by the Additional Appraiser shall be deemed the "**Fair Market Value**" of such securities or item of property. The Parties shall share equally in the full cost of the performance of all such appraisals.

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

"***First Commercial Sale***" means the first commercial sale of the Product by a Responsible Party.

"***Fiscal Quarter***" means each of the following three (3) month periods during each Fiscal Year: January 1 through March 31; April 1 through June 30; July 1 through September 30; and October 1 through December 31.

"***Fiscal Year***" means the twelve (12) month period from January 1 through December 31.

"***Funding Event***" means Aceragen's receipt of at least $25,000,000 in proceeds from the sale of its equity securities to a person or persons other than NovaQuest.

"***GAAP***" means U.S. generally accepted accounting principles, as in effect on the date or for the period with respect to which such standards are applied.

"***Governmental Authority***" means any national, supra-national (e.g., the European Commission or the Council of the European Union), federal, state, local, or foreign court or governmental agency, authority, instrumentality, regulatory body, department, bureau, political subdivision, or other governmental entity (including the FDA and foreign equivalents of the foregoing) or any arbitrational tribunal, in each case of a competent jurisdiction, including any such authority that is responsible for issuing approvals, licenses, registrations, or authorizations necessary for the manufacture, import, sale, pricing, and/or use of the Product for human therapeutic use in any applicable regulatory jurisdiction.

"***Indemnification Agreement***" means an indemnification agreement in a form mutually agreed by the Parties.

"***Indemnified Party***" has the meaning set forth in Section 10.2(a).

"***Indemnifying Party***" has the meaning set forth in Section 10.2(a).

"***Investors' Rights Agreement***" means the Investors' Rights Agreement in the form attached to this Agreement as Exhibit J.

"***Key Employee***" means each of John Taylor and Dan Salain.

"***Liabilities***" means any and all indebtedness, liabilities, and obligations, whether accrued, fixed, or contingent, mature or inchoate, known or unknown, reflected on a balance sheet or otherwise, including those arising under any law or judgment of any court of any kind or any award of any arbitrator of any kind, and those arising under any contract, commitment, or undertaking.

"***License***" means a grant of any rights in, to, or under any Product IP, or Regulatory Approvals associated with or Covering the Product in the Territory, including a grant of rights to market, sell, distribute, or otherwise Commercialize the Product in the Territory.

"***Licensee***" means a Third Party or an Affiliate of Aceragen that is granted a License, regardless of whether such License is granted by Aceragen, an Affiliate of Aceragen, or another Licensee.

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

"***MAA***" means a Marketing Authorization Application filed with the EMA under the centralized European procedure (including amendments and supplements thereto) or any successor application thereto in the E.U.

"***Market Withdrawal***" means any recall, suspension, market withdrawal, seizure, warning letter, other written communication asserting lack of compliance with any Applicable Law in any material respect, or any serious adverse event with respect to the Product.

"***Material Adverse Effect***" means any of the following: (a) a material adverse effect on the validity or enforceability of this Agreement; (b) a material adverse effect on the ability of Aceragen or any other Responsible Party to perform any of Aceragen's material obligations under this Agreement; (c) a material adverse effect on Development or Commercialization; (d) the inability of Aceragen to make a distribution or payment required by this Agreement; or (e) a material adverse effect on the sales or potential sales of the Product. Notwithstanding the foregoing, any adverse effect that is the result solely of NovaQuest's failure to make a Capital Contribution in accordance with the terms of Section 3.1 shall not be taken into account in determining whether there has been or will be, a Material Adverse Effect.

"***Material Adverse Event***" means any of the following: (a) any Governmental Authority has imposed, or communicated its intent to, impose a suspension, clinical hold (other than the Product Clinical Hold), or other adverse regulatory action regarding the Development Plan or the Product, where such action has had or would reasonably be expected to have a Material Adverse Effect; (b) Aceragen or any other Responsible Party terminates a material clinical study involving the Product; (c) clinical studies other than those set forth in the Development Plan are reasonably required to obtain U.S. Approval; (d) the occurrence of any event that would reasonably be expected to result in at least a twelve (12)-month delay of either (i) a Responsible Party's receipt of U.S. Approval for the Product by the Target U.S. Approval Date or E.U. Approval for the Product by the Target E.U. Approval Date or (ii) the anticipated dates of First Commercial Sale in the U.S. and E.U. set forth in the Development Plan; (e) the occurrence of any of the events set forth the definition of "***Technical Failure***"*;* (f) a Market Withdrawal; (g) any claim, action or challenge regarding the validity or enforceability of a Patent included in the Product IP; (h) any claim that the Development or Commercialization of the Product infringes a Third Party's Patents or misappropriates its trade secrets; (i) each of the Key Employees cease to be actively involved as an executive of Aceragen for any reason for more than ninety (90) days at any time prior to the First Commercial Sale; (j) the existence or occurrence of a Material Adverse Effect; or (k) Aceragen receives a communication from the FDA indicating that the Product Clinical Hold will not be lifted by July 1, 2022 or the Product Clinical Hold not lifted by July 1, 2022.

"***Material Contract***" means (a) any agreement that includes a license or option to license Product IP, (b) any agreement related to the Development, marketing, promotion, manufacture, Commercialization, or distribution of the Product, (c) any agreement related to the Product involving the payment of more than $100,000 during any calendar year (other than employment agreements entered into in the ordinary course of business or approved by the Board), or (d) any other agreement for which breach, non-performance, or failure to renew by Aceragen could reasonably be expected to result in a Material Adverse Event.

"***Net Sales***" means the gross amount invoiced by Aceragen, its Affiliates, and any Licensees, for sales of the Product for end use or consumption to third parties that are not Affiliates or sublicensees of the selling party (unless such purchasing Affiliate or sublicensee is the end user of the Product, in which case the amount billed therefore shall be deemed to be the same amount that would be billed to a Third Party end user in an arm's-length transaction), less the total of the following deductions to the extent they are included in the gross invoiced sale price of the Product or otherwise directly paid or incurred with respect to the sale of the Product to such Third Party as follows:

(a) normal and customary quantity and/or cash discounts and sales returns and allowances, including, without limitation, those granted on account of price adjustments, billing errors, rejected goods, damaged goods, returns, rebates actually allowed and taken, administrative, or other fees or reimbursements of similar payments to wholesalers or other distributors, buying groups, pharmacies, or other institutions;

(b) any rebates, chargebacks or similar payments made by Aceragen, its affiliates, and its licensees with respect to sales paid for by any governmental or regulatory authority such as, by way of illustration and not in limitation of the parties' rights hereunder, federal or state Medicaid, Medicare, U.S. Veterans Administration or other federal, state program or equivalent foreign governmental program;

(c) customs or excise duties or other duties directly imposed and related to the sales making up the gross invoice amount;

(d) sales and other taxes and duties directly related to the sale, to the extent that such items are included in the gross invoice price (but not including taxes assessed against the income derived from such sale); or

(e) freight, postage, shipping, and insurance, expenses (if separately identified in such invoice or billed separately by carrier or customer and in no event will a reduction under this clause (e) exceed three percent (3%) of the applicable fiscal quarter gross amount invoiced for sales of the Product).

With respect to any sale of the Product for consideration other than monetary consideration on arm's length terms, which non-monetary or non-arm's length consideration has the effect of reducing the invoiced amount below what it would have been in the absence of such non-monetary or non-arm's length consideration, for purposes of calculating the Net Sales under this Agreement, the Product in such sale shall be deemed to be sold for cash exclusively and at the average Net Sales price charged to Third Parties for cash sales in arm's length transactions during the applicable

reporting period (or if there were only *de minimus* cash sales, then at the fair market value as determined by comparable markets).

Any recovery, damages, or amounts in settlement received by any Responsible Party with respect to the alleged, actual, or potential infringement of the Product IP in the Territory or any settlement agreement entered into with respect thereto shall be deemed to be Net Sales, minus any reasonable and documented out of pocket costs incurred by Aceragen and or Responsible Party connection with the resolution of such matter.

Net Sales shall be determined from the books and records of Aceragen, its Affiliates, and Licensees, as applicable, maintained in accordance with GAAP as regularly and consistently employed by Aceragen, its Affiliates, and Licensees, as applicable.

For the avoidance of doubt, any revenue from the sale of the Enzyme in any product, dosage, or formulation for use to treat or prevent cystic fibrosis or any other condition or indication other than Farber disease shall not constitute "***Net Sales***" hereunder and Aceragen shall have no obligation to pay any portion of such revenues to NovaQuest or any other Stockholder; provided, however, that Aceragen shall implement a system approved in writing by NovaQuest, which approval shall not be unreasonably withheld, to identify, track, and report revenue earned from the sale of Enzyme for each indication for which it receives Regulatory Approval.

"***Net Sales Report***" has the meaning set forth in Section 4.1(d).

"***Non-Technical Failure Termination Distribution***" means a distribution in an amount equal to the Total Funded Amount plus twelve percent (12%) interest thereon, compounded annually on the basis of a three hundred sixty-five (365)-day year, accruing from the Effective Date through the date on which such Non-Technical Failure Termination Distribution is paid.

"***Non-Technical Failure Termination Event***" has the meaning set forth in Section 3.3(b).

"***NovaQuest***" has the meaning set forth in the preamble hereto.

"***NovaQuest Indemnitees***" has the meaning set forth in Section 10.1.

"***Party***" has the meaning set forth in the preamble hereto.

"***Patents***" means all patents (including all reissues, extensions, substitutions, confirmations, re-registrations, re-examinations, revalidations, supplementary protection certificates, and patents of addition) and patent applications (including all provisional applications, continuations, continuations-in-part, and divisions) and all counterparts and equivalents of any of the foregoing in any country or jurisdiction.

"***Permitted Company***" means a pharmaceutical and/or biologics company with either (a) global annual revenue for its most recently completed Fiscal Year that is equal to or greater than One Hundred Million Dollars ($100,000,000.00), based on most recent data collected or compiled by Evaluate Pharma (or a similar company to the extent Evaluate Pharma's data is not available) or (b) a market capitalization that is equal to or greater than Three Hundred Million Dollars ($300,000,000.00).

"***Person***" means any natural person, corporation, trust, joint venture, association, unincorporated organization, cooperative, company, partnership, trust, limited liability company, government (domestic or foreign), and any agency or instrumentality thereof, or any other entity recognized by law.

"***Phase III Study***" means any human clinical trial of the Product described in the Development Plan that is required for the submission of a Regulatory Filing in any jurisdiction within the Territory.

"***Prime Rate***" has the meaning set forth in Section 4.4.

"***Product***" means each product, dosage, substance or formulation intended for the treatment of Farber disease, that incorporates or is comprised of (alone or together with one or more other active pharmaceutical ingredients) the Enzyme.

"***Product Assets***" means all assets that are material to the Development or Commercialization of the Product in the Territory, including all of the following: Product IP, Product IP Agreements, all Regulatory Filings, product packaging, product inserts, product labels, Regulatory Approval applications, Regulatory Approvals, regulatory exclusivity, copies of correspondence with regulatory authorities, copies of pre-clinical and clinical data, pharmacology and biology data, Material Contracts, and inventory.

"***Product Clinical Hold***" means the clinical hold order issued by the FDA on January 11, 2019 that relates to the Product.

"***Product Development Activities***" means all activities conducted by or on behalf of Aceragen or any other Responsible Party, including efforts undertaken, services performed, and goods purchased, in connection with the Development of the Product.

"***Product Divestiture***" means a License or the sale, lease, transfer, assignment, grant of rights, license or other disposition by Aceragen or any Responsible Party of any rights with respect to, covering, or under a Product (or any portion thereof) or any Product Assets, other than Licenses granted to service providers to Aceragen or any Affiliate in connection with the Development or Commercialization of the Product.

"***Product Funding Period***" means the period commencing on the Closing Date and ending on the earliest to occur of (a) the last day of the Fiscal Quarter in which the Total Funding Commitment is met, (b) U.S. Approval, (c) termination of the Program; or (d) December 31, 2024.

"***Product IP***" means all intellectual property relating to the Product owned or licensed by Aceragen or any other Responsible Party, including: (a) the Product Know-How; (b) all Patents Covering the Product (including, without limitation, its composition, formulation, delivery, manufacture, or use); (c) all trademarks, service marks, trade names, and works protectable under copyright laws, relating to the Product; and (d) all copies and tangible embodiments of any of the foregoing (in whatever form or medium).

"***Product IP Agreement***" means any contract pursuant to which a Responsible Party has been granted, assigned or otherwise conveyed any right, title or interest in or to any Product IP.

"***Product Know-How***" means, with respect to the Product, all conceptions, ideas, reductions-to-practice, innovations, inventions, trade secrets, technology, processes, practices, formulae, instructions, procedures, assembly procedures, results (including biological, chemical, pharmacological, toxicological, pharmaceutical, physical and analytical, preclinical, clinical, safety, manufacturing and quality control data, including study designs and protocols), machines, equipment, compositions of matter, compounds, formulations, genetic material, improvements, enhancements, modifications, technological developments, know-how, methods, treatments, techniques, systems, designs, artwork, drawings, plans, specifications, documentation, data and information, customer lists, lists and identities of key opinion leaders in each case whether or not confidential, proprietary, patentable, copyrightable, or susceptible to any other form of legal protection, in written, electronic or any other form.

"***Program***" means Developing the Product in compliance in all respects with the Development Plan and the Development Budget and in a manner that ensures that a Responsible Party is reasonably likely to receive U.S. Approval on or before the Target U.S. Approval Date and to receive E.U. Approval.

"***PRV***" means a priority review voucher granted by the FDA with respect to Product.

"***PRV Net Proceeds***" means (A) all consideration received directly or indirectly by Aceragen or any of its Affiliates, or any of its or their shareholders, from a Third Party in connection with a PRV Sale Transaction, including all upfront payments, royalties, license fees, license maintenance fees, distribution fees, milestone payments, option payments, collections, recoveries, payments, supplements, or other consideration, compensation, or remuneration of any kind payable to Aceragen or, any Affiliate of Aceragen, regardless of whether such proceeds are received before, on, or after the consummation of the PRV Sale Transaction, including the Fair Market Value of any non-cash proceeds *less* (B) the amount of reasonable and documented out-of-pocket expenses paid by Aceragen or such Affiliate to Third Parties with respect to such PRV Sale Transaction as legal, accounting, investment banking, or other similar types of transaction expenses.

"***PRV Sale Transaction***" means a bona fide, arms-length, fair market value transaction pursuant to which Aceragen or its Affiliate sells any of its right, title, and interest in and to a PRV to a Third Party.

"***PRV Sharing Distribution***" has the meaning set forth in Section 4.1.

"***Purchase Price***" has the meaning set forth in Section 2.1.

"***Quarterly Report***" means a report submitted by Aceragen to NovaQuest in accordance with the provisions of Section 3.1(a), in the form and substance as set forth on Exhibit D and that contains the following information, as applicable: (a) a reasonably detailed clinical update, Development update, regulatory update, PRV update, and Commercialization update regarding the Product; (b) a reasonably detailed summary of any legal action brought by Aceragen during the most recently completed Fiscal Quarter against a Third Party for such Third Party's infringement of any Patents included in the Product IP, if any; (c) a reasonably detailed description of Aceragen's efforts with respect to a PRV Sale Transaction, if Aceragen or any Affiliate has

received a PRV, including information regarding the Third Parties with which Aceragen is discussing a potential PRV Sale Transaction and the terms of any potential PRV Sale Transaction; (d) a complete, accurate, and detailed list of all Eligible Expenses incurred during the most recently completed Fiscal Quarter and a comparison of such Eligible Expenses incurred to the Development Budget; (e) the Capital Request Amount for the most recently completed Fiscal Quarter; and (f) Aceragen's reasonable and good faith estimate of the anticipated expenses to carry out the Product Development Activities for the current Fiscal Quarter and for each subsequent Fiscal Quarter until the receipt of U.S. Approval of the Product. All amounts in each Quarterly Report shall be denominated in U.S. Dollars.

"***Recordkeeping Period***" has the meaning set forth in Section 5.2(a).

"***Redemption***" has the meaning set forth in Section 8.3.

"***Regulatory Approval***" means, with respect to the Product, in any country or jurisdiction, any approval, registration, license or authorization that is required by the applicable Governmental Authority to market and sell such Product in such country or jurisdiction.

"***Regulatory Exclusivity***" means marketing exclusivity for a product conferred by the applicable Governmental Authority in a country or jurisdiction on the holder of a Regulatory Approval for such product in such country or jurisdiction, including, by way of example and not of limitation, regulatory data exclusivity, orphan drug exclusivity, new chemical entity exclusivity and pediatric exclusivity.

"***Regulatory Filing***" means any applications, filings, or submission required by or provided to a Governmental Authority relating to a priority review voucher or the Development, manufacture, Commercialization, pricing, or other exploitation of the Product, including any supporting documentation, correspondence, meeting minutes, amendments, supplements, registrations, licenses, regulatory drug lists, advertising and promotion documents, adverse event files, complaint files, and manufacturing, shipping, or storage records with respect to any of the foregoing, including a BLA, MAA, drug master file, clinical trial application, and any counterparts or equivalents of any of the foregoing.

"***Report Update***" has the meaning set forth in Section 3.3(c).

"***Required Net Sales Distributed Amount***" means the aggregate total of all Required Net Sales Distributions paid to Stockholder as of a specified date of determination.

"***Required Net Sales Distribution***" has the meaning set forth in Section 4.1(c).

"***Required Net Sales Distribution Rate***" has the meaning set forth in Section 4.1(c).

"***Responsible Party***" means (a) each of Aceragen and its Affiliates and (b) each Licensee.

"***Restated Certificate***" means the Amended and Restated Certificate of Incorporation in the form attached to this Agreement as Exhibit G.

"***Satisfaction Milestone***" means the aggregate of all Distributions paid to Stockholder are equal to four (4) times the Total Funding Commitment.

"***Security Agreement***" has the meaning set forth in the Introduction hereto.

"***Senior Officer***" means (a) in the case of NovaQuest, its managing partner and (b) in the case of Aceragen, its chief executive officer.

"***Series X Preferred Stock***" means the Series X Preferred Stock of Aceragen.

"***Shares***" has the meaning set forth in Section 2.1.

"***Stockholder***" means the holder of any of the Shares, provided, that if more than one Person holds the Shares, then "**Stockholder**" shall be deemed to mean the holders of the Shares on a pro rata basis, as applicable. Stockholder is used herein when referring to the Person or Persons entitled to receive the economic benefits of the Shares and may or may not be limited to NovaQuest.

"***Successful Completion***" means, with respect to the Phase III Studies, the achievement of the primary clinical endpoint identified in the protocol for the Phase III Studies.

"***Target E.U. Approval Date***" means October 1, 2024.

"***Target U.S. Approval Date***" means September 1, 2024.

"***Tax***" means any present or future tax, levy, impost, duty, assessment, charge, fee, deduction, or withholding of any nature and whatever called (including interest and penalties thereon) by any Governmental Authority, on whomever and wherever imposed, levied, collected, withheld, or assessed.

"***Technical Failure***" means any of the following:

(a) a reasonable and good faith determination by Aceragen that the Product presents risk of death, a life-threatening condition, or a serious safety or health concern to patients such that, based on then-available data, the Product cannot ethically and in good faith continue to be administered to patients;

(b) through no fault of any Responsible Party, the Product fails to achieve a primary end point for a Phase III Study such that the Product is not reasonably likely to receive U.S. Approval; or

(c) Aceragen receives either (i) a final unconditional non-approval letter from the FDA with respect to the Product or (ii) an equivalent notice from the European Medicines Agency that, in either the case of (i) or (ii), renders the receipt of Regulatory Approval in the U.S. or the European Union not reasonably likely.

For the avoidance of doubt, if any of the foregoing (a) through (c) of this definition is caused in whole or in part by (i) the gross negligence or willful misconduct by a Responsible Party or (ii)

problems or concerns relating to chemistry, manufacturing, or controls, then a "***Technical Failure***" shall be deemed not to have occurred.

"***Technical Failure Termination***" has the meaning set forth in Section 3.3(a).

"***Term***" has the meaning set forth in Section 9.1.

"***Territory***" means worldwide.

"***Third Party***" means any Person, including a Governmental Authority, other than Aceragen, NovaQuest, and each of their respective Affiliates.

"***Third Party Claim***" has the meaning set forth in Section 10.1.

"***Total Capital Contribution Commitment***" means Twenty Million Dollars ($20,000,000).

"***Total Funded Amount***" means, as of any date of determination from and after the Closing, the sum of the Purchase Price and all Capital Contributions paid by NovaQuest to Aceragen.

"***Total Funding Commitment***" means Thirty-Five Million Dollars ($35,000,000).

"***Transaction Agreements***" means this Agreement, the Investors' Rights Agreement, the Voting Agreement, the Warrant, and the Security Agreement.

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

"***U.S. Approval***" means the receipt of Regulatory Approval in the United States from the FDA.

"***U.S. Approval Date***" means the date Aceragen or an Affiliate of Aceragen receives U.S. Approval.

"***Voting Agreement***" means the Voting Agreement in the form attached to this Agreement as Exhibit I.

"***Warrant***" has the meaning set forth in Section 2.1.

"***Warrant Shares***" means the shares of Common Stock issued or issuable upon exercise of the Warrant.

ARTICLE II

PURCHASE AND SALE OF STOCK AND WARRANT

2.1 Sale and Issuance of Stock and Warrant.

(a) Aceragen shall have adopted and filed the Restated Certificate with the Secretary of State of the State of Delaware on or before the Closing.

(b) Subject to the terms and conditions of this Agreement, at the Closing, Aceragen agrees to sell and issue to NovaQuest five shares of Series X Preferred Stock (the "***Shares***") and a warrant to purchase up to 618,800 shares of Common Stock in substantially the form set forth on Exhibit E (the "***Warrant***"), and NovaQuest agrees to purchase the Shares and the Warrant for an aggregate purchase price of $15,000,000 (the "***Purchase Price***").

(c) The purchase and sale of the Shares and the Warrant, and the effectiveness of the transactions contemplated by this Agreement (the "***Closing***"), will occur promptly following the satisfaction of the conditions set forth in Section 2.2 in the manner described in Exhibit F.

(d) Promptly upon receipt of the Purchase Price, Aceragen shall deliver to NovaQuest the Warrant and evidence of the book entry of the issuance of the uncertificated Shares. NovaQuest shall pay the Purchase Price by wire transfer to the bank accounts set forth in Exhibit F in the manner described in Exhibit F. The "***Closing Date***" shall be deemed to be each date on which NovaQuest pays any part of the Purchase Price.

2.2 Closing and Effectiveness Conditions.

(a) Aceragen Conditions. Aceragen's obligation to sell the Shares and Warrant to NovaQuest at the Closing, and to consummate the transactions under this Agreement, shall be subject to the satisfaction of the following conditions:

(i) NovaQuest shall have delivered a certificate, executed by an authorized officer of NovaQuest, certifying that the representations and warranties set forth in Section 7.2 are true and correct in all material respects as of the Closing Date (except with respect to representations and warranties qualified by the term "**material**", which representations and warranties shall be true and correct in all respects as of the Closing Date);

(ii) NovaQuest shall have executed and delivered the Security Agreement;

(iii) NovaQuest shall have executed and delivered the Warrant;

(iv) NovaQuest shall have executed and delivered the Investors' Rights Agreement; and

(v) NovaQuest shall have executed and delivered the Voting Agreement.

(b) NovaQuest Conditions. NovaQuest's obligation to purchase the Shares and Warrant at the Closing and to otherwise consummate the transactions under this Agreement shall be subject to the satisfaction of the following conditions:

(i) Aceragen shall have delivered a certificate, executed by an authorized officer of Aceragen, certifying (i) the Restated Certificate and Bylaws of Aceragen as in effect at the Closing, (ii) the resolutions of the Board approving this Agreement and the transactions contemplated hereby, and (iii) the resolutions of the stockholders of Aceragen approving the Restated Certificate;

(ii) Aceragen shall have delivered a certificate, executed by an authorized officer of Aceragen, certifying that (A) the representations and warranties set forth in Section 7.1 are true and correct in all material respects as of the Closing Date (except with respect to representations and warranties qualified by the term "**material**" or Material Adverse Effect, which representations and warranties shall be true and correct in all respects as of the Closing Date, as qualified by the Disclosure Schedule attached hereto or, in the case of each additional Capital Contribution, as qualified by a supplemental disclosure schedule accompanying such certificate) and (B) Aceragen has complied in all material respects with the covenants set forth in Section 8.6;

(iii) Aceragen shall have filed the Restated Certificate with the Secretary of State of Delaware on or prior to the Closing, which shall continue to be in full force and effect as of the Closing;

(iv) NovaQuest shall have received from Hutchison PLLC, counsel for Aceragen, an opinion, dated as of the Closing Date, in substantially the form of Exhibit H attached to this Agreement;

(v) As of the Closing, the authorized size of the Board shall be six (6), and the Board shall be comprised of John Taylor, Atul Chopra, Dan Salain, Andy Jordan, Ronald J. Wooten, and Stephen M. Lesser;

(vi) Aceragen shall have executed and delivered an Indemnification Agreement with each member of the Board pursuant to the Voting Agreement, dated as of the date of the Closing;

(vii) Aceragen shall have executed and delivered the Security Agreement; (viii) Aceragen shall have executed and delivered the Warrant;

(viii) Aceragen shall have executed and delivered the Investors' Rights Agreement; and

(ix) Aceragen shall have executed and delivered the Voting Agreement.

2.3 Additional Capital; Distributions. Subject to the terms and conditions hereof and subject to the satisfaction of the condition that (i) the Closing has occurred and (ii) Aceragen is then Developing the Product in accordance with this Agreement (including, for the avoidance of doubt, in accordance with the Development Plan and the Development Budget), NovaQuest shall

provide additional capital to Aceragen as set forth in Section 3.1 up to an aggregate maximum amount equal to the Total Capital Contribution Commitment, and Aceragen agrees that it shall make Distributions to the holders of Series X Preferred Stock as set forth in ARTICLE IV. For the avoidance of doubt, Aceragen accepts, acknowledges, and agrees that NovaQuest is agreeing, on the terms and conditions set forth in this Agreement, only to purchase the Shares and Warrant as set forth in this ARTICLE II and to satisfy the funding obligations set forth in Section 3.1 and is not assuming any Liability of Aceragen, of whatever nature, whether presently in existence or arising or asserted hereafter.

ARTICLE III

DEVELOPMENT AND COMMERCIALIZATION

3.1 Product Development Funding.

(a) Quarterly Reports; Capital Contributions.

(i) For each Fiscal Quarter that ends after the Closing, Aceragen shall submit a complete and correct Quarterly Report to NovaQuest within ten (10) Business Days following the last Business Day of each such Fiscal Quarter, provided that after the Product Funding Period, Quarterly Reports shall not be required to include the items set forth in clauses (d)-(f) of the definition of "**Quarterly Report**". For each such Fiscal Quarter, NovaQuest will make a capital contribution to Aceragen in an amount equal to the Capital Request Amount for such Fiscal Quarter (each a "***Capital Contribution***"); *provided, however,* that the aggregate amount of all Capital Contributions that NovaQuest shall make to Aceragen shall not in any event exceed the Total Capital Contribution Commitment. NovaQuest shall make each Capital Contribution within twenty (20) Business Days after receipt of the applicable Quarterly Report. If NovaQuest in good faith disputes any Eligible Expense listed in or other portion of a Quarterly Report, NovaQuest will promptly give Aceragen written notice of such dispute and pay the amount of the Capital Request Amount not in dispute within the twenty (20) Business Day period described above. The Parties will then attempt to resolve in good faith the disputed portion via the procedures set forth in Section 11.3. For the avoidance of doubt, no additional shares of Aceragen's stock will be issued upon or in exchange for any Capital Contribution.

(b) The payments under this Section 3.1 will be made in U.S. Dollars by electronic wire transfer in immediately available funds to the Aceragen Bank Account (as defined in Exhibit F). Notwithstanding anything to the contrary herein, for the avoidance of doubt, NovaQuest's aggregate payment obligations under this Section 3.1 shall not exceed the Total Funding Commitment.

3.2 Diligence.

(a) Development.

(i) Aceragen shall, and shall ensure that each Responsible Party shall (A) use Commercially Reasonable Efforts to perform all activities described in the Development Plan in accordance with the timelines set forth in the Development Plan and in compliance in all material respects with the Development Budget and (B) otherwise Develop the Product in a

manner that ensures that Aceragen is reasonably likely to obtain U.S. Approval no later than the Target U.S. Approval Date and to obtain E.U. Approval no later than the Target E.U. Approval Date. Aceragen agrees to timely and promptly pay and fund all Product Development Activities, including those that exceed NovaQuest's obligations to make Capital Contributions set forth in Section 3.1.

(ii) Neither the Development Plan nor the Development Budget may be amended in any material respect without the prior written consent of NovaQuest.

(iii) Upon and following Successful Completion, Aceragen shall promptly, but in any event within six (6) months after Successful Completion, prepare, complete, and submit to the FDA all Regulatory Filings necessary to obtain U.S. Approval and a PRV.

(b) Commercialization Diligence. Aceragen shall, and shall ensure that each Responsible Party shall, use Commercially Reasonable Efforts to launch, market, promote, sell, and otherwise Commercialize the Product in each jurisdiction in the Territory for which Regulatory Approval is received. Aceragen shall, and shall ensure that each Responsible Party shall, use Commercially Reasonable Efforts to manufacture or have manufactured the Product in sufficient quantities and of adequate quality to satisfy forecasted wholesaler and direct buyer demand in the Territory after the receipt of Regulatory Approval in any jurisdiction in the Territory.

(c) Sale of the PRV. If Aceragen or any Affiliate of Aceragen receives a PRV, then Aceragen shall, and shall ensure that its Affiliates shall, (a) promptly following receipt of a PRV, use Commercially Reasonable Efforts to identify a Third Party to purchase the PRV and to consummate a PRV Sale Transaction with such Third Party and (b) use Commercially Reasonable Efforts to consummate a PRV Sale Transaction within twelve (12) months of Aceragen's or its Affiliate's receipt of a PRV.

3.3 Program Termination.

(a) Right to Terminate for Technical Failure. Aceragen shall not, and shall ensure that no Responsible Party shall, suspend or terminate the Program during the Term for any reason (even a Commercially Reasonable reason), except that Aceragen may terminate the Program in its entirety upon the occurrence of a Technical Failure and then only in accordance with this Section 3.3(a). If Aceragen reasonably and in good faith determines that a Technical Failure may have occurred, then Aceragen shall provide NovaQuest, within five (5) Business Days of such determination, written notice thereof and the details and evidence of such failure. The Parties (including each Party's Senior Officer) shall meet in person as promptly as possible to review and discuss the purported Technical Failure and the possible termination of the Program. Aceragen will reasonably consider NovaQuest's feedback with respect to the purported Technical Failure and keep NovaQuest fully informed on a timely basis regarding the details of any discussions or correspondence regarding any termination of the Program for Technical Failure. If Aceragen decides, after reasonably considering NovaQuest's feedback, to terminate the Program for Technical Failure (a "***Technical Failure Termination***"), then Aceragen shall immediately deliver written notice of the same to NovaQuest. Aceragen shall not delay its decision to terminate

the Program for Technical Failure to obtain additional Capital Contributions from NovaQuest under Section 3.1.

(b) Non-Technical Failure Termination. Aceragen shall become obligated to effect the Non-Technical Failure Termination Distribution if either of the following events occurs for reasons other than due to a Technical Failure in accordance with Section 3.3(a) and which do not directly result from NovaQuest's failure to cure a material breach of its obligations under Section 3.1 (each of which, a "***Non-Technical Failure Termination Event***"):

(i) a Responsible Party suspends or terminates the Program in any material respect; or

(ii) the Responsible Parties fail, for three (3) consecutive months or longer, to actively and materially engage in the Development of the Product in a manner that is intended to ensure that Aceragen is reasonably likely to obtain U.S. Approval on or before the Target U.S. Approval Date and to obtain E.U. Approval.

Upon the occurrence of a Non-Technical Failure Termination Event, Aceragen shall promptly (A) notify NovaQuest of such event and provide NovaQuest with all relevant details regarding such event and (B) within thirty (30) days after the date on which such event occurs, effect the Non-Technical Failure Termination Distribution. For the avoidance of doubt, NovaQuest's exercise of its rights under Section 3.3(d) does not, and will not, constitute a material breach of NovaQuest's obligations under Section 3.1.

(c) Consequences of Program Termination by Aceragen. If Aceragen terminates the Product Development Activities for any reason (including pursuant to a Technical Failure) or if a Non-Technical Failure Termination Event has occurred, then (in addition to any other applicable terms and provisions of Section 3.3):

(i) NovaQuest's obligations under this Agreement to make any additional Capital Contributions will terminate immediately;

(ii) If (A) Aceragen is not obligated to effect a Non-Technical Failure Termination Distribution with respect to such termination or Non-Technical Failure Termination Event, and (B) the Total Funded Amount exceeds the sum of (x) the cumulative Eligible Expenses and Enzyvant Expenses incurred as of such time plus (y) an amount, not to exceed the amount of projected Eligible Expenses for the following Fiscal Quarter, equal to the total amount of any reasonable, documented noncancelable payments Aceragen is required to make to Third Parties (which, for the avoidance of doubt, exclude employees, officers and directors of Aceragen) pursuant to commitments entered into prior to such termination in accordance with the Development Plan and Development Budget ((x), (y), and (z) collectively, the "***Cumulative Expenses***"), then Aceragen shall effect a distribution to Stockholder in the amount equal to the difference between the Total Funded Amount and the Cumulative Expenses within thirty (30) days after the date of the applicable event;

(iii) Aceragen shall remain obligated to effect distributions to Stockholder pursuant to ARTICLE IV, with any Non-Technical Failure Termination Distribution

paid to Stockholder to be credited against Aceragen's future distribution obligations under ARTICLE IV; and

(iv) If Aceragen or any other Responsible Party subsequently resumes conduct of the Program after such termination (or is deemed to have resumed conduct of the Program as set forth below), then Aceragen shall provide NovaQuest with (A) prompt written notice thereof (but in any event within thirty (30) days of such resumption) and (B) as promptly as practicable thereafter, a complete and accurate report containing a summary of the information that is material as of the date such report is provided (the "***Report Update***"). Within thirty (30) Business Days of Aceragen providing the Report Update to NovaQuest, NovaQuest shall have the right (but not the obligation), upon written notice to Aceragen, to resume making any remaining Capital Contributions in accordance with Section 3.1 hereof. For the purposes of this Agreement, Aceragen will be deemed to have resumed conduct of the Program if Aceragen or any other Responsible Party engages in any material Development or Commercialization of the Product. For the avoidance of doubt, Aceragen's obligations to make payments to NovaQuest pursuant to ARTICLE W shall survive termination of the Program for Technical Failure under Section 3.3(a) or Section 3.3(b).

(d) NovaQuest's Right to Suspend Payments. Without limiting any of NovaQuest's rights or remedies, if NovaQuest reasonably and in good faith determines that a Material Adverse Event has occurred or is likely to occur, then, anything to the contrary in this Agreement notwithstanding, NovaQuest shall have the right, in its sole discretion, to suspend paying any further Capital Contributions. NovaQuest shall provide Aceragen with written notice thereof within three (3) Business Days of such determination. NovaQuest's obligation to make any further Capital Contributions shall resume following the resolution or curing of the Material Adverse Event to NovaQuest's reasonable satisfaction. If NovaQuest elects to suspend its obligation to make Capital Contributions and the applicable Material Adverse Event is not resolved or cured to NovaQuest's reasonable satisfaction within six (6) months, then NovaQuest may, in its sole discretion, terminate its obligation to make any further Capital Contributions.

ARTICLE IV

REQUIRED DISTRIBUTIONS

4.1 Distributions and Reports.

(a) PRV Sharing Distributions; PRV Report. Aceragen shall, within ten (10) Business Days of its receipt of PRV Net Proceeds, make a distribution to Stockholder in an amount equal to thirty-five percent (35%) of such PRV Net Proceeds (each such payment, a "***PRV Sharing Distribution***"). Aceragen shall prepare a written report showing a reasonable accounting of such PRV Net Proceeds and the calculation of the PRV Sharing Distribution, and it shall deliver each such report to NovaQuest simultaneously with each PRV Sharing Distribution.

(b) Approval Milestone Distribution. If Aceragen does not receive a PRV in connection with U.S. Approval of the Product, or if Aceragen does not complete a PRV Sale Transaction within twelve (12) months after Aceragen's or its Affiliate's receipt of a PRV, then Aceragen shall make a distribution to Stockholder in an amount equal to the Total Funding

Commitment in two (2) equal installments (the "***Approval Milestone Distribution***"), the first of which shall be effected within forty-five (45) days after the U.S. Approval Date and the second of which shall be effected within one (1) year after the U.S. Approval Date.

(c) Required Net Sales Distributions. Commencing with the Fiscal Quarter in which the First Commercial Sale occurs and continuing for each subsequent Fiscal Quarter until the Distribution End Date, Aceragen shall make a distribution to Stockholder in an amount equal to the product of (i) Required Net Sales Distribution Rate multiplied by (ii) the aggregate total of the Net Sales for such Fiscal Quarter (each such payment, a "***Required Net Sales Distribution***"). The "***Required Net Sales Distribution Rate***" shall initially be fifteen percent (15%); *provided*, that upon the achievement of the Satisfaction Milestone, the Required Net Sales Distribution Rate shall decrease to five percent (5%). Aceragen shall effect each Required Net Sales Distribution within thirty (30) days after the end of each Fiscal Quarter during which any Net Sales occur.

(d) Net Sales Reports. Commencing with the Fiscal Quarter during which the First Commercial Sale occurs and for each Fiscal Quarter thereafter, within forty-five (45) days after the end of each such Fiscal Quarter, Aceragen shall prepare and deliver a written report to NovaQuest showing details of all orders that Responsible Parties received for delivery of the Product in the Territory during such Fiscal Quarter and an accurate calculation of Net Sales for such Fiscal Quarter, including the specific jurisdictions in which such Net Sales were invoiced and the deductions taken to make the calculation of each Required Net Sales Distribution owed for that Fiscal Quarter (such written report, a "***Net Sales Report***"). For the avoidance of doubt, Aceragen shall provide NovaQuest with a Net Sales Report pursuant to this Section 4.1(d) even if no Required Net Sales Distribution is owed for a given Fiscal Quarter.

4.2 Stockholder's Account. All distributions made to Stockholder shall be made in U.S. Dollars by wire transfer in immediately available funds to such accounts as Stockholder designates in writing from time to time. With respect to Net Sales invoiced in a currency other than U.S. Dollars, such Net Sales will be converted into the U.S. Dollar equivalent using the conversion rate existing in the United States (as reported in *The Wall Street Journal*, New York edition) for the applicable currency on the last Business Day of the applicable Fiscal Quarter. If *The Wall Street Journal* ceases to publish such exchange rate, then the rate of exchange to be used shall be that reported in such other business publication of national circulation in the United States on which the Parties reasonably agree.

4.3 Taxes. If any Governmental Authority requires Aceragen to deduct or withhold any amount from, or Stockholder to pay any present or future Tax, assessment, or other governmental charge on, any distribution or payment made to Stockholder (a "***Withholding Payment***"), then Aceragen shall, in addition to paying Stockholder the amount reduced by such Withholding Payment, simultaneously pay Stockholder an additional amount such that Stockholder receives the full distribution or payment amount as if no such Withholding Payment had occurred. Notwithstanding the foregoing, Aceragen shall not be required to pay any such additional amount to Stockholder to the extent that a Withholding Payment is attributable to Excluded Taxes.

4.4 Interest. If any distribution required to be made by Aceragen to Stockholder under this Agreement is not made when due, then such outstanding payment will accrue interest, beginning on the date when the payment was due, at a rate equal to five percent (5%) plus the

Prime Rate, subject to any limitation under Applicable Law. Such rate will be compounded every ninety (90) calendar days, commencing on the date on which such payment was due. Payment of accrued interest will accompany payment of the outstanding distribution. "***Prime Rate***" means the prime rate as reported in *The Wall Street Journal*, New York edition, on the date such payment is due.

ARTICLE V

INFORMATION RIGHTS; RECORD KEEPING

5.1 Information Rights.

(a) In addition to Aceragen's other reporting and disclosure obligations contained in this Agreement, Aceragen shall, and shall cause all other Responsible Parties to, promptly prepare and provide NovaQuest with reasonable notice and information regarding each of the following matters relating to the Product or a PRV and to promptly respond to NovaQuest's reasonable inquiries with respect thereto and promptly provide, upon NovaQuest's request, information and documents related to each of the following matters:

(i) general Development and commercial readiness overview and updates, including any issues regarding manufacturing of the Product;

(ii) notification of scheduled meetings, including teleconferences, with a Governmental Authority;

(iii) finalized briefing packages and minutes from meetings with a Governmental Authority, notifications, letters, and other communications with a Governmental Authority;

(iv) material Regulatory Filings, including any MAA, BLA or application for a PRV;

(v) safety update reports provided to a Governmental Authority and any actual or anticipated issues with the supply of the Product;

(vi) any matters arising from Patents Covering the Product and other intellectual property rights protecting the Product, including intellectual property rights owned or controlled by Third Parties, that might adversely impact the Program;

(vii) any decision or anticipated decision to cease Developing, marketing, selling, or otherwise Commercializing the Product;

(viii) anticipated expenses related to Development and Commercialization scale-up and budgets associated therewith;

(ix) clinical trial protocols, statistical analysis plans, final clinical study reports, and equivalent documents from pre-clinical trials;

(x) clinical trial enrollment, progress, and results of the Phase III Studies and general progress of the Development Plan;

(xi) receipt of Regulatory Approval or a PRV;

(xii) the marketing, promotion, and other Commercialization activities on behalf of the Product, including forecasts of Net Sales and marketing plans;

(xiii) activities of Aceragen and its Affiliates toward achieving a PRV Sale Transaction, including the marketing and promotion of the PRV;

(xiv) any discussions with Third Parties regarding a potential PRV Sale Transaction, any term sheet or summary of terms related to a PRV Sale Transaction, and any agreement related to a PRV Sale Transaction; and

(xv) each forecast to be provided pursuant to Section 5.1(c).

Aceragen may reasonably select the means and format of communication for delivery of such information, including via summaries, reports, and presentations made during meetings of the Board; provided, however, that upon NovaQuest's reasonable request, Aceragen promptly shall provide complete and accurate copies of, or provide reasonable access to, any material information and documents related to the information provided by Aceragen pursuant to this Section and to the individuals responsible for generating, maintaining, or carrying out the activities relating to such information.

(b) Promptly following database lock with respect to any human clinical trial for the Product, Aceragen shall deliver to NovaQuest complete and correct copies of all draft tables, graphs, and data listings arising from internal analyses (including any analysis performed by any contract research organization on a Responsible Party's behalf) of the data from such clinical trial.

(c) Aceragen shall, and shall ensure that each other Responsible Party shall, forecast and track orders for the Product in the Territory for each Fiscal Quarter. No later than thirty (30) days prior to the anticipated date of the First Commercial Sale in the Territory, Aceragen will provide NovaQuest with a copy of Aceragen's good faith forecasted wholesaler and direct buyer unit demand for the Product in the Territory for the then-current Fiscal Year and will then provide such a forecast for each subsequent Fiscal Year to NovaQuest no later than thirty (30) days prior to the start of each such Fiscal Year. Each such forecast shall take into account the forecasts provided by Responsible Parties.

5.2 Aceragen's Record Keeping; NovaQuest's Audit Rights.

(a) Records. Aceragen shall, and shall ensure that the Responsible Parties shall, consistent with GAAP, keep and maintain for a period of at least five (5) years from the end of any Fiscal Quarter (except as otherwise provided herein) accounts and records of all data reasonably required to verify:

(i) any and all information required to be provided to NovaQuest under this Agreement; and

(ii) (A) the gross amount invoiced by any Responsible Party to Third Parties for sales of the Product and (B) the calculations of (x) Net Sales, (y) the Required Net Sales Distributions, and (z) if applicable, PRV Sharing Distributions.

Aceragen's and the Responsible Parties' recordkeeping obligations under this Section 5.1 shall survive the termination of this Agreement until the date that is three (3) years following the last day on which a payment is due under this Agreement (the "***Recordkeeping Period***").

(b) Audit. From the Effective Date until the expiration of the Recordkeeping Period, upon prior written notice to Aceragen, NovaQuest shall have the right to review and audit, through an independent certified public accountant selected by NovaQuest, those accounts and records of Aceragen and the other Responsible Parties as NovaQuest determines is reasonably necessary to verify Aceragen's and Responsible Parties' compliance with this Agreement. Such review and audits shall occur during normal business hours at a time reasonably acceptable to Aceragen. NovaQuest shall be solely responsible for all of the expenses of any such audit, unless the independent certified public accountant's report shows, in respect of any Fiscal Year then being reviewed, an underpayment of amounts due to Stockholder hereunder for such Fiscal Year by more than five percent (5%), in which case Aceragen shall be responsible for the reasonable expenses incurred by NovaQuest for the independent certified public accountant's services. If the report shows an underpayment of amounts due to Stockholder hereunder, then Aceragen will pay Stockholder an amount equal to such underpayment, plus interest on such amounts in accordance with Section 4.4, within thirty (30) calendar days after receipt of notice of such underpayment and copy of the relevant portion of the audit report. If the report shows an overpayment, the amount of such overpayment shall be credited against any subsequent payment due hereunder. No Fiscal Year shall be subject to an audit more than one time or more than four years after the end of such Fiscal Year.

5.3 Notice of Certain Events. Aceragen will notify NovaQuest in writing with respect to the following matters promptly upon Aceragen's or a Responsible Party's knowledge thereof (and Aceragen shall be responsible for ensuring that each Responsible Party notifies Aceragen of such matters upon such Responsible Party becoming aware thereof):

(a) The occurrence, or reasonable probability of the future occurrence, of any Material Adverse Event;

(b) any decision or, material contemplation by Aceragen or any other Responsible Party to cease the Development or Commercialization of the Product in the Territory;

(c) the actual or threatened revocation, withdrawal, suspension, cancellation, termination, or material modification of any approvals or authorizations, including any Regulatory Approval, from any Governmental Authority with respect to the Product;

(d) Aceragen's or any other Responsible Party's being debarred, excluded, suspended, or otherwise ineligible to participate in government health care programs;

(e) Aceragen's or any other Responsible Party's becoming a party to a settlement, consent, or similar agreement with any Governmental Authority regarding the Product;

(f) Aceragen's or any other Responsible Party's being charged with, or convicted of, violating any Applicable Law regarding the Product;

(g) Prior to the receipt of U.S. Approval and E.U. Approval, any clinical trial of the Product being suspended, put on hold, or terminated prior to completion as a result of any action by the FDA or other Governmental Authority or as a result of a Responsible Party's voluntary decision;

(h) the receipt by Aceragen or any other Responsible Party of any adverse written notice from any Governmental Authority regarding the approvability or approval of the Product or a PRV;

(i) the commencement of discussions with Third Parties regarding a potential PRV Sale Transaction, the signing of any term sheet or summary of terms related to a PRV Sale Transaction, or the execution of any agreement related to a PRV Sale Transaction; and

(j) any breach or threatened breach of any Material Contract.

Any notice provided pursuant to this Section 5.3 shall include a reasonably detailed description of the event giving rise to the requirement to provide such notice, along with complete and correct copies of all material documentation related thereto.

5.4 Funding Agreement Oversight Committee.

(a) Generally.

(i) the provisions of this Section 5.4 shall apply at any time that NovaQuest does not have the right to appoint an individual to serve as a member of Aceragen's Board of Directors.

(ii) To fulfil the objectives and provide monitoring of the Product Development Activities and this Agreement, Aceragen and NovaQuest shall form an oversight committee (the "***FAOC***"). The Funding Agreement Oversight Committee shall be a primary forum for the Parties to: (i) exchange information regarding the Product Development Activities and the Product; (ii) review and comment on the Development and Commercialization of the Product; (iii) review potential material amendments to the Development Plan (including any potential amendment to the Development Budget) and clinical trial protocols; (iv) review clinical study reports; and (v) discuss any matters, issues, or problems relating to the foregoing. Aceragen will reasonably consider comments from NovaQuest's Oversight Committee Members regarding the matters described in this Section 5.4.

(b) FAOC Membership. The FAOC shall consist of two (2) senior executives of Aceragen appointed by Aceragen and two (2) senior executives of, or consultants to, NovaQuest appointed by NovaQuest (each member of the FAOC, an "***Oversight Committee Member***"). Upon reasonable notice of a Party, other representatives of such Party may attend meetings of the

Funding Agreement Oversight Committee. A Party may change either or both of its Oversight Committee Members at any time but shall give notice to the other Party of any such change as soon as reasonably practical.

(c) Meetings. The FAOC shall meet within thirty (30) calendar days of the Effective Date and then at least one time every four (4) months thereafter until the earlier of Technical Failure or U.S. Approval. Such meetings shall be conducted either in person at a mutually agreed upon location, or by telephone or videoconference, as the Parties agree (and if the Parties do not agree, then it shall be held by telephone on the tenth (10th) Business Day of the next Fiscal Quarter at 9:00 AM Eastern Time). Notwithstanding the foregoing, the FAOC shall meet in person at least once per Fiscal Year (subject to applicable COVID-19 restrictions or similar safety concerns). Reasonably in advance of each such meeting, Aceragen shall deliver to NovaQuest's Oversight Committee Members an agenda of the meeting and any background materials to be discussed. Finally, if at any time during the Term, a material development occurs regarding the Product, including any matter described in Section 5.3 above, then either Aceragen or NovaQuest may request a special meeting of the FAOC, and the Oversight Committee Members will use Commercially Reasonable Efforts to convene such special meeting as quickly as possible, but no later than ten (10) Business Days after such request.

(d) Termination. The FAOC shall be dissolved on the later of the date of the First Commercial Sale of Product in the U.S. following U.S. Approval or the date of the First Commercial Sale of Product in the E.U. following E.U. Approval.

5.5 Data Room. Within ten (10) Business Days after the Effective Date, Aceragen shall deliver to NovaQuest on one or more USBs, an electronic copy of all the documents and information contained in the virtual online data rooms hosted on behalf of Aceragen by Lightserve Corporation and on behalf of Enzyvant by Donnelley Financial Solutions (through its Venue virtual data room) as of the Effective Date, together with a written certification from any authorized officer of Aceragen to verify the completeness and accuracy of all such documents so delivered.

ARTICLE VI

CONFIDENTIAL INFORMATION

6.1 Definition of Confidential Information. For purposes of this Agreement, the term "***Confidential Information***" of a Party means the terms of this Agreement and any information or materials furnished by or on behalf of such Party or its Affiliates to another Party or its Affiliates pursuant to this Agreement, or prior to the Effective Date in anticipation of entering into this Agreement, or learned through observation during visit(s) to any facility of the Party or its Affiliates, in each case which information (a) if disclosed in tangible form, is marked "***Confidential***" or with other similar designation to indicate its confidential or proprietary nature or (b) if disclosed orally, is indicated orally to be confidential or proprietary at the time of such disclosure. Notwithstanding the foregoing, Confidential Information shall not include information that:

(i) was already known to the receiving Party, other than under a legal, contractual, or fiduciary obligation of confidentiality to or for the benefit of the disclosing Party,

at the time it was disclosed to or learned by the receiving Party hereunder, as evidenced by the receiving Party's written records;

(ii) was generally available to the public or otherwise part of the public domain at the time it was disclosed to or learned by the receiving Party hereunder;

(iii) became generally available to the public or otherwise part of the public domain after it was disclosed to or learned by the receiving Party hereunder, other than through any act or omission of the receiving Party in breach of this Agreement;

(iv) was lawfully disclosed to the receiving Party, after it was disclosed to or learned by the receiving Party hereunder, by a Third Party that, to the receiving Party's knowledge, is not bound by any legal, contractual, or fiduciary obligation of confidentiality to or for the benefit of the disclosing Party; or

(v) is independently developed by the receiving Party without the benefit or use of the Confidential Information of the disclosing Party.

6.2 Obligations. Except as authorized in this Agreement or except upon obtaining the other Party's prior written consent, each Party agrees that for the Term and for five (5) years thereafter, it will:

(a) maintain in confidence, and not disclose to any Person or entity, the other Party's Confidential Information;

(b) not use the other Party's Confidential Information for any purpose, except for performing its obligations and exercising its rights and remedies under this Agreement; and

(c) protect the other Party's Confidential Information in its possession by using substantially the same or higher degree of care as it uses to protect its own Confidential Information (but no less than a reasonable degree of care).

Notwithstanding anything to the contrary in this Agreement, a Party is entitled to seek injunctive relief to restrain the breach or threatened breach by the other Party of this ARTICLE VI without having to prove actual damages or threatened irreparable harm or post any bond. Such injunctive relief will be in addition to any rights and remedies available to the aggrieved Party at law, in equity, and under this Agreement for such breach or threatened breach.

6.3 Permitted Disclosures.

(a) Permitted Persons. A Party may disclose the other Party's Confidential Information, without the other Party's prior written permission, to:

(i) its Affiliates and its and its Affiliates' limited partners, members, managers, directors and individuals or bodies responsible for governance of receiving Party (including, with respect to NovaQuest, NovaQuest's investment committee and limited partner advisory committee), employees, agents, consultants, attorneys, accountants, banks and other financing sources, and permitted assignees, purchasers, transferees, or successors-in-interest under

Section 11.8, in each case, who need to know such Confidential Information (including to provide financing to receiving Party, to assist receiving Party in evaluating or monitoring receiving Party's interests in the transactions contemplated hereby, or in fulfilling its obligations or exploiting its rights hereunder (or to determine their interest in providing such financing or assistance)) and who are, prior to receiving such disclosure, bound by customary contractual or professional confidentiality and non-use obligations;

(ii) other Persons who are (A) limited partners, members, investors or potential investors (or advisors or fiduciaries (including trustees) or underwriters or placement agents to such Persons) in connection with a private placement or other equity, debt, or other investment or potential investment transaction in or with receiving Party (including, with respect to NovaQuest, an investment or potential investment in or with a NovaQuest Affiliate), who need to know such Confidential Information in connection with making or monitoring such equity, debt, or other investment or potential investment transaction or (B) in the case of NovaQuest, potential investment targets; provided, however, that, (y) for the purpose of this Section 6.3(a)(ii), receiving Party may disclose only Confidential Information of disclosing Party pertinent to the investment or potential investment transaction and may make such disclosures only in anticipation, and during the period, of such investment or potential investment transaction and (z) for the purpose of clause (B) of this Section 6.3(a)(ii), NovaQuest may disclose the identity of Aceragen, the Product that is the subject of this Agreement, and the fact that this Agreement provides for a PRV Sharing Distribution and Required Net Sales Distributions to Persons who are, prior to receiving such disclosure, bound by customary contractual or professional confidentiality and non-use obligations; and

(iii) officers, employees, or advisors of any Governmental Authorities for the purpose of performing Product Development Activities, submitting Regulatory Filings for the Product, and obtaining Regulatory Approval.

(b) Legally Required. A Party may disclose the other Party's Confidential Information, without the other Party's prior written permission, to any Person to the extent such disclosure is necessary to comply with Applicable Law, applicable stock exchange requirements or an order or subpoena from a court of competent jurisdiction; provided, however, that the compelled Party, to the extent reasonably practicable and legally permissible, shall give reasonable advance notice to the other Party of such disclosure and, at such other Party's reasonable request and expense, the compelled Party shall use its reasonable efforts to secure confidential treatment of such Confidential Information prior to its disclosure (whether through protective orders or otherwise). However, if a Party receives a request from an authorized representative of a U.S. or foreign Tax or financial reporting authority (including without limitation the U.S. Securities and Exchange Commission) for a copy of this Agreement, then that Party may provide a copy of this Agreement to such authority representative without advance notice to, or the permission or cooperation of, the other Party, but the disclosing Party shall notify the other Party of the disclosure as soon as reasonably practical.

(c) NovaQuest Consent. Notwithstanding anything to the contrary in this Section 6.3, Aceragen shall not, and Aceragen agrees to ensure that Responsible Parties shall not, without the prior written consent of NovaQuest, disclose to a Third Party any (i) information regarding NovaQuest's or its Affiliates' limited partners; (ii) financial information regarding

NovaQuest or its Affiliates; or (iii) information regarding NovaQuest's or its Affiliates' transactions with Third Parties.

(d) NovaQuest Responsibility. NovaQuest shall ensure that any Person to whom it or any of its Affiliates discloses Confidential Information of Aceragen, Enzyvant or any Responsible Party complies with the confidentiality and non-use provisions of this ARTICLE VI. NovaQuest shall be responsible for any noncompliance or breach by any such person.

6.4 Terms of Agreement. The Parties agree that they will each treat the existence, contents and terms of this Agreement as confidential, and neither Party shall make any press release or other public disclosure that discloses or otherwise concerns this Agreement or any terms hereof, without the prior written consent of the other Party, except to the extent permitted under Section 6.3 or as otherwise permitted in accordance with this Section 6.4 or Section 6.5. Consistent with Section 6.3(b), the Parties agree to use reasonable efforts to provide the other with a copy of any filing required by a securities agency that will be made publicly available regarding the Agreement or its terms to review prior to filing and to consider any comments of the other Party in good faith, and to the extent either Party is required by Applicable Law to file or disclose this Agreement with a securities agency, if the Agreement may become publicly available, such Party shall consider in good faith the other Party's comments with respect to confidential treatment of the Agreement's terms and shall redact the Agreement in a manner allowed by the securities agency to protect sensitive terms, and shall be permitted to file the Agreement, as so redacted, with the securities agency. For purposes of clarity, each Party is free to discuss with Third Parties the information regarding the Agreement and the Parties' relationship disclosed in such securities filings and any other authorized public announcements. Notwithstanding the foregoing, Aceragen shall be allowed, without further permission or consent of NovaQuest to notify Enzyvant of the execution of this Agreement, the receipt of the Purchase Price, and the nature and amount of the Total Funding Commitment.

6.5 Use of Names. Neither Party shall mention or otherwise use the name, insignia, symbol, trademark, trade name or logotype of the other Party or its Affiliates (or any abbreviation or adaptation thereof) in any publication, press release, publicly available promotional material, or other form of publicity without the prior written approval of such other Party in each instance. Notwithstanding the foregoing, the restrictions imposed by this Section 6.5 shall not prohibit a Party from making any disclosure identifying any such Person to the extent required by Applicable Law or the rules of a stock exchange on which the securities of the disclosing Party are listed (or to which an application for listing has been submitted). Further, notwithstanding the foregoing, (i) the Parties agree that each Party shall have the right to publicly disclose the existence of this Agreement as a Stock and Warrant Purchase Agreement with PRV Sharing Distributions and distributions based on Net Sales, the name and a description of the Product, the amount of the Total Funding Commitment, and the names of Aceragen and NovaQuest as the parties hereto and (ii) each Party may use the logo of the other Party solely in connection with disclosures related to this Agreement as otherwise permitted hereunder.

ARTICLE VII

REPRESENTATIONS AND WARRANTIES; LIMITATION OF LIABILITY

7.1 Aceragen's Representations and Warranties. Aceragen represents and warrants to NovaQuest that, except as set forth on the Disclosure Schedule attached as Exhibit K to this Agreement, which exceptions shall be deemed to be part of the representations and warranties made hereunder, the following representations are true and complete as of the Effective Date, the Closing Date, and as of the date that Aceragen delivers a Quarterly Report requesting that NovaQuest make a Capital Contribution as follows:

(a) Organization. Aceragen is a corporation duly incorporated, validly existing, and in good standing under the laws of Delaware and is qualified to do business and legally permitted to perform its obligations under this Agreement in each jurisdiction where failure to be so qualified could result in a Material Adverse Event.

(b) Authorization. Aceragen has all necessary corporate or other power, right, and authority to carry on its business as it is presently carried on by Aceragen and as contemplated by this Agreement, to enter into, to execute and deliver this Agreement and each of the Transaction Agreements, and to perform all of the covenants, agreements, and obligations to be performed by Aceragen hereunder and thereunder. The Transaction Agreements, when executed and delivered by Aceragen, shall constitute valid and legally binding obligations of Aceragen, enforceable against Aceragen in accordance with their respective terms except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, or other laws of general application relating to or affecting the enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, or (iii) to the extent the indemnification provisions contained in the Investors' Rights Agreement and the Indemnification Agreements may be limited by applicable federal or state securities laws.

(c) No Conflicts. The execution and delivery of this Agreement by Aceragen and the performance by Aceragen of its obligations hereunder does not and will not: (i) violate any provision of the organizational documents of Aceragen, including the Restated Certificate; (ii) conflict with or violate any Applicable Law that applies to Aceragen or its assets or properties; (iii) require any permit, authorization, consent, approval, exemption, or other action by, notice to, or filing with any entity or Governmental Authority (other than as expressly contemplated hereby); (iv) violate, conflict with, result in a material breach of, or constitute (with or without notice or lapse of time or both) a material default under, or an event that would give rise to any right of notice, modification, acceleration, payment, cancellation or termination under, or in any manner release any party thereto from any obligation under, any permit or contract to which Aceragen is a party or by which any of its properties or assets are bound; or (v) result in the creation or imposition of any Encumbrance on any part of the properties or assets of Aceragen (including the Product Assets) other than as provided in the Security Agreement. The execution, delivery and performance of the Transaction Agreements and the consummation of the transactions contemplated by the Transaction Agreements will not result in any such violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either (i) a default under any such provision, instrument, judgment, order, writ, decree, contract or agreement; or (ii)

an event which results in the creation of any Encumbrance upon any assets of Aceragen or the suspension, revocation, forfeiture, or nonrenewal of any material permit or license applicable to Aceragen.

(d) No Consent. Other than standard federal and state securities filings (like the Form D), no consent, approval, license, order, authorization, registration, declaration, or filing with or of any Person, other than Regulatory Approvals required with respect to the Product, is required by Aceragen in connection with the execution and delivery by Aceragen of this Agreement, the performance by Aceragen of its obligations under this Agreement, or the consummation of any of the transactions contemplated hereby.

(e) Capitalization.

(i) The authorized capital of Aceragen consists, immediately prior to the Closing, of:

(1) 10,000,000 shares of Common Stock, 3,536,000 shares of which are issued and outstanding immediately prior to the Closing. All of the outstanding shares of Common Stock have been duly authorized, are fully paid and nonassessable and were issued in compliance with all applicable federal and state securities laws. Aceragen holds no Common Stock in its treasury.

(2) Five shares of Preferred Stock, par value $0.001 per share (the "***Preferred Stock***"), all of which have been designated Series X Preferred Stock, none of which are issued and outstanding immediately prior to the Closing. The rights, privileges and preferences of the Preferred Stock are as stated in the Restated Certificate and as provided by the Delaware General Corporation Law. Aceragen holds no Preferred Stock in its treasury.

(ii) [omitted].

(iii) Schedule 7.1(e)(iii) of the Disclosure Schedule sets forth the capitalization of Aceragen immediately following the Closing including the number of shares of the following: (i) issued and outstanding Common Stock, including, with respect to restricted Common Stock, vesting schedule and repurchase price; (ii) outstanding stock options, including vesting schedule and exercise price, if applicable; (iii) shares of Common Stock reserved for future award grants under the Stock Plan; (iv) each series of Preferred Stock; and (v) warrants or stock purchase rights, if any. Except for (A) the rights provided in Section 4 of the Investors' Rights Agreement, and (B) the securities and rights described in this Section 7.1(e), there are no outstanding options, warrants, rights (including conversion or preemptive rights and rights of first refusal or similar rights) or agreements, orally or in writing, to purchase or acquire from Aceragen any shares of Common Stock or Preferred Stock, or any securities convertible into or exchangeable for shares of Common Stock or Preferred Stock. All outstanding shares of Aceragen's Common Stock and all shares of Aceragen's Common Stock underlying outstanding options are subject to (i) a right of first refusal in favor of Aceragen upon any proposed transfer (other than transfers for estate planning purposes); and (ii) a lock-up or market standoff agreement of not less than one hundred eighty (180) days following Aceragen's initial public offering pursuant to a registration statement filed with the Securities and Exchange Commission under the Securities Act.

(iv) Except as set forth in the Restated Certificate, Aceragen has no obligation (contingent or otherwise) to purchase or redeem any of its capital stock.

(v) Aceragen has obtained valid waivers of any rights by other parties to purchase the Shares and Warrants covered by this Agreement.

(f) Valid Issuance. The Shares and the Warrant Shares, when issued, sold and delivered in accordance with the terms and for the consideration set forth in the Transaction Agreements (and assuming the Purchase Price is paid in full), will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under the Transaction Agreements, applicable state and federal securities laws and liens or encumbrances created by or imposed by NovaQuest. Assuming the accuracy of the representations of NovaQuest in Section 7.2 of this Agreement and subject to the filings described in the Voting Agreement, the Shares and Warrant Shares will be issued in compliance with all applicable federal and state securities laws. The Common Stock upon exercise of the Warrant have been duly reserved for issuance, and upon issuance in accordance with the terms of the Warrant, will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under the Transaction Agreements, applicable federal and state securities laws and liens or encumbrances created by or imposed by NovaQuest. Assuming the accuracy of the representations of NovaQuest in Section 7.2 of this Agreement and in the Voting Agreement, the Common Stock issuable upon exercise of the Warrant will be issued in compliance with all applicable federal and state securities laws.

(g) Product Property. Aceragen has, or will have, following the "**Closing**" as defined in the Enzyvant Asset Purchase Agreement, good and valid title to and solely owns all right, title, and interest in and to, or to the extent set forth in Schedule 7.1(g) of the Disclosure Schedule has a valid and enforceable license to (the "***Licensed Product Property***"), (i) the Product; (ii) all Patents that claim or Cover the Development, manufacture, use or Commercialization of the Product; (iii) all data, trade secrets, Product Know-How, and other intellectual property rights used by it in the research, development, and manufacture of Product, and; (iv) all other Product Assets. Aceragen has no distribution obligations, whether secured or unsecured, with respect to its capital securities that is senior to, *pari passu* with, or has priority over Aceragen's distribution obligations to Stockholder in respect of the Shares issued under this Agreement. All of the Patents are in full force and effect and have not lapsed, expired, or otherwise terminated. No Person claims to be an inventor under any of the Patents who is not a named inventor thereof. The Product IP Agreement for each of the Licensed Product Property is set forth in Schedule 7.1(j) of the Disclosure Schedule

(h) Litigation. There is no action, suit, claim, proceeding, interference, reexamination, opposition, post-grant review, or investigation pending or, to the knowledge of Aceragen, threatened against Aceragen or its Affiliates, at law or in equity, arbitration proceeding to which Aceragen or any Affiliate of Aceragen is a party or subject, or Governmental Authority inquiry pending or, to the knowledge of Aceragen, threatened against Aceragen or its Affiliates, that, if adversely determined, would: (i) question or defeat the validity or enforceability of any Product IP; (ii) prevent, interfere with, or delay the consummation of the transactions contemplated by this Agreement; (iii) otherwise adversely affect any intellectual property owned by Aceragen related to the Product or NovaQuest's (or Stockholder's) rights under this Agreement; or (iv) have,

or reasonably be expected to result in, a Material Adverse Event. Neither Aceragen nor, to Aceragen's knowledge, any of its officers, directors or Key Employees is a party or is named as subject to the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality (in the case of officers, directors or Key Employees, such as would affect Aceragen). There is no action, suit, proceeding or investigation by Aceragen pending or which Aceragen intends to initiate. The foregoing includes, without limitation, actions, suits, proceedings or investigations pending or threatened in writing (or any basis therefor known to Aceragen) involving the prior employment of any of Aceragen's employees, their services provided in connection with Aceragen's business, any information or techniques allegedly proprietary to any of their former employers or their obligations under any agreements with prior employers.

(i) Infringement and Intellectual Property. The making, use, sale, offer for sale, or import of the Product by Aceragen and its Affiliates, Licensees, or sublicensees does not, and will not, during the Term, infringe any Patent claim of any Third Party or misappropriate or make any unauthorized use of any other intellectual property or proprietary asset of any Third Party. To the knowledge of Aceragen, the Patents Covering the Product are valid and enforceable and no Third Party is infringing, misappropriating, or making any unauthorized use of a Patent Covering the Product or Product Know-How. None of the Patents Covering the Product or Product Know-How is subject to any outstanding decree, order, judgment, or stipulation restricting in any manner the use or licensing thereof by Aceragen.

(j) Material Contracts; Other Agreements. All Material Contracts to which each Responsible Party is a party are listed in Schedule 7.1(j) of the Disclosure Schedule and are enforceable and in full force and effect. All Material Contracts that are "**Transferred Contracts**" as defined in the Enzyvant Asset Purchase Agreement are enforceable and in full force and effect and will be enforceable and in full force and effect immediately after the "**Closing**" as defined in the Enzyvant Asset Purchase Agreement. Aceragen has provided correct and complete copies of all such Material Contracts to NovaQuest or its counsel. Each Responsible Party is in compliance with and has not materially breached, violated, or defaulted under, or received written notice that it has materially breached, violated, or defaulted under any of the terms or conditions of any such Material Contract. Aceragen is not aware of any event that has occurred or circumstance or condition that exists that would, or would reasonably be expected to, constitute such a breach, violation, or default with the lapse of time, giving of notice, or both. To the knowledge of Aceragen, the counterparty of each Material Contract is in compliance in all material respects with the terms and conditions of such Material Contract. Other than any such Material Contract, there are no contracts, agreements, commitments, or undertakings pursuant to which any Responsible Party in-licenses or otherwise has rights under any Patent or intellectual property rights of any Third Party that are material to the Development or Commercialization of the Product. Aceragen has not granted an Encumbrance on any of its assets relating to the Product (except as provided in the Security Agreement or the payment obligations in the Enzyvant Asset Purchase Agreement or the provisions of Section 6.5 thereof) or Aceragen's distribution obligations to NovaQuest under this Agreement.

(k) Certain Regulatory Matters.

(i) Aceragen holds all applicable approvals and authorizations from Governmental Authorities necessary for Aceragen to conduct its business in the manner in which such business is being conducted and as contemplated hereunder with respect to the Product, including the Development, manufacture, and testing of the Product, and all such approvals and authorizations are in good standing and in full force and effect. Aceragen has not received any notice or any other communication from any Governmental Authority regarding any actual or possible revocation, withdrawal, suspension, cancellation, termination, or material modification of any such approvals or authorizations.

(ii) Aceragen has not, with respect to the Product, knowingly made any untrue statement of a material fact or fraudulent statement to the FDA or any other Governmental Authority, failed to disclose a material fact required to be disclosed to the FDA or other Governmental Authority, or committed an act, made a statement or failed to make a statement, that provides or could reasonably be expected to provide a basis for the FDA or other Governmental Authority to invoke the FDA's policy respecting "**Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities**" set forth in 56 Fed. Reg. 46191 (September 10, 1991) or any similar policy of any other Governmental Authority.

(iii) Aceragen is not and has never been: (A) debarred by a Governmental Authority; (B) a party to a settlement, consent, or similar agreement with a Governmental Authority regarding the Product; or (C) charged with, or convicted of, violating Applicable Law regarding the Product.

(iv) The Product is being and at all times has been (as applicable) developed, tested, manufactured, labeled, stored, in compliance in all material respects with all Applicable Laws, including with respect to investigational use, good clinical practices, good laboratory practices, good manufacturing practices, record keeping, security, and filing of reports. The Product has not been promoted, marketed or otherwise Commercialized.

(v) The Product has not been the subject of or subject to (as applicable) any recall, suspension, market withdrawal, seizure, warning letter, other written communication asserting lack of compliance with any Applicable Law in any material respect, or serious adverse event. No clinical trial of the Product has been suspended, put on hold, or terminated prior to completion as a result of any action by the FDA or other Governmental Authority or voluntarily. To the knowledge of Aceragen, no event has occurred or circumstance exists that is reasonably likely to give rise to, or serve as a basis for, any of the foregoing events.

(vi) Aceragen has, with respect to the Product and Program, provided to NovaQuest true and complete copies of all pre-clinical and clinical data, reports and analysis, all material correspondence with the FDA and other Governmental Authorities, interim analysis from ongoing trials, tables from recently completed clinical trials where no clinical study report is available, and any other information that is material to the development of the Product pursuant to the Program.

(vii) Neither Aceragen nor its Affiliates have received any adverse written notice from any Governmental Authority regarding the approvability or approval of the Product.

(l) Financial Condition. All financial statements for Aceragen delivered to NovaQuest fairly present, in conformity with GAAP, in all material respects Aceragen's financial condition and Aceragen's results of operations. There has not been any material deterioration in Aceragen's financial condition since the date of the most recent financial statements and projections delivered to NovaQuest.

(m) Other Agreements.

(i) Other than (i) standard employee benefits generally made available to all employees, standard employee offer letters and Confidential Information Agreements (as defined below), (ii) standard director and officer indemnification agreements approved by the Board of Directors, (iii) the purchase of shares of Aceragen's capital stock and the issuance of options to purchase shares of Aceragen's Common Stock, in each instance, approved in the written minutes of the Board (previously provided to NovaQuest or their respective counsel), and (iv) the Transaction Agreements, there are no agreements, understandings or proposed transactions between Aceragen and any of its officers, directors, consultants or Key Employees, or any Affiliate thereof.

(ii) Aceragen is not indebted, directly or indirectly, to any of its directors, officers or employees or to their respective spouses or children or to any Affiliate of any of the foregoing, other than in connection with expenses or advances of expenses incurred in the ordinary course of business or employee relocation expenses and for other customary employee benefits made generally available to all employees. None of Aceragen's directors, officers or employees, or any members of their immediate families, or any Affiliate of the foregoing are, directly or indirectly, indebted to Aceragen or have any (i) material commercial, industrial, banking, consulting, legal, accounting, charitable or familial relationship with any of Aceragen's customers, suppliers, service providers, joint venture partners, licensees and competitors, (ii) direct or indirect ownership interest in any firm or corporation with which Aceragen is affiliated or with which Aceragen has a business relationship, or any firm or corporation which competes with Aceragen except that directors, officers, employees or stockholders of Aceragen may own stock in (but not exceeding two percent (2%) of the outstanding capital stock of) publicly traded companies that may compete with Aceragen; or (iii) financial interest in any material contract with Aceragen.

(n) Rights of Registration and Voting Rights. Aceragen is not under any obligation to register under the Securities Act any of its currently outstanding securities or any securities issuable upon exercise or conversion of its currently outstanding securities. To Aceragen's knowledge, except as contemplated in the Voting Agreement, no stockholder of Aceragen has entered into any agreements with respect to the voting of capital shares of Aceragen.

(o) Employee Matters.

(i) None of Aceragen's employees is obligated under any contract (including licenses, covenants or commitments of any nature) or other agreement, or subject to any judgment, decree or order of any court or administrative agency, that would materially interfere with such employee's ability to promote the interest of Aceragen or that would conflict with Aceragen's business. Neither the execution or delivery of the Transaction Agreements, nor the carrying on of Aceragen's business by the employees of Aceragen, nor the conduct of Aceragen's business as now conducted and as presently proposed to be conducted, will conflict with or result in a breach of the terms, conditions, or provisions of, or constitute a default under, any contract, covenant or instrument under which any such employee is now obligated.

(ii) Aceragen is not delinquent in payments to any of its employees, consultants, or independent contractors for any wages, salaries, commissions, bonuses, or other direct compensation for any service performed for it to the date hereof or amounts required to be reimbursed to such employees, consultants or independent contractors. Aceragen has complied in all material respects with all applicable state and federal equal employment opportunity laws and with other laws related to employment, including those related to wages, hours, worker classification and collective bargaining. Aceragen has withheld and paid to the appropriate governmental entity or is holding for payment not yet due to such governmental entity all amounts required to be withheld from employees of Aceragen and is not liable for any arrears of wages, taxes, penalties or other sums for failure to comply with any of the foregoing.

(iii) To Aceragen's knowledge, no Key Employee intends to terminate employment with Aceragen or is otherwise likely to become unavailable to continue as a Key Employee. Aceragen does not have a present intention to terminate the employment of any of the foregoing. The employment of each employee of Aceragen is terminable at the will of Aceragen. Except as set forth in Section 2.16(c)(i) of the Disclosure Schedule or as required by law, upon termination of the employment of any such employees, no severance or other payments will become due. Except as set forth in Section 2.16(c)(ii) of the Disclosure Schedule, Aceragen has no policy, practice, plan or program of paying severance pay or any form of severance compensation in connection with the termination of employment services.

(iv) Aceragen has not made any representations regarding equity incentives to any officer, employee, director or consultant that are inconsistent with the share amounts and terms set forth in the minutes of meetings of (or actions taken by unanimous written consent by) Aceragen's Board of Directors.

(v) There is no former Key Employee whose employment was terminated by Aceragen.

(p) Tax Returns and Payments. There are no federal, state, county, local or foreign taxes due and payable by Aceragen which have not been timely paid. There are no accrued and unpaid federal, state, country, local or foreign taxes of Aceragen which are due, whether or not assessed or disputed. There have been no examinations or audits of any tax returns or reports by any applicable federal, state, local or foreign governmental agency. Aceragen has duly and timely filed all federal, state, county, local and foreign tax returns required to have been filed by it

and there are in effect no waivers of applicable statutes of limitations with respect to taxes for any year.

(q) Insurance. Aceragen has in full force and effect insurance policies concerning such casualties as would be reasonable and customary for companies like Aceragen, with extended coverage, sufficient in amount (subject to reasonable deductions) to allow it to replace any of its properties that might be damaged or destroyed.

(r) Employee Agreements. Each current and former employee, consultant and officer of Aceragen has executed an agreement with Aceragen regarding confidentiality and proprietary information substantially in the form or forms delivered to NovaQuest or its counsel (the "***Confidential Information Agreements***"). No current or former Key Employee has excluded works or inventions from his or her assignment of inventions pursuant to such Key Employee's Confidential Information Agreement. Each current and former Key Employee has executed a non-competition and non-solicitation agreement substantially in the form or forms delivered to NovaQuest or its counsel. Aceragen is not aware that any of its Key Employees is in violation of any agreement described in this Section.

(s) Permits. Aceragen has all franchises, permits, licenses and any similar authority necessary for the conduct of its business, the lack of which could reasonably be expected to have a Material Adverse Effect. Aceragen is not in default in any material respect under any of such franchises, permits, licenses or other similar authority.

(t) Corporate Documents. The Restated Certificate and Bylaws of Aceragen as of the date of this Agreement are in the form provided to NovaQuest or its counsel. The copy of the minute books of Aceragen provided to NovaQuest or its counsel contains minutes of all meetings of directors and stockholders and all actions by written consent without a meeting by the directors and stockholders since the date of incorporation and accurately reflects in all material respects all actions by the directors (and any committee of directors) and stockholders.

(u) Qualified Small Business Stock. As of and immediately following the Closing: (i) Aceragen will be an eligible corporation as defined in Section 1202(e)(4) of the Code, (ii) Aceragen will not have made purchases of its own stock described in Code Section 1202(c)(3)(B) during the one (1) year period preceding the Closing, except for purchases that are disregarded for such purposes under Treasury Regulation Section 1.1202-2, and (iii) Aceragen's aggregate gross assets, as defined by Code Section 1202(d)(2), at no time between its incorporation and through the Closing have exceeded $50 million, taking into account the assets of any corporations required to be aggregated with Aceragen in accordance with Code Section 1202(d)(3); provided, however, that in no event shall Aceragen be liable to NovaQuest or any other party for any damages arising from any subsequently proven or identified error in Aceragen's determination with respect to the applicability or interpretation of Code Section 1202, unless such determination shall have been given by Aceragen in a manner either grossly negligent or fraudulent.

(v) Full Disclosure. Aceragen has delivered or provided to NovaQuest and included in the data room described in Section , true and complete copies of each agreement, contract, other document, or information that is included or referred to therein or in this Agreement

or that has been requested by NovaQuest. All written statements and other writings furnished pursuant hereto, or in connection with this Agreement or the transactions contemplated hereby, are complete and accurate in all material respects. No representation or warranty by Aceragen contained in this Agreement contains any untrue statement of a material fact or omits to state any material fact necessary in order to make any statement contained herein not misleading. To the knowledge of Aceragen, there is no fact, event, or condition that materially adversely affects the Product that has not been set forth in this Agreement and the Schedules hereto.

7.2 NovaQuest's Representations, Warranties, and Covenants. NovaQuest represents, warrants, and covenants to Aceragen as of the Effective Date:

(a) Organization. NovaQuest is a Delaware limited partnership duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization.

(b) Authorization. NovaQuest has all necessary power, right, and authority to carry on its business as it is presently carried on by NovaQuest, to enter into, execute, and deliver this Agreement and perform all of the covenants, agreements, and obligations to be performed by NovaQuest hereunder. This Agreement has been duly executed and delivered by NovaQuest and constitutes, when executed and delivered by Aceragen, NovaQuest's valid and binding obligation, enforceable against NovaQuest in accordance with its terms, subject to bankruptcy, insolvency, reorganization, or similar laws affecting the rights of creditors generally and equitable principles.

(c) No Conflict. Neither the execution and delivery of this Agreement nor the performance or consummation of it or the transactions contemplated hereby will (i) conflict with any Applicable Law; (ii) in any material respect, violate, conflict with, result in a material breach of, or constitute a material default under any material contract, agreement, commitment, or instrument to which NovaQuest is a party or by which NovaQuest or any of its assets are bound or committed; or (iii) violate the applicable formation documents for NovaQuest.

(d) No Consent. No consent, approval, license, order or authorization, registration, declaration, or filing with or of any Person is required by NovaQuest in connection with the execution and delivery by NovaQuest of this Agreement, the performance by it of its obligations under this Agreement, or the consummation by it of any of the transactions contemplated hereby or thereby.

(e) Purchase Entirely for Own Account. This Agreement is made with NovaQuest in reliance upon NovaQuest's representation to Aceragen, which by NovaQuest's execution of this Agreement, NovaQuest hereby confirms, that the Shares, the Warrant, and the Warrant Shares to be acquired by NovaQuest will be acquired for investment for NovaQuest's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that NovaQuest has no present intention of selling, granting any participation in, or otherwise distributing the same. By executing this Agreement, NovaQuest further represents that NovaQuest does not presently have any contract, undertaking, agreement or arrangement with any Person to sell, transfer or grant participations to such Person or to any third Person, with respect to the Shares or the Warrant.

(f) Restricted Securities. NovaQuest understands that the Shares, Warrant and Warrant Shares have not been, and will not be, registered under the Securities Act, by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent and the accuracy of NovaQuest's representations as expressed herein. NovaQuest understands that the Shares, Warrants and Warrant Shares are "**restricted securities**" under applicable U.S. federal and state securities laws and that, pursuant to these laws, NovaQuest must hold the Shares, Warrants and Warrant Shares indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. NovaQuest acknowledges that Aceragen has no obligation to register or qualify the Shares, the Warrants, or the Warrant Shares, for resale. NovaQuest further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Shares, Warrants and Warrant Shares and on requirements relating to Aceragen which are outside of NovaQuest's control, and which Aceragen is under no obligation and may not be able to satisfy.

(g) No Public Market. NovaQuest understands that no public market now exists for the Shares, the Warrant and the Warrant Shares and that Aceragen has made no assurances that a public market will ever exist for the Shares, the Warrant, or the Warrant Shares.

(h) Accredited Investor. NovaQuest is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the Securities Act.

(i) No General Solicitation. Neither NovaQuest, nor any of its officers, directors, employees, agents, stockholders or partners has either directly or indirectly, including, through a broker or finder (a) engaged in any general solicitation, or (b) published any advertisement in connection with the offer and sale of the Shares.

(j) Residence. The office or offices of NovaQuest in which its principal place of business is identified in the address or addresses of NovaQuest set forth in this Agreement.

7.3 Survival of Representations and Warranties. All representations and warranties of the Parties hereunder shall survive the applicable dates referred to in the first sentence of Section 7.1 and the first sentence of Section 7.2 until one year following the first to occur of (i) redemption of the Shares or (iii) expiration of the Term.

7.4 Limitation of Liability; Special, Indirect and Other Losses. NEITHER PARTY WILL BE LIABLE TO THE OTHER PARTY FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, PUNITIVE, OR SPECIAL DAMAGES OF ANY KIND OR ANY LOST PROFITS ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT, HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY (WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR OTHERWISE), EVEN IF SUCH PARTY WAS ADVISED OR OTHERWISE AWARE OF THE LIKELIHOOD OF SUCH DAMAGES AND REGARDLESS OF ANY NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING LIMITATION OF LIABILITY WILL NOT APPLY TO BREACHES OF ARTICLE VI OR LIMIT OR MODIFY IN ANY WAY ACERAGEN'S INDEMNIFICATION OBLIGATIONS UNDER THIS AGREEMENT.

7.5 Liquidated Damages. ACERAGEN ACKNOWLEDGES THAT, WITH RESPECT TO A TERMINATION OF THE PROGRAM FOR ANY REASON OTHER THAN TECHNICAL FAILURE, NOVAQUEST'S ACTUAL DAMAGES RESULTING FROM EACH SUCH EVENT ARE DIFFICULT TO ESTIMATE AND MAY BE DIFFICULT FOR NOVAQUEST TO PROVE. ACCORDINGLY, THERE MAY BE NO ADEQUATE REMEDY AT LAW TO FULLY COMPENSATE NOVAQUEST. THEREFORE, ANY NON-TECHNICAL FAILURE TERMINATION DISTRIBUTION OWED BY ACERAGEN RESULTING FROM ITS TERMINATION OF THE PRODUCT DEVELOPMENT ACTIVITIES FOR ANY REASON OTHER THAN TECHNICAL FAILURE SHALL BE DEEMED, SOLELY IN RESPECT THEREOF, LIQUIDATED DAMAGES AND NOT A PENALTY. EACH PARTY ACKNOWLEDGES THAT THE AMOUNT OF SUCH LIQUIDATED DAMAGES REPRESENTS A FAIR, REASONABLE, AND APPROPRIATE ESTIMATE OF NOVAQUEST'S ACTUAL DIRECT DAMAGES.

ARTICLE VIII

COVENANTS

8.1 Notifications.

(a) Defaults, Termination and Litigation.

(i) Aceragen shall promptly (but no later than within five (5) Business Days) notify NovaQuest in writing and with reasonable detail of any actual or threatened (or any receipt of notice of any actual or threatened): (A) default or breach or anticipated default or anticipated breach by Aceragen under this Agreement or any other Transaction Agreement (including the failure or likely failure to pay any Distribution when due) or under any agreement related to the Program or the Commercialization of the Product; (B) suspension of compliance or performance by Aceragen under this Agreement; or (C) termination or expiration (in part or in whole) or any material waiver or amendment of or under any contract, license, or other agreement material to the Development, manufacture, or Commercialization of the Product.

(ii) Aceragen shall promptly (but no later than within five (5) Business Days) notify NovaQuest in writing and with reasonable detail of the actual or threatened commencement of (or receipt of notice of the actual or threatened commencement of) any dispute, claim, suit, litigation, injunction, or arbitration proceeding related to (A) the Product or Product Assets or (B) contracts, licenses, or agreements material to the Development, manufacture, or Commercialization of the Product, including those disputes, claims, suits, litigation, or arbitration proceedings alleging a Third Party's infringement or misappropriation of any of the Product IP owned or licensed by a Responsible Party and those alleging a Responsible Party's (or any of their respective Affiliates', licensees', or sublicensees') infringement or misappropriation of a Third Party's intellectual property in the making, use, sale, offer for sale, or importation of the Product. Each such notification shall contain a reasonably detailed summary of the event described therein. At the request of NovaQuest, Aceragen shall promptly discuss with NovaQuest, or provide in writing to NovaQuest, full particulars of the applicable matter.

(b) Intellectual Property Updates.

(i) Promptly after receipt by a Responsible Party of any notice with respect to any Governmental Authority taking final patent office action that cannot be appealed as part of the patent prosecution process under relevant patent office procedures relating to the status, validity, or change thereto, of any Patents Covering the Product, Aceragen shall provide a complete and correct copy of each such notice to NovaQuest.

(ii) Aceragen shall also keep NovaQuest reasonably informed, in accordance with its obligations under ARTICLE V and at other times upon reasonable request by NovaQuest, with regard to all material developments in the status, validity, prosecution efforts, or change thereto, of any of the Product IP owned, licensed, or sublicensed by a Responsible Party.

8.2 No Disposition of Rights. Notwithstanding anything to the contrary herein, without NovaQuest's prior written consent, Aceragen shall not (and Aceragen shall ensure that a Responsible Party does not) (i) close, consummate, or otherwise effect, or agree to close, consummate, or otherwise effect, a Product Divestiture, or (ii) Encumber the Product or any Product Asset, other than in connection with equipment leases made in the ordinary course of business, or (iii) Encumber, sell, assign, transfer, license, sublicense, deliver, or otherwise dispose of all or any of Aceragen's or any Responsible Party's right, title, or interest in or to any Net Sales, revenue, or receivables related to the Product or make any agreement or commitment to do any of the foregoing; provided, however, that Aceragen may, without NovaQuest's prior written consent, Encumber the Product Assets solely in connection with Aceragen's incurrence of up to an aggregate of $500,000 of indebtedness for borrowed money, including but not limited to obligations and contingent obligations under guarantees, or a greater amount only after receiving NovaQuest's prior written consent, which consent shall not be unreasonably withheld. Following the occurrence of a Funding Event, the amount of such permitted indebtedness shall be increased to $5,000,000.

8.3 Change of Control; Optional Redemption. Without limiting Aceragen's obligation to obtain NovaQuest's written consent prior to effecting any transaction described in Sections 8.2 and 11.8, Aceragen shall not effect a Change of Control of Aceragen without NovaQuest's prior written consent, provided, however, that such consent shall not be required if Aceragen, immediately prior to the effectiveness of its Change of Control, redeems all of the Shares at a price equal to their then-current Fair Market Value (a "***Redemption***"). For the avoidance of doubt, in the event NovaQuest has not provided its prior written consent to a Change of Control of Aceragen, NovaQuest must receive payment of the Fair Market Value of the Shares prior to or immediately upon the effectiveness of such Change of Control.

8.4 Aceragen IP Obligations. Aceragen shall (and shall cause each Responsible Party to):

(a) prosecute and maintain in full force and effect all Patents Covering the Product owned or controlled by it on or after the Effective Date and all Regulatory Approvals related to the Product in the Territory;

(b) maintain, keep in full force and effect, and seek available patent term extensions for any such Patents;

(c) defend any challenge to the validity, patentability, enforceability, and/or non-infringement of any such Patents or any opposition to any such Patents;

(d) if a Third Party is infringing such Patents, cause such infringement to cease or cause Aceragen to receive reasonable compensation for such infringement, including by initiating legal proceedings against any Third Party infringer and/or entering into a License, settlement or other reasonable and customary agreement;

(e) promptly provide NovaQuest with written notice of any (i) action or settlement discussions relating to any alleged, actual, or potential infringement of the Product IP and (ii) damages award or settlement with respect thereto; and

(f) maintain all material Product Know-How in confidence.

8.5 Additional Covenants and Agreements of Aceragen.

(a) Compliance with Law. With respect to the performance of this Agreement and the activities contemplated by this Agreement, Aceragen shall comply, and shall cause each Responsible Party to comply, with all Applicable Laws.

(b) Noncontravention. During the Term, Aceragen shall not grant any right to any Affiliate or Third Party that would conflict with the rights granted to NovaQuest hereunder or enter into any agreement that would impair Aceragen's ability to perform its obligations under this Agreement.

(c) Material Contracts and Licenses. Aceragen shall comply with all terms and conditions of, and fulfill all of its obligations under, all of the Material Contracts, except for such noncompliance that could not reasonably be expected to result in a Material Adverse Event. Aceragen shall use commercially reasonable efforts to enforce against the other party(ies) to each Material Contract all material terms and conditions thereunder. Aceragen shall not amend any Material Contract in any material respect or issue any waivers or consents or other approvals under any Material Contract without the prior written consent of NovaQuest (not to be unreasonably withheld or delayed), except where such amendment, waiver, or consent could not reasonably be expected to result in a Material Adverse Event. Aceragen shall ensure that all Licenses contain provisions that require the Licensees to notify Aceragen of any Material Adverse Event and that allow Aceragen to share information pertaining to the Development and Commercialization of the Product to NovaQuest as contemplated by this Agreement.

(d) Minimum Cash Balance. From receipt of the full Purchase Price until the achievement of the Satisfaction Milestone, Aceragen shall maintain at all times a minimum cash balance of Two Million Dollars ($2,000,000), provided that any failure to do so that is attributable to NovaQuest refusing or failing to provide timely funding in accordance with Section 3.1 shall be excused.

(e) Competing Products. Aceragen and its Affiliates shall not, and shall ensure that each Responsible Party shall not, directly or indirectly, at any time research, develop, market, promote, distribute, import, export, offer to sell, or sell any Competing Product, unless otherwise approved in writing by NovaQuest.

(f) Insurance. Within 30 days after the Closing, Aceragen will procure insurance policies concerning such casualties as would be reasonable and customary for companies like Aceragen, with extended coverage, sufficient in amount (subject to reasonable deductions) to allow it to replace any of its properties that might be damaged or destroyed.

(g) Activities of Vizigen. Aceragen shall ensure that Vizigen does not (i) engage in any Development or Commercialization of the Product or any Competing Product or (ii) have any right, title or interest in or to any of the Product Assets.

8.6 Use of Funds. Aceragen will use the Purchase Price and each Capital Contribution to fund the Development of the Product as set forth in a Development Plan, to meet its obligations under the Material Contracts and this Agreement (including without limitation insurance, financial reporting, patent-related matters and "bringing down" the representations and warranties) and any other uses will require the prior written consent of NovaQuest, provided that: (i) up to Three Million Dollars ($3,000,000) may be used to fund Aceragen's obligation to pay the "**Purchase Price**" and to make the "**Milestone Payment**" in connection with the achievement of the first "**Development Milestone**", each as defined in and set forth in the Enzyvant Asset Purchase Agreement, and (ii) Aceragen shall be permitted to pay the Wedbush Fee (as defined herein) (the "***Enzyvant Expenses***").

ARTICLE IX

TERM AND TERMINATION

9.1 Term of Agreement. The term of this Agreement shall commence as of the Effective Date and continue until terminated in accordance with this ARTICLE IX (the "***Term***").

9.2 Termination for Enzyvant Failure. If an Enzyvant Failure occurs, NovaQuest shall have the right at any time prior to the resolution of such Enzyvant Failure to terminate this Agreement in its entirety and to rescind its purchase of the Shares and the Warrant by providing written notice to Aceragen. Promptly upon its receipt of such notice, and within one (1) Business Day in any event, Aceragen shall refund the entire Purchase Price to NovaQuest in U.S. Dollars by electronic wire transfer of immediately available funds to an account designated by NovaQuest.

9.3 Material Breaches. The occurrence of any of the following events, actions, or omissions shall constitute a material breach of this Agreement by Aceragen:

(a) Aceragen materially breaches any representation or warranty under this Agreement, any of the other Transaction Agreements, or under any other agreement between the Parties;

(b) Aceragen materially breaches any agreement, covenant, or obligation in this Agreement or under any other agreement between the Parties, or a Responsible Party other than

Aceragen materially breaches any agreement, covenant, or obligation in this Agreement applicable to Responsible Parties, and, to the extent curable, does not cure such breach within sixty (60) calendar days after the earlier of (i) NovaQuest's provision of notice to Aceragen of such breach or (ii) Aceragen's becoming aware of such breach;

(c) a Responsible Party terminates the Program in any material respect for any reason other than Technical Failure;

(d) Aceragen or a Responsible Party to whom Aceragen has granted exclusive rights to Product or Product IP in the U.S. or in one or more of the E.U., Germany, France, Italy, the United Kingdom, Spain or Japan (each such territory, a "**Major Market**") that (i) files a petition seeking to take advantage of any laws relating to bankruptcy, insolvency, reorganization, winding up, or composition for adjustment of debts; (ii) consents to, or fails to contest within sixty (60) calendar days and in appropriate manner, any petition filed against it in an involuntary case under such bankruptcy laws or other laws; (iii) applies for, consents to, or fails to contest within sixty (60) calendar days and in appropriate manner the appointment of, or the taking of possession by, a receiver, custodian, trustee, or liquidator of itself or of a substantial part of its property; (iv) admits in writing its inability to pay its debts as they become due; (v) makes a general assignment for the benefit of creditors; or (vi) takes any corporate action for the purpose of authorizing any of the foregoing; or

(e) a case or other proceeding is commenced against Aceragen or a Responsible Party to whom Aceragen has granted exclusive rights to Product or Product IP in the U.S or in one or more Major Markets, in any court of competent jurisdiction seeking (i) relief under any laws relating to bankruptcy, insolvency, reorganization, winding up, or adjustment of debts or (ii) the appointment of a trustee, receiver, custodian, liquidator, or the like for Aceragen or such Responsible Party for all or any substantial part of its assets; and under either clause (i) or (ii) of this 9.3(d), such case or proceeding has continued without dismissal or stay for a period of sixty (60) consecutive calendar days, or an order granting the relief requested in such case or proceeding (including an order for relief under such federal bankruptcy laws) is entered.

9.4 Termination for Cause. Upon the occurrence of any material breach of this Agreement by Aceragen, including as set forth in Section 9.2, NovaQuest may, without limiting any of its rights or remedies, terminate all of its remaining payment obligations under this Agreement immediately upon written notice to Aceragen. Notwithstanding such termination by NovaQuest of its remaining payment obligations hereunder, Aceragen's payment obligations under ARTICLE W shall survive until they are fully and completely satisfied.

9.5 Termination for Delay of Closing. This Agreement will automatically terminate in its entirety if (a) the Closing has not occurred on or before April 30, 2021 and (b) such delay of the Closing is because Aceragen has failed to satisfy, to NovaQuest's satisfaction, any of the conditions set forth in Section 2.2(b).

9.6 Termination for Redemption. This Agreement will automatically terminate in its entirety upon a Redemption effected in compliance with Section 8.3 and the Restated Certificate.

9.7 Survival. Notwithstanding anything to the contrary contained in this Agreement, ARTICLE IV, Sections 5.1 and 5.2, ARTICLE VI, ARTICLE VII, Section 9.2, this Section 9.7, ARTICLE X, and ARTICLE XI shall survive the termination of this Agreement for any reason other than an automatic termination pursuant to Section 9.5.

ARTICLE X

INDEMNIFICATION

10.1 General Obligations. Aceragen hereby agrees to indemnify, defend, hold harmless, and reimburse NovaQuest and its Affiliates and their respective managers, directors, officers, employees, agents, and its and their respective successors, heirs, and assigns (collectively, the "***NovaQuest Indemnitees***") from and against any losses, costs, claims, damages, Liabilities, or expenses (including reasonable attorneys' and professional fees and other expenses of litigation) (each, a "***Loss***" and collectively, "***Losses***") arising out of claims, suits, actions, or demands, in each case brought by a Third Party, or settlements or judgments arising therefrom (including personal injury, products liability, and intellectual property infringement or misappropriation claims) (each a "***Third Party Claim***") as a result or arising out of:

(a) a Responsible Party's, or its or their respective agent's or contractor's Development, promotion, marketing, handling, manufacture, Commercialization, packaging, labeling, storage, distribution, pricing, reimbursement, transport, use, sale, or other disposition of the Product;

(b) any breach by a Responsible Party of a representation or warranty of a Responsible Party contained in this Agreement or in any other agreement between the Parties or the breach or default by a Responsible Party of any covenant, agreement, or obligation of Aceragen contained in this Agreement or in any other agreement between the Parties;

(c) a Responsible Party's failure to comply with Applicable Law;

(d) the negligence, recklessness, or intentional wrongful acts or omissions related to this Agreement of a Responsible Party, or contractors or any of their respective directors, employees, or agents; or

(e) any failure to pay the Wedbush Fee.

10.2 Procedures.

(a) Notice. A NovaQuest Indemnitee seeking indemnification (the "***Indemnified Party***") under Section 10.1 shall give prompt written notice to Aceragen (the "***Indemnifying Party***") of the assertion of any claim in respect of which indemnity may be sought hereunder. Such notice shall include a description of the claim and the nature and amount of the applicable Loss, to the extent known at such time. The failure of an Indemnified Party to notify the Indemnifying Party on a timely basis or provide such information as set forth above will not relieve the Indemnifying Party of any liability that it may have to the Indemnified Party unless the Indemnifying Party demonstrates that the defense of such action is materially prejudiced by the Indemnified Party's failure to give such notice and then solely to the extent thereof. The

Indemnified Party shall provide the Indemnifying Party with complete and correct copies of all papers and official documents received in connection with any Third Party Claims for which indemnity is sought hereunder and such other information with respect thereto as the Indemnifying Party may reasonably request. The Parties shall keep each other reasonably informed of any facts or circumstances that may be of material relevance in connection with the Loss for which indemnification is sought.

(b) In General. The Indemnifying Party may assume the defense of any Third Party Claim for which indemnity is sought hereunder by giving written notice thereof to the Indemnified Party within thirty (30) calendar days after the Indemnifying Party's receipt of a notice provided pursuant to Section 10.2(a). Upon assuming the defense of a Third Party Claim, the Indemnifying Party may appoint as lead counsel in the defense of the Third Party Claim any legal counsel selected by the Indemnifying Party and reasonably acceptable to the Indemnified Party. If the Indemnifying Party assumes the defense of a Third Party Claim, then the Indemnified Party shall promptly deliver to the Indemnifying Party all original notices and documents (including court papers) received by the Indemnified Party in connection with the Third Party Claim.

(c) Right to Participate in Defense. Without limiting Section 10.2(b), any Indemnified Party shall be entitled to participate in the defense of such Third Party Claim assumed by the Indemnifying Party and to employ counsel of its choice for such purpose. However, such employment shall be at the Indemnified Party's own expense unless (i) the employment thereof has been specifically authorized by the Indemnifying Party in writing; (ii) the Indemnifying Party has failed to assume the defense and employ counsel in accordance with Section 10.2(b) (in which case the Indemnified Party may control the defense); or (iii) the interests of the Indemnified Party and the Indemnifying Party with respect to such Third Party Claim are sufficiently adverse to prohibit the representation by the same counsel of both Parties under Applicable Laws, ethical rules, or equitable principles, in which case such employment shall be at the expense of the Indemnifying Party.

(d) Settlement. With respect to any Third Party Claim, the Indemnifying Party shall have the right to consent to the entry of any judgment or enter into any settlement with respect to such Third Party Claim, only with the prior written consent of the Indemnified Party.

(e) Cooperation. Regardless of whether the Indemnifying Party chooses to defend or prosecute any Third Party Claim in respect of which indemnity is sought hereunder, the Indemnified Party shall, and shall cause each of its indemnitees to, reasonably cooperate in the defense or prosecution thereof, and the Indemnifying Party shall reimburse the Indemnified Party for all its reasonable out-of-pocket expenses in connection therewith. If the Indemnifying Party chooses not to defend any Third Party Claim in respect of which indemnity is sought hereunder, then the Indemnifying Party shall cooperate with the Indemnified Party in the defense or prosecution thereof, including by furnishing such records, information, and testimony, providing such witnesses and attending such conferences, discovery proceedings, hearings, trials, and appeals as may be reasonably requested in connection therewith. Such cooperation shall include access during normal business hours afforded to the Indemnified Party to, and reasonable retention by the Indemnifying Party of, records and information that are reasonably relevant to such Third Party Claim, and making Indemnifying Parties and other employees and agents available on a

mutually convenient basis to provide additional information and explanation of any material provided hereunder.

(f) Breach by the Indemnifying Party of its Obligations. If the Indemnifying Party fails to timely (and in any event within 30 days) assume and diligently conduct the defense of any such Third Party Claim, then its right to defend that Third Party Claim shall terminate and the Indemnified Party may assume the defense of, and settle, such claim with counsel of its own choice and on such terms as it deems appropriate, without any obligation to obtain the consent of the Indemnifying Party.

ARTICLE XI

MISCELLANEOUS

11.1 Survival of Warranties. Unless otherwise set forth in this Agreement, the representations and warranties of Aceragen and NovaQuest contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and the Closing and shall in no way be affected by any investigation or knowledge of the subject matter thereof made by or on behalf of NovaQuest or Aceragen.

11.2 Governing Law. This Agreement shall be governed by and construed, interpreted, and enforced in accordance with the laws of the State of New York, as applied to agreements executed and performed entirely in the State of New York, without giving effect to the principles of conflicts of law thereof.

11.3 Dispute Resolution.

(a) Subject to Section 11.4, prior to the initiation of any Arbitration between the Parties, any dispute, controversy, or claim arising under, out of, or in connection with this Agreement, including any subsequent amendments, regarding the validity, enforceability, construction, performance, or breach hereof (a "***Dispute***") shall be first addressed between the Parties' Senior Officers. Either Party shall have the right to refer a Dispute to the Parties' Senior Officers for attempted resolution by sending a written notice to the other Party requesting the same (the "***Dispute Notice***"). If either Party provides a Dispute Notice, then the Senior Officer (or his or her designee) from each Party shall, by phone or in-person, discuss the Dispute in good faith, commencing within fourteen (14) calendar days after the delivery of the Dispute Notice and continuing until at least twenty-eight (28) calendar days after the delivery of the Dispute Notice.

(b) If the two Senior Officers (or their designees) have not reached a mutually acceptable resolution to the Dispute within twenty-eight (28) calendar days after the delivery of the Dispute Notice, then the Dispute shall be resolved by final, binding arbitration conducted under the rules (the "***AAA Rules***") of the American Arbitration Association (the "***AAA***"), as amended from time to time, except as provided in this Section 11.3 *(*"***Arbitration***").

(c) Selection of Arbitrators. The Arbitration tribunal shall consist of three (3) arbitrators, which shall be selected as follows: (i) one (1) arbitrator shall be selected by Aceragen; (ii) one (1) arbitrator shall be selected by NovaQuest; and (iii) one (1) arbitrator shall be selected by the two (2) foregoing arbitrators (each such arbitrator, an "***Arbitrator***"). Each of the Arbitrators

shall have prior experience in the biopharmaceutical industry. No Arbitrator shall be a current or former employee, shareholder, officer, or director of, or consultant, or advisor to, or other representative of, either Party. If (A) either Party fails to select an Arbitrator within thirty (30) calendar days following expiration of the twenty-eight (28) calendar day period in Section 11.3(b) or (B) the two (2) Arbitrators selected by the Parties fail to select the third Arbitrator within fifteen (15) calendar days after the selection of the first two (2) Arbitrators by the Parties, then, at the request of either Party, the AAA shall make such selection(s) on behalf of the Parties in accordance with the AAA Rules.

(d) Venue and Language. The venue of the Arbitration shall be Raleigh, North Carolina, USA. The Arbitration shall be conducted in English, and all foreign language documents shall be submitted in the original language and shall be accompanied by a translation into English.

(e) Time Periods. Upon the written mutual agreement of both Parties, any time period specified in this Section 11.3 or the AAA Rules shall be extended or accelerated according to the Parties' written mutual agreement. The Arbitrators shall take into account both the desirability of making discovery efficient and cost-effective and the needs of the Parties for an understanding of any legitimate issue raised in the Arbitration.

(f) Consolidation of Disputes. In order to facilitate the comprehensive resolution of related disputes, and upon request of any Party to the Arbitration proceeding, the Arbitrators may consolidate the Arbitration proceeding with any other Arbitration proceeding relating to this Agreement. The Arbitrators shall not consolidate such Arbitrations unless they determine that (i) there are issues of fact or law common to the proceedings so that a consolidated proceeding would be more efficient than separate proceedings, and (ii) no Party would be prejudiced as a result of such consolidation through undue delay or otherwise.

(g) Costs. The costs of the Arbitration, including reasonable fees plus expenses to be paid to the Arbitrator(s) and the reasonable out-of-pocket costs (including the costs incurred for translation of the documents into English, reasonable attorneys' and expert witness fees, and reasonable travel expenses) of the prevailing Party shall be borne by (i) the losing Party, if the Arbitrator(s) rule in favor of one Party on all disputed issues in the Arbitration and (ii) by the Parties, as allocated in writing by the Arbitrator(s) in a manner with a reasonable relationship to the outcome of the Arbitration, if the Arbitrator(s) rule in favor of one Party with respect to some issues and in favor of the other Party with respect to other issues and, in either case ((i) or (ii)), paid within thirty (30) calendar days from the final decision by the Arbitrator.

(h) Decision to be Binding. The decision by the Arbitrators shall be final and binding on the Parties, non-reviewable and non-appealable, and judgment upon any arbitral award may be entered and enforced by any court or other judicial authority of competent jurisdiction.

(i) Confidentiality. All Disputes under this Agreement shall be subject to the confidentiality restrictions contained in ARTICLE V herein. All settlement negotiations, proceedings, and any award and any information obtained from the other Party in connection with the Arbitration shall be deemed "**Confidential Information**" subject to ARTICLE VI; provided, however, that the Parties further agree that such Confidential Information may be disclosed to the extent necessary to enforce any award or enforce this Agreement to arbitrate.

11.4 Equitable Relief. Each of the Parties hereto acknowledges that the other Party may have no adequate remedy at law if it fails to perform any of its obligations under ARTICLE VI of this Agreement. In such event, each of the Parties agrees that the other Party shall have the right, in addition to any other rights it may have (whether at law or in equity), to pursue equitable remedies such as injunction and specific performance for the breach or threatened breach of any provision of such ARTICLE VI from any court of competent jurisdiction.

11.5 No Finder's Fees. Except for the payment of certain amounts owed to by Aceragen to Wedbush Securities Inc. pursuant to that certain letter agreement entered into between Aceragen and Wedbush (the "***Wedbush Fee***"), each party represents that it neither is nor will be obligated for any finder's fee or commission in connection with this transaction.

11.6 Expenses. Except as expressly set forth herein, each Party shall be responsible for and bear all of its own costs and expenses (including any legal fees and any accountants' fees) with regard to the negotiation and consummation of the transactions contemplated by this Agreement. Notwithstanding the foregoing, at the Closing, Aceragen shall pay NovaQuest an amount not to exceed, in the aggregate, $75,000, as a reimbursement of its reasonable legal fees and due diligence expenses. If, after the Effective Date, Aceragen requests an amendment of this Agreement or the Security Agreement in connection with any restructuring, reorganization, or similar transaction to which Aceragen or any Affiliate of Aceragen is a party, then Aceragen will reimburse NovaQuest for the reasonable and documented legal and accounting fees and expenses NovaQuest incurs in connection with such amendment within ten (10) Business Days of NovaQuest's written request for reimbursement.

11.7 Relationship of the Parties. Nothing in this Agreement is intended to be construed so as to suggest that either Party (except as expressly set forth herein) is obligated to provide, directly or indirectly, any advice, consultations, or other services to the other Party. Neither Party shall have any responsibility for the hiring, termination, or compensation of the other Party's employees or for any employee benefits of such employee. No employee or representative of a Party shall have any authority to bind or obligate the other Party to this Agreement for any sum or in any manner whatsoever or to create or impose any contractual or other liability on the other Party without such Party's approval. For all purposes and notwithstanding any other provision of this Agreement to the contrary, each Party's legal relationship under this Agreement to the other Party shall be that of independent contractor. This Agreement is not a partnership agreement, and nothing in this Agreement shall be construed to establish a relationship of copartners or joint venturers between the Parties.

11.8 Successors and Assigns. Neither this Agreement nor any rights or obligations hereunder may be assigned in whole or in part by either Party, by operation of law or otherwise, without the prior written consent of the other Party; provided, however, that NovaQuest may, without such consent, (a) assign, sell, or otherwise transfer this Agreement to an Affiliate of NovaQuest, provided that such Affiliate is not engaged a Competing Business; provided that such Affiliate agrees to be bound by the terms and obligations of this Agreement, or (b) assign, sell, pledge, contribute, or otherwise transfer, in whole or in part, its rights to receive any payments under this Agreement, or (c) assign, sell, pledge, contribute, or otherwise transfer, in whole, together with rights to receive payments under this Agreement, its rights to enforce such payment rights, and its rights to conduct audits or receive information and audit findings under ARTICLE

V to any Person, and such Person may assign, sell, pledge, contribute, or otherwise transfer such rights to another Person, in each case so long as no such Person is actively engaging in the development or commercialization of a Competing Product. This Agreement shall be binding upon, and subject to the terms of the foregoing sentence, inure to the benefit of the Parties hereto, their permitted successors, legal representatives and assigns. Any assignment or attempted assignment not in accordance with this Section 11.8 shall be null and void.

11.9 Notices. All notices, consents, waivers, requests, and other communications hereunder shall be in writing and shall be delivered in person, sent by confirmed electronic mail, sent by overnight courier (e.g., Federal Express), confirmed facsimile transmission or posted by registered or certified mail, return receipt requested, with postage prepaid, to following addresses of the Parties:

If to Aceragen:

Aceragen, Inc.
15 T.W. Alexander Drive, Suite 418
Research Triangle Park, NC 27709
Attention: John Taylor
Email: jtaylor@aceragen.com

with a copy to:

Hutchison PLLC
3110 Edwards Mill Road, Suite 300
Raleigh, NC 27612
Attention: Counsel to Aceragen, Inc.

If to NovaQuest:

NovaQuest Co-Investment Fund XV, L.P.
4208 Six Forks Road, Suite 920
Raleigh, NC 27609
Attention: Jonathan Tunnicliffe
Telephone:
E-mail:
jonathan.tunnicliffe@nqcapital.com

with a copy to:

Wyrick Robbins Yates & Ponton LLP
4101 Lake Boone Trail, Suite 300
Raleigh, North Carolina 27607
Attn: Daniel S. Proper
Telephone: 919-781-4000
E-mail: dporper@wyrick.com

or to such other address or addresses as NovaQuest or Aceragen may from time to time designate by notice as provided herein. Any such notice shall be deemed given (a) when actually received

when so delivered personally or by overnight courier; (b) if mailed, other than during a period of general discontinuance or disruption of postal service due to strike, lockout or otherwise, on the fifth (5th) calendar day after its postmarked date thereof; or (c) if sent by e-mail with acknowledgement of receipt, transmission on the date sent if such day is a Business Day or the next following Business Day if such day is not a Business Day.

11.10 Severability. If any provision hereof should be held invalid, illegal, or unenforceable in any jurisdiction, then the Parties shall negotiate in good faith a valid, legal, and enforceable substitute provision that most nearly reflects the original intent of the Parties. All other provisions hereof shall remain in full force and effect in such jurisdiction and shall be liberally construed in order to carry out the intentions of the Parties as nearly as may be possible. Such invalidity, illegality, or unenforceability shall not affect the validity, legality, or enforceability of such provision in any other jurisdiction. Nothing in this Agreement shall be interpreted so as to require a Party to violate any Applicable Law.

11.11 Waiver. Any term or condition of this Agreement may be waived at any time by the Party that is entitled to the benefit thereof, but no such waiver shall be effective unless set forth in a written instrument duly executed by or on behalf of the Party waiving such term or condition. No waiver by any Party of any term or condition of this Agreement, in any one or more instances, shall be deemed to be, or construed as, a waiver of the same or any other term or condition of this Agreement on any future occasion.

11.12 Entire Agreement. This Agreement (including the Exhibits and Schedules hereto, including the Warrant and the Security Agreement) set forth all of the covenants, promises, agreements, warranties, representations, conditions, and understandings between the Parties relating to the subject matter hereof and thereof and supersedes and terminates all prior agreements and understandings between the Parties. There are no covenants, promises, agreements, warranties, representations, conditions, or understandings, either oral or written, between the Parties relating to the subject matter hereof other than as set forth in this Agreement (including the Exhibits and Schedules hereto, including the Warrant and the Security Agreement). The Parties acknowledge and agree that the Parties' respective rights and obligations with regard to the subject matter herein are enshrined in this Agreement , the Warrant, and the Security Agreement. Any conflict or inconsistency between the main body of this Agreement, the Exhibits or Schedules and/or any other documents to be delivered pursuant hereto shall be resolved in accordance with the following order of priority: (a) main body of this Agreement; (b) Exhibits and Schedules; and (c) other documents.

11.13 Third Party Beneficiaries. Except with regard to the NovaQuest Indemnitees under ARTICLE X, all rights, benefits, and remedies under this Agreement are solely intended for the benefit of the Parties (including their permitted successors and assigns), and no Third Party (except the NovaQuest Indemnitees with regard to their rights, benefits, and remedies under ARTICLE X of this Agreement and except for the Parties' permitted successors and assigns) shall have any rights whatsoever to (a) enforce any obligation contained in this Agreement; (b) seek a benefit or remedy for any breach of this Agreement; or (c) take any other action relating to this Agreement under any legal theory, including actions in contract, tort (including negligence, gross negligence and strict liability), or as a defense, setoff, or counterclaim to any action or claim brought or made by the Parties (or any of their permitted successors and assigns).

11.14 Interpretation. When a reference is made in this Agreement to Articles, Sections, Schedules, or Exhibits, such reference shall be to an Article, Section, Schedule, or Exhibit to this Agreement unless otherwise indicated. The words "include," "includes", and "including" when used herein shall be deemed in each case to be followed by the words "without limitation" and shall not be construed to limit any general statement that it follows to the specific or similar items or matters immediately following it. The headings and captions in this Agreement are for convenience and reference purposes only and shall not be considered a part of or affect the construction or interpretation of any provision of this Agreement. Unless specified otherwise, all statements of, or references to, monetary amounts in this Agreement are to U.S. Dollars. Each accounting term used herein that is not specifically defined herein shall have the meaning given to it under GAAP, but only to the extent consistent with its usage and the other definitions in this Agreement. Provisions that require that a Party or the Parties "agree," "consent", "approve", or the like shall require that such agreement, consent, or approval be specific and in writing, whether by written agreement, letter, approved minutes, or otherwise. Words of any gender include the other gender, and words using the singular or plural number also include the plural or singular number, respectively. Neither Party hereto shall be deemed to be the drafter of this Agreement for the purposes of construing this Agreement against one Party or the other. If any notice or other action or omission is required to be taken by a Party under this Agreement on a day that is not a Business Day, then such notice or other action or omission shall be deemed to require to be taken on the next occurring Business Day.

11.15 Amendments. This Agreement may be amended, modified, or supplemented only by a written amendment or agreement signed by an authorized officer of both NovaQuest and Aceragen.

11.16 No Implied Licenses. Each Party acknowledges that the rights granted in this Agreement are limited to the scope expressly granted, and all other rights to each Party's respective technologies and intellectual property rights are expressly reserved to the Party owning or controlling such technologies and intellectual property rights.

11.17 Time. Time is of the essence with respect to this Agreement and each of its provisions.

11.18 Counterparts. This Agreement may be executed in any number of counterparts with the same effect as if each of the parties hereto had signed the same document. All counterparts shall be construed together and shall constitute one agreement. This Agreement, to the extent signed and delivered by means of a facsimile machine or via e-mail in .pdf file format, shall be treated in all manner and respects as an original agreement or instrument and shall be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person.

11.19 Further Assurances. Each of the Parties hereto shall execute and deliver such additional documents, certificates, and instruments and shall perform such additional acts as may be reasonably requested and necessary or appropriate to carry out the purposes and intent and all of the provisions of this Agreement and to consummate all of the transactions contemplated by this Agreement.

11.20 Remedies. Neither the failure nor any delay by any Party in exercising any right, power, or privilege under this Agreement will operate as a waiver of such right, power, or privilege, and no single or partial exercise of such right, power, or privilege will preclude any other or further exercise of such right, power, or privilege or the exercise of any other right, power, or privilege. Unless specifically and expressly stated in this Agreement as exclusive, each remedy of the Parties specified in this Agreement is not exclusive, and, subject to the terms of this Agreement, is cumulative. The Parties shall be entitled to pursue any available legal or equitable remedy for breach of this Agreement or any provision hereof.

[Signature page follows]

IN WITNESS WHEREOF, the Parties have executed this Stock and Warrant Purchase Agreement in duplicate originals by their duly authorized representatives as of the Effective Date.

Aceragen, Inc.

By: /s/ John Taylor
Name: John Taylor
Title: President and CEO

IN WITNESS WHEREOF, the Parties have executed this Stock and Warrant Purchase Agreement in duplicate originals by their duly authorized representatives as of the Effective Date.

NovaQuest Co-Investment Fund XV, L.P.

By: NQ POF V GP, Ltd., its general partner

By: /s/ John L. Bradley, Jr.
Name: John L. Bradley, Jr.
Title: Director

EXHIBIT 10.9

AMENDMENT TO STOCK AND WARRANT PURCHASE AGREEMENT

This Amendment to Stock and Warrant Purchase Agreement (the "***Amendment***") is made effective as of October 25, 2021 (the "***Effective Date***"), between Aceragen, Inc., a Delaware corporation with a principal place of business at 15 T.W. Alexander Drive, Suite 318, Research Triangle Park, NC 22709 ("***Aceragen***"), and NovaQuest Co-Investment Fund XV, L.P., a Delaware limited partnership, with a place of business at 4208 Six Forks Road, Suite 920 Raleigh, NC 27609 ("***NovaQuest***"). Aceragen and NovaQuest are each referred to herein by name or, individually, as a "***Party***" or, collectively, as "***Parties***."

INTRODUCTION

A. Aceragen and NovaQuest previously entered into that certain Stock and Warrant Purchase Agreement, dated March 24, 2021 (the "***Purchase Agreement***").

B. The Parties desire to amend the terms of the Purchase Agreement, as set forth in this Amendment, simultaneously with the Parties' execution and delivery of a certain Sales Distribution and PRV Agreement and in connection with Aceragen's proposed acquisition of Arrevus, Inc., a Delaware corporation ("***Arrevus***") pursuant to that certain Agreement and Plan of Merger by and among the Company, Arrevus, Aceragen Merger Sub, Inc., and Carl Kraus dated effective as of October 18, 2021 (the "***Arrevus Merger Agreement***").

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

1. Amendment to Definitions. Section 1.1 of the Purchase Agreement is hereby amended by inserting the following defined term into such section in appropriate alphabetical order:

> "***Competing Business***" means any business that competes with the Company's business.
>
> "***Phase III Study***" means any human clinical trial of the Product that is required for the submission for Regulatory Approval in any jurisdiction within the territory.
>
> "***Sales Distribution and PRV Agreement***" means that certain Sales Distribution and PRV Agreement entered into by and between the Parties effective as of October 25, 2021.

2. Amendment to Section 3.1(a)(i). The first sentence of Section 3.1(a)(i) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

For each Fiscal Quarter that ends after the Closing, Aceragen shall submit a complete and correct Quarterly Report to NovaQuest by the 30th day of the month following the end of each such Fiscal Quarter, provided that after the Product Funding Period, Quarterly Reports shall not be required to include the items set forth in clauses (d)-(f) of the definition of "Quarterly Report".

3. Amendment to Section 4.1(b). Section 4.1(b) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

(b) Approval Milestone Distribution. If Aceragen does not receive a PRV in connection with U.S. Approval of the Product, then Aceragen shall make a distribution to Stockholder in an amount equal to the Total Funding Commitment (the "***Approval Milestone Distribution***") in two (2) equal installments, the first of which shall be effected within forty-five (45) days after the U.S. Approval Date and the second of which shall be effected within one (1) year after the U.S. Approval Date. If Aceragen receives a PRV and does not complete a PRV Sale Transaction within twelve (12) months after receiving such PRV, then Aceragen shall make an Approval Milestone Distribution to Stockholder in two (2) equal installments, the first of which shall be effected within one (1) year and forty-five (45) days after the U.S. Approval Date and the second of which shall be effected within two (2) years after the U.S. Approval Date.

4. Amendment of Section 4.4. Section 4.4 of the Purchase Agreement is hereby amended and restated in its entirety as follows:

4.4 Interest. If any distribution required to be made by Aceragen to Stockholder under this Agreement is not made when due, then such outstanding payment will accrue interest, beginning on the date when the payment was due, at a rate equal to five percent (5%) plus the Prime Rate; provided that the maximum rate of interest shall be the lesser of twelve percent (12%) and the maximum rate allowable under Applicable Law. Such rate will be compounded every ninety (90) calendar days, commencing on the date on which such payment was due. Payment of accrued interest will accompany payment of the outstanding distribution. "***Prime Rate***" means the prime rate as reported in The Wall Street Journal, New York edition, on the date such payment is due.

5. Material Breach Amendment. Sections 9.3(a) and 9.3(b) of the Purchase Agreement are hereby amend and restated in their entirety as follows:

(a) Aceragen materially breaches any representation or warranty under this Agreement, any of the other Transaction Agreements, or under any other agreement between the Parties, including without limitation the Sales Distribution and PRV Agreement;

(b) Aceragen materially breaches any agreement, covenant, or obligation in this Agreement, any of the other Transaction Agreements, the Sales Distribution and PRV Agreement, or under any other agreement between the Parties, or a

Responsible Party other than Aceragen materially breaches any agreement, covenant, or obligation in this Agreement or the Sales Distribution and PRV Agreement applicable to Responsible Parties, and, to the extent curable, does not cure such breach within sixty (60) calendar days after the earlier of (i) NovaQuest's provision of notice to Aceragen of such breach or (ii) Aceragen's becoming aware of such breach;

6. Entire Agreement Amendment. The first sentence of Section 11.12 of the Purchase Agreement is hereby amended as follows:

This Agreement (including the Exhibits and Schedules hereto, including the Warrant and the Security Agreement) and the Sales Distribution and PRV Agreement set forth all of the covenants, promises, agreements, warranties, representations, conditions, and understandings between the Parties relating to the subject matter hereof and thereof and supersedes and terminates all prior agreements and understandings between the Parties.

7. Full Force and Effect. Except as amended hereby, the Purchase Agreement shall remain in full force and effect.

8. Miscellaneous. Sections 11.2 (Governing Law), 11.3 (Dispute Resolution), 11.8 (Notices) through 11.10 (Waiver), and 11.18 (Counterparts) of the Purchase Agreement shall apply to this Amendment *mutatis mutandis*.

[Signature page follows]

IN WITNESS WHEREOF, the Parties have executed this Amendment to Stock and Warrant Purchase Agreement in duplicate originals by their duly authorized representatives as of the Effective Date.

Aceragen, Inc.

By: /s/ John Taylor
Name: John Taylor
Title: President and CEO

NovaQuest Co-Investment Fund XV, L.P.

By: NQ POF V GP, Ltd., its general partner

By:
Name: John L. Bradley, Jr.
Title: Director

IN WITNESS WHEREOF, the Parties have executed this Amendment to Stock and Warrant Purchase Agreement in duplicate originals by their duly authorized representatives as of the Effective Date.

Aceragen, Inc.

By: _____
Name: John Taylor
Title: President and CEO

NovaQuest Co-Investment Fund XV, L.P.

By: NQ POF V GP, Ltd., its general partner

By: /s/ John L. Bradley, Jr.
Name: John L. Bradley, Jr.
Title: Director

EXHIBIT 10.10

SALES DISTRIBUTION AND PRV AGREEMENT

This Sales Distribution and PRV Agreement (this "***Agreement***") is entered into as of October 25, 2021 (the "***Effective Date***"), between Aceragen, Inc., a Delaware corporation with a principal place of business at 15 T.W. Alexander Drive, Suite 318, Research Triangle Park, NC 22709 ("***Aceragen***"), and NovaQuest Co-Investment Fund XV, L.P., a Delaware limited partnership, with a place of business at 4208 Six Forks Road, Suite 920 Raleigh, NC 27609 ("***NovaQuest***"). Aceragen and NovaQuest are each referred to herein by name or, individually, as a "***Party***" or, collectively, as "***Parties***."

INTRODUCTION

A. Aceragen and NovaQuest previously entered into that certain Stock and Warrant Purchase Agreement, dated March 24, 2021 (as amended by that certain Amendment dated as of the date hereof, the "***Purchase Agreement***"), pursuant to which NovaQuest purchased five (5) shares of Series X Preferred Stock of the Company (the "***Shares***").

B. Aceragen has proposed to use up to $8,500,000 of the Purchase Price (as defined in the Purchase Agreement) and the Capital Contributions (as defined in the Purchase Agreement) (the "***Allocated Amount***") for the Permitted Purposes (as defined below), including to acquire Arrevus, Inc., a Delaware corporation ("***Arrevus***") pursuant to that certain Agreement and Plan of Merger by and among the Company, Arrevus, Aceragen Merger Sub, Inc., and Carl Kraus dated effective as of October 18, 2021 (the "***Arrevus Merger Agreement***").

C. Under Section 8.6 of the Purchase Agreement, the consent of NovaQuest is required for Aceragen to use any portion of the Purchase Price or Capital Contributions for the Permitted Purposes (as defined below).

D. NovaQuest is willing to provide such consent in consideration for Aceragen's agreement to make the Distributions set forth herein and otherwise pursuant to the terms and conditions of this Agreement.

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

ARTICLE I
DEFINITIONS

1.1 When used and capitalized in this Agreement (other than the headings of the Articles and Sections), including the foregoing recitals, exhibits and schedules hereto, the following terms shall have the meanings assigned to them in this Article and include the plural as well as the singular and include all participles of each such term, as applicable.

"***AAA***" has the meaning set forth in Section 11.3(b).

"***AAA Rules***" has the meaning set forth in Section 11.3(b).

"***Aceragen***" has the meaning set forth in the preamble hereto.

"***Affiliate***" means, with respect to an entity, any business entity controlling, controlled by, or under common control with, such entity, but only for so long as such control exists. For the purposes of this definition, "controlling," "controlled", and "control" mean the possession, directly (or indirectly through one or more intermediary entities), of the power to direct the management or policies of an entity, including through ownership of fifty percent (50%) or more of the voting securities of such entity (or, in the case of an entity that is not a corporation, ownership of fifty percent (50%) or more of the corresponding interest for the election of the entity's managing authority). Notwithstanding the foregoing, Vizigen Therapeutics, Inc., a Delaware corporation ("Vizigen") shall not be deemed an "Affiliate" of Aceragen for purposes of this Agreement as a result of being "controlled" by the same stockholders as Aceragen. For the avoidance of doubt, Arrevus shall become an Affiliate of Aceragen for purposes of this Agreement immediately upon the closing of the Arrevus Merger Agreement.

"***Agreement***" has the meaning set forth in the preamble hereto.

"***Allocated Amount***" has the meaning set forth in the preamble hereto.

"***Applicable Law***" means any applicable law, rule, or regulation of any Governmental Authority, or judgment, order, writ, decree, permit, or license of any Governmental Authority.

"***Approval Milestone Distribution***" has the meaning set forth in Section 4.1(b).

"***Arbitration***" has the meaning set forth in Section 11.3(b).

"***Arbitrator***" has the meaning set forth in Section 11.3(c).

"***Board***" means the Board of Directors of Aceragen.

"***Business Day***" means any day other than Saturday, Sunday, or any day on which banking institutions located in the State of New York are permitted or obligated by law to close.

"***Buy-Down***" has the meaning set forth in Section 8.2.

"***Change of Control***" means, with respect to a Person, (a) any merger, consolidation, share exchange, reorganization, or other transaction involving such Person, or the sale by one or more stockholders or equity holders of stock or ownership interests of such Person, except in each case any transaction in which the stockholders or equity holders of such Person immediately prior to such transaction continue to own a majority of the voting power of the acquiring, surviving, or successor entity; or (b) the sale, transfer, or other disposition, in a single transaction or series of related transactions, by such Person of all or substantially all the assets of such Person.

"***Commercialize***" means engaging in marketing, promoting, distributing, importing, exporting, offering to sell, or selling the Product, or any other activity directed towards the same, including commercial manufacturing activities.

"***Commercialization***" shall have a corresponding meaning.

"***Commercially Reasonable Efforts***" means (a) with respect to obligations relating to the Product, (i) before receipt of U.S. Approval, the level of effort and resources commonly dedicated in the pharmaceutical industry by a Permitted Company to the development of a product of similar commercial potential at a similar stage in its lifecycle to the Product, taking into account the CRE Considerations and (ii) after receipt of U.S. Approval, the level of effort and resources commonly dedicated in the pharmaceutical industry by a Permitted Company to manufacturing and commercialization of a product of similar commercial potential as determined on a market-by-market basis without regard to the particular circumstances of Aceragen or any other Responsible Party, any other product opportunities of Aceragen or any other Responsible Party, or any distributions due to Stockholder; and (b) with respect to obligations relating to a PRV, at least the level of effort and resources commonly dedicated in the pharmaceutical industry by a Permitted Company that desires to market and sell a priority review voucher granted by the FDA, the negotiation of an agreement for the sale or other monetization of such priority review voucher granted by the FDA, the consummation of such agreement, and the enforcement of the contract documents with respect to such agreement. Without limiting or derogating from the generality of the foregoing, Commercially Reasonable Efforts requires Aceragen and each other Responsible Party to: (A) promptly assign responsibility for all Development and Commercialization activities to specific employees who are held accountable for progress; (B) monitor the progress of such employees on an on-going basis; (C) set and consistently seek to achieve specific and meaningful objectives and timelines for carrying out such Development and Commercialization activities; (D) consistently make and implement decisions and allocate and spend sufficient resources designed to advance progress with respect to such objectives and timelines; (E) employ compensation systems for its sales representatives and other employees and agents that are no less favorable than the compensation systems that Aceragen and its Affiliates apply to their other comparable development and commercialization programs, in order to reasonably incentivize such sales representatives and other employees and agents to achieve such objectives and timelines; and (F) use reasonable care in (x) selecting any Third Party to whom it may grant any rights (by license or otherwise) to Develop or Commercialize the Product and (y) negotiating and enforcing the terms of any agreement entered into with respect thereto.

"***Commercially Reasonable***" shall have a corresponding meaning.

"***Competing Business***" means any business that competes with the Company's business.

"***Competing Product***" means any product that is intended for the treatment of melioidosis other than the Product.

"***Confidential Information***" has the meaning set forth in Section 6.1.

"***Cover***" means that the use, manufacture, sale, offer for sale, development, commercialization, or importation of the subject matter in question by an unlicensed entity would infringe a claim of a Patent.

"***CRE Considerations***" means issues, considerations, and matters relating to safety, efficacy, the regulatory environment, and other relevant scientific and technical factors, all without regard to any distributions required to be made to Stockholder.

"***Develop***" or "***Developing***" means engaging in manufacturing, preclinical, clinical, or other research and development activities (including manufacturing activities related thereto) directed towards obtaining U.S. Approval.

"***Development***" means the process of Developing.

"***Dispute***" has the meaning set forth in Section 11.3(a).

"***Dispute Notice***" has the meaning set forth in Section 11.3(a).

"***Distribution***" means each Approval Milestone Distribution, PRV Sharing Distribution, and Required Net Sales Distribution made to Stockholder.

"***Distribution End Date***" means the date on which the aggregate amount of all Required Net Sales Distributions paid to Stockholder are equal to $50,000,000.

"***Effective Date***" has the meaning set forth in the preamble hereto.

"***Encumbrance***" means any lien, charge, security interest, mortgage, option, privilege, pledge, right of first refusal, hypothecation, license, adverse ownership interest, charge, trust or deemed trust (whether contractual, statutory, or otherwise arising), or any other encumbrance, right, or claim of any other Person of any kind whatsoever whether choate or inchoate. "***Encumber***" means to restrict, impose, suffer, or otherwise create any Encumbrance.

"***Excluded Taxes***" means (i) federal withholding Taxes imposed by the U.S. federal government pursuant to the U.S. Internal Revenue Code of 1986, as amended, on amounts payable to or for the account of NovaQuest, (ii) with respect to NovaQuest (or any transferee of NovaQuest's interest under this Agreement), Taxes imposed as a result of any present, future or former connection between NovaQuest (or such transferee) and the jurisdiction imposing such Tax (other than connections arising from NovaQuest (or such transferee) having executed, delivered, become a party to, performed its obligations under, or received payments under this Agreement).

"***Fair Market Value***" means, with respect to a particular security or item of property, a value agreed upon in writing by the Parties in good faith. If the Parties are unable to so agree within twenty-one (21) days of first commencing discussions regarding such value, then each of NovaQuest and Aceragen shall select an independent appraiser experienced in the business of evaluating or appraising the fair market value of securities or the relevant item of property. The two (2) appraisers so selected (the "***Initial Appraisers***") shall appraise the fair market value of the securities or the item of property as of the date such securities are issued, or such property is provided to Aceragen or any Affiliate of Aceragen. If the difference between the resulting two (2)

appraisals is not greater than ten percent (10%), then the average of the appraisals shall be deemed the "Fair Market Value" of such securities or item of property. If the two (2) appraisals obtained pursuant to the foregoing differ by more than ten percent (10%), then the Initial Appraisers shall select a mutually agreeable additional appraiser (the "***Additional Appraiser***"), who shall be experienced in a manner similar to the Initial Appraisers. If the Initial Appraisers fail to select such Additional Appraiser as provided above within ten (10) Business Days following delivery of the initial fair market value calculations, then a Party may apply, after written notice to the other, to any judge of any court of general jurisdiction for the appointment of such Additional Appraiser. The Additional Appraiser shall then choose from the two (2) fair market value calculations determined by the Initial Appraisers the value that the Additional Appraiser reasonably considers to be closest to the fair market value of such securities or item of property and report such determination in writing to the Parties. Such value selected by the Additional Appraiser shall be deemed the "Fair Market Value" of such securities or item of property. The Parties shall share equally in the full cost of the performance of all such appraisals.

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

"***First Commercial Sale***" means the first commercial sale of the Product by a Responsible Party.

"***Fiscal Quarter***" means each of the following three (3) month periods during each Fiscal Year: January 1 through March 31; April 1 through June 30; July 1 through September 30; and October 1 through December 31.

"***Fiscal Year***" means the twelve (12) month period from January 1 through December 31.

"***Funding Event***" means Aceragen's receipt of at least $25,000,000 in proceeds from the sale of its equity securities to a person or persons other than NovaQuest.

"***GAAP***" means U.S. generally accepted accounting principles, as in effect on the date or for the period with respect to which such standards are applied.

"***Governmental Authority***" means any national, supra-national (e.g., the European Commission or the Council of the European Union), federal, state, local, or foreign court or governmental agency, authority, instrumentality, regulatory body, department, bureau, political subdivision, or other governmental entity (including the FDA and foreign equivalents of the foregoing) or any arbitrational tribunal, in each case of a competent jurisdiction, including any such authority that is responsible for issuing approvals, licenses, registrations, or authorizations necessary for the manufacture, import, sale, pricing, and/or use of the Product for human therapeutic use in any applicable regulatory jurisdiction.

"***Indemnified Party***" has the meaning set forth in Section 10.2(a).

"***Indemnifying Party***" has the meaning set forth in Section 10.2(a).

"***Key Employee***" means each of John Taylor and Dan Salain.

"***Liabilities***" means any and all indebtedness, liabilities, and obligations, whether accrued, fixed, or contingent, mature, or inchoate, known, or unknown, reflected on a balance sheet or otherwise, including those arising under any law or judgment of any court of any kind or any award of any arbitrator of any kind, and those arising under any contract, commitment, or undertaking.

"***License***" means a grant of any rights in, to, or under any Product IP, or Regulatory Approvals associated with or Covering the Product in the Territory, including a grant of rights to market, sell, distribute, or otherwise Commercialize the Product in the Territory.

"***Licensee***" means a Third Party or an Affiliate of Aceragen that is granted a License, regardless of whether such License is granted by Aceragen, an Affiliate of Aceragen, or another Licensee.

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

"***NDA***" means a New Drug Application, as defined in 21 C.F.R. 314 et seq., filed with the FDA, or any successor application thereto in the

"***Market Withdrawal***" means any recall, suspension, market withdrawal, seizure, warning letter, other written communication asserting lack of compliance with any Applicable Law in any material respect, or any serious adverse event with respect to the Product.

"***Material Adverse Effect***" means any of the following: (a) a material adverse effect on the validity or enforceability of this Agreement; (b) a material adverse effect on the ability of Aceragen or any other Responsible Party to perform any of Aceragen's material obligations under this Agreement; (c) a material adverse effect on Development or Commercialization; (d) the inability of Aceragen to make a distribution or payment required by this Agreement; or (e) a material adverse effect on the sales or potential sales of the Product. Notwithstanding the foregoing, any adverse effect that is the result solely of NovaQuest's failure to make a Capital Contribution in accordance with the terms of Section 3.1 shall not be taken into account in determining whether there has been or will be, a Material Adverse Effect.

"***Material Adverse Event***" means any of the following: (a) any Governmental Authority has imposed, or communicated its intent to, impose a suspension, clinical hold, or other adverse regulatory action regarding the Development Plan or the Product, where such action has had or would reasonably be expected to have a Material Adverse Effect; (b) Aceragen or any other Responsible Party terminates a material clinical study involving the Product; (c) clinical studies other than those set forth in the Development Plan are reasonably required to obtain U.S. Approval; (d) the occurrence of any event that would reasonably be expected to result in at least a twelve (12)-month delay of either (i) a Responsible Party's receipt of U.S. Approval for the Product by the Target U.S. Approval Date or (ii) the anticipated dates of First Commercial Sale in the U.S.; (e) a Market Withdrawal; (f) any claim, action or challenge regarding the validity or enforceability of a Patent included in the Product IP; (g) any claim that the Development or Commercialization of the Product infringes a Third Party's Patents or misappropriates its trade secrets; (h) each of the Key Employees cease to be actively involved as an executive of Aceragen for any reason for more than ninety (90) days at any time prior to the First Commercial Sale; or (i) the existence or occurrence of a Material Adverse Effect.

"***Material Contract***" means (a) any agreement that includes a license or option to license Product IP, (b) any agreement related to the Development, marketing, promotion, manufacture, Commercialization, or distribution of the Product, (c) any agreement related to the Product involving the payment of more than $250,000 during any calendar year (other than employment agreements entered into in the ordinary course of business or approved by the Board), or (d) any other agreement for which breach, non-performance, or failure to renew by Aceragen or any Affiliate of Aceragen could reasonably be expected to result in a Material Adverse Event.

"***Net Sales***" means the gross amount invoiced by Aceragen, its Affiliates, and any Licensees, for sales of the Product for end use or consumption to third parties that are not Affiliates or sublicensees of the selling party (unless such purchasing Affiliate or sublicensee is the end user of the Product, in which case the amount billed therefore shall be deemed to be the same amount that would be billed to a Third Party end user in an arm's-length transaction), less the total of the following deductions to the extent they are included in the gross invoiced sale price of the Product or otherwise directly paid or incurred with respect to the sale of the Product to such Third Party as follows:

(a) normal and customary quantity and/or cash discounts and sales returns and allowances, including, without limitation, those granted on account of price adjustments, billing errors, rejected goods, damaged goods, returns, rebates actually allowed and taken, administrative, or other fees or reimbursements of similar payments to wholesalers or other distributors, buying groups, pharmacies, or other institutions;

(b) any rebates, chargebacks or similar payments made by Aceragen, its Affiliates, and its licensees with respect to sales paid for by any governmental or regulatory authority such as, by way of illustration and not in limitation of the parties' rights hereunder, federal or state Medicaid, Medicare, U.S. Veterans Administration or other federal, state program or equivalent foreign governmental program;

(c) customs or excise duties or other duties directly imposed and related to the sales making up the gross invoice amount;

(d) sales and other taxes and duties directly related to the sale, to the extent that such items are included in the gross invoice price (but not including taxes assessed against the income derived from such sale); or

(e) freight, postage, shipping, and insurance, expenses (if separately identified in such invoice or billed separately by carrier or customer and in no event will a reduction under this clause (e) exceed three percent (3%) of the applicable fiscal quarter gross amount invoiced for sales of the Product).

With respect to any sale of the Product for consideration other than monetary consideration on arm's length terms, which non-monetary or non-arm's length consideration has the effect of reducing the invoiced amount below what it would have been in the absence of such non-monetary or non-arm's length consideration, for purposes of calculating the Net Sales under this Agreement, the Product in such sale shall be deemed to be sold for cash exclusively and at the average Net Sales price charged to Third Parties for cash sales in arm's length transactions during the applicable

reporting period (or if there were only de minimus cash sales, then at the fair market value as determined by comparable markets).

Any recovery, damages, or amounts in settlement received by any Responsible Party with respect to the alleged, actual, or potential infringement of the Product IP in the Territory or any settlement agreement entered into with respect thereto shall be deemed to be Net Sales, minus any reasonable and documented out of pocket costs incurred by Aceragen and or Responsible Party connection with the resolution of such matter.

Net Sales shall be determined from the books and records of Aceragen, its Affiliates, and Licensees, as applicable, maintained in accordance with GAAP as regularly and consistently employed by Aceragen, its Affiliates, and Licensees, as applicable.

For the avoidance of doubt, any revenue from the sale of a product incorporating sodium fusidate in any product, dosage, or formulation shall constitute "Net Sales" hereunder.

"***Net Sales Report***" has the meaning set forth in Section 4.1(d).

"***NovaQuest***" has the meaning set forth in the preamble hereto.

"***NovaQuest Indemnitees***" has the meaning set forth in Section 10.1.

"***Party***" has the meaning set forth in the preamble hereto.

"***Patents***" means all patents (including all reissues, extensions, substitutions, confirmations, re-registrations, re-examinations, revalidations, supplementary protection certificates, and patents of addition) and patent applications (including all provisional applications, continuations, continuations-in-part, and divisions) and all counterparts and equivalents of any of the foregoing in any country or jurisdiction.

"***Permitted Company***" means a pharmaceutical and/or biologics company with either (a) global annual revenue for its most recently completed Fiscal Year that is equal to or greater than One Hundred Million Dollars ($100,000,000.00), based on most recent data collected or compiled by Evaluate Pharma (or a similar company to the extent Evaluate Pharma's data is not available) or (b) a market capitalization that is equal to or greater than Three Hundred Million Dollars ($300,000,000.00).

"***Permitted Purpose***" has the meaning set forth in Section 2.1(a).

"***Person***" means any natural person, corporation, trust, joint venture, association, unincorporated organization, cooperative, company, partnership, trust, limited liability company, government (domestic or foreign), and any agency or instrumentality thereof, or any other entity recognized by law.

"***Phase III Study***" means any human clinical trial of the Product that is required for the submission for Regulatory Approval in any jurisdiction within the Territory.

"***Prime Rate***" has the meaning set forth in Section 4.4.

"***Product***" means each product, dosage, substance, or formulation that incorporates or is comprised of (alone or together with one or more other active pharmaceutical ingredients) sodium fusidate or any derivative thereof.

"***Product Assets***" means all assets that are material to the Development or Commercialization of the Product in the Territory, including all of the following: Product IP, Product IP Agreements, all Regulatory Filings, product packaging, product inserts, product labels, Regulatory Approval applications, Regulatory Approvals, regulatory exclusivity, copies of correspondence with regulatory authorities, copies of pre-clinical and clinical data, pharmacology and biology data, Material Contracts, and inventory.

"***Product Development Activities***" means all activities conducted by or on behalf of Aceragen or any other Responsible Party, including efforts undertaken, services performed, and goods purchased, in connection with the Development of the Product.

"***Product Divestiture***" means (a) a License, (b) the sale, lease, transfer, assignment, grant of rights, license or other disposition by Aceragen or any Responsible Party of any rights with respect to, covering, or under a Product (or any portion thereof) or any Product Assets, other than Licenses granted to service providers to Aceragen or any Affiliate in connection with the Development or Commercialization of the Product, or (c) a Change of Control of an Affiliate of Aceragen that owns or controls any Product Assets or that is a Licensee.

"***Product IP***" means all intellectual property relating to the Product owned or licensed by Aceragen or any other Responsible Party, including: (a) the Product Know-How; (b) all Patents Covering the Product (including, without limitation, its composition, formulation, delivery, manufacture, or use); (c) all trademarks, service marks, trade names, and works protectable under copyright laws, relating to the Product; and (d) all copies and tangible embodiments of any of the foregoing (in whatever form or medium).

"***Product IP Agreement***" means any contract pursuant to which a Responsible Party has been granted, assigned, or otherwise conveyed any right, title, or interest in or to any Product IP.

"***Product Know-How***" means, with respect to the Product, all conceptions, ideas, reductions-to-practice, innovations, inventions, trade secrets, technology, processes, practices, formulae, instructions, procedures, assembly procedures, results (including biological, chemical, pharmacological, toxicological, pharmaceutical, physical and analytical, preclinical, clinical, safety, manufacturing and quality control data, including study designs and protocols), machines, equipment, compositions of matter, compounds, formulations, genetic material, improvements, enhancements, modifications, technological developments, know-how, methods, treatments, techniques, systems, designs, artwork, drawings, plans, specifications, documentation, data and information, customer lists, lists and identities of key opinion leaders in each case whether or not confidential, proprietary, patentable, copyrightable, or susceptible to any other form of legal protection, in written, electronic or any other form.

"***PRV***" means a priority review voucher granted by the FDA with respect to Product.

"***PRV Average Value***" means the arithmetic mean, calculated as of a date certain, of the PRV Value of the three (3) most recently publicly announced PRV Third Party Sale Transactions,

as of such date, as reported by PR Newswire or a different public reporting service mutually agreed by the Parties.

"***PRV Net Proceeds***" means (A) all consideration received directly or indirectly by Aceragen or any of its Affiliates, or any of its or their shareholders, from a Third Party in connection with a PRV Sale Transaction, including all upfront payments, royalties, license fees, license maintenance fees, distribution fees, milestone payments, option payments, collections, recoveries, payments, supplements, or other consideration, compensation, or remuneration of any kind payable to Aceragen or, any Affiliate of Aceragen, regardless of whether such proceeds are received before, on, or after the consummation of the PRV Sale Transaction, including the Fair Market Value of any non-cash proceeds less (B) the amount of reasonable and documented out-of-pocket expenses paid by Aceragen or such Affiliate to Third Parties with respect to such PRV Sale Transaction as legal, accounting, investment banking, or other similar types of transaction expenses.

"***PRV Sale Transaction***" means a bona fide, arms-length, fair market value transaction pursuant to which Aceragen or its Affiliate sells any of its right, title, and interest in and to a PRV to a Third Party.

"***PRV Sharing Distribution***" has the meaning set forth in Section 4.1.

"***PRV Third Party Sale Transaction***" means a bona fide, arms-length, fair market value transaction in which a Third Party sells a priority review voucher granted by the FDA to another Third Party.

"***PRV Value***" means the total value of all consideration received or receivable, directly or indirectly, in connection with a PRV Third Party Sale Transaction, including all upfront payments, royalties, license fees, license maintenance fees, distribution fees, milestone payments, option payments, collections, recoveries, payments, supplements, or other consideration, compensation, or remuneration of any kind, regardless of whether such proceeds are received before, on, or after the consummation of the PRV Third Party Sale Transaction, including the fair market value of any non-cash proceeds.

"***Quarterly Report***" means a report submitted by Aceragen to NovaQuest in accordance with the provisions of Section 3.1(a) and that contains the following information, as applicable: (a) a reasonably detailed clinical update, Development update, regulatory update, PRV update, and Commercialization update regarding the Product; (b) a reasonably detailed summary of any legal action brought by any Responsible Party during the most recently completed Fiscal Quarter against a Third Party for such Third Party's infringement of any Patents included in the Product IP, if any; (c) a reasonably detailed description of the Responsible Parties' efforts with respect to a PRV Sale Transaction, if Aceragen or any Affiliate has received a PRV, including information regarding the Third Parties with which Aceragen or any Affiliate is discussing a potential PRV Sale Transaction and the terms of any potential PRV Sale Transaction; and (d) a complete and accurate list of the expenses (including reasonable general and administrative costs and corporate overhead) incurred by Aceragen and its Affiliates in connection with the Product Development Activities during the most recently completed Fiscal Quarter

"***Recordkeeping Period***" has the meaning set forth in Section 5.2(a).

"***Redemption***" means a "Redemption" as defined in the Purchase Agreement, effected in accordance with Section 8.3 of the Purchase Agreement and Aceragen's Amended and Restated Certificate of Incorporation, as amended from time to time.

"***Regulatory Approval***" means, with respect to the Product, in any country or jurisdiction, any approval, registration, license or authorization that is required by the applicable Governmental Authority to market and sell such Product in such country or jurisdiction.

"***Regulatory Exclusivity***" means marketing exclusivity for a product conferred by the applicable Governmental Authority in a country or jurisdiction on the holder of a Regulatory Approval for such product in such country or jurisdiction, including, by way of example and not of limitation, regulatory data exclusivity, orphan drug exclusivity, new chemical entity exclusivity and pediatric exclusivity.

"***Regulatory Filing***" means any applications, filings, or submission required by or provided to a Governmental Authority relating to a priority review voucher or the Development, manufacture, Commercialization, pricing, or other exploitation of the Product, including any supporting documentation, correspondence, meeting minutes, amendments, supplements, registrations, licenses, regulatory drug lists, advertising and promotion documents, adverse event files, complaint files, and manufacturing, shipping, or storage records with respect to any of the foregoing, and any counterparts or equivalents of any of the foregoing.

"***Required Net Sales Distribution***" has the meaning set forth in Section 4.1(c).

"***Required Net Sales Distribution Rate***" has the meaning set forth in Section 4.1(c).

"***Responsible Party***" means (a) each of Aceragen and its Affiliates and (b) each Licensee.

"***Satisfaction Milestone***" means the occurrence of both of the following: (a) satisfaction of the PRV Sharing Distribution or the Approval Milestone Distribution, as applicable, and (b) the Distribution End Date.

"***Senior Officer***" means (a) in the case of NovaQuest, its managing partner and (b) in the case of Aceragen, its chief executive officer.

"***Stockholder***" means the holder of any of the Shares, provided, that if more than one Person holds the Shares, then "Stockholder" shall be deemed to mean the holders of the Shares on a pro rata basis, as applicable. Stockholder is used herein when referring to the Person or Persons entitled to receive the economic benefits of the Shares and may or may not be limited to NovaQuest.

"***Successful Completion***" means, with respect to the Phase III Studies, the achievement of the primary clinical endpoint identified in the protocol for the Phase III Studies.

"***Target U.S. Approval Date***" means December 31, 2024.

"***Tax***" means any present or future tax, levy, impost, duty, assessment, charge, fee, deduction, or withholding of any nature and whatever called (including interest and penalties thereon) by any Governmental Authority, on whomever and wherever imposed, levied, collected, withheld, or assessed.

"***Term***" has the meaning set forth in Section 9.1.

"***Territory***" means worldwide.

"***Third Party***" means any Person, including a Governmental Authority, other than Aceragen, NovaQuest, and each of their respective Affiliates.

"***Third Party Claim***" has the meaning set forth in Section 10.1.

"***Transaction Agreements***" has the meaning given to such term in the Purchase Agreement.

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

"***U.S. Approval***" means the receipt of Regulatory Approval in the United States from the FDA.

"***U.S. Approval Date***" means the date Aceragen or an Affiliate of Aceragen receives U.S. Approval.

ARTICLE II
USE OF FUNDS AND PERMITTED PURPOSES

2.1 **Use of Funds**.

(a) Consent; Permitted Purposes. NovaQuest hereby grants its written consent to Aceragen under Section 8.6 of the Purchase Agreement for Aceragen (i) to use up to $4,500,000 of the Allocated Amount to acquire Arrevus pursuant to the Arrevus Merger Agreement, (ii) to use up to $200,000 of the Allocated Amount to fund the reasonable out-of-pocket transaction expenses incurred by Aceragen in connection with the negotiation and closing of the Arrevus Merger Agreement, and (iii) to use up to $3,800,000 of the Allocated Amount as general working capital for the Development and Commercialization of the Product (as defined below) after the closing of the Arrevus Merger Agreement (collectively, the "***Permitted Purposes***").

ARTICLE III
DEVELOPMENT AND COMMERCIALIZATION

3.1 **Product Development**.

(a) Quarterly Reports. For each Fiscal Quarter that ends after the Effective Date, Aceragen shall submit a complete and correct Quarterly Report to NovaQuest by the 30th day of the month following the end of each such Fiscal Quarter.

3.2 **Diligence**.

(a) Development.

(i) Aceragen shall, and shall ensure that each Responsible Party shall use Commercially Reasonable Efforts to Develop the Product in a manner that ensures that Aceragen or an Affiliate thereof is reasonably likely to obtain U.S. Approval no later than the Target U.S. Approval Date.

(ii) Upon and following Successful Completion, Aceragen or an Affiliate thereof shall promptly, but in any event within six (6) months after Successful Completion, prepare, complete, and submit to the FDA all Regulatory Filings necessary to obtain U.S. Approval and a PRV.

(b) Commercialization Diligence. Aceragen shall, and shall ensure that each Responsible Party shall, use Commercially Reasonable Efforts to launch, market, promote, sell, and otherwise Commercialize the Product in each jurisdiction in the Territory for which Regulatory Approval is received. Aceragen shall, and shall ensure that each Responsible Party shall, use Commercially Reasonable Efforts to manufacture or have manufactured the Product in sufficient quantities and of adequate quality to satisfy forecasted wholesaler and direct buyer demand in the Territory after the receipt of Regulatory Approval in any jurisdiction in the Territory.

(c) Sale of the PRV. If Aceragen or any Affiliate of Aceragen receives a PRV, then Aceragen shall, and shall ensure that its Affiliates shall, (a) promptly following receipt of a PRV, use Commercially Reasonable Efforts to identify a Third Party to purchase the PRV and to consummate a PRV Sale Transaction with such Third Party and (b) use Commercially Reasonable Efforts to consummate a PRV Sale Transaction within twelve (12) months of Aceragen's or its Affiliate's receipt of a PRV.

ARTICLE IV
REQUIRED DISTRIBUTIONS

4.1 **Distributions and Reports**.

(a) PRV Sharing Distributions; PRV Report. Aceragen shall, within ten (10) Business Days of its receipt of PRV Net Proceeds, make a distribution to Stockholder in an amount equal to ten percent (10%) of such PRV Net Proceeds (each such payment, a "***PRV Sharing Distribution***"). Aceragen shall prepare a written report showing a reasonable accounting of the PRV Net Proceeds and the calculation of such PRV Sharing Distribution, and it shall deliver each such report to NovaQuest simultaneously with each PRV Sharing Distribution.

(b) Approval Milestone Distribution. If neither Aceragen nor any of its Affiliates receive a PRV in connection with U.S. Approval of the Product, then Aceragen shall make a distribution to Stockholder in an amount equal to the greater of (i) $10,000,000, or (ii) 10% of the PRV Average Value (the "***Approval Milestone Distribution***") in two equal (2) installments, the first of which shall be effected within forty-five (45) days after the U.S. Approval Date and the second of which shall be effected within one (1) year after the U.S. Approval Date. If Aceragen

or an Affiliate thereof receives a PRV and neither Aceragen nor its Affiliates complete a PRV Sale Transaction within twelve (12) months after receiving such PRV, then Aceragen shall make an Approval Milestone Distribution to Stockholder in two equal (2) installments, the first of which shall be effected within one (1) year and forty-five (45) days after the U.S. Approval Date and the second of which shall be effected within two (2) years after the U.S. Approval Date.

(c) Required Net Sales Distributions. Commencing with the Fiscal Quarter in which the First Commercial Sale occurs and continuing for each subsequent Fiscal Quarter until the Distribution End Date, Aceragen shall make a distribution to Stockholder in an amount equal to the product of (i) Required Net Sales Distribution Rate multiplied by (ii) the aggregate total of the Net Sales for such Fiscal Quarter (each such payment, a "***Required Net Sales Distribution***"). The "***Required Net Sales Distribution Rate***" shall be five percent (5%). Aceragen shall effect each Required Net Sales Distribution within thirty (30) days after the end of each Fiscal Quarter during which any Net Sales occur. For the avoidance of doubt, the aggregate Required Net Sales Distributions shall in no event exceed $50,000,000.

(d) Net Sales Reports. Commencing with the Fiscal Quarter during which the First Commercial Sale occurs and for each Fiscal Quarter thereafter, within forty-five (45) days after the end of each such Fiscal Quarter, Aceragen shall prepare and deliver a written report to NovaQuest showing details of all orders that Responsible Parties received for delivery of the Product in the Territory during such Fiscal Quarter and an accurate calculation of Net Sales for such Fiscal Quarter, including the specific jurisdictions in which such Net Sales were invoiced and the deductions taken to make the calculation of each Required Net Sales Distribution owed for that Fiscal Quarter (such written report, a "Net Sales Report"). For the avoidance of doubt, Aceragen shall provide NovaQuest with a Net Sales Report pursuant to this Section 4.1(d) even if no Required Net Sales Distribution is owed for a given Fiscal Quarter.

4.2 **Stockholder's Account**. All distributions made to Stockholder shall be made in U.S. Dollars by wire transfer in immediately available funds to such accounts as Stockholder designates in writing from time to time. With respect to Net Sales invoiced in a currency other than U.S. Dollars, such Net Sales will be converted into the U.S. Dollar equivalent using the conversion rate existing in the United States (as reported in *The Wall Street Journal*, New York edition) for the applicable currency on the last Business Day of the applicable Fiscal Quarter. If *The Wall Street Journal* ceases to publish such exchange rate, then the rate of exchange to be used shall be that reported in such other business publication of national circulation in the United States on which the Parties reasonably agree.

4.3 **Taxes**. If any Governmental Authority requires Aceragen to deduct or withhold any amount from, or Stockholder to pay any present or future Tax, assessment, or other governmental charge on, any distribution or payment made to Stockholder (a "***Withholding Payment***"), then Aceragen shall, in addition to paying Stockholder the amount reduced by such Withholding Payment, simultaneously pay Stockholder an additional amount such that Stockholder receives the full distribution or payment amount as if no such Withholding Payment had occurred. Notwithstanding the foregoing, Aceragen shall not be required to pay any such additional amount to Stockholder to the extent that a Withholding Payment is attributable to Excluded Taxes.

4.4 **Interest**. If any distribution required to be made by Aceragen to Stockholder under this Agreement is not made when due, then such outstanding payment will accrue interest, beginning on the date when the payment was due, at a rate equal to five percent (5%) plus the Prime Rate; provided that the maximum rate of interest shall be the lesser of twelve percent (12%) and the maximum rate allowable under Applicable Law. Such rate will be compounded every ninety (90) calendar days, commencing on the date on which such payment was due. Payment of accrued interest will accompany payment of the outstanding distribution. "***Prime Rate***" means the prime rate as reported in *The Wall Street Journal*, New York edition, on the date such payment is due.

ARTICLE V
INFORMATION RIGHTS; RECORD KEEPING

5.1 **Information Rights**.

(a) In addition to Aceragen's other reporting and disclosure obligations contained in this Agreement, until the Satisfaction Milestone is achieved, Aceragen shall, and shall cause all other Responsible Parties to, promptly prepare and provide NovaQuest with reasonable notice and information regarding each of the following matters relating to the Product or a PRV and to promptly respond to NovaQuest's reasonable inquiries with respect thereto and promptly provide, upon NovaQuest's request, information and documents related to each of the following matters:

(i) general Development and commercial readiness overview and updates, including any issues regarding manufacturing of the Product;

(ii) notification of scheduled meetings, including teleconferences, with a Governmental Authority;

(iii) finalized briefing packages and minutes from meetings with a Governmental Authority, notifications, letters, and other communications with a Governmental Authority;

(iv) material Regulatory Filings, including any NDA or application for a PRV;

(v) safety update reports provided to a Governmental Authority and any actual or anticipated issues with the supply of the Product;

(vi) any matters arising from Patents Covering the Product and other intellectual property rights protecting the Product, including intellectual property rights owned or controlled by Third Parties, that might adversely impact the Development of the Product;

(vii) any decision or anticipated decision to cease Developing, marketing, selling, or otherwise Commercializing the Product;

(viii) anticipated expenses related to Development and Commercialization scaleup and budgets associated therewith;

(ix) clinical trial protocols, statistical analysis plans, final clinical study reports, and equivalent documents from pre-clinical trials;

(x) clinical trial enrollment, progress, and results of the Phase III Studies and general progress of the Development Plan;

(xi) receipt of Regulatory Approval or a PRV;

(xii) the marketing, promotion, and other Commercialization activities on behalf of the Product, including forecasts of Net Sales and marketing plans;

(xiii) activities of Aceragen and its Affiliates toward achieving a PRV Sale Transaction, including the marketing and promotion of the PRV;

(xiv) any discussions with Third Parties regarding a potential PRV Sale Transaction, any term sheet or summary of terms related to a PRV Sale Transaction, and any agreement related to a PRV Sale Transaction; and

(xv) each forecast to be provided pursuant to Section 5.1(b).

Aceragen may reasonably select the means and format of communication for delivery of such information, including via summaries, reports, and presentations made during meetings of the Board; provided, however, that upon NovaQuest's reasonable request, Aceragen promptly shall provide complete and accurate copies of, or provide reasonable access to, any material information and documents related to the information provided by Aceragen pursuant to this Section and to the individuals responsible for generating, maintaining, or carrying out the activities relating to such information.

(b) Promptly following database lock with respect to any human clinical trial for the Product, Aceragen shall deliver to NovaQuest complete and correct copies of all draft tables, graphs, and data listings arising from internal analyses (including any analysis performed by any contract research organization on a Responsible Party's behalf) of the data from such clinical trial. For the avoidance of doubt, any information or materials disclosed by Aceragen pursuant to this Section 5.1(b) shall be the Confidential Information of Aceragen and shall be subject to the confidentiality and non-use provisions of ARTICLE VI.

(c) Aceragen shall, and shall ensure that each other Responsible Party shall, forecast and track orders for the Product in the Territory for each Fiscal Quarter. No later than thirty (30) days prior to the anticipated date of the First Commercial Sale in the Territory, Aceragen will provide NovaQuest with a copy of Aceragen's good faith forecasted wholesaler and direct buyer unit demand for the Product in the Territory for the then-current Fiscal Year and will then provide such a forecast for each subsequent Fiscal Year to NovaQuest no later than thirty (30) days prior to the start of each such Fiscal Year. Each such forecast shall take into account the forecasts provided by Responsible Parties.

5.2 **Aceragen's Record Keeping; NovaQuest's Audit Rights**.

(a) Records. Aceragen shall, and shall ensure that the Responsible Parties shall, consistent with GAAP, keep and maintain for a period of at least five (5) years from the end of any Fiscal Quarter (except as otherwise provided herein) accounts and records of all data reasonably required to verify:

(i) any and all information required to be provided to NovaQuest under this Agreement; and

(ii) (A) the gross amount invoiced by any Responsible Party to Third Parties for sales of the Product and (B) the calculations of (x) Net Sales, (y) the Required Net Sales Distributions, and (z) if applicable, PRV Sharing Distributions.

Aceragen's and the Responsible Parties' recordkeeping obligations under this Section 5.2 shall survive the termination of this Agreement until the date that is three (3) years following the last day on which a payment is due under this Agreement (the "***Recordkeeping Period***").

(b) Audit. From the Effective Date until the expiration of the Recordkeeping Period, upon prior written notice to Aceragen, NovaQuest shall have the right to review and audit, through an independent certified public accountant selected by NovaQuest, those accounts and records of Aceragen and the other Responsible Parties as NovaQuest determines is reasonably necessary to verify Aceragen's and Responsible Parties' compliance with this Agreement. Such review and audits shall occur during normal business hours at a time reasonably acceptable to Aceragen. NovaQuest shall be solely responsible for all of the expenses of any such audit, unless the independent certified public accountant's report shows, in respect of any Fiscal Year then being reviewed, an underpayment of amounts due to Stockholder hereunder for such Fiscal Year by more than five percent (5%), in which case Aceragen shall be responsible for the reasonable expenses incurred by NovaQuest for the independent certified public accountant's services. If the report shows an underpayment of amounts due to Stockholder hereunder, then Aceragen will pay Stockholder an amount equal to such underpayment, plus interest on such amounts in accordance with Section 4.4, within thirty (30) calendar days after receipt of notice of such underpayment and copy of the relevant portion of the audit report. If the report shows an overpayment, the amount of such overpayment shall be credited against any subsequent payment due hereunder. No Fiscal Year shall be subject to an audit more than one time or more than four years after the end of such Fiscal Year.

5.3 **Notice of Certain Events**. Aceragen will notify NovaQuest in writing with respect to the following matters promptly upon Aceragen's or a Responsible Party's knowledge thereof (and Aceragen shall be responsible for ensuring that each Responsible Party notifies Aceragen of such matters upon such Responsible Party becoming aware thereof):

(a) any decision or, material contemplation by Aceragen or any other Responsible Party to cease the Development or Commercialization of the Product in the U.S.;

(b) the actual or threatened revocation, withdrawal, suspension, cancellation, termination, or material modification of any approvals or authorizations, including any Regulatory Approval, from any Governmental Authority with respect to the Product;

(c) Aceragen's or any other Responsible Party's being debarred, excluded, suspended, or otherwise ineligible to participate in government health care programs;

(d) Aceragen's or any other Responsible Party's becoming a party to a settlement, consent, or similar agreement with any Governmental Authority regarding the Product;

(e) Aceragen's or any other Responsible Party's being charged with, or convicted of, violating any Applicable Law regarding the Product;

(f) Prior to the receipt of U.S. Approval, any clinical trial of the Product being suspended, put on hold, or terminated prior to completion as a result of any action by the FDA or other Governmental Authority or as a result of a Responsible Party's voluntary decision;

(g) the receipt by Aceragen or any other Responsible Party of any adverse written notice from any Governmental Authority regarding the approvability or approval of the Product or a PRV;

(h) the commencement of discussions with Third Parties regarding a potential PRV Sale Transaction, the signing of any term sheet or summary of terms related to a PRV Sale Transaction, or the execution of any agreement related to a PRV Sale Transaction; and

(i) any breach or threatened breach of any Material Contract.

Any notice provided pursuant to this Section 5.3 shall include a reasonably detailed description of the event giving rise to the requirement to provide such notice, along with complete and correct copies of all material documentation related thereto.

ARTICLE VI
CONFIDENTIAL INFORMATION

6.1 **Definition of Confidential Information**. For purposes of this Agreement, the term "***Confidential Information***" of a Party means the terms of this Agreement and any information or materials furnished by or on behalf of such Party or its Affiliates to another Party or its Affiliates pursuant to this Agreement, or prior to the Effective Date in anticipation of entering into this Agreement, or learned through observation during visit(s) to any facility of the Party or its Affiliates, in each case which information (a) if disclosed in tangible form, is marked "Confidential" or with other similar designation to indicate its confidential or proprietary nature or (b) if disclosed orally, is indicated orally to be confidential or proprietary at the time of such disclosure. Notwithstanding the foregoing, Confidential Information shall not include information that:

(i) was already known to the receiving Party, other than under a legal, contractual, or fiduciary obligation of confidentiality to or for the benefit of the disclosing Party, at the time it was disclosed to or learned by the receiving Party hereunder, as evidenced by the receiving Party's written records;

(ii) was generally available to the public or otherwise part of the public domain at the time it was disclosed to or learned by the receiving Party hereunder;

(iii) became generally available to the public or otherwise part of the public domain after it was disclosed to or learned by the receiving Party hereunder, other than through any act or omission of the receiving Party in breach of this Agreement;

(iv) was lawfully disclosed to the receiving Party, after it was disclosed to or learned by the receiving Party hereunder, by a Third Party that, to the receiving Party's knowledge, is not bound by any legal, contractual, or fiduciary obligation of confidentiality to or for the benefit of the disclosing Party; or

(v) is independently developed by the receiving Party without the benefit or use of the Confidential Information of the disclosing Party.

6.2 **Obligations**. Except as authorized in this Agreement or except upon obtaining the other Party's prior written consent, each Party agrees that for the Term and for five (5) years thereafter, it will:

(a) maintain in confidence, and not disclose to any Person or entity, the other Party's Confidential Information;

(b) not use the other Party's Confidential Information for any purpose, except for performing its obligations and exercising its rights and remedies under this Agreement; and

(c) protect the other Party's Confidential Information in its possession by using substantially the same or higher degree of care as it uses to protect its own Confidential Information (but no less than a reasonable degree of care).

Notwithstanding anything to the contrary in this Agreement, a Party is entitled to seek injunctive relief to restrain the breach or threatened breach by the other Party of this ARTICLE VI without having to prove actual damages or threatened irreparable harm or post any bond. Such injunctive relief will be in addition to any rights and remedies available to the aggrieved Party at law, in equity, and under this Agreement for such breach or threatened breach.

6.3 **Permitted Disclosures**.

(a) Permitted Persons. A Party may disclose the other Party's Confidential Information, without the other Party's prior written permission, to:

(i) its Affiliates and its and its Affiliates' limited partners, members, managers, directors and individuals or bodies responsible for governance of receiving Party (including, with respect to NovaQuest, NovaQuest's investment committee and limited partner advisory committee), employees, agents, consultants, attorneys, accountants, banks and other financing sources, and permitted assignees, purchasers, transferees, or successors-in-interest under Section 11.7, in each case, who need to know such Confidential Information (including to provide financing to receiving Party, to assist receiving Party in evaluating or monitoring receiving Party's interests in the transactions contemplated hereby, or in fulfilling its obligations or exploiting its rights hereunder (or to determine their interest in providing such financing or assistance)) and who are, prior to receiving such disclosure, bound by customary contractual or professional confidentiality and non-use obligations;

(ii) other Persons who are (A) limited partners, members, investors or potential investors (or advisors or fiduciaries (including trustees) or underwriters or placement agents to such Persons) in connection with a private placement or other equity, debt, or other investment or potential investment transaction in or with receiving Party (including, with respect to NovaQuest, an investment or potential investment in or with a NovaQuest Affiliate), who need to know such Confidential Information in connection with making or monitoring such equity, debt, or other investment or potential investment transaction or (B) in the case of NovaQuest, potential investment targets; provided, however, that, (y) for the purpose of this Section 6.3(a)(ii), receiving Party may disclose only Confidential Information of disclosing Party pertinent to the investment or potential investment transaction and may make such disclosures only in anticipation, and during the period, of such investment or potential investment transaction and (z) for the purpose of clause (B) of this Section 6.3(a)(ii), NovaQuest may disclose the identity of Aceragen and Arrevus, the Product that is the subject of this Agreement, and the fact that this Agreement provides for a PRV Sharing Distribution and Required Net Sales Distributions to Persons who are, prior to receiving such disclosure, bound by customary contractual or professional confidentiality and non-use obligations; and

(iii) officers, employees, or advisors of any Governmental Authorities for the purpose of performing Product Development Activities, submitting Regulatory Filings for the Product, and obtaining Regulatory Approval.

(b) Legally Required. A Party may disclose the other Party's Confidential Information, without the other Party's prior written permission, to any Person to the extent such disclosure is necessary to comply with Applicable Law, applicable stock exchange requirements or an order or subpoena from a court of competent jurisdiction; provided, however, that the compelled Party, to the extent reasonably practicable and legally permissible, shall give reasonable advance notice to the other Party of such disclosure and, at such other Party's reasonable request and expense, the compelled Party shall use its reasonable efforts to secure confidential treatment of such Confidential Information prior to its disclosure (whether through protective orders or otherwise). However, if a Party receives a request from an authorized representative of a U.S. or foreign Tax or financial reporting authority (including without limitation the U.S. Securities and Exchange Commission) for a copy of this Agreement, then that Party may provide a copy of this Agreement to such authority representative without advance notice to, or the permission or cooperation of, the other Party, but the disclosing Party shall notify the other Party of the disclosure as soon as reasonably practical.

(c) NovaQuest Consent. Notwithstanding anything to the contrary in this Section 6.3, Aceragen shall not, and Aceragen agrees to ensure that Responsible Parties shall not, without the prior written consent of NovaQuest, disclose to a Third Party any (i) information regarding NovaQuest's or its Affiliates' limited partners; (ii) financial information regarding NovaQuest or its Affiliates; or (iii) information regarding NovaQuest's or its Affiliates' transactions with Third Parties.

(d) NovaQuest Responsibility. NovaQuest shall ensure that any Person to whom it or any of its Affiliates discloses Confidential Information of Aceragen or any Responsible Party complies with the confidentiality and non-use provisions of this Article VI. NovaQuest shall be responsible for any noncompliance or breach by any such person.

6.4 **Terms of Agreement**. The Parties agree that they will each treat the existence, contents and terms of this Agreement as confidential, and neither Party shall make any press release or other public disclosure that discloses or otherwise concerns this Agreement or any terms hereof, without the prior written consent of the other Party, except to the extent permitted under Section 6.3 or as otherwise permitted in accordance with this Section 6.4 or Section 6.5. Consistent with Section 6.3(b), the Parties agree to use reasonable efforts to provide the other with a copy of any filing required by a securities agency that will be made publicly available regarding the Agreement or its terms to review prior to filing and to consider any comments of the other Party in good faith, and to the extent either Party is required by Applicable Law to file or disclose this Agreement with a securities agency, if the Agreement may become publicly available, such Party shall consider in good faith the other Party's comments with respect to confidential treatment of the Agreement's terms and shall redact the Agreement in a manner allowed by the securities agency to protect sensitive terms, and shall be permitted to file the Agreement, as so redacted, with the securities agency. For purposes of clarity, each Party is free to discuss with Third Parties the information regarding the Agreement and the Parties' relationship disclosed in such securities filings and any other authorized public announcements.

6.5 **Use of Names**. Neither Party shall mention or otherwise use the name, insignia, symbol, trademark, trade name or logotype of the other Party or its Affiliates (or any abbreviation or adaptation thereof) in any publication, press release, publicly available promotional material, or other form of publicity without the prior written approval of such other Party in each instance. Notwithstanding the foregoing, the restrictions imposed by this Section 6.5 shall not prohibit a Party from making any disclosure identifying any such Person to the extent required by Applicable Law or the rules of a stock exchange on which the securities of the disclosing Party are listed (or to which an application for listing has been submitted). Further, notwithstanding the foregoing, (i) the Parties agree that each Party shall have the right to publicly disclose the existence of this Agreement as a Sales Distribution and PRV Agreement with PRV Sharing Distributions and distributions based on Net Sales, the name and a description of the Product, and the names of Aceragen, Arrevus, and NovaQuest as the parties hereto and (ii) each Party may use the logo of the other Party solely in connection with disclosures related to this Agreement as otherwise permitted hereunder.

ARTICLE VII
REPRESENTATIONS AND WARRANTIES; LIMITATION OF LIABILITY

7.1 **Aceragen's Representations and Warranties**. Aceragen represents and warrants to NovaQuest that, the following representations are true and complete as of the Effective Date:

(a) Organization. Aceragen is a corporation duly incorporated, validly existing, and in good standing under the laws of Delaware.

(b) Authorization. Aceragen has all necessary corporate or other power, right, and authority to carry on its business as it is presently carried on by Aceragen and as contemplated by this Agreement, to enter into, to execute and deliver this Agreement, and to perform all of the covenants, agreements, and obligations to be performed by Aceragen hereunder and thereunder. This Agreement, when executed and delivered by Aceragen, shall constitute valid and legally binding obligations of Aceragen, enforceable against Aceragen in accordance with its terms except

(i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, or other laws of general application relating to or affecting the enforcement of creditors' rights generally, or (ii) as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies.

(c) No Conflicts. The execution and delivery of this Agreement by Aceragen and the performance by Aceragen of its obligations hereunder does not and will not: (i) violate any provision of the organizational documents of Aceragen; (ii) conflict with or violate any Applicable Law that applies to Aceragen or its assets or properties; (iii) require any permit, authorization, consent, approval, exemption, or other action by, notice to, or filing with any entity or Governmental Authority (other than as expressly contemplated hereby); (iv) violate, conflict with, result in a material breach of, or constitute (with or without notice or lapse of time or both) a material default under, or an event that would give rise to any right of notice, modification, acceleration, payment, cancellation or termination under, or in any manner release any party thereto from any obligation under, any permit or contract to which Aceragen is a party or by which any of its properties or assets are bound; or (v) result in the creation or imposition of any Encumbrance on any part of the properties or assets of Aceragen (including the Product Assets).

(d) No Consent. No consent, approval, license, order, authorization, registration, declaration, or filing with or of any Person is required by Aceragen or any Affiliate of Aceragen in connection with the execution and delivery by Aceragen of this Agreement, the performance by Aceragen and its Affiliates of its and their obligations under this Agreement, or the consummation of any of the transactions contemplated hereby.

(e) Product Property. Aceragen or an Affiliate thereof has, or will have, following the "Closing" as defined in the Arrevus Merger Agreement, good and valid title to and solely owns all right, title, and interest in and to, or has a valid and enforceable license to (the "***Licensed Product Property***"), (i) the Product; (ii) all Patents that claim or Cover the Development, manufacture, use or Commercialization of the Product; (iii) all data, trade secrets, Product Know-How, and other intellectual property rights used by it in the research, development, and manufacture of Product, and; (iv) all other Product Assets. All of the Patents are in full force and effect and have not lapsed, expired, or otherwise terminated. No Person claims to be an inventor under any of the Patents who is not a named inventor thereof.

(f) Litigation. There is no action, suit, claim, proceeding, interference, reexamination, opposition, post-grant review, or investigation pending or, to the knowledge of Aceragen, threatened against Arrevus, Aceragen, or any Affiliate of Aceragen, at law or in equity, arbitration proceeding to which Arrevus, Aceragen, or any Affiliate of Aceragen is a party or subject, or Governmental Authority inquiry pending or, to the knowledge of Aceragen, threatened against Arrevus, Aceragen, or any Affiliate of Aceragen, that, if adversely determined, would: (i) question or defeat the validity or enforceability of any Product IP; (ii) prevent, interfere with, or delay the consummation of the transactions contemplated by this Agreement; (iii) otherwise adversely affect any intellectual property owned by Aceragen related to the Product or NovaQuest's (or Stockholder's) rights under this Agreement; or (iv) have, or reasonably be expected to result in, a Material Adverse Event. Neither Aceragen nor, to Aceragen's knowledge, any of its officers, directors or Key Employees is a party or is named as subject to the provisions of any order, writ, injunction, judgment or decree of any court or government agency or

instrumentality (in the case of officers, directors or Key Employees, such as would affect Aceragen). There is no action, suit, proceeding or investigation by Aceragen pending or which Aceragen intends to initiate. The foregoing includes, without limitation, actions, suits, proceedings or investigations pending or threatened in writing (or any basis therefor known to Aceragen) involving the prior employment of any of Aceragen's employees, their services provided in connection with Aceragen's business, any information or techniques allegedly proprietary to any of their former employers or their obligations under any agreements with prior employers.

(g) Infringement and Intellectual Property. The making, use, sale, offer for sale, or import of the Product by Aceragen and its Affiliates, Licensees, or sublicensees does not, and will not, during the Term, infringe any Patent claim of any Third Party or misappropriate or make any unauthorized use of any other intellectual property or proprietary asset of any Third Party. To the knowledge of Aceragen, the Patents Covering the Product are valid and enforceable and no Third Party is infringing, misappropriating, or making any unauthorized use of a Patent Covering the Product or Product Know-How. None of the Patents Covering the Product or Product Know-How is subject to any outstanding decree, order, judgment, or stipulation restricting in any manner the use or licensing thereof by Aceragen.

(h) Material Contracts; Other Agreements. All Material Contracts are enforceable and in full force and effect. All Material Contracts to which Arrevus is a party are enforceable and in full force and effect and will be enforceable and in full force and effect immediately after the "Closing" as defined in the Arrevus Merger Agreement. Each Responsible Party, and Arrevus, is in compliance with and has not materially breached, violated, or defaulted under, or received written notice that it has materially breached, violated, or defaulted under any of the terms or conditions of any such Material Contract. Aceragen is not aware of any event that has occurred or circumstance or condition that exists that would, or would reasonably be expected to, constitute such a breach, violation, or default with the lapse of time, giving of notice, or both. To the knowledge of Aceragen, the counterparty of each Material Contract is in compliance in all material respects with the terms and conditions of such Material Contract. Other than any such Material Contract, there are no contracts, agreements, commitments, or undertakings pursuant to which any Responsible Party in-licenses or otherwise has rights under any Patent or intellectual property rights of any Third Party that are material to the Development or Commercialization of the Product. Neither Aceragen nor Arrevus nor any Affiliate of Aceragen has granted an Encumbrance on any of its assets relating to the Product or Aceragen's distribution obligations to NovaQuest under this Agreement.

(i) Certain Regulatory Matters.

(i) Arrevus holds all applicable approvals and authorizations from Governmental Authorities necessary for it to conduct its business in the manner in which such business is being conducted and as contemplated hereunder with respect to the Product, including the Development, manufacture, and testing of the Product, and all such approvals and authorizations are in good standing and in full force and effect. Arrevus has not received any notice or any other communication from any Governmental Authority regarding any actual or possible revocation, withdrawal, suspension, cancellation, termination, or material modification of any such approvals or authorizations.

(ii) Arrevus has not, with respect to the Product, knowingly made any untrue statement of a material fact or fraudulent statement to the FDA or any other Governmental Authority, failed to disclose a material fact required to be disclosed to the FDA or other Governmental Authority, or committed an act, made a statement or failed to make a statement, that provides or could reasonably be expected to provide a basis for the FDA or other Governmental Authority to invoke the FDA's policy respecting "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" set forth in 56 Fed. Reg. 46191 (September 10, 1991) or any similar policy of any other Governmental Authority.

(iii) Arrevus is not and has never been: (A) debarred by a Governmental Authority; (B) a party to a settlement, consent, or similar agreement with a Governmental Authority regarding the Product; or (C) charged with, or convicted of, violating Applicable Law regarding the Product.

(iv) The Product is being and at all times has been (as applicable) developed, tested, manufactured, labeled, stored, in compliance in all material respects with all Applicable Laws, including with respect to investigational use, good clinical practices, good laboratory practices, good manufacturing practices, record keeping, security, and filing of reports. The Product has not been promoted, marketed or otherwise Commercialized.

(v) The Product has not been the subject of or subject to (as applicable) any recall, suspension, market withdrawal, seizure, warning letter, other written communication asserting lack of compliance with any Applicable Law in any material respect, or serious adverse event. No clinical trial of the Product has been suspended, put on hold, or terminated prior to completion as a result of any action by the FDA or other Governmental Authority or voluntarily. To the knowledge of Aceragen, no event has occurred or circumstance exists that is reasonably likely to give rise to, or serve as a basis for, any of the foregoing events.

(vi) Neither Aceragen nor its Affiliates nor Arrevus have received any adverse written notice from any Governmental Authority regarding the approvability or approval of the Product.

(j) Full Disclosure. All written statements and other writings furnished pursuant hereto, or in connection with this Agreement or the transactions contemplated hereby, are complete and accurate in all material respects. No representation or warranty by Aceragen contained in this Agreement contains any untrue statement of a material fact or omits to state any material fact necessary in order to make any statement contained herein not misleading. To the knowledge of Aceragen, there is no fact, event, or condition that materially adversely affects the Product that has not been set forth in this Agreement and the Schedules hereto.

7.2 **NovaQuest's Representations, Warranties, and Covenants**. NovaQuest represents, warrants, and covenants to Aceragen as of the Effective Date:

(a) Organization. NovaQuest is a Delaware limited partnership duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization.

(b) Authorization. NovaQuest has all necessary power, right, and authority to carry on its business as it is presently carried on by NovaQuest, to enter into, execute, and deliver

this Agreement and perform all of the covenants, agreements, and obligations to be performed by NovaQuest hereunder. This Agreement has been duly executed and delivered by NovaQuest and constitutes, when executed and delivered by Aceragen, NovaQuest's valid and binding obligation, enforceable against NovaQuest in accordance with its terms, subject to bankruptcy, insolvency, reorganization, or similar laws affecting the rights of creditors generally and equitable principles.

(c) No Conflict. Neither the execution and delivery of this Agreement nor the performance or consummation of it or the transactions contemplated hereby will (i) conflict with any Applicable Law; (ii) in any material respect, violate, conflict with, result in a material breach of, or constitute a material default under any material contract, agreement, commitment, or instrument to which NovaQuest is a party or by which NovaQuest or any of its assets are bound or committed; or (iii) violate the applicable formation documents for NovaQuest.

(d) No Consent. No consent, approval, license, order or authorization, registration, declaration, or filing with or of any Person is required by NovaQuest in connection with the execution and delivery by NovaQuest of this Agreement, the performance by it of its obligations under this Agreement, or the consummation by it of any of the transactions contemplated hereby or thereby.

7.3 **Survival of Representations and Warranties**. All representations and warranties of the Parties hereunder shall survive the applicable dates referred to in the first sentence of Section 7.1 and the first sentence of Section 7.2 until one year following the first to occur of (i) the Redemption of all of the Shares, (ii) achievement of the Satisfaction Milestone, or (iii) expiration of the Term.

7.4 **Limitation of Liability; Special, Indirect and Other Losses**. NEITHER PARTY WILL BE LIABLE TO THE OTHER PARTY FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, PUNITIVE, OR SPECIAL DAMAGES OF ANY KIND OR ANY LOST PROFITS ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT, HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY (WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR OTHERWISE), EVEN IF SUCH PARTY WAS ADVISED OR OTHERWISE AWARE OF THE LIKELIHOOD OF SUCH DAMAGES AND REGARDLESS OF ANY NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING LIMITATION OF LIABILITY WILL NOT APPLY TO BREACHES OF ARTICLE VI OR LIMIT OR MODIFY IN ANY WAY ACERAGEN'S INDEMNIFICATION OBLIGATIONS UNDER THIS AGREEMENT.

ARTICLE VIII
COVENANTS

8.1 **Notifications**.

(a) Defaults, Termination and Litigation.

(i) Aceragen shall promptly (but no later than within five (5) Business Days) notify NovaQuest in writing and with reasonable detail of any actual or threatened (or any receipt of notice of any actual or threatened): (A) default or breach or anticipated default or anticipated breach by Aceragen under this Agreement or any other Transaction Agreement

(including the failure or likely failure to pay any Distribution when due) or under any agreement related to the Development or the Commercialization of the Product; (B) suspension of compliance or performance by Aceragen under this Agreement; or (C) termination or expiration (in part or in whole) or any material waiver or amendment of or under any contract, license, or other agreement material to the Development, manufacture, or Commercialization of the Product.

(ii) Aceragen shall promptly (but no later than within five (5) Business Days) notify NovaQuest in writing and with reasonable detail of the actual or threatened commencement of (or receipt of notice of the actual or threatened commencement of) any dispute, claim, suit, litigation, injunction, or arbitration proceeding related to (A) the Product or Product Assets or (B) contracts, licenses, or agreements material to the Development, manufacture, or Commercialization of the Product, including those disputes, claims, suits, litigation, or arbitration proceedings alleging a Third Party's infringement or misappropriation of any of the Product IP owned or licensed by a Responsible Party and those alleging a Responsible Party's (or any of their respective Affiliates', licensees', or sublicensees') infringement or misappropriation of a Third Party's intellectual property in the making, use, sale, offer for sale, or importation of the Product. Each such notification shall contain a reasonably detailed summary of the event described therein. At the request of NovaQuest, Aceragen shall promptly discuss with NovaQuest, or provide in writing to NovaQuest, full particulars of the applicable matter.

(b) Intellectual Property Updates.

(i) Promptly after receipt by a Responsible Party of any notice with respect to any Governmental Authority taking final patent office action that cannot be appealed as part of the patent prosecution process under relevant patent office procedures relating to the status, validity, or change thereto, of any Patents Covering the Product, Aceragen shall provide a complete and correct copy of each such notice to NovaQuest.

(ii) Aceragen shall also keep NovaQuest reasonably informed, in accordance with its obligations under ARTICLE V and at other times upon reasonable request by NovaQuest, with regard to all material developments in the status, validity, prosecution efforts, or change thereto, of any of the Product IP owned, licensed, or sublicensed by a Responsible Party.

8.2 **No Disposition of Rights**. Notwithstanding anything to the contrary herein, without NovaQuest's prior written consent, Aceragen shall not (and Aceragen shall ensure that a Responsible Party does not) close, consummate, or otherwise effect, or agree to close, consummate, or otherwise effect, a Product Divestiture; provided, however, that such consent shall not be required if Aceragen, immediately prior to the effectiveness of such Product Divestiture (a) makes a distribution to the Stockholder in an aggregate amount equal to the then-current Fair Market Value of the remaining Distributions hereunder (a "Buy-Down") or (b) effects a Redemption of all of the Shares. Notwithstanding anything to the contrary herein, without NovaQuest's prior written consent, Aceragen shall not (and Aceragen shall ensure that a Responsible Party does not) (i) Encumber the Product or any Product Asset, other than in connection with equipment leases made in the ordinary course of business, or (ii) Encumber, sell, assign, transfer, license, sublicense, deliver, or otherwise dispose of all or any of Aceragen's or any Responsible Party's right, title, or interest in or to any Net Sales, revenue, or receivables related to the Product or make any agreement or commitment to do any of the foregoing; provided,

however, that Aceragen or an Affiliate may, without NovaQuest's prior written consent, Encumber the Product Assets solely in connection with its incurrence of up to an aggregate of $500,000 of indebtedness for borrowed money, including but not limited to obligations and contingent obligations under guarantees, or a greater amount only after receiving NovaQuest's prior written consent, which consent shall not be unreasonably withheld. Following the occurrence of a Funding Event, the amount of such permitted indebtedness shall be increased to $5,000,000.

8.3 **Change of Control**. Without limiting Aceragen's obligation to obtain NovaQuest's written consent prior to effecting any transaction described in Sections 8.2 and 11.7, Aceragen shall not effect a Change of Control of Aceragen without NovaQuest's prior written consent; provided, however, that such consent shall not be required if Aceragen, immediately prior to the effectiveness of its Change of Control effects a Redemption of all of the Shares.

8.4 **Additional Covenants and Agreements of Aceragen**.

(a) Compliance with Law. With respect to the performance of this Agreement and the activities contemplated by this Agreement, Aceragen shall comply, and shall cause each Responsible Party to comply, with all Applicable Laws.

(b) Noncontravention. During the Term, neither Aceragen nor any of its Affiliates shall grant any right to any Affiliate or Third Party that would conflict with the rights granted to NovaQuest hereunder or enter into any agreement that would impair Aceragen's ability to perform its obligations under this Agreement.

(c) Material Contracts and Licenses. Aceragen and its Affiliates shall comply with all terms and conditions of, and fulfill all of its obligations under, all of the Material Contracts, except for such noncompliance that could not reasonably be expected to result in a Material Adverse Event. Aceragen and its Affiliates shall use commercially reasonable efforts to enforce against the other party(ies) to each Material Contract all material terms and conditions thereunder. Neither Aceragen nor any of its Affiliates shall amend any Material Contract in any material respect or issue any waivers or consents or other approvals under any Material Contract without the prior written consent of NovaQuest (not to be unreasonably withheld or delayed), except where such amendment, waiver, or consent could not reasonably be expected to result in a Material Adverse Event. Aceragen and its Affiliates shall ensure that all Licenses contain provisions that require the Licensees to notify Aceragen or its Affiliate of any Material Adverse Event and that allow Aceragen to share information pertaining to the Development and Commercialization of the Product to NovaQuest as contemplated by this Agreement.

(d) Competing Products. Aceragen and its Affiliates shall not, and shall ensure that each Responsible Party shall not, directly or indirectly, at any time research, develop, market, promote, distribute, import, export, offer to sell, or sell any Competing Product, unless otherwise approved in writing by NovaQuest.

ARTICLE IX
TERM AND TERMINATION

9.1 **Term of Agreement**. The term of this Agreement shall commence as of the Effective Date and continue until terminated in accordance with this ARTICLE IX (the "Term").

9.2 **Material Breaches**. The occurrence of any of the following events, actions, or omissions shall constitute a material breach of this Agreement by Aceragen:

(a) Aceragen materially breaches any representation or warranty under this Agreement, any of the Transaction Agreements, or under any other agreement between the Parties;

(b) Aceragen materially breaches any agreement, covenant, or obligation in this Agreement, in any of the Transaction Agreements, or under any other agreement between the Parties, or a Responsible Party other than Aceragen materially breaches any agreement, covenant, or obligation in this Agreement or the Purchase Agreement applicable to Responsible Parties, and, to the extent curable, does not cure such breach within sixty (60) calendar days after the earlier of (i) NovaQuest's provision of notice to Aceragen of such breach or (ii) Aceragen's becoming aware of such breach;

(c) Aceragen (i) files a petition seeking to take advantage of any laws relating to bankruptcy, insolvency, reorganization, winding up, or composition for adjustment of debts; (ii) consents to, or fails to contest within sixty (60) calendar days and in appropriate manner, any petition filed against it in an involuntary case under such bankruptcy laws or other laws; (iii) applies for, consents to, or fails to contest within sixty (60) calendar days and in appropriate manner the appointment of, or the taking of possession by, a receiver, custodian, trustee, or liquidator of itself or of a substantial part of its property; (iv) admits in writing its inability to pay its debts as they become due; (v) makes a general assignment for the benefit of creditors; or (vi) takes any corporate action for the purpose of authorizing any of the foregoing; or

(d) a case or other proceeding is commenced against Aceragen or any of its Affiliates in any court of competent jurisdiction seeking (i) relief under any laws relating to bankruptcy, insolvency, reorganization, winding up, or adjustment of debts or (ii) the appointment of a trustee, receiver, custodian, liquidator, or the like for Aceragen or such Affiliate for all or any substantial part of its assets; and under either clause (i) or (ii) of this 9.2(c), such case or proceeding has continued without dismissal or stay for a period of sixty (60) consecutive calendar days, or an order granting the relief requested in such case or proceeding (including an order for relief under such federal bankruptcy laws) is entered.

9.3 **Termination for Cause**. Upon the occurrence of any material breach of this Agreement by Aceragen, NovaQuest may, without limiting any of its rights or remedies, terminate this Agreement immediately upon written notice to Aceragen. Notwithstanding such termination by NovaQuest, Aceragen's payment obligations under ARTICLE IV shall survive until they are fully and completely satisfied.

9.4 **Termination for Redemption, Buy-Down or Satisfaction Milestone**. This Agreement will automatically terminate in its entirety upon the earlier of (a) the occurrence of a Redemption of all of the Shares, (b) a Buy-Down has been effected in compliance with Section 8.2, or (c) upon achievement of the Satisfaction Milestone.

9.5 **Survival**. Notwithstanding anything to the contrary contained in this Agreement, ARTICLE IV, Sections 5.1 and 5.2, ARTICLE VI, ARTICLE VII, this Section 9.5, ARTICLE X, and ARTICLE XI shall survive the termination of this Agreement for any reason.

ARTICLE X
INDEMNIFICATION

10.1 **General Obligations**. Aceragen hereby agrees to indemnify, defend, hold harmless, and reimburse NovaQuest and its Affiliates and their respective managers, directors, officers, employees, agents, and its and their respective successors, heirs, and assigns (collectively, the "***NovaQuest Indemnitees***") from and against any losses, costs, claims, damages, Liabilities, or expenses (including reasonable attorneys' and professional fees and other expenses of litigation) (each, a "***Loss***" and collectively, "***Losses***") arising out of claims, suits, actions, or demands, in each case brought by a Third Party, or settlements or judgments arising therefrom (including personal injury, products liability, and intellectual property infringement or misappropriation claims) (each a "***Third Party Claim***") as a result or arising out of:

(a) a Responsible Party's, or its or their respective agent's or contractor's Development, promotion, marketing, handling, manufacture, Commercialization, packaging, labeling, storage, distribution, pricing, reimbursement, transport, use, sale, or other disposition of the Product;

(b) any breach by a Responsible Party of a representation or warranty of a Responsible Party contained in this Agreement or in any other agreement between the Parties or the breach or default by a Responsible Party of any covenant, agreement, or obligation of Aceragen contained in this Agreement or in any other agreement between the Parties;

(c) a Responsible Party's failure to comply with Applicable Law; or

(d) the negligence, recklessness, or intentional wrongful acts or omissions related to this Agreement of a Responsible Party, or contractors or any of their respective directors, employees, or agents.

10.2 **Procedures**.

(a) Notice. A NovaQuest Indemnitee seeking indemnification (the "***Indemnified Party***") under Section 10.1 shall give prompt written notice to Aceragen (the "***Indemnifying Party***") of the assertion of any claim in respect of which indemnity may be sought hereunder. Such notice shall include a description of the claim and the nature and amount of the applicable Loss, to the extent known at such time. The failure of an Indemnified Party to notify the Indemnifying Party on a timely basis or provide such information as set forth above will not relieve the Indemnifying Party of any liability that it may have to the Indemnified Party unless the Indemnifying Party demonstrates that the defense of such action is materially prejudiced by the Indemnified Party's failure to give such notice and then solely to the extent thereof. The Indemnified Party shall provide the Indemnifying Party with complete and correct copies of all papers and official documents received in connection with any Third Party Claims for which indemnity is sought hereunder and such other information with respect thereto as the Indemnifying Party may reasonably request. The Parties shall keep each other reasonably informed of any facts or circumstances that may be of material relevance in connection with the Loss for which indemnification is sought.

(b) In General. The Indemnifying Party may assume the defense of any Third Party Claim for which indemnity is sought hereunder by giving written notice thereof to the Indemnified Party within thirty (30) calendar days after the Indemnifying Party's receipt of a notice provided pursuant to Section 10.2(a). Upon assuming the defense of a Third Party Claim, the Indemnifying Party may appoint as lead counsel in the defense of the Third Party Claim any legal counsel selected by the Indemnifying Party and reasonably acceptable to the Indemnified Party. If the Indemnifying Party assumes the defense of a Third Party Claim, then the Indemnified Party shall promptly deliver to the Indemnifying Party all original notices and documents (including court papers) received by the Indemnified Party in connection with the Third Party Claim.

(c) Right to Participate in Defense. Without limiting Section 10.2(b), any Indemnified Party shall be entitled to participate in the defense of such Third Party Claim assumed by the Indemnifying Party and to employ counsel of its choice for such purpose. However, such employment shall be at the Indemnified Party's own expense unless (i) the employment thereof has been specifically authorized by the Indemnifying Party in writing; (ii) the Indemnifying Party has failed to assume the defense and employ counsel in accordance with Section 10.2(b) (in which case the Indemnified Party may control the defense); or (iii) the interests of the Indemnified Party and the Indemnifying Party with respect to such Third Party Claim are sufficiently adverse to prohibit the representation by the same counsel of both Parties under Applicable Laws, ethical rules, or equitable principles, in which case such employment shall be at the expense of the Indemnifying Party.

(d) Settlement. With respect to any Third Party Claim, the Indemnifying Party shall have the right to consent to the entry of any judgment or enter into any settlement with respect to such Third Party Claim, only with the prior written consent of the Indemnified Party.

(e) Cooperation. Regardless of whether the Indemnifying Party chooses to defend or prosecute any Third Party Claim in respect of which indemnity is sought hereunder, the Indemnified Party shall, and shall cause each of its indemnitees to, reasonably cooperate in the defense or prosecution thereof, and the Indemnifying Party shall reimburse the Indemnified Party for all its reasonable out-of-pocket expenses in connection therewith. If the Indemnifying Party chooses not to defend any Third Party Claim in respect of which indemnity is sought hereunder, then the Indemnifying Party shall cooperate with the Indemnified Party in the defense or prosecution thereof, including by furnishing such records, information, and testimony, providing such witnesses and attending such conferences, discovery proceedings, hearings, trials, and appeals as may be reasonably requested in connection therewith. Such cooperation shall include access during normal business hours afforded to the Indemnified Party to, and reasonable retention by the Indemnifying Party of, records and information that are reasonably relevant to such Third Party Claim, and making Indemnifying Parties and other employees and agents available on a mutually convenient basis to provide additional information and explanation of any material provided hereunder.

10.3 **Breach by the Indemnifying Party of its Obligations**. If the Indemnifying Party fails to timely (and in any event within 30 days) assume and diligently conduct the defense of any such Third Party Claim, then its right to defend that Third Party Claim shall terminate and the Indemnified Party may assume the defense of, and settle, such claim with counsel of its own choice

and on such terms as it deems appropriate, without any obligation to obtain the consent of the Indemnifying Party.

ARTICLE XI
MISCELLANEOUS

11.1 **Survival of Warranties**. Unless otherwise set forth in this Agreement, the representations and warranties of Aceragen and NovaQuest contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and shall in no way be affected by any investigation or knowledge of the subject matter thereof made by or on behalf of NovaQuest or Aceragen.

11.2 **Governing Law**. This Agreement shall be governed by and construed, interpreted, and enforced in accordance with the laws of the State of New York, as applied to agreements executed and performed entirely in the State of New York, without giving effect to the principles of conflicts of law thereof.

11.3 **Dispute Resolution**.

(a) Subject to Section 11.4, prior to the initiation of any Arbitration between the Parties, any dispute, controversy, or claim arising under, out of, or in connection with this Agreement, including any subsequent amendments, regarding the validity, enforceability, construction, performance, or breach hereof (a "Dispute") shall be first addressed between the Parties' Senior Officers. Either Party shall have the right to refer a Dispute to the Parties' Senior Officers for attempted resolution by sending a written notice to the other Party requesting the same (the "Dispute Notice"). If either Party provides a Dispute Notice, then the Senior Officer (or his or her designee) from each Party shall, by phone or in-person, discuss the Dispute in good faith, commencing within fourteen (14) calendar days after the delivery of the Dispute Notice and continuing until at least twenty-eight (28) calendar days after the delivery of the Dispute Notice.

(b) If the two Senior Officers (or their designees) have not reached a mutually acceptable resolution to the Dispute within twenty-eight (28) calendar days after the delivery of the Dispute Notice, then the Dispute shall be resolved by final, binding arbitration conducted under the rules (the "***AAA Rules***") of the American Arbitration Association (the "***AAA***"), as amended from time to time, except as provided in this Section 11.3 ("***Arbitration***").

(c) Selection of Arbitrators. The Arbitration tribunal shall consist of three (3) arbitrators, which shall be selected as follows: (i) one (1) arbitrator shall be selected by Aceragen; (ii) one (1) arbitrator shall be selected by NovaQuest; and (iii) one (1) arbitrator shall be selected by the two (2) foregoing arbitrators (each such arbitrator, an "Arbitrator"). Each of the Arbitrators shall have prior experience in the biopharmaceutical industry. No Arbitrator shall be a current or former employee, shareholder, officer, or director of, or consultant, or advisor to, or other representative of, either Party. If (A) either Party fails to select an Arbitrator within thirty (30) calendar days following expiration of the twenty-eight (28) calendar day period in Section 11.3(b) or (B) the two (2) Arbitrators selected by the Parties fail to select the third Arbitrator within fifteen (15) calendar days after the selection of the first two (2) Arbitrators by the Parties, then, at the

request of either Party, the AAA shall make such selection(s) on behalf of the Parties in accordance with the AAA Rules.

(d) Venue and Language. The venue of the Arbitration shall be Raleigh, North Carolina, USA. The Arbitration shall be conducted in English, and all foreign language documents shall be submitted in the original language and shall be accompanied by a translation into English.

(e) Time Periods. Upon the written mutual agreement of both Parties, any time period specified in this Section 11.3 or the AAA Rules shall be extended or accelerated according to the Parties' written mutual agreement. The Arbitrators shall take into account both the desirability of making discovery efficient and cost-effective and the needs of the Parties for an understanding of any legitimate issue raised in the Arbitration.

(f) Consolidation of Disputes. In order to facilitate the comprehensive resolution of related disputes, and upon request of any Party to the Arbitration proceeding, the Arbitrators may consolidate the Arbitration proceeding with any other Arbitration proceeding relating to this Agreement. The Arbitrators shall not consolidate such Arbitrations unless they determine that (i) there are issues of fact or law common to the proceedings so that a consolidated proceeding would be more efficient than separate proceedings, and (ii) no Party would be prejudiced as a result of such consolidation through undue delay or otherwise.

(g) Costs. The costs of the Arbitration, including reasonable fees plus expenses to be paid to the Arbitrator(s) and the reasonable out-of-pocket costs (including the costs incurred for translation of the documents into English, reasonable attorneys' and expert witness fees, and reasonable travel expenses) of the prevailing Party shall be borne by (i) the losing Party, if the Arbitrator(s) rule in favor of one Party on all disputed issues in the Arbitration and (ii) by the Parties, as allocated in writing by the Arbitrator(s) in a manner with a reasonable relationship to the outcome of the Arbitration, if the Arbitrator(s) rule in favor of one Party with respect to some issues and in favor of the other Party with respect to other issues and, in either case ((i) or (ii)), paid within thirty (30) calendar days from the final decision by the Arbitrator.

(h) Decision to be Binding. The decision by the Arbitrators shall be final and binding on the Parties, non-reviewable and non-appealable, and judgment upon any arbitral award may be entered and enforced by any court or other judicial authority of competent jurisdiction.

(i) Confidentiality. All Disputes under this Agreement shall be subject to the confidentiality restrictions contained in ARTICLE V herein. All settlement negotiations, proceedings, and any award and any information obtained from the other Party in connection with the Arbitration shall be deemed "Confidential Information" subject to ARTICLE VI; provided, however, that the Parties further agree that such Confidential Information may be disclosed to the extent necessary to enforce any award or enforce this Agreement to arbitrate.

11.4 **Equitable Relief**. Each of the Parties hereto acknowledges that the other Party may have no adequate remedy at law if it fails to perform any of its obligations under ARTICLE VI of this Agreement. In such event, each of the Parties agrees that the other Party shall have the right, in addition to any other rights it may have (whether at law or in equity), to pursue equitable

remedies such as injunction and specific performance for the breach or threatened breach of any provision of such ARTICLE VI from any court of competent jurisdiction.

11.5 **Expenses**. Except as expressly set forth herein, each Party shall be responsible for and bear all of its own costs and expenses (including any legal fees and any accountants' fees) with regard to the negotiation and consummation of the transactions contemplated by this Agreement. If, after the Effective Date, Aceragen requests an amendment of this Agreement in connection with any restructuring, reorganization, or similar transaction to which Aceragen or any of its Affiliates are a party, then Aceragen will reimburse NovaQuest for the reasonable and documented legal and accounting fees and expenses NovaQuest incurs in connection with such amendment within ten (10) Business Days of NovaQuest's written request for reimbursement.

11.6 **Relationship of the Parties**. Nothing in this Agreement is intended to be construed so as to suggest that either Party (except as expressly set forth herein) is obligated to provide, directly or indirectly, any advice, consultations, or other services to the other Party. Neither Party shall have any responsibility for the hiring, termination, or compensation of the other Party's employees or for any employee benefits of such employee. No employee or representative of a Party shall have any authority to bind or obligate the other Party to this Agreement for any sum or in any manner whatsoever or to create or impose any contractual or other liability on the other Party without such Party's approval. For all purposes and notwithstanding any other provision of this Agreement to the contrary, each Party's legal relationship under this Agreement to the other Party shall be that of independent contractor. This Agreement is not a partnership agreement, and nothing in this Agreement shall be construed to establish a relationship of copartners or joint venturers between the Parties.

11.7 **Successors and Assigns**. Neither this Agreement nor any rights or obligations hereunder may be assigned in whole or in part by either Party, by operation of law or otherwise, without the prior written consent of the other Party; provided, however, that NovaQuest may, without such consent, (a) assign, sell, or otherwise transfer this Agreement to an Affiliate of NovaQuest, provided that such Affiliate is not engaged a Competing Business; provided that such Affiliate agrees to be bound by the terms and obligations of this Agreement, or (b) assign, sell, pledge, contribute, or otherwise transfer, in whole or in part, its rights to receive any payments under this Agreement, or (c) assign, sell, pledge, contribute, or otherwise transfer, in whole, together with rights to receive payments under this Agreement, its rights to enforce such payment rights, and its rights to conduct audits or receive information and audit findings under ARTICLE V to any Person, and such Person may assign, sell, pledge, contribute, or otherwise transfer such rights to another Person, in each case so long as no such Person is actively engaging in the development or commercialization of a Competing Product. This Agreement shall be binding upon, and subject to the terms of the foregoing sentence, inure to the benefit of the Parties hereto, their permitted successors, legal representatives and assigns. Any assignment or attempted assignment not in accordance with this Section 11.7 shall be null and void.

11.8 **Notices**. All notices, consents, waivers, requests, and other communications hereunder shall be in writing and shall be delivered in person, sent by confirmed electronic mail, sent by overnight courier (e.g., Federal Express), confirmed facsimile transmission or posted by

registered or certified mail, return receipt requested, with postage prepaid, to following addresses of the Parties:

If to Aceragen:

Aceragen, Inc.
15 T.W. Alexander Drive, Suite 318
Research Triangle Park, NC 27709
Attention: John Taylor
Email: jtaylor@aceragen.com

with a copy to:

Hutchison PLLC
701 Corporate Center Dr., Suite 250
Raleigh, NC 27612
Attention: Counsel to Aceragen, Inc.

If to NovaQuest:

NovaQuest Co-Investment Fund XV, L.P.
4208 Six Forks Road, Suite 920
Raleigh, NC 27609
Attention: Jonathan Tunnicliffe
Telephone:
E-mail: jonathan.tunnicliffe@nqcapital.com

with a copy to:

Wyrick Robbins Yates & Ponton LLP
4101 Lake Boone Trail, Suite 300
Raleigh, North Carolina 27607
Attn: Daniel S. Porper
Telephone: 919-781-4000
E-mail: dporper@wyrick.com

or to such other address or addresses as NovaQuest or Aceragen may from time to time designate by notice as provided herein. Any such notice shall be deemed given (a) when actually received when so delivered personally or by overnight courier; (b) if mailed, other than during a period of general discontinuance or disruption of postal service due to strike, lockout or otherwise, on the fifth (5th) calendar day after its postmarked date thereof; or (c) if sent by e-mail with acknowledgement of receipt, transmission on the date sent if such day is a Business Day or the next following Business Day if such day is not a Business Day.

11.9 **Severability**. If any provision hereof should be held invalid, illegal, or unenforceable in any jurisdiction, then the Parties shall negotiate in good faith a valid, legal, and enforceable substitute provision that most nearly reflects the original intent of the Parties. All

other provisions hereof shall remain in full force and effect in such jurisdiction and shall be liberally construed in order to carry out the intentions of the Parties as nearly as may be possible. Such invalidity, illegality, or unenforceability shall not affect the validity, legality, or enforceability of such provision in any other jurisdiction. Nothing in this Agreement shall be interpreted so as to require a Party to violate any Applicable Law.

11.10 **Waiver**. Any term or condition of this Agreement may be waived at any time by the Party that is entitled to the benefit thereof, but no such waiver shall be effective unless set forth in a written instrument duly executed by or on behalf of the Party waiving such term or condition. No waiver by any Party of any term or condition of this Agreement, in any one or more instances, shall be deemed to be, or construed as, a waiver of the same or any other term or condition of this Agreement on any future occasion.

11.11 **Entire Agreement**. This Agreement and the Transaction Agreements set forth all of the covenants, promises, agreements, warranties, representations, conditions, and understandings between the Parties relating to the subject matter hereof and thereof and supersedes and terminates all prior agreements and understandings between the Parties. There are no covenants, promises, agreements, warranties, representations, conditions, or understandings, either oral or written, between the Parties relating to the subject matter hereof other than as set forth in this Agreement.

11.12 **Third Party Beneficiaries**. Except with regard to the NovaQuest Indemnitees under ARTICLE X, all rights, benefits, and remedies under this Agreement are solely intended for the benefit of the Parties (including their permitted successors and assigns), and no Third Party (except the NovaQuest Indemnitees with regard to their rights, benefits, and remedies under ARTICLE X of this Agreement and except for the Parties' permitted successors and assigns) shall have any rights whatsoever to (a) enforce any obligation contained in this Agreement; (b) seek a benefit or remedy for any breach of this Agreement; or (c) take any other action relating to this Agreement under any legal theory, including actions in contract, tort (including negligence, gross negligence and strict liability), or as a defense, setoff, or counterclaim to any action or claim brought or made by the Parties (or any of their permitted successors and assigns).

11.13 **Interpretation**. When a reference is made in this Agreement to Articles, Sections, Schedules, or Exhibits, such reference shall be to an Article, Section, Schedule, or Exhibit to this Agreement unless otherwise indicated. The words "include," "includes", and "including" when used herein shall be deemed in each case to be followed by the words "without limitation" and shall not be construed to limit any general statement that it follows to the specific or similar items or matters immediately following it. The headings and captions in this Agreement are for convenience and reference purposes only and shall not be considered a part of or affect the construction or interpretation of any provision of this Agreement. Unless specified otherwise, all statements of, or references to, monetary amounts in this Agreement are to U.S. Dollars. Each accounting term used herein that is not specifically defined herein shall have the meaning given to it under GAAP, but only to the extent consistent with its usage and the other definitions in this Agreement. Provisions that require that a Party or the Parties "agree," "consent", "approve", or the like shall require that such agreement, consent, or approval be specific and in writing, whether by written agreement, letter, approved minutes, or otherwise. Words of any gender include the other gender, and words using the singular or plural number also include the plural or singular

number, respectively. Neither Party hereto shall be deemed to be the drafter of this Agreement for the purposes of construing this Agreement against one Party or the other. If any notice or other action or omission is required to be taken by a Party under this Agreement on a day that is not a Business Day, then such notice or other action or omission shall be deemed to require to be taken on the next occurring Business Day.

11.14 **Amendments**. This Agreement may be amended, modified, or supplemented only by a written amendment or agreement signed by an authorized officer of both NovaQuest and Aceragen.

11.15 **No Implied Licenses**. Each Party acknowledges that the rights granted in this Agreement are limited to the scope expressly granted, and all other rights to each Party's respective technologies and intellectual property rights are expressly reserved to the Party owning or controlling such technologies and intellectual property rights.

11.16 **Time**. Time is of the essence with respect to this Agreement and each of its provisions.

11.17 **Counterparts**. This Agreement may be executed in any number of counterparts with the same effect as if each of the parties hereto had signed the same document. All counterparts shall be construed together and shall constitute one agreement. This Agreement, to the extent signed and delivered by means of a facsimile machine or via e-mail in .pdf file format, shall be treated in all manner and respects as an original agreement or instrument and shall be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person.

11.18 **Further Assurances**. Each of the Parties hereto shall execute and deliver such additional documents, certificates, and instruments and shall perform such additional acts as may be reasonably requested and necessary or appropriate to carry out the purposes and intent and all of the provisions of this Agreement and to consummate all of the transactions contemplated by this Agreement.

11.19 **Remedies**. Neither the failure nor any delay by any Party in exercising any right, power, or privilege under this Agreement will operate as a waiver of such right, power, or privilege, and no single or partial exercise of such right, power, or privilege will preclude any other or further exercise of such right, power, or privilege or the exercise of any other right, power, or privilege. Unless specifically and expressly stated in this Agreement as exclusive, each remedy of the Parties specified in this Agreement is not exclusive, and, subject to the terms of this Agreement, is cumulative. The Parties shall be entitled to pursue any available legal or equitable remedy for breach of this Agreement or any provision hereof.

[Signature page follows]

IN WITNESS WHEREOF, the Parties have executed this Sales Distribution and PRV Agreement in duplicate originals by their duly authorized representatives as of the Effective Date.

Aceragen, Inc.

By: /s/ John Taylor
Name: John Taylor
Title: President and CEO

NovaQuest Co-Investment Fund XV, L.P.

By: NQ POF V GP, Ltd., its general partner

By: _____
Name: John L. Bradley, Jr.
Title: Director

IN WITNESS WHEREOF, the Parties have executed this Sales Distribution and PRV Agreement in duplicate originals by their duly authorized representatives as of the Effective Date.

Aceragen, Inc.

By: _____
Name: John Taylor
Title: President and CEO

NovaQuest Co-Investment Fund XV, L.P.

By: NQ POF V GP, Ltd., its general partner

By: /s/ John L. Bradley, Jr.
Name: John L. Bradley, Jr.
Title: Director

THERAPEUTIC DEVELOPMENT AWARD AGREEMENT

December 13, 2021

Development Program: Treatment of Cystic Fibrosis Pulmonary Exacerbations with Oral ACG-721
Awardee: Arrevus Inc.
Award Number: ARREVUS21W0
Award Amount: $[***] in accordance with the Payment Schedule attached hereto as Exhibit B

1. **Award**. The Cystic Fibrosis Foundation, a Delaware corporation ("**CFF**"), is issuing this award (this "**Award**") to Arrevus as described in Exhibit A. CFF will fund the Development Program up to the Award Amount above, and Arrevus will be responsible for any remaining costs required to complete the Development Program and to further develop and commercialize the Product (as described below). Each party's rights and obligations hereunder will commence as of the date written above (the "**Effective Date**"). This Award is in furtherance of CFF's charitable mission to cure and mitigate the effects of cystic fibrosis. CFF has determined that without the Award, the Development Program may not occur or may be substantially delayed. The Award is subject to the following terms, conditions and policies of this Agreement ("**Agreement**").

2. **Disbursement of Award; Use of Award; Return of Award**. The Award Amount will be disbursed to Arrevus in accordance with the Payment Schedule set forth in Exhibit B. Arrevus hereby covenants and agrees to use the Award solely to fund the Development Program. Any portion of the Award Amount paid to Arrevus and not expended on the Development Program must be returned to CFF promptly upon Arrevus's determination that such funds will not be expended on the Development Program, and in any event within thirty (30) days following completion or termination of the Development Program. Upon such return, the amounts of such returned funds will not be included as part of the Actual Award for purposes of calculating any royalties or other amounts owed by Arrevus to CFF pursuant to Section 3.

3. **Royalties**. In consideration of the Award and CFF's license of CFF Know-How (as defined below), Arrevus agrees to pay royalties to CFF as follows:

(a) Arrevus shall pay a one-time royalty to CFF in an amount equal to the Royalty Cap if a Product (as defined below) resulting from the Development Program is approved for commercial sale for human therapeutic use in the Field, payable in three (3) equal installments: the first within sixty (60) days after the first commercial sale of the Product as a human therapeutic in the Field (the "**First Sale**"); the second within ninety (90) days of the first (1') anniversary of the First Sale; and the third within ninety (90) days of the second (2nd) anniversary of the First Sale.

(b) In the event of a License Transaction or Change of Control, the Awardee shall pay to CFF one times the Actual Award. Such amount shall be payable within ninety (90) days after the closing of the License Transaction or Change of Control. Any payment pursuant to this Section 3(b) will reduce the amount payable pursuant to Section 3(a), such that notwithstanding anything to the contrary, the total,

aggregate, combined amount payable to CFF under Sections 3(a) and 3(b) of this Agreement shall not in any event exceed the Royalty Cap.

(c) If Net Sales (as defined below) of the Product exceed $250 million, the Awardee shall pay a one-time royalty to CFF in an amount equal to one (1) times the Actual Award within ninety (90) days of the end of the first calendar year in which such total Net Sales were achieved. If Net Sales of the Product exceed $500 million, the Awardee shall pay a one-time royalty to CFF in an amount equal to one (1) times the Actual Award within ninety (90) days of the end of the first calendar year in which such total Net Sales were achieved.

4. Commercially Reasonable Efforts. Arrevus shall use Commercially Reasonable Efforts (as defined below) to conduct the Development Program during the term of this Agreement. After the Development Program is completed, Arrevus (or any licensee, sublicensee, assignee or successor, as applicable) shall exercise Commercially Reasonable Efforts to continue to develop the Product in the Field.

5. Reports.

(a) During the Development Program, Arrevus shall provide CFF and the PAG (as defined below) with a reasonably detailed, written report within thirty (30) days after the close of each calendar quarter during the Development Program summarizing progress toward achieving the goals of the Development Program.

(b) Arrevus shall prepare and deliver to CFF a closing report within thirty (30) days after the completion of the Development Program.

(c) After the completion of the Development Program, Arrevus shall prepare and deliver an annual report to CFF within thirty (30) days after the close of each calendar year detailing the progress of its research and development activities regarding the Product in the Field, until the earlier of (i) first commercial sale of the Product in the Field or (ii) all research efforts related to the Product in the Field are abandoned by Arrevus.

(d) Arrevus shall provide CFF with prompt notice of the First Sale, closing of a License Transaction or Change of Control, and any material adverse event affecting the Product in the Field.

(e) Commencing upon the first commercial sale of the Product and ending upon payment of all amounts due under Section 3(c), within thirty (30) days after the end of each year, Arrevus shall furnish to CFF a written sales report covering the prior year setting forth the Net Sales for the Product during such year.

6. Program Advisory Group.

(a) Arrevus and CFF shall form a Program Advisory Group ("**PAG**"). The purpose of the PAG is to permit CFF to oversee the use of the Award and to ensure that the Award is used solely in furtherance of CFF s tax-exempt mission. The role of the PAG is to (i) review progress of the Development Program, (ii) to determine, discuss and propose amendments to the Development Program or the related budget, (iii) to determine whether payment milestones have been achieved, and (iv) to consider and provide recommendations on other issues raised by either party relating to the Development Program; provided, however, that no material change to the Development Program shall be made without the written agreement of both parties.

(b) The PAG shall consist of two (2) individuals appointed by Arrevus and two (2) individuals appointed by CFF. One of such individuals from Arrevus and CFF, respectively, shall be the principal

liaison to the Development Program. A party may replace any PAG member appointed by it and designate a new individual to serve on the PAG upon written notice to the other party.

(c) The PAG shall terminate and cease to exist on the earlier of the completion of the Development Program or termination or expiration of this Agreement.

(d) Each party shall be responsible for its own expenses in connection with attending meetings of and participating in the PAG.

7. Interruption.

(a) **Interruption Notice; Arrevus Election**. Arrevus shall notify CFF if an Interruption (as defined below) has occurred. If Arrevus provides such notice, or if CFF otherwise reasonably believes that an Interruption has occurred, CFF will provide notice (the "**Interruption Notice**") to Arrevus. Arrevus shall elect, within ninety (90) days of the Interruption Notice, one of the following options by notice to CFF:

(i) Arrevus shall reasonably demonstrate, in the form of a written progress report, that an Interruption has not occurred, or that Arrevus, an Affiliate thereof, or a licensee or sublicensee of either of the foregoing is exercising Commercially Reasonable Efforts to develop or commercialize a Product;

(ii) Arrevus shall provide CFF with notice within such ninety (90) day period that Arrevus, an Affiliate thereof, or a licensee or sublicensee of either of the foregoing, has plans to initiate or resume Commercially Reasonable Efforts to develop or commercialize a Product and initiates or resumes such Commercially Reasonable Efforts within the ninety (90) day period following such notice; provided that Arrevus may select this option only once; or

(iii) Arrevus shall make a payment to CFF equal to two (2) times the Actual Award (the "Interruption Payment").

If Arrevus has elected (i) or (ii) above within ninety (90) days of the Interruption Notice, the Interruption Notice shall be deemed satisfied and be of no further force or effect unless CFF notifies Arrevus within s progress report under (i) above or provides notice under (ii) above that CFF disputes such progress report or notice, as the case may be. If CFF provides timely notice of its dispute, the parties shall resolve such dispute in accordance with the dispute resolution provision of this Agreement.

If CFF has disputed Arrevus' election under (i) or (ii) above and the resolution of the dispute is concluded with the final outcome of such dispute resolution determining that such election was defective, within thirty (30) days of such final outcome Arrevus shall make a payment to CFF equal to two (2) times the Actual Award. The date of the payment in the preceding sentence by Arrevus to CFF shall be the effective date of termination pursuant to this Section 7.

8. Indemnification.

(a) Arrevus shall indemnify, defend and hold harmless CFF, its Affiliates, and their respective directors, officers, employees, consultants, committee members, volunteers, agents and representatives and their respective successors, heirs and assigns (each, an "**CFF Indemnitee**") from and against any and all claims, suits and demands of third parties and losses, liabilities, damages for personal injury, property

damage or otherwise, costs, penalties, fines and expenses (including court costs and the reasonable fees of attorneys and other professionals) ("**Liabilities**") payable to such third parties arising out of, resulting therefrom and relating to any such third party claims and/or demands ("**Third Party Claims**") resulting from:

(i) the conduct of the Development Program by Arrevus or its Affiliates or their respective directors, officers, employees, consultants, agents, representatives, licensees, sublicensees, subcontractors and/or investigators (each, an "**Arrevus Party**") under this Agreement and/or pursuant to one or more agreements between Arrevus and any Arrevus Party, or any actual or alleged violation of law resulting therefrom;

(ii) Arrevus s or its Affiliates development, manufacture, or commercialization of any Product developed in whole or in part as a result of the Development Program;

(iii) any claim of infringement or misappropriation with respect to the conduct of the Development Program by or on behalf of Arrevus, its Affiliates, or Arrevus licensees or sublicensees, or with respect to the manufacture, use, sale, or import of any Product developed in whole or in part as a result of the Development Program by any such parties; and

any tort claims of personal injury (including death) relating to or arising out of any such injury sustained as the result of, or in connection with, the conduct of the Development Program by or on behalf of Arrevus, its Affiliates, or Arrevus or its Affiliate's third party licensees or sublicensees, or with respect to the manufacture, use, sale, or import of any Product developed in whole or in part as a result of the Development Program by any such parties;

in each case except to the extent the claim, suit, demand, liability, damage, or loss results from the gross negligence or willful misconduct of a CFF Indemnitee.

(b) CFF shall indemnify, defend and hold harmless Arrevus, its Affiliates and their respective directors, officers, employees, consultants, agents and representatives and their respective successors, heirs and assigns (the "Arrevus Indemnitees") from and against any and all Liabilities payable to such third parties arising out of, resulting from, or relating to any Third Party Claims resulting from CFF's gross negligence, intentional misconduct, or failure to comply with any applicable law, rule, or regulation with respect thereto, in each case except to the extent the claim, suit, demand, liability, damage or loss results from the gross negligence or willful misconduct of an Arrevus Indemnitee.

(c) A party entitled to indemnification under this Section 8 (the "**Indemnified Party**") will promptly notify the other party (the "**Indemnifying Party**") of any claims, suits, demands, losses, liabilities, damages costs, penalties, fines, or expenses subject to indemnification under this Section 8 of which it is made aware. The Indemnified Party will cooperate, and exert efforts to cause other Indemnified Parties to cooperate, in assisting the Indemnifying Party in presenting a defense, if requested to do so. The Indemnifying Party shall have sole control to select defense counsel, direct the defense of any such complaint or claim, and the right to settle claims at the Indemnifying Party's sole expense, provided that any such settlement does not incur non-indemnified liability for or admit fault by any Indemnified Party. In the event a claim or action is or may be asserted, the Indemnified Party shall have the right to select and to obtain representation by separate legal counsel. If the Indemnified Party exercises such right, all costs and expenses incurred for such separate counsel shall be borne by the Indemnified Party. No Indemnified Party shall settle or enter into any voluntary disposition of any matter subject to indemnification under this Section 8 without the prior written consent of the Indemnifying Party, such consent not to be unreasonably withheld.

9. Insurance. Arrevus shall maintain at its own expense, with a reputable insurance carrier reasonably acceptable to CFF, coverage for Arrevus, its Affiliates, and their respective employees written on a per occurrence basis commensurate with a reasonable assessment of the risks associated with the research and development efforts being conducted by Arrevus, the following policies: commercial general liability insurance, including contractual liability as respects this Agreement for bodily injury and property damage and, no later than the first administration of a Product to a human subject, products liability and clinical trials liability.

Maintenance of such insurance coverage will not relieve Arrevus of any responsibility under this Agreement for damage in excess of insurance limits or otherwise. On or prior to the Effective Date of this Agreement, Arrevus shall provide CFF with an insurance certificate from the insurer(s), broker(s) or agent(s) evidencing the applicable insurance coverage. At CFF's request, CFF may review Arrevus's insurance coverage with relevant Arrevus personnel no more than one time per year.

10. Intellectual Property Rights.

(a) All inventions, data, know-how, information, results, analyses, and other intellectual property rights resulting from the Development Program shall, as between the parties, be owned by Arrevus and the preparation, filing and maintenance of all patents resulting from the Development Program shall, as between the parties, be the sole responsibility, and under the sole control, of Arrevus. CFF hereby assigns and transfers to Arrevus all of CFF's right, title, and interest in and to all inventions and other intellectual property resulting from the Development Program, CFF's access to, or knowledge or use of, any Development Program Technology, the Product, and/or any other confidential or proprietary information of Arrevus, and all intellectual property rights related to any of the foregoing, free and clear of all liens, claims, and encumbrances. CFF agrees to take, and cause all of its employees, agents, and other representatives to take, any and all actions, and execute any and all documents, reasonably requested by Arrevus as necessary to effect the foregoing.

(b) To the extent CFF provides or makes available any information, expertise, know-how or other intellectual property related to cystic fibrosis or the treatment, prevention, or cure thereof ("**CFF Know-How**") to Arrevus, CFF hereby grants to Arrevus a non-exclusive, perpetual, transferable, sublicensable (through multiple tiers), worldwide right and license under all of CFF 's rights in such CFF Know-How to research, develop, commercialize, make, use, sell, offer for sale, import and otherwise exploit the Product in the Field.

11. Audits. At the request of CFF, from time to time, Arrevus shall permit CFF, upon reasonable notice and during Arrevus's regular business hours, to audit and examine such books and records of the Arrevus as may be necessary for verifying the Arrevus's expenditures of the Award Amount and the payment of royalties, if any, but no more frequently than once per calendar year.

12. Term and Termination. The term of this Agreement shall commence on the Effective Date and, unless earlier terminated pursuant to the terms herein, shall expire on the date on which Arrevus has paid CFF all of the royalty payments set forth in Section 3 or Section 7, as the case may be. Either party may terminate this Agreement for cause, without prejudice to any other remedies available, by providing the other party with written notice of such cause and intent to terminate; provided, however, that the other party shall have thirty (30) days following the receipt of written notice to cure such cause and, in the event of such cure, such termination shall not be effective. For this Section 12, "cause" shall mean (i) a party's material breach of its covenants or obligations under this Agreement, (ii) a bankruptcy or similar filing by a party or a proceeding under the applicable bankruptcy laws or under any dissolution or liquidation law or statute now or hereafter in effect and filed against such party or all of substantially all of its assets if such filing is not dismissed within sixty (60) days after the date of its filing, or (iii) Arrevus's material failure to

achieve any milestone described in Exhibit A or B within ninety (90) days after its anticipated achievement date (as any such date may be revised from time to time with the consent of CFF, not to be unreasonably withheld) unless such failure is outside of Arrevus's reasonable control. The following provisions shall survive the termination of this Agreement: Sections 3, 7, 8, 10, 12, 13 and 14; provided, however, that Sections 3 and 7 shall not survive any termination of this Agreement (a) by CFF other than for cause or (b) prior to the disbursement by CFF of any portion of the Award Amount to Arrevus.

13. Miscellaneous.

(a) **Governing Law**. This Agreement shall be governed by and construed in accordance with the internal laws of the State of Delaware.

(b) **Dispute Resolution**.

(i) In the event of any dispute, claim or controversy arising out of, relating to or in any way connected to the interpretation of any provision of this Agreement, the performance of either party under this Agreement or any other matter under this Agreement, including any action in tort, contract or otherwise, at equity or law (a "**Dispute**"), either party may at any time provide the other party written notice specifying the terms of such Dispute in reasonable detail. As soon as practicable after receipt of such notice, an officer of each party shall meet at a mutually agreed upon time and location to engage in good faith discussions for the purpose of resolving such Dispute. If the Dispute is not resolved within thirty (30) days of such notice, either party may institute legal proceedings in accordance with (ii) below.

(ii) In the event any Dispute is not resolved in accordance with Section 12(b)(i), the parties agree that such Dispute shall be resolved solely by recourse to the courts of the State of Delaware or the United States District Court for the District of Delaware. Nothing in this subparagraph will preclude either party from seeking equitable or injunctive relief, or interim or provisional relief, from a court of competent jurisdiction, including a temporary restraining order, preliminary injunction, or any other form of permanent or interim equitable or injunctive relief, concerning a dispute either prior to or during any litigation proceeding.

(c) **Counterparts**. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed to be an original, but all of which together shall constitute one and the same Agreement. Facsimile and other electronically scanned signatures shall have the same effect as their originals.

(d) **Notices**. All communications between the parties with respect to any of the provisions of this Agreement will be sent to the addresses set out below, or to such other addresses as may be designated by one party to the other by notice pursuant hereto, by prepaid, certified air mail (which shall be deemed received by the other party on the seventh (7th) business day following deposit in the mails) or nationally recognized overnight courier (which shall be deemed received upon verification of receipt), or by email (which shall be deemed received when transmitted, if during normal business hours, or on the recipient's next business day, if not sent during normal business hours):

if to CFF, at:

Cystic Fibrosis Foundation
4550 Montgomery Ave., Suite 200
Bethesda, MD 20814
Attn: Michael Boyle, President and CEO
Phone: 240-200-3743

Email: mboyle@,cff.org

with a copy (which shall not constitute notice) to:

Cystic Fibrosis Foundation
4550 Montgomery Ave., Suite 200
Bethesda, MD 20814
Attn: Stephanie Singer, Senior Counsel
Phone: 240-200-3707
Email: ssinger@cff.org

if to Arrevus, at:

Arrevus, Inc.
15 TW Alexander Dr.
Durham, NC 27709
Attn: John Taylor, CEO
Phone: (919) 366-5501
Email: jtaylor@aceragen.com

(e) **Headings**. The paragraph headings are for convenience only and will not be deemed to affect in any way the language of the provisions to which they refer.

(f) **No Avoidance**. Arrevus will not, by amendment of its organizational or governing documents, or through reorganization, recapitalization, consolidation, merger, dissolution, sale, transfer or assignment of assets, issuance of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms, provisions, covenants or agreements of this Agreement.

(g) **Assignment**. This Agreement may not be assigned by either party without the consent of the other party; provided, however, that Arrevus may assign this Agreement, without the consent of CFF, to an Affiliate or to the acquiror of Arrevus or its equity or assets. Arrevus shall give prompt notice to CFF of any such assignment or transfer by operation of law.

(h) **No Relationship**. Nothing herein contained shall be deemed to create an agency, joint venture, amalgamation, partnership or similar relationship between CFF and Arrevus. Notwithstanding any of the provisions of this Agreement, neither party to this Agreement shall at any time enter into, incur, or hold itself out to third parties as having authority to enter into or incur, on behalf of the other party, any commitment, expense, or liability whatsoever, and all contracts, expenses and liabilities in connection with or relating to the obligations of each party under this Agreement shall be made, paid, and undertaken exclusively by such party on its own behalf and not as an agent or representative of the other.

(i) **Confidentiality**. All information provided to CFF by Arrevus pursuant to this Agreement shall be subject to the terms and provisions of that certain Mutual Confidential Disclosure Agreement, dated November 6, 2020, between CFF and Arrevus (the "**CDA**").

(j) **Publicity**. Arrevus shall submit any proposed press release or other public announcement, other than an academic, scholarly, or scientific publication, concerning the terms of this Agreement or this Award, to the Public Affairs Department of CFF for approval prior to its public release, with sufficient time to allow for review and comment prior to its public release, except to the extent any such release or announcement is required by law, rule, or regulation or the rules of any securities exchange. The parties agree that they intend to advance the body of general scientific knowledge of cystic fibrosis and its potential

therapies and cures and the parties acknowledge that Arrevus intends to, and CFF desires that Arrevus does, as commercially and scientifically reasonable based on the results of the Development Program, publish the results of the Development Program in a scientific peer-reviewed publication as soon as reasonably practicable. In furtherance of the foregoing, but subject to Arrevus's right to preserve and protect its confidential information and any information that if published would have an adverse effect on any patent application which Arrevus (or any Affiliate thereof, licensee or sublicensee of Arrevus or any Affiliate thereof, or contractor or collaborator of any of the foregoing) intends to file, Arrevus shall use Commercially Reasonable Efforts to make available to academic third parties for non-commercial research purposes such tangible research materials or resources developed during the Development Program as Arrevus considers appropriate under the circumstances and under reasonable terms and conditions. CFF's support for the Development Program shall be acknowledged in any press releases and publications relating to the Development Program.

(k) **Anti-Terrorism**. In accordance with the U.S. Department of the Treasury Anti-Terrorist Financing Guidelines, Arrevus shall take reasonable steps to ensure that the payments received from CFF are not distributed to terrorists or their support networks or used for activities that support terrorism or terrorist organizations. Arrevus certifies that it is in compliance with all laws, statutes and regulations restricting U.S. persons from dealing with any individuals, entities, or groups subject to Office of Foreign Assets Control sanctions.

(l) **Amendments and Waiver**. Any amendment or waiver of any provision of this Agreement shall be in writing and signed by a duly authorized representative of each party. The delay or failure of a party at any time to require performance of any provision of this Agreement shall in no way affect such party's rights at a later time to enforce the same.

(m) **Entire Agreement**. This Agreement (including the CDA and the Exhibits attached hereto) constitutes the entire agreement between the parties relating to the subject matter hereof and supersedes all prior or contemporaneous agreements, understandings or representations, either oral or written, between the parties with respect to such subject matter.

14. Definitions. Capitalized terms used but not otherwise defined in this Agreement shall have the following meanings:

(a) "**Actual Award**" means the total amount of the Award Amount actually paid to Arrevus, to the extent not returned by Arrevus to CFF pursuant to Section 2.

(b) "**Affiliate**" means, with respect to a party, any entity which directly or indirectly controls, is controlled by, or is under common control with, such party. For these purposes, "control" shall refer to (i) the ownership, directly or indirectly, of at least fifty percent (50%) of the voting securities or other ownership interest of an entity; or (ii) the possession, directly or indirectly, of the power to direct the management or policies of an entity, whether through the ownership of voting securities, by contract or otherwise. For the avoidance of doubt, Aceragen, Inc. is a controlling Affiliate of Arrevus.

(c) "**Change of Control Transaction**" means the consummation of a transaction, or a series of related transactions, constituting (i) a merger, share exchange or other reorganization of Awardee or a controlling Affiliate, following which the stockholders of the Awardee or such Affiliate, as the case may be, immediately prior to such transaction do not own a majority of the voting power of the acquiring, surviving or successor entity, (ii) the sale by one or more stockholders of a majority of the voting power of the Awardee or a controlling Affiliate, or (iii) a sale of all or substantially all of the assets of the Awardee or a controlling Affiliate (or that portion of its assets related to the subject matter of this Agreement). If Awardee is combined with an Affiliate, a later Change of Control Transaction affecting such Affiliate shall

constitute a Change of Control Transaction hereunder. Notwithstanding anything to the contrary, a Change of Control Transaction shall not include any bona fide financing transaction for the benefit of the Awardee or a controlling Affiliate (i.e. in which the Awardee or such Affiliate raises capital for general working capital or other business purposes) in which one or more persons or entities acquire shares of the Awardee or Affiliate's capital stock from the Awardee or Affiliate and the Awardee or Affiliate shareholders receive no consideration in connection with the transaction.

(d) "**Commercially Reasonable Efforts**" shall mean the level of effort, expertise and resources that is reasonably consistent with industry standards for companies of similar size and financial resources and under similar circumstances to research, develop and commercialize a Product where such research, development and commercialization is technically feasible, devoting a degree of attention and diligence to such efforts that is reasonably consistent with industry standards for products at a comparable stage in development (with similar market potential, and taking into account, without limitation, issues of safety and efficacy, proprietary position, the competitive environment, the regulatory environment, and other relevant scientific, technical and commercial factors) for companies of similar size and financial resources and under similar circumstances.

(e) "**Development Program Technology**" means all technology first created or conceived in whole or developed to an extent substantially and materially relevant to the identification and/or furtherance of a viable human therapeutic product candidate in the Field, and which results from the efforts of Arrevus in the Development Program and is owned or controlled by Arrevus.

(f) "**Field**" shall mean the treatment of pulmonary exacerbations resulting from cystic fibrosis.

(g) "**Interruption**" means the cessation for more than ninety (90) consecutive days of Commercially Reasonable Efforts to develop a Product at any time before the First Sale, or to commercialize a Product following regulatory approval in the Field. Notwithstanding the foregoing, delays resulting from events outside of Arrevus's reasonable control (e.g., technical difficulties, shortages of supplies or materials, delays in preclinical or clinical studies, or regulatory processes and restrictions, etc.) and failure of the Product due to safety issues or lack of sufficient efficacy in the Field will not be deemed an Interruption.

(h) "**License Transaction**" means the grant of distribution, commercialization and/or marketing rights by Arrevus or a controlling Affiliate to an unaffiliated third party with respect to the Development Program Technology or the Product in the Field.

(i) "**Net Sales**" means, for any period, the gross amount invoiced for sales of the Product in the Field by the Awardee or any Affiliate, licensee, sublicensee or transferee, as applicable (a "**Selling Person**"), to a non-Affiliate of such Selling Person, less the following deductions, in each case to the extent specifically related to the Product and taken by the Selling Person or otherwise paid for or accrued by the Selling Person ("**Permitted Deductions**"): (a) normal and customary trade, quantity, cash and/or other discounts, rebates, and sales returns and allowances, including (i) those granted on account of price adjustments (including retroactive price adjustments), billing errors, rejected goods, damaged goods, returns and rebates, (ii) administrative and other fees and reimbursements and similar payments to wholesalers and other distributors, buying groups, pharmacy benefit management organizations, health care insurance carriers and other institutions, (iii) allowances, rebates and fees paid to distributors and (iv) chargebacks; (b) customs, excise, import, or export duties, tariffs, or similar payments; (c) rebates, chargebacks, and similar payments made with respect to sales paid for by any governmental or regulatory authority; (d) sales, value added, consumption, use, or similar taxes directly related to the sale, transfer, purchase, or delivery of the Product (but not including taxes assessed against the income derived from such sale, transfer, purchase, or delivery or similar taxes); (e) the cost of freight, postage, shipping, insurance,

and special packaging; and (f) bad debt or uncollectible amounts. Notwithstanding anything to the contrary, Net Sales shall not include, and shall be deemed zero with respect to, (i) Products sold, supplied, or distributed for promotional use and (ii) Products sold, supplied, or distributed for research, development, clinical trials, compassionate use, or charitable purposes.

In the case of any sale or other disposal of a Product between or among the Selling Persons for resale, Net Sales shall be calculated as above only on the value charged or invoiced on the first arm's-length sale thereafter to a third party; provided that any subsequent sale of the Product (or any product produced or manufactured using the Product) by a Selling Person to a non-Affiliate of such Selling Person shall be included in Net Sales. In the case of any sale which is not invoiced or is delivered before invoice, Net Sales shall be calculated at the time the Product is paid for. In the case of any sale or other disposal for value, such as barter or counter-trade, of any Product, or part thereof, other than in an arm's length transaction exclusively for money, Net Sales shall be calculated as above on the fair market value of the consideration received.

(j) "**Product**" means ACG-721 or any chemical derivative; as well as any other compound that is first conceived, created in whole, or substantially developed as a result of the Development Program.

(k) "**Royalty Cap**" means an amount equal to three (3) times the amount of the Actual Award.

[*Remainder of this page intentionally left blank.*]

In witness whereof, the parties have caused this Agreement to be executed by their duly authorized representatives as of the dates set forth below.

Cystic Fibrosis Foundation

By: /s/ Irena Barisic
Name: Irena Barisic
Title: EVP CFAO
Date: December 21, 2021

By: /s/ Michael Boyle
Name: Michael Boyle
Title: President & CEO
Date: December 21, 2021

Arrevus, Inc.

By: /s/ John Taylor
Name: John Taylor
Title: CEO
Date: December 13, 2021

BASE AGREEMENT

BETWEEN

ADVANCED TECHNOLOGY INTERNATIONAL (ATI)
315 SIGMA DRIVE
SUMMERVILLE, SC 29486

AND

ARREVUS, INC.
2443 LYNN RD, SUITE 210
RALEIGH, NC 27612

DUNS: 080059821

MEDICAL CBRN DEFENSE CONSORTIUM (MCDC) BASE AGREEMENT NO.: 2021-479

Authority: MCDC Other Transaction Agreement (OTA) No. W15QKN-16-9-1002 and 10 U.S.C. § 2371b.

This Agreement is entered into between the Advanced Technology International hereinafter referred to as the "Consortium Management Firm (CMF)," and Arrevus, Inc., hereinafter referred to as "Project Agreement Holder." This Agreement constitutes the entire understanding and agreement between the parties with respect to the subject matter hereof and supersedes all prior representations and agreements. It shall not be varied except by an instrument in writing of subsequent date duly executed by an authorized representative of each of the parties. The validity, construction, scope and performance of this Agreement shall be governed by the laws of the state of South Carolina, excluding its choice of laws rules.

ADVANCED TECHNOLOGY INTERNATIONAL	ARREVUS, INC.
/s/ Alexis Hirr	/s/ Carl N. Kraus
(Signature)	(Signature)
Alexis Hirr, Contracts Administrator	Carl N. Kraus, M.D., CEO
(Name & Title)	(Name & Title)
May 28, 2021	May 28, 2021
(Date)	(Date)

MCDC BASE AGREEMENT NO: 2021-479
May 2021

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ARTICLE I. SCOPE OF THE AGREEMENT

Section 1.01 Background

The U.S. Army Contracting Command-New Jersey (ACC-NJ) is entering into an Other Transaction Agreement (OTA) under the authority of 10 U.S.C. § 2371b, with the Medical CBRN Defense Consortium (MCDC). The Joint Project Manager for Chemical, Biological, Radiological, Nuclear - Medical (JPM-CBRN Medical), through the Joint Program Executive Office for Chemical, Biological, Radiological, and Nuclear Defense (JPEO-CBRND), will collaborate with the MCDC to carry out a coordinated research and development program designed to develop prototype medical, pharmaceutical, and diagnostic technologies directly relevant to enhancing the mission effectiveness of military personnel and the supporting platforms, systems, components, or materials proposed to be acquired or developed by the Department of Defense, or to improvement of platforms, systems, components or materials in use by the armed forces. An OTA is being proposed with the purpose of conducting Research and Development into medical, pharmaceutical, and diagnostic technologies to enhance the mission effectiveness of military personnel, collaborating with industry partners for the advanced development of Medical Countermeasures (MCM) for chemical and biological defense. The OTA will allow JPM-CBRN Medical to partner with other agencies in the Department of Defense (DoD) chemical and biological defense enterprise, as well as collaborate with industry on applied research on candidate MCMs and supporting technologies. The MCDC was formed in response to the Government's expressed interest to engage with an industry consortium comprised of traditional and nontraditional Government contractors, small and large business, for-profit and not-for-profit entities, academic organizations and their affiliates for the purpose of entering into an OTA to develop and mature medical, pharmaceutical, and diagnostic technologies through the execution of prototype projects.

Under the OTA and associated awards, the Government, along with the non-government members from the MCDC, shall perform coordinated planning and research and development prototype efforts designed to encompass the areas contained within the scope of the OTA as listed in Article I, Section 1.03 herein.

Section 1.02 Definitions

"Academic Research Institution" means accredited institutions (colleges, universities or other educational institutions) of higher learning in the U.S.

"Agreement" refers to the MCDC Base Agreement.

"Agreements Officer (AO)" is the U.S. Army Contracting Command — New Jersey's warranted Contracting Officer authorized to sign the final OTA for the Government.

"Agreements Officer's Representative (AOR)" is the individual designated by the Government on a per project basis to monitor all technical aspects and assist in agreement administration of the specific project; the AOR shall only assist in agreement administration of the specific project to the extent delegated such administration authority in writing, in the AOR delegation letter by the responsible AO.

"Base Agreement" or "OTA" refers to the Prototype OTA under the authority of 10 U.S.C. § 2371b, between the Government and the MCDC, Agreement No. W15QKN-16-9-1002.

"Basket" is an electronic file containing proposals that have been submitted by MCDC Members in response to requests for prototype proposals, reviewed by the Government, and favorably evaluated in accordance with the procedures outlined in Section 1.03 of this Article.

“Cash Contribution” means a Project Agreement Holder’s (PAH) financial resources expended to conduct a project awarded under a Project Agreement (PA). The cash contribution can be derived from PAH funds or outside sources, or may also come from non-federal contract or grant revenues, or from profit or fee on a federal procurement contract. A PAH’s own source of funds may include corporate retained earnings, current or prospective Independent Research and Development (IR&D) funds, or any other indirect cost pool allocation. New or concurrent IR&D funds can be utilized as a cash contribution, provided those funds identified by the PAH are to be spent on the conduct of a project’s Statement of Work (SOW). Prior IR&D will not be considered as part of the PAH’s cash or in kind contributions, nor will fee be considered on the PAH’s cost sharing portion. Cash contributions include the funds a PAH will spend for labor (including benefits and direct overhead), materials, new equipment (prorated if appropriate), subcontractor efforts expended on a project, and restocking the parts and material consumed under a project.

“Consortium Management Firm (CMF)” refers to the organization acting on behalf of the MCDC to execute and administer the efforts under the OTA for this program, as defined in the specific agreement entered into between the MCDC and the CMF. The current CMF is Advanced Technology International (ATI). The MCDC reserves the right to replace the CMF at any time.

“Contracting Activity” means an element of an agency designated by the agency head, and delegated broad authority regarding acquisition functions. It also means elements or another agency designated by the director of a defense agency, which has been delegated contracting authority through its agency charter.

“Cost Share” means resources expended by the PAH on the proposed project SOW, and subject to the direction of the AOR. There are two kinds of cost share: cash contribution and in-kind contribution. Cost Share may only be proposed and collected on cost-reimbursement type agreements.

“Date of Completion” is the date on which all work is completed, or the date on which the period of performance ends.

“Development” means the systematic use, under whatever name, of scientific and technical knowledge in the design, development, test, or evaluation of an existing or potential new technology, product or service (or of an improvement in an existing technology, product or service), for the purpose of meeting specific performance requirements or objectives. Development includes the research functions of design engineering, prototyping, and engineering testing.

“Effective Date” means the date of last signature of this MCDC Base Agreement. “Government” means the U.S. Government and its departments and agencies.

“Government Fiscal Year” means the period commencing on October 1 and ending September 30 of the following calendar year.

“In Kind Contribution” means the PAH’s nonfinancial resources expended by the PAH to conduct a project, such as wear and tear on in-place capital assets like machinery or the prorated value of space used for the conduct of a project, and the reasonable fair market value (appropriately prorated) of equipment, materials, and other property used in the conduct of the project.

“JPEO-CBRND” means the Joint Program Executive Office for Chemical, Biological, Radiological, and Nuclear Defense, created to manage our nation’s investments in chemical, biological, radiological, and nuclear defense. The JPEO-CBRND is also the parent organization of JPM-CBRN Medical. The JPEO-CBRND includes an array of stakeholders involved in the development of prototype hardware, software, and system technologies.

“JPM-CBRN Medical” means the Joint Project Manager for Chemical, Biological, Radiological, Nuclear - Medical Office, created for the advanced development of medical countermeasures for chemical and biological defense. The JPM-CBRN Medical is also the program management office for this overall effort. The JPM-CBRN Medical includes an array of stakeholders involved in the development of prototype hardware, software, and system technologies.

“Medical CBRN Defense Consortium (MCDC)” is the consortium formed by industry in response to the Government’s expressed interest to quickly provide the warfighter with safe and effective chemical, biological, radiological, and nuclear countermeasures. The MCDC is comprised of Traditional and Nontraditional Defense Contractors, including small and large (other than small) businesses, for profit, and not for profit entities, and academic research institutions.

“MCDC Base Agreement” means the agreement between the MCDC’s CMF and the MCDC Member that serves as the baseline agreement for all future PAs, and flows down applicable terms and conditions from this OTA.

“MCDC Executive Committee” is the Executive Committee, comprised of Traditional and Nontraditional Defense Contractors, including small and large businesses, for profit and not for profit entities, and academic research institutions.

“MCDC Members” means the Nontraditional and Traditional Defense Contractors, including small and large businesses, for profit and not for profit entities, and academic research institutions that are members in good standing of the MCDC.

“MCDC Enhanced White Paper (EWP)” means the paper (proposal) submitted by MCDC member that describes a specific technology idea or concept for an indicated research area, in a Government-specified format, as delineated in the Request for Prototype Proposals (RPP). As part of the EWP RPP process, MCDC EWPs are evaluated by the Government to determine selection.

“MCDC White Paper” means the paper submitted by MCDC member that describes a specific technology idea or concept for an indicated research area in a Government-specified format, as delineated in the RPP. As part of the two-step RPP process, MCDC White Papers are evaluated by the Government to determine whether submission of a full proposal on the summarized concept or idea might be warranted.

“Milestone” means a scheduled event signifying the completion of a major deliverable or a set of related deliverables.

“Nonprofit Research Institution” means a university or other institution of higher learning, or an organization of the type described in Section 501(c)(3) of the Internal Revenue Code of 1954 that is exempt from taxation under Section 501(a) of the Internal Revenue Code, or any nonprofit scientific or educational organization qualified under a State nonprofit organization statute.

“Nontraditional Defense Contractor” means an entity that is not currently performing and has not performed, for at least the one-year period preceding the issue date of the RPP, any contract or subcontract for the Department of Defense that is subject to full coverage under the cost accounting standards prescribed pursuant to section 1502 of title 41, and the regulations implementing such section. A nontraditional defense contractor can be at the prime level, team members, subcontractors, lower tier vendors, or “intra-company” business units (provided the business unit makes a significant contribution to the prototype project). Examples of what might be considered a significant contribution include supplying new key technology or products, accomplishing a significant amount of the effort, or in some other way causing a material reduction in the cost or schedule or increase in the performance.

“Other Transactions for Prototype Projects” refers to the type of OTA this MCDC Base Agreement is under. This type of OTA is authorized by Department of Defense (DoD) Authorization Acts, and is found in the U.S. Code as a Note in 10 U.S.C. § 2371b. 10 U.S.C. § 2371b(a), “Authority of the DoD to carry out certain prototype projects,” authorizes the Secretary of a military department to carry out prototype projects directly relevant to enhancing the mission effectiveness of military personnel and the supporting platforms, systems, components, or materials proposed to be acquired or developed by the Department of Defense, or to improvement of platforms, systems, components, or materials in use by the armed forces. This type of OTA is treated by the DoD as an acquisition instrument, commonly referred to as an “other transaction” for a research prototype project or 2371b “other transaction.”

“Parties” means the Consortium Management Firm, ATI, and the PAH where collectively identified and “Party” where each entity is individually identified.

“Payable Milestone” means that once a milestone has been met (see defmition of “milestone”), the Government can approve payment to the PAH of a predetermined dollar amount in relation to performance of a particular project under the OTA.

“Program Manager” means the Technical Administrator for the Program (located at the JPM-CBRN Medical) responsible for Government oversight of the MCDC OTA program.

“Project” refers to the scope of work being completed under a PA.

“Project Agreement (PA)” means that agreement between the MCDC, by its CMF, and the MCDC member entity whose proposal is evaluated and competitively selected by the Government for funding, establishing the scope of work, terms, and conditions for the MCDC member entity’s performance and payment under the Government funded project. PAs shall comply with all provisions contained within the OTA and any other supporting documents referenced therein. The PA is initiated by the CMF based on the Technical Direction Letter (TDL) sent by the Government to the CMF.

“Project Agreement Holder (PAH)” means the MCDC member entity issued a PA by the CMF.

“Request for Prototype Proposals (RPP)” means the announcement(s) by the Government to the MCDC, instructing and requesting submissions for an indicated research area.

“Selection Announcement Letter (SAL)” means the Government document to be issued to the MCDC via the CMF, documenting the Government’s decision to make the award of a PA and/or place one (1) or more proposal(s) in the “Basket” and/or reject one (1) or more proposal(s).

“Technical Direction Letter (TDL)” is a Government document to be issued to the CMF, reflecting the Government’s decision to select and fund all or part of a particular proposal submitted by a MCDC member or team of MCDC members, through the RPP process conducted under this OTA. The TDL shall establish the scope of work, terms and conditions for performance and payment, and include the MCDC member proposal selected for Government funding. Where a specific Government agency laboratory, test facility, center or other location will be used by the MCDC member entity or team of MCDC member entities in performance of the PA, it will be identified, and the cost of such use, whether Government-contributed or MCDC member reimbursed, will be identified in the TDL.

“United States Army Contracting Command — New Jersey (ACC-NJ)” means the contracting activity who is designated as the lead Government organization in charge of executing the program.

Section 1.03 Scope

The purpose of this MCDC Base Agreement is to streamline the process for project awards related to prototype medical, pharmaceutical, and diagnostic technologies. Under this MCDC Base Agreement and associated Project Agreements (PA), the Government, along with the non-government members from the MCDC, shall perform coordinated planning and research and development prototype efforts designed to encompass the following three (3) objective areas:

- Detection: Systems and devices to identify Chemical, Biological, Radiological, and Nuclear (CBRN) agents and assist in making medical decisions.

- Prevention: Prophylaxis, pretreatment, and post-exposure prophylaxis

- Treatment: Therapeutics (post-exposure, post-symptomatic).

The Government shall determine which research and development endeavors to pursue and projects to fund. The Government shall provide the MCDC, through the Consortium Management Firm (CMF), with a competitive request for prototype proposals, either utilizing Enhanced White Papers (EWP) or White Papers and Full Proposals. The CMF shall make those RPPs available to MCDC Members, who will then decide whether to submit in response to such RPPs and, if so, will prepare their individual documentation or will individually establish a team comprised of MCDC Members to prepare a team proposal(s). The Government shall be solely responsible for evaluation and selection of proposals for project funding from among the proposals submitted. At any time throughout the term of this MCDC Base Agreement, the Government may address the needs for the desired Joint Project Manager for Chemical, Biological, Radiological, Nuclear - Medical (JPM-CBRN Medical) objective areas or other related Government needs, as they arise. The Parties agree that other organizations and agencies within the U.S. Government may participate in the collaborative activities through a Memorandum of Agreement, or other such arrangement. It is anticipated that these other organizations may include the Joint Program Executive Office for Chemical, Biological, Radiological, and Nuclear Defense (JPEO-CBRND), Defense Threat Reduction Agency (DTRA), and Biomedical Advanced Research and Development Authority (BARDA).

Request for Prototype Proposals (RPP) Process:

Once the Government identifies a need under one of the goal/objective areas above, the Government will issue a RPP. The RPP will either utilize the EWP or White Paper and Full Proposal approach, via the CMF. Under the White Paper and Full Proposal approach, the Government may require the submission of an initial White Paper for review, prior to the submission of a Full Proposal. Due dates will be indicated for each. The CMF shall in turn issue a similar request to MCDC member entities, for which the Government will review and evaluate all responses. The Government will be solely responsible for evaluation of the submissions, in accordance with the criteria. If the RPP requires a standard MCDC white paper, only members submitting white papers will be permitted to submit full proposal submissions. Based on the evaluation of the white papers, the Government will make a recommendation on whether the member should or should not submit a full proposal submission. However, any member submitting a white paper, regardless of the Government’s recommendation, may submit a full proposal.

MCDC member white papers and proposals shall be submitted to the CMF in accordance with the RPP instructions, which will include evaluation criteria and a Statement of Work (SOW) template, along with applicable due dates. The CMF will review white paper and proposal submissions for completeness and format compliance. The CMF shall in turn prepare and transmit MCDC member’s white papers and proposals to the Government for evaluation. The Government will be responsible for technical evaluation and selection of the projects from the white papers and proposals submitted. Upon completion of Government evaluations, a Selection Announcement Letter (SAL) will be issued to the MCDC via the CMF, documenting the Government’s decision to make the award of a PA and/or place one (1) or more

proposal(s) in the “Basket” and/or reject one (1) or more proposal(s). Once selected by the Government for award, the MCDC member entity will prepare an updated cost proposal in accordance with RPP instructions. The CMF will provide a copy of the member’s initial cost proposal reasonably upon receipt. Ultimately, the CMF will provide an assessment summary to the Government for review, to include back-up documentation. The Government Agreements Officer (AO) will review the documentation and complete any necessary negotiations, as well as make the final determination regarding whether the negotiated project cost is fair and reasonable. All PAs will be subject to discussions/negotiations and proposal updates, as appropriate, prior to execution.

Once all steps are complete, the Government will issue a Technical Direction Letter (TDL) to the CMF for the authorization and execution of the prototype project to be performed by the selected MCDC member entity(ies). Once the CMF receives notification of selection of a project for funding via TDL, the CMF will enter into a PA with the MCDC member.

A modification will be executed separately by the Government, which will include the funding for the negotiated and agreed-upon project. After receipt of the TDL, and review and execution of the funding modification, the CMF shall enter into a PA with the MCDC member whose project was selected. The MCDC CMF shall administer the Government-funded PAs. The Government’s designated Agreements Officer’s Representative (AOR) for the specific project, will supervise the technical work performed by the MCDC member entity in execution of the PA. The Government reserves the right to revise the terms and conditions of these projects in accordance with Article III, Section 3.04. The above process is subject to change based on annual review meetings.

Placement in the Electronic “Basket File”:

Qualifying proposals, not eligible for current funding, may be entered into an electronic basket and subject to award for up to thirty-six (36) months. The RPP will contain the available ratings and their defmitions to be assigned to proposals as a result of the technical evaluation, as well as which specific ratings will qualify a proposal for inclusion in the basket. The Government reserves the right to determine which, if any, proposals are to be selected according to the published criteria.

Once in the basket, a proposal may be identified for award by the Government based on Government need and availability of funding. The Government reserves the right to 1.) Request that the MCDC member who submitted the identified proposal, scale or otherwise adjust the original proposal, and to 2.) Fund all or part of the identified proposal. The MCDC member will have an opportunity to update their proposal, as applicable, if selected from the basket. The Government will review any updated information provided by the MCDC member and/or CMF. Upon the Government’s decision to fund such a proposal from the basket, the CMF will receive notification of the award decision through a TDL, whereupon the CMF will enter into a PA with the indicated MCDC member, as required.

A selected proposal will reside in the Basket for thirty-six (36) months from the date the corresponding RPP is closed, unless funded or the submitting MCDC member requests in writing beforehand to have it removed.

Small Business Innovation Research (SBIR) Phase III Project Requests:

It will be incumbent upon the MCDC member, on their own, with some general support and guidance from the CMF, to fmd a Government Technical Point of Contact (POC) with both (1) available funding and (2) an interest in furthering technology developed under a current or prior SBIR project. Upon doing so, the Government Technical POC will coordinate the feasibility of placing the award under the Base Agreement

with the Government AO and OTA Program Manager (PM), and the following areas will be considered when making a determination for appropriateness of award under the Base Agreement:

- How the proposed effort derives from, extends, or logically concludes efforts performed under prior SBIR funding agreements;
- How the proposed effort fits within the definition of a prototype effort related to medical, pharmaceutical, and diagnostic technologies to enhance mission effectiveness of military personnel, in accordance with the statutory requirement;
- How the proposed effort fits within the overall scope of work and the goals and objectives of the Base Agreement.

Should the Government AO and the OTA PM determine it is appropriate to award the SBIR Phase III under the Base Agreement, the Government AO will send a proposal request to the MCDC member through the CMF, as is standard for any Government request under the Base Agreement. The CMF will provide a cost summary to the Government AO for consideration in the Government's award determination. The Government will evaluate the proposal, conduct any necessary negotiations, and make an award determination. If the Government makes the determination to award to the MCDC member, the Government AO will issue a TDL letter to the CMF, resulting in the issuance of a PA between the CMF and MCDC member.

SBIR Phase III awards under the Base Agreement shall include the data rights provisions and data rights granted to the MCDC member, contained within Article XI of this MCDC Base Agreement. All administrative, reporting, and other aspects of awards made for SBIR Phase III efforts under this MCDC Base Agreement, will be in accordance with the terms and conditions of the OTA. MCDC Members must have been awarded and performed under a previous SBIR Phase I and/or Phase II contract, in order to qualify for SBIR Phase III award under the Base Agreement.

Section 1.04 Goals/Objectives

The Government, in conjunction with the MCDC, shall perform coordinated research and development projects that focus on the following:

- Accelerate the development of mission critical technologies in the areas of concern from applied research into advanced development.
- Deliver therapeutic Medical Counter Measure (MCM) prototypes targeting viral, bacterial, and biological toxin targets of interest to the Department of Defense (DoD). MCM prototypes are drug products that have completed all or part of the activities required to support Food and Drug Administration (FDA) licensure. This may include meeting warfighter requirements of protection against an aerosolized route of exposure.
- Deliver enabling technologies that will support the development and regulatory review of MCM prototypes. The enabling technologies can include animal models of viral, bacterial or biological toxin disease and pathogenesis (multiple routes of exposure), assays, diagnostic technologies or other platform technologies applicable to development and regulatory review of MCMs.
- Develop prototype candidates for the prophylaxis, treatment, and diagnosis of chemical threats. This will include diagnosis of, and prophylaxis and treatment for, exposure to traditional and emerging chemical nerve agent threats, as well as other emerging chemical threat agents, other than nerve agents.
- Develop prototype candidates for the prophylaxis, treatment, and diagnosis of radiological and nuclear threats. This will include prototype candidates for diagnosis of, and prophylaxis and treatment for, Acute Radiation Syndrome.

- Develop soldier-carried autoinjector delivery devices for single drug administration. Develop soldier-carried autoinjector delivery devices for administration of two (2) or more drugs.
- Develop vaccine-manufacturing platforms that offer early stage manufacturing flexibility and diversity, using a deep knowledge of protein(s) expression in a biological system that is reproducible and scalable, and preferably with direct FDA experience. The goal is to manufacture and test identified protective molecule(s) and target molecule(s) (along with associated reagents and standards) in multiple scalable, flexible manufacturing platforms, encompassing a diverse array of manufacturing systems (e.g., insect, mammalian, live viral, plant, *E.coli*, yeast, etc.) for use in appropriate animal model(s) and in Phase 1 trials.
- Pharmaceutical development will address the FDA Animal Rule, as appropriate.
- Utilize adjuvants and excipients supporting the ability to develop up to approximately 300,000 equivalent doses within sixty (60) days at clinical quality.
- Support a family of systems diagnostic approach that increases the speed, accuracy, and confidence of agent identification and disease diagnosis. Diagnostic areas include those for organisms that circulate freely, and at relatively high numbers at or near the onset of symptoms, organisms that circulate in low numbers early in infection, but then integrate with host cells, organisms that have significant genomic diversity from strain to strain, and non-Biological Warfare (BW) agents such as toxins and chemical/radiological agents that do not replicate, and require low quantities to cause illness.
- Support the Defense Biological Products Assurance Office (formally the Critical Reagents Program), the principal DoD resource of high quality, validated, and standardized biological reference materials, reagents, and assays, as necessary.
- DoD Advanced Development and Manufacturing Capabilities: To facilitate lessons learned and to ensure DoD MCM product development schedules are not impacted, the consortium will consider Advanced Development and Manufacturing (ADM) capability contractors for biologics manufacturing activities for monoclonal antibodies, vaccines, and recombinant proteins, who may utilize the DoD funded facility.
- Pursue collaborative research with non-traditional technology providers in a manner that enables effective transition of technologies to Government prototyping programs during any phase of life cycle support (affordability, manufacturability, sustainment, etc.).

Section 1.05 Reports

The MCDC member organizations conducting projects in accordance with this MCDC Base Agreement shall maintain records of the activities performed and funding expended under the projects, as well as the results of any studies analyses, tests, and other investigations conducted. Based on the progress of the funded projects and other information known to the AO or authorized designee, the Government Program Office shall review the relevant projects throughout the period to determine if any changes to planning or budget are required. If such a change is expected, which will cause a need to modify the Base Agreement, the TDL or an individual PA may be modified to incorporate such changes. The AO is the only authorized representative of the Government who may make modifications to the Base Agreement. Project Agreement Holders (PAH) shall submit the following reports to the CMF for each PA they have been awarded:

(a) Quarterly Report. The report will have two (2) major sections, Technical Status and Business Status.

(i) Technical Status Report. The technical status report will detail technical progress to date of the PA, and report on all problems, technical issues, or major developments during the reporting period. At a minimum, each report shall include:

(1) A comparison of actual accomplishments with the goals and objectives established for the reporting period.

(2) Reasons why established goals and objectives were not met, if appropriate.

(3) Other pertinent information, including, when appropriate, analysis and explanation of cost variances.

(4) New discoveries, inventions or potential patents, as well as the specific applications or technology transfers stemming from the discoveries, inventions or potential patents. Such disclosures shall be in the form that does not compromise any intellectual property or patent rights,

(5) A cumulative chronological list of written publications in technical journals. Include those in press, as well as manuscripts in preparation and planned for later submission. Indicate likely journals, authors, and titles.

(6) Papers presented at meetings, conferences, seminars, etc.

(ii) Business Status Report. The business status report will provide summarized details of the resource status of the PA, including the status of the contributions by all project participants. This report will include a quarterly accounting of current expenditures, as well as any participant cost share contributions. Any major deviations from the agreed to PA plans shall be explained with discussion of proposed actions to address the deviations.

(b) Annual Technical Report. Annual technical reports are required for projects whose periods of performance are greater than one (1) year. The PAH's report will provide a concise and factual discussion of the significant accomplishments and progress during the year covered by the report.

(c) Final Technical Report. The PAH shall submit a Final Technical Report to the CMF within thirty (30) calendar days of completion of the PA. The Final Technical Report will provide a comprehensive, cumulative, and substantive summary of the progress and significant accomplishments achieved during the total period of performance. Each of the topics described above shall be addressed as appropriate. The CMF shall submit the Final Report to the AO and cognizant AOR, who will have thirty (30) calendar days to provide comments or request that additional information be included for final approval.

(d) Final Business Status Report. The Final Business Status Report shall provide summarized details of the resource status of the PA, including the status of the contributions by all participants. This report will include a final accounting of cumulative expenditures, including the status of the cost share contributions of all project participants.

The Final Technical and Business Status Reports are also required in the event of a termination in accordance with Article II, if sufficient funding is available.

Note: Deficiencies in regulatory reports must be adequately assessed by the Government, MCDC and the individual performer, or consortium as a whole, to come to resolution. The Government will notify the MCDC if reporting and/or performance are not sufficient, and work collaboratively with the MCDC toward a resolution.

ARTICLE II. TERM

Section 2.01 The Term of this MCDC Base Agreement

The period of performance for this MCDC Base Agreement is from the effective date, which is the date of last signature, to April 7, 2036, unless extended by mutual agreement of the Parties. If at any time funds expended exceed the amount obligated on a PA prior to the expiration of the term, the Parties have no obligation to continue performance and may elect to cease their efforts at that point. Provisions of this MCDC Base Agreement, which, by their express terms or by necessary implication, apply for periods of time other than specified in Article II herein, shall be given effect, notwithstanding this Article.

Section 2.02 Termination of the Base Agreement by Mutual Agreement of the Government and MCDC

Except for the rights and obligations with respect to proprietary information and/or specific intellectual property agreements between or amongst the Government, the CMF and the MCDC member organizations, unless extended by mutual written agreement of the Parties, the Base Agreement shall automatically terminate by written agreement of the Government and MCDC. Unless otherwise directed by the AO through the CMF, individual PAs pursuant to this MCDC Base Agreement shall also terminate upon the termination of the Base Agreement.

Section 2.03 Termination Provisions

Subject to a reasonable determination that the program, or a project funded under the program, will not produce beneficial results commensurate with the expenditure of resources, the Government may terminate performance of work under this OTA or a specific project, in whole or in part, if the AO determines that a termination is in the Government's interest. The AO shall terminate by delivering to the MCDC through its CMF, a Notice of Termination specifying the extent of termination and the effective date.

After receipt of a Notice of Termination, and except as directed by the CMF, the PAH shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due:

(1) Stop work and direct its subawardees to stop work, as specified in the notice.

(2) Place no further PAs or orders (referred to as orders in this Article) for materials, services, or facilities, except as necessary to complete the continued portion of the project.

(3) Terminate all orders to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the AO, all right, title, and interest of the PAH under the orders terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the AO, the CMF may settle all outstanding liabilities and termination settlement proposals arising from the termination of orders; the approval or ratification will be fmal for purposes of this Article.

(6) Provide CMF, and/or obtain from the PAHs under the terminated portion of the PA, a transfer of title to the following where applicable, and deliver to the Government --

(i) The fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated; and

(ii) The completed or partially completed plans, drawings, information, and other property that, if the order had been completed, would have been required to be furnished to the Government.

(7) Complete performance of any work not terminated, if applicable.

(8) Take any action that may be necessary, or that the AO may direct through the CMF, for the protection and preservation of the property related to this project, that is in the possession of the PAH(s) or any subawardee and in which the Government has or may acquire an interest.

(9) Use commercially reasonable efforts to sell, as directed or authorized by the CMF, any property of the types referred to under Article II, Section 2.03 Termination Provisions, (6)(i) and (ii); provided, however, that the PAH:

(i) is not required to extend credit to any purchaser and

(ii) may arrange for the PAH who was performing the terminated work, to acquire the property under the conditions prescribed by, and at prices approved by, the CMF.

(iii) will in no event be required to continue with such efforts for more than three (3) months after notice by the CMF to sell or disposition such property.

(10) The PAH has no obligation to continue to cost share on the terminated project or terminated portion of the project.

The requirement for at least 1/3 cost share of the total project cost by the PAH is assessed prior to award. In the event that during the course of the performance of the PA, any of the parties to the PA believe the cost sharing funds available will be insufficient, the PAH shall notify the CMF within twenty-five (25) days of the event that gave rise to the insufficient cost sharing funds. CMF will notify the Government within five (5) days of receiving such notice from the PAH. The Government will determine whether it is in its best interest to either renegotiate the scope and/or terms of the PA to meet the cost share requirement, or terminate the PA in whole or in part.

The proceeds of any transfer or disposition of project property, will be applied to reduce any payments to be made by the Government under that particular project, including credited to the price or cost of the work, or paid in any other manner directed by the CMF.

In the event of a termination of the PA, the Government shall have patent rights as described in Article X, Patent Rights, and rights in data as described in Article XI, Data Rights. Failure of the PAH and Government to agree to an equitable adjustment shall be resolved pursuant to Article VII, Disputes.

Section 2.04 Termination Cost

The CMF will negotiate with the Government and PAH in good faith, equitable reimbursement for work performed toward accomplishment of the task or tasks of individual projects. The Government will allow full credit for the Government share of the obligations properly incurred by a PAH prior to termination. Costs incurred by a PAH during a suspension or after termination of a project are not allowable unless the CMF expressly authorizes them in either the notices of suspension, termination, or subsequently. Other PAH's costs incurred during a suspension or after termination, which are necessary, and not reasonably avoidable, are allowable if:

(a) The costs result from obligations which were properly incurred by the PAH before the effective date of the suspension or termination, are not in anticipation of it, and in the case of a termination, are non-cancellable; and

(b) The costs would be allowable if the project was not suspended or the award expired normally at the end of the funding period in which the termination takes effect.

Section 2.05 Close-out Procedure

If the Government funds an individual PA and then subsequently terminates the agreement, or the requirements of the agreement are met, the following closeout procedures apply:

(a) Definitions.

(i) "Closeout" — the process by which the Government and CMF determine that all applicable administrative actions and all required work have been completed by the PAH.

(ii) "Date of Completion" — the date on which all work is completed or the date on an amendment thereto, on which the period of performance ends.

(iii) "Disallowed Costs" — those charges that the Government or its representative determines to be unallowable, in accordance with the terms and conditions stated in this MCDC Base Agreement.

(b) Upon request, the Government shall make prompt payments to the PAH through the CMF for allowable reimbursable costs under the PA being closed out.

(c) The PAH shall immediately refund any balance of unobligated (unencumbered) cash that the CMF has paid and that is not authorized to be retained by the PAH for use in the performance of the PA.

(d) The CMF shall obtain from the PAH, within ninety (90) calendar days after the date of completion of a PA, all financial, performance, and other reports required as a condition of the PA. Subject to Government concurrence, the CMF may grant extensions when requested by the PAH.

(e) When authorized, the CMF shall make a settlement for any upward or downward adjustments to the Government's share of costs after these reports are received, based on final, actual expenditures in accordance with the Termination Costs provision of this MCDC Base Agreement.

(f) Quick close-out procedures similar to FAR 42.708, shall be followed.

(g) The PAH shall account for any property received from the Government.

Section 2.06 Stop Work

As directed by the AO, the CMF may, at any time, by written order to the PAH, require the PAH to stop all, or any part, of the work called for under this MCDC Base Agreement or any PA for a period of ninety (90) days after the written order is delivered to the PAH, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this section. Upon receipt of the order, the PAH shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of ninety (90) days after a stop-work is delivered to the PAH, or within any extension of that period to which the parties shall have agreed, the CMF shall either:

(a) Cancel the stop-work order; or

(b) Terminate the work covered by the PA as provided in Article II, Term.

If a stop work order issued under this Article is canceled, the PAH shall resume work. The CMF shall make an equitable adjustment in the delivery schedule or PA estimated cost/price, or both, and the Government's share of the PA shall be modified, in writing, accordingly, if—

(1) The stop-work order results in an increase in the time required for, or in the PAH's cost properly allocable to, the performance of any part of the PA; and

(2) The PAH asserts its right to the adjustment within thirty (30) days after the end of the period of work stoppage; provided that, if the Government decides the facts justify the action, the Government through the MCDC CMF, may receive and act upon a proposal submitted at any time before final payment under the PA.

If a stop work order is not canceled and the work covered by the PA is terminated in accordance with Article II, the MCDC CMF shall work with the PAH to negotiate an equitable reimbursement in accordance with Article II. Section 2.03, Termination Provisions.

ARTICLE III. MANAGEMENT, MODIFICATION, AND ADMINISTRATION

Section 3.01 The Medical CBRN Defense Consortium (MCDC)

The MCDC, as defined in this MCDC Base Agreement, was formed to work with the Government and provide input in developing medical, pharmaceutical, and diagnostic technologies to enable advanced development of MCM for chemical and biological defense, which are related to enhancing the mission effectiveness of military personnel and the supporting platforms, systems, components, or materials proposed to be acquired or developed by the Department of Defense, or to improvement of platforms, systems, components, or materials in use by the armed forces, ultimately resulting in fully executed research and development prototype projects selected by the Government. Every Member in this MCDC is independent of the other, and there is no affiliation between the MCDC Members within the defmition of 13 C.F.R. 121.103 of the Federal Small Business Regulations, and no such affiliation is intended either by the formation or implementation of the MCDC.

As appointed by the MCDC Executive Committee, the CMF has the authority to manage this OTA on behalf of the MCDC, and has the responsibility for day-to-day overall administration of this MCDC Base Agreement, subject to the supervision of the MCDC Executive Committee.

Section 3.02 The following MCDC decisions are subject to ACC-NJ approval:

(1) Changes to the MCDC Articles of Collaboration, if such changes substantially alter the relationship of the MCDC and the Government as originally agreed upon when the OTA was executed;

(2) Changes to, or elimination of, any ACC-NJ funding allocation to any MCDC Member, as technically and/or financially justified.

Section 3.03 Management and Project Structure

Technical and project management of the coordinated research program established under this MCDC Base Agreement shall be accomplished through the management structures and processes detailed in this Article.

The Government competitively selected the MCDC, organized by its CMF, Advanced Technology International (ATI), a Section 501(c)(3) nonprofit organization. The MCDC has entered into an agreement with ATI, authorizing ATI to enter into the OTA as the consortium manager, engage in overall day-to-day management of the MCDC under the guidance of and as designated by the MCDC Executive Committee, including technical, programmatic, reporting, financial, administrative and contractual matters, and administer PAs required for performance under the OTA.

As established by funded projects under the OTA, the Government Program Manager shall fully participate in the appropriate program technical meetings held by the MCDC. The AORs and other Government personnel, as deemed appropriate, also may participate in the technical portion of these meetings.

Section 3.04 Modifications

As a result of scheduled meetings, end of program reviews, or at any time during the term of the OTA, research progress or results may indicate that a change in the OTA's scope, objectives or Term would be beneficial to program objectives. Recommendations for modifications, including justifications to support any changes to the OTA Scope, will be documented in a letter and submitted by the PAH to the CMF, who will then forward it to the Program Manager with a copy to the AO. This documentation letter will detail the technical, chronological, and financial impact of the proposed modification to the OTA. The Program Manager shall be responsible for the review and verification of any recommendations to revise or otherwise modify the OTA Scope or other proposed changes to the terms and conditions of the OTA and subsequently this MCDC Base Agreement

With regard to projects the Government determines to fund as a result of the RPP process specified in the MCDC Base Agreement scope, any PAH recommendations for modifications, including justifications to support any changes to the funded PAs, will be documented in a letter and submitted by the CMF to the AO, with a copy to the Government AOR designated for the particular project. The AO shall be responsible for review of proposed changes, and for all modifications to the terms and conditions of the PA(s). The CMF shall modify the PA(s) in the event of any such modifications or changes to the project.

Management of Projects

(1) Performance of the work on each project is subject to the technical direction of the AOR designated in the PA. For the purposes of this Article, technical direction includes the following:

a. Direction to the PAH, which shifts work emphasis between work areas or tasks, requires pursuit of certain lines of inquiry, fills in details or otherwise serves to accomplish the objectives described in the SOW;

b. Guidelines to the PAH that assist in the interpretation of drawings, specifications or technical portions of work description.

c. Review and, where required by the PA, approval of technical reports, drawings, specifications, or technical information to be delivered by the PAH under the PA.

The AOR shall monitor the PAH's performance with respect to compliance with the technical requirements of the PA.

(2) Technical direction must be within the general scope of work stated in the PA. Technical direction may not be used to

a. Assign additional work under the PA;

b. Increase or decrease the estimated PA cost, fee (if any), or the time required for the project performance;

c. Change any of the terms, conditions or specifications of the PA; or

d. Accept non-conforming work.

As such, no verbal or written request, notice, authorization, direction or order received by the PAH shall be binding upon the MCDC, CMF or Government, or serve as the basis for a change in the PA cost, or any other provision of the PA, unless issued (or confirmed) in writing by the MCDC CMF.

(3) The PAH shall immediately notify the MCDC CMF whenever a written change notification has been received from anyone other than the MCDC CMF, which would affect any of the terms, conditions, cost, schedules, etc. of the PA. The PAH is to perform no work or make any changes in response to any such notification or make any claim on the MCDC through its CMF or Government, unless the MCDC CMF directs the PAH, in writing, to implement such change notification.

ARTICLE IV. AGREEMENT ADMINISTRATION

Administrative and contractual matters under this MCDC Base Agreement shall be referred to the following representatives of the parties:

MCDC:	Advanced Technology International MCDC Contracts 315 Sigma Drive Summerville, SC 29486 contracts.mcdc@ati.org
Project Agreement Holder	Arrevus, Inc. Carl N. Kraus, M.D. 2443 Lynn Rd, Suite 210 Raleigh, NC 27612 ckraus@arrevus.com

Each party may change its representatives named in this Article by written notification to the other parties.

Agreements Officer Representative (AOR): AOR will be designated by the Government on a per project basis.

ARTICLE V. OBLIGATION AND PAYMENT

Section 5.01 Obligation:

Except as specified in Article VII, Disputes, the CMF's liability to make payments to the PAH is limited only to those funds obligated under the PA(s). The CMF may incrementally fund the PA(s). If modification becomes necessary in performance of projects, pursuant to Article V of this MCDC Base Agreement, the CMF and the PAH shall establish and execute a revised Schedule of Payable Milestones consistent with the current PA.

Section 5.02 Project Payments:

The detailed instructions for project payments will be included in the TDL to be issued by the CMF on a project by project basis.

Section 5.03 Accounting System Requirements:

Prior to the submission of invoices, the PAH shall have and maintain an established accounting system which complies with Generally Accepted Accounting Principles (GAAP) and the requirements of this MCDC Base Agreement. The PAH shall ensure that appropriate arrangements have been made for receiving, distributing and accounting for Federal funds under this MCDC Base Agreement. Consistent with this stipulation, an acceptable accounting system will be one in which all cash receipts and disbursements are controlled and documented properly.

For expenditure-based or resource-sharing projects, the capability of the MCDC Member's accounting system will be considered prior to award. Although the Government will not impose requirements that will cause a MCDC Member to revise or alter its existing accounting system, the Government will not enter into a PA that provides for payment based on amounts generated from the MCDC Member's financial or cost records, if the MCDC Member does not have an accounting system capable of identifying the amounts/costs to individual agreements/contracts.

Allowable Costs: Although OTAs are not subject to the FAR, the principles included in FAR Part 31 may be applied to determine price reasonableness for individual projects. MCDC Members who are selected for

awards under the Base Agreement may refer to FAR Part 31 for guidance on allowable costs in preparing their final cost proposal for a project award.

Section 5.04 Invoicing Instructions:

Project Payable Milestones: The PAH shall segregate and track all individual project costs separately and shall document the accomplishments of each Payable Milestone under each PA. A Payable Milestones report shall be detailed on a project basis and submitted with each request to the AOR or designee for approval.

Section 504a. Payment Method Types

Project Agreements will be issued as either a fixed price milestone payment method or a cost reimbursement milestone payment method as described below.

(a) *Fixed Price Milestone Payment Method:* Payments shall be made in accordance with the Payable Milestone Schedule of each Project Agreement, provided the designated AOR has verified compliance with the Statement of Work and accomplishment of the stated effort. The Payable Milestone Schedule may be revised as appropriate and deemed necessary by issuance of a bilateral modification to the Project Agreement. Quarterly reviews by the AOR and the CMF will assess the need for revisions to the Payable Milestone Schedule. An acceptable invoice for adjustable fixed price milestone payments is one that (on the invoice or on the Payable Milestone Report):

(i) contains the date of invoice and the Base Agreement number and Project Agreement number;

(ii) identifies any associated technical milestones and the progress toward completion of each milestone; and

(iii) lists the milestone cost negotiated and contained in each Project Agreement

(b) *Cost Reimbursable Milestone Payment Method (with not to exceed ceiling):* Payment is contingent upon satisfactory progress toward completion of milestones as delineated in Project Agreement. Payment shall be made based on actual costs incurred in completing milestones up to the maximum amount allowable under the applicable Project Agreement, provided the designated AOR has verified compliance with the Statement of Work and accomplishment of the stated effort. Per (ii) below, either a Status Report identifying any associated technical tasks and the progress toward completion of each milestone, a Deliverable Report, or a Milestone Report is required concurrent with the invoice. An acceptable invoice for reimbursable payment is one that (on the invoice or on the attached Status, Deliverable, or Milestone Report in accordance with each Project Task Assignment):

(i) contains the date of invoice and the Base Agreement number and Project Agreement number;

(ii) identifies any associated technical milestones and the progress toward completion of each milestone;

(iii) includes a description of supplies and services, labor costs, subcontractor costs, material costs, travel costs, other direct costs, and extended totals;

(iv) indicates the current period and cumulative man-hours and costs incurred through the period indicated on the invoice; and

(v) contains the following certification statement:

"I certify that the amounts invoiced are for costs incurred in accordance with the agreement, the work reflected has been performed, and prior payment has not been received."

Authorized Signature _____

(c) *Cost Plus Fixed Fee Milestone Payment Method (with not to exceed ceiling):* Payment is contingent upon satisfactory progress toward completion of milestones as delineated in Project Agreement. Payment shall be made based on actual costs incurred in completing milestones up to the maximum amount allowable under the applicable Project Agreement, provided the designated AOR has verified compliance with the Statement of Work and accomplishment of the stated effort. The PAH will normally fund any costs incurred above this maximum amount. Either a Status Report identifying any associated technical tasks and the progress toward completion of each milestone, a Deliverable Report, or a Milestone Report is required concurrent with the invoice. An acceptable invoice for reimbursable payment is one that (on the invoice or on the attached Status, Deliverable, or Milestone Report in accordance with each Project Agreement):

(i) contains the date of invoice and the Base t Agreement number and Project Agreement number;

(ii) identifies any associated technical milestones and the progress toward completion of each milestone;

(iii) includes a description of supplies and services, labor costs, subcontractor costs, material costs, travel costs, other direct costs, fixed fee and extended totals;

(iv) indicates the current period and cumulative man-hours and costs incurred through the period indicated on the invoice; and

(v) contains the following certification statement:

"I certify that the amounts invoiced are for costs incurred in accordance with the agreement, the work reflected has been performed, and prior payment has not been received."

Authorized Signature _____

(d) *Cost Reimbursable, Cost Sharing Milestone Payment Method (with not to exceed ceiling):* Payment is contingent upon satisfactory progress toward completion of milestones as delineated in Project Agreement and acceptable cost share. Payment shall be made based on actual costs incurred in completing milestones up to the maximum amount allowable under the applicable Project Agreement, provided the designated AOR has verified compliance with the Statement of Work and accomplishment of the stated effort. Per (ii) below, either a Status Report identifying any associated technical tasks and the progress toward completion of each milestone, a Deliverable Report, or a Milestone Report is required concurrent with the invoice. An acceptable invoice for reimbursable payment is one that (on the invoice or on the attached Status, Deliverable, or Milestone Report in accordance with each Project Agreement):

(i) contains the date of invoice and the Base Agreement number and Project Agreement number;

(ii) identifies any associated technical milestones and the progress toward completion of each milestone;

(iii) includes a report of the cost share expended towards the accomplishment of the SOW tasks and/or milestones. This cost share report may be attached to the invoice if contractor practices make inclusion of such information on the invoice itself impractical. If the cost share report is separate from the invoice, it must be signed by an authorized representative. This cost share report must contain a breakout of the cost share by cost element similar to the level of detail required on the invoice and any in-kind contributions. The preferred method of reporting cost share is to provide an invoice for actual cost incurred with a value for the cost shared amount and the value to be reimbursed by the Government through the CMF;

(iv) includes a description of supplies and services, labor costs, subcontractor costs, material costs, travel costs, other direct costs, and extended totals;

(v) indicates the current period and cumulative man-hours and costs incurred through the period indicated on the invoice; and

(vi) contains the following certification statement:

"I certify that the amounts invoiced are for costs incurred in accordance with the agreement, the work reflected has been performed, and prior payment has not been received."

Authorized Signature _____

Section 5.04b. Submission of Invoices

Invoices may be submitted no more frequently than monthly. The PAH shall submit invoices and any necessary supporting documentation via email to MCDC-invoices@ati.org.

For Cost type Project Agreements, the PAH's final invoice (completion invoice) will be clearly indicated as such and shall indicate the cumulative amounts incurred and billed to completion, and a written certification of the total hours expended. Actual project costs incurred and cost share performance, if applicable, of each project shall be reported and reviewed each quarter.

Section 5.04c. Payment Terms

Payment terms are NET 30 days after CMF's receipt of an acceptable invoice. An acceptable invoice is one that meets the conditions described in Article V Section 5.04a. Payment Method Types.

Section 5.05 Advance Payments:

On a per project basis, advance payments may be approved by the AO. If the AO has approved advance payments, there will be a requirement to establish a separate interest bearing account. The PAH sets up and maintains funds in a separate interest bearing account, unless one of the following applies:

(1) The PAH receives less than $120,000.00 in Federal awards per year;

(2) The best reasonably available interest bearing account would not expect to earn interest in excess of $250.00 per year on such cash advances;

(3) The depository would require an average or minimum balance so high that it would not be feasible within the expected cash resources for the project; or

(4) The advance payments are made one time to reduce financing costs for large up-front expenditures, and the fund will not remain in the PAH's account for any significant period of time.

Where a separate interest bearing account is set up, any interest earned should be remitted annually to the CMF. CMF shall forward the funds to the Government as directed by the AO. Interest payments shall be made payable to the U.S. Treasury.

Section 5.06 Limitation of Funds:

Except as set forth in Article VII, the Government's fmancial liability will not exceed the amount obligated for projects and available for payment.

Section 5.07 Financial Records and Reports:

The PAH shall maintain adequate records to account for Federal funds received under this MCDC Base Agreement and shall maintain adequate records to account for PA funding provided under this MCDC Base Agreement, should cost sharing procedures be implemented for funding a particular project. PAH's relevant financial records are available and subject to examination or audit on behalf of the ACC-NJ for a period not to exceed three (3) years after final payment of the PAH's project. The AO or designee shall have direct access to sufficient records and information of the PAH to ensure full accountability for all funding under this MCDC Base Agreement. Such audit, examination or access shall be performed during business hours on business days upon prior written notice and shall be subject to the security requirements of the audited party. Any audit required during the course of the program may be conducted by the Government using Government auditors or, at the request of the PAH, by the requesting PAH's external CPA accounting firm at the expense of the requesting PAH.

ARTICLE VI. APPROPRIATE USE OF OTHER TRANSACTION AUTHORITY

In accordance with provisions of 10 USC 2371b, the DoD has authority to enter into transactions *other than* contracts, grants, or cooperative agreements. The DoD has the authority to make awards that are directly relevant to enhancing the mission effectiveness of military personnel and the supporting platforms, systems, components, or materials proposed to be acquired or developed by the DoD, or the improvement of platforms, systems, components, or materials in use by the armed forces.

Per 10 U.S.C. § 2371b, each prototype project awarded under this Base Agreement must meet one of the following conditions:

- There is at least one nontraditional defense contractor or nonprofit research institution participating to a significant extent in the prototype project.
- All significant participants in the transaction, other than the Federal Government, are small businesses (including small businesses participating in a program described under section 9 of the Small Business Act (15 U.S.C. 638)) or nontraditional defense contractors.
- At least one third of the total cost of the prototype project is to be paid out of funds provided by sources other than the Federal Government.

- The senior procurement executive for the agency determines in writing that exceptional circumstances justify the use of a transaction that provides for innovative business arrangements or structures that would not be feasible or appropriate under a contract, or would provide an opportunity to expand the defense supply base in a manner that would not be practical or feasible under a contract.

Throughout the period of performance of any PA, the AO and AOR will actively monitor projects to ensure compliance with this statutory requirement. The Government will take into account any implementation guidance from the Department of the Army and the Office of the Under Secretary of Defense for Acquisition and Sustainment, which includes but is not limited to, the most recent Other Transactions Guide. The MCDC Member awarded a PA will be given the opportunity to become compliant with this statutory requirement should they be found non-compliant by the AO and AOR and as communicated to the PAH by the CMF. Failure to comply may result in termination.

If significant nontraditional / nonprofit participation cannot be fulfilled, the PAH must provide at least one third cost share of the value of the PA awarded to the PAH. Proposals that fail to comply with this requirement, will not be awarded under the OTA.

Cost Sharing is not required under the OTA for projects that contain significant nontraditional / nonprofit participation. Where the Government and PAH agree, cost sharing may be considered on a per project basis under terms and conditions to be agreed to by them, and in accordance with the most recent Other Transactions Guide.

ARTICLE VII. DISPUTES

Section 7.01 General

For the purposes of this Article, “Parties” means the CMF, the PAH and the Government where collectively identified and “Party” where each entity is individually identified. The Parties shall communicate with one another in good faith and in a timely and cooperative manner when raising issues under this Article.

Section 7.02 Dispute Resolution Procedures

Any disagreement, claim or dispute among the Parties concerning questions of fact or law arising from or in connection with this MCDC Base Agreement and whether or not involving an alleged breach of this MCDC Base Agreement, may be raised only under this Article.

Whenever disputes, disagreements, or misunderstandings arise, the Parties shall attempt to resolve the issue(s) involved by discussion and mutual agreement as soon as practicable. In no event shall a dispute, disagreement or misunderstanding which arose more than three (3) months prior to the notification made under this Article constitute the basis for relief under this article unless the ACC-NJ Division Chief for Emerging Technologies, in the interest of justice, waives this requirement.

Failing resolution by mutual agreement, the aggrieved Party shall document the dispute, disagreement, or misunderstanding by notifying the other Party in writing, documenting the relevant facts, identifying unresolved issues, specifying the clarification or remedy sought, and documenting the rationale as to why the clarification/remedy is appropriate. Within ten (10) working days after providing notice to the other Party, the aggrieved Party may, in writing, request a decision by the ACC-NJ, Center Director for Emerging Technologies. The other Party shall submit a written position on the matter(s) in dispute within thirty (30) calendar days after being notified that a decision has been requested. The ACC-NJ Division Chief for Emerging Technologies, will conduct a review of the matter(s) in dispute and render a decision in writing

within thirty (30) calendar days of receipt of such position. Any such decision is final and binding, unless a Party shall, within thirty (30) calendar days, request further review as provided by this article.

If requested within thirty (30) calendar days of the ACC-NJ Division Chief for Emerging Technologies' decision, further review will be conducted by the Chair of the MCDC Executive Committee and the ACC-NJ Associate Director. In the event of a decision, or in absence of a decision within sixty (60) calendar days of referral to the Chair of the MCDC Executive Committee and the ACC-NJ, Associate Director (or such other period as agreed to by the parties), either party may pursue any right or remedy provided by law, including but not limited to the right to seek extraordinary relief under Public Law 85-804. Alternatively, the parties may agree to explore and establish an Alternate Disputes Resolution procedure to resolve this dispute.

Section 7.03 Limitation of Liability and Damages

In no event shall the liability of the MCDC PAH or any other entity performing research activities under a Project Agreement exceed the funding such entity has received for their performance of the specific PA under which the dispute arises.

No Party shall be liable to any other Party for consequential, punitive, special and incidental damages or other indirect damages, whether arising in contract (including warranty), tort (whether or not arising from the negligence of a Party) or otherwise, except to the extent such damages are caused by a Party's willful misconduct; Notwithstanding the foregoing, claims for contribution toward third-party injury, damage, or loss are not limited, waived, released, or disclaimed.

ARTICLE VIII. CONFIDENTIAL INFORMATION

Section 8.01 Definitions

(a) "Disclosing Party" means CMF, MCDC PAHs, or the Government who discloses Confidential Information as contemplated by the subsequent Paragraphs.

(b) "Receiving Party" means CMF, MCDC PAHs, or the Government who receives Confidential Information disclosed by a Disclosing Party.

(c) "Confidential Information" means information and materials of a Disclosing Party which are designated as confidential or as a Trade Secret in writing by such Disclosing Party, whether by letter or by use of an appropriate stamp or legend, prior to or at the same time any such information or materials are disclosed by such Disclosing Party to the Receiving Party. Notwithstanding the foregoing, materials and other information which are orally, visually, or electronically disclosed by a Disclosing Party, or are disclosed in writing without an appropriate letter, stamp, or legend, shall constitute Confidential Information or a Trade Secret, if such Disclosing Party, within thirty (30) calendar days after such disclosure, delivers to the Receiving Party a written document or documents describing the material or information, and indicating that it is confidential or a Trade Secret, provided that any disclosure of information by the Receiving Party prior to receipt of such notice shall not constitute a breach by the Receiving Party of its obligations under this Paragraph. "Confidential Information" includes any information and materials considered a Trade Secret by the PAH. "Trade Secret" means all forms and types of financial, business, scientific, technical, economic, or engineering or otherwise proprietary information, including, but not limited to, patterns, plans, compilations, program devices, formulas, designs, prototypes, methods, techniques, processes, procedures, programs, or codes, whether tangible or intangible, regardless of how it is

stored, compiled, or memorialized physically, electronically, graphically, photographically, or in writing if -

(i) The owner thereof has taken reasonable measures to keep such information secret; and

(ii) The information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, the public.

Section 8.02 Exchange of Information:

The Government may from time to time, disclose Government Confidential Information to the MCDC for use by the MCDC member entities or MCDC PAHs, their subcontractors or suppliers, in connection with Government solicitations and similar processes or particular projects. The CMF, on behalf of the MCDC, MCDC member entities, or MCDC PAHs, their subcontractors or suppliers, may from time to time disclose information that is Trade Secret or Confidential Information to the Government in connection with this MCDC Base Agreement, a project proposal, or performance under a PA. Neither Party shall be obligated to transfer Confidential Information or Trade Secrets independently developed by the Parties, absent an express written agreement between the Parties providing the terms and conditions for the disclosure.

Section 8.03 Authorized Disclosure:

The Receiving Party agrees, to the extent permitted by law, that Confidential Information shall remain the property of the Disclosing Party (no one shall disclose unless they have the right to do so), and that, unless otherwise agreed to by the Disclosing Party, Confidential Information shall not be disclosed, divulged, or otherwise communicated by it to third parties, or used by it for any purposes other than in connection with specified project efforts and the licenses granted in Article X, Patent Rights, and Article XI, Data Rights, provided that the duty to protect such “Confidential Information” and “Trade Secrets” shall not extend to materials or information that:

(a) Are received or become available without restriction to the Receiving Party under a proper, separate agreement,

(b) Are not identified with a suitable notice or legend per Article VIII, entitled “Confidential Information” herein,

(c) Are lawfully in possession of the Receiving Party without such restriction to the Receiving Party at the time of disclosure thereof, as demonstrated by prior written records,

(d) Are or later become part of the public domain through no fault of the Receiving Party,

(e) Are received by the Receiving Party from a third party having no obligation of confidentiality to the Disclosing Party that made the disclosure,

(f) Are developed independently by the Receiving Party without use of Confidential Information, as evidenced by written records,

(g) Are required by law or regulation to be disclosed; provided, however, that the Receiving Party has provided written notice to the Disclosing Party promptly so as to enable such Disclosing Party to seek a protective order or otherwise prevent disclosure of such information.

Section 8.04 Return of Proprietary Information:

Upon the request of the Disclosing Party, the Receiving Party shall promptly return all copies and other tangible manifestations of the Confidential Information disclosed. As used in this section, tangible manifestations include human readable media, as well as magnetic and digital storage media.

Section 8.05 Term:

The obligations of the Receiving Party under this Article shall continue for a period of five (5) years from conveyance of the Confidential Information.

Section 8.06 Flow Down

The PAH shall flow down the requirements of this Article VIII to their respective personnel, member entities, agents, and subawardees (including employees) at all levels, receiving such Confidential Information under this OTA.

ARTICLE IX. PUBLICATION AND ACADEMIC RIGHTS

Section 9.01 Use of Information.

For the purposes of this Article, "Parties" means the PAH and the Government where collectively identified and "Party" where each entity is individually identified.

Subject to the provisions of Article VIII, Confidential Information, Article IX, Publication and Academic Rights, and Article XI Data Rights, the PAH and the Government shall have the right to publish or otherwise disclose information and/or data developed by the Government and/or the respective MCDC PAH under the Research Project. The PAH and the Government (and its employees) shall include an appropriate acknowledgement of the sponsorship of the Research Projects by the Government and the MCDC PAH in such publication or disclosure. The Parties shall have only the right to use, disclose, and exploit any such data and Confidential Information in accordance with the rights held by them pursuant to this Base Agreement. Notwithstanding the above, the Parties shall not be deemed authorized by this paragraph, alone, to disclose any Confidential Information of the Government or the PAH.

Section 9.02 Publication or Public Disclosure of Information

(a) Classified Project Agreements

If a release of Confidential Information or Trade Secrets is for a classified Project Agreement, the provisions of the DoD Security Agreement (DD Form 441) and the DoD Contract Security Classification Specification (DD Form 254) apply.

(b) Review or Approval of Technical Information for Public Release

(1) At least thirty (30) days prior to the scheduled release date, the PAH shall submit to the CMF a copy of the information to be released. In turn, CMF shall submit to the Government AOR a copy of the information to be released.

The Government AOR is hereby designated as the approval authority for the AO for such releases.

(2) Where the PAH is an Academic Research Institution performing fundamental research on campus. PAH shall provide papers and publications for provision to the CMF for provision to the Government AOR for review and comment thirty (30) days prior to formal paper/publication submission. However, if that Academic Research Institution incorporates into its research results or publications artifacts produced by and provided to these institutions on behalf of other (non-educational institution) MCDC PAHs (or has authors listed on the paper who are not employees or students of the Academic Research Institution), then the procedures in Section 9.01 above must be followed.

(3) Parties to this MCDC Base Agreement are responsible for assuring that an acknowledgment of government support will appear in any publication of any material based on or developed under this OTA, using the following acknowledgement terms:

"Effort sponsored by the U.S. Government under Other Transaction number W15QKN-16-9-1002 between the MCDC, and the Government. The US Government is authorized to reproduce and distribute reprints for Governmental purposes, notwithstanding any copyright notation thereon."

(4) Parties to this MCDC Base Agreement are also responsible for assuring that every publication of material based on or developed under this project contains the following disclaimer:

"The views and conclusions contained herein are those of the authors and should not be interpreted as necessarily representing the official policies or endorsements, either expressed or implied, of the U.S. Government.

The PAH shall flowdown these requirements to its subawardees, at all tiers.

(c) Notices. To avoid disclosure of Confidential Information or Trade Secrets belonging to an MCDC member entity or PAH and/or the Government, and the loss of patent rights as a result of premature public disclosure of patentable information, the PAH that is proposing to publish or disclose such information, shall provide advance notice to the MCDC, through its CMF, and identify such other parties that may have an interest in such Confidential Information. The CMF shall notify such parties at least thirty (30) calendar days prior to any PAH's submission for publication or disclosure, together with any and all materials intended for publication or disclosure relating to technical reports, data, or information developed by the parties during the term of and pursuant to this MCDC Base Agreement. The Government must notify the MCDC, through its CMF, of any objection to disclosure within this thirty (30) day period, or else the PAH, shall be deemed authorized to make such disclosure.

(d) Filing of Patent Applications. During the course of any such thirty (30) calendar day period, the PAH shall provide notice to the CMF as to whether it desires that a patent application be filed on any invention disclosed in such materials. In the event that a PAH and/or the Government, desires that such a patent be filed, the PAH or the Government proposing to publish or disclose such materials, agrees to withhold publication and disclosure of such materials until the occurrence of the first of the following:

(1) Filing of a patent application covering such invention, or

(2) Written agreement, from the AO and the CMF (on behalf of the PAH to whom such Confidential Information belong) that no patentable invention is disclosed in such materials.

(3) Further, during the course of any such ninety (90) calendar day period, the PAH shall notify the AO and the Government, through the CMF, if PAH believes any of its Confidential Information has been included in the proposed publication or disclosure, and shall identify the specific Confidential Information or Trade Secrets that need to be removed from such proposed publication. The Government and the CMF on behalf of the PAH proposing the publication or disclosure of such materials, agrees to remove from the proposed publication or disclosure all such Confidential Information so identified by the CMF.

ARTICLE X. PATENT RIGHTS

Section 10.01 Definitions

“Invention” means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code.

“Made” when used in relation to any invention, means the conception or first actual reduction to practice of such invention.

“Practical Application” means to manufacture, in the case of a composition of product; to practice, in the case of a process or method, or to operate, in the case of a machine or system; and in each case, under such conditions as to establish that the invention is capable of being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

“Subject Invention” means any invention of the MCDC’s PAH or its subcontractors of any tier conceived or first actually reduced to practice in the performance of work on a Project Agreement under this MCDC Base Agreement.

“Background Invention” means any invention, or improvement to any invention, other than a Subject Invention, made by a PAH (or their subcontractors of any tier), which was conceived, designed, developed, produced, and/or actually reduced to practice prior to execution of the PA or outside the scope of work performed under the PA under this MCDC Base Agreement.

Section 10.02 Allocation of Principal Rights

The PAH, or its subcontractor to the extent such is proper assignee of the invention, shall retain the entire right, title, and interest throughout the world to each Subject Invention consistent with the provisions of this Article, Executive Order 12591 and 35 U.S.C. § 202. In the event that a PAH consists of more than one entity or person, those entities or persons may allocate such right, title, and interest between themselves or others, as they may agree in writing. With respect to any Subject Invention in which the PAH retains title, the Government shall have a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the United States, the Subject Invention throughout the world. The PAH may elect to provide full or partial rights that it has retained to other parties. The Government shall have the right to use any products or processes used for test and evaluation (including materials for testing or assays) in any other project pursued on behalf of the U.S. Government.

Section 10.03 Invention Disclosure, Election of Title, and Filing of Patent Application

(1) The PAH shall disclose each Subject Invention to the CMF within four (4) months after the inventor discloses it in writing to their company personnel responsible for patent matters. The disclosure to the CMF shall be in the form of a written report and shall identify the PA under which the invention was made and the identity of the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, sale, or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure.

(2) If the PAH determines that it does not intend to retain title to any such invention, the PAH shall notify the CMF, in writing, within nine (9) months of disclosure. However, in any case where publication, sale or public use has initiated the one (1) year statutory period, wherein valid patent protection can still be obtained in the United States, the period for such notice may be shortened by the ACC-NJ through CMF to a date that is no more than six (6) months prior to the end of the project.

(3) The PAH shall file its initial patent application on a Subject Invention to which it elects to retain title within one (1) year after election of title or, if earlier, prior to the end of the statutory period wherein valid patent protection can be obtained in the United States after a publication, or sale, or public use. The MCDC PAH may elect to file patent applications in additional countries (including the European Patent Office and the Patent Cooperation Treaty) within either ten (10) months of the corresponding initial patent application or six (6) months from the date permission is granted by the Commissioner of Patents and Trademarks, to file foreign patent applications, where such filing has been prohibited by a Secrecy Order.

(4) After considering the position of the CMF on behalf of the PAH, a request for extension of the time for disclosure election, and filing under Section 10.03 of this Article X, may be approved by ACC-NJ, which ACC-NJ approval shall not be unreasonably withheld.

Section 10.04 Conditions When the Government May Obtain Title

Upon written request to the CMF, the PAH shall convey to the Government title to any Subject Invention under any of the following conditions:

(1) If the PAH fails to disclose or elects not to retain title to the Subject Invention within the times specified in Section 10.03 of this Article X, Patent Rights; provided, that the Government may only request title within sixty (60) days after learning of the failure of the PAH to disclose or elect within the specified times.

(2) In those countries in which the PAH fails to file patent applications within the times specified in Section 10.03 of this Article X, Patent Rights; provided, that if the PAH has filed a patent application in a country after those times specified in Section 10.03 of this Article X, Patent Rights, but prior to its receipt of the written

request by the Government through the CMF, the PAH shall continue to retain title in that country; or

(3) In any country in which the PAH decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceedings on, a patent on a Subject Invention.

Section 10.05 Minimum Rights to the MCDC PAH and Protection of the MCDC PAH's Right to File The Parties agree that:

(1) The PAH shall retain a non-exclusive, royalty-free license throughout the world in each Subject Invention to which the Government obtains title, except if the PAH fails to disclose the invention within the times specified in Section 10.03 of this Article X, Patent Rights. The PAH's license extends to the domestic (including Canada) subsidiaries and affiliates, if any, of the PAH within the corporate structure of which the PAH is a party, and includes the right to grant licenses of the same scope to the extent that PAH was legally obligated to do so at the time the PA was funded. The license is transferable only with the approval of the Government, except when transferred to the successor of that part of the business to which the invention pertains. Government approval for license transfer shall not be unreasonably withheld.

(2) The PAH domestic license may be revoked or modified by the Government to the extent necessary to achieve expeditious practical application of the Subject Invention, pursuant to an application for an exclusive license submitted consistent with appropriate provisions at 37 CFR Part 404. This license shall not be revoked in that field of use or the geographical areas in which the PAH has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of the Government to the extent the PAH, its licensees, or the subsidiaries or affiliates, have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, the Government shall furnish the CMF, and the CMF shall forward to the PAH, a written notice of the Government's intention to revoke or modify the license, and the PAH shall be allowed thirty (30) calendar days (or such other time as may be authorized for good cause shown) after the notice to show cause why the license should not be revoked or modified.

Section 10.06 Action to Protect the Government's Interest

(1) The PAH shall execute or have executed and promptly deliver to CMF all instruments necessary to (i) establish or confirm the rights the Government, has throughout the world in those Subject Inventions to which the PAH elects to retain title, and (ii) convey title to the Government when requested under Section 10.04 of this Article X, Patent Rights, and to enable the Government to obtain patent protection throughout the world in that Subject Invention.

(2) The PAH agrees to require, by written agreement, that its employees working on Project Agreements, other than clerical and non-technical employees, agree to disclose promptly in writing, to personnel identified as responsible for the

administration of patent matters and in a format acceptable to the CMF, each Subject Invention made under this Agreement in order that the CMF on behalf of the PAH can comply with disclosure provisions of Section 10.03 of the Article X, Patent Rights, and to execute all papers necessary to file the patent applications on the Subject Invention and to establish the Government's rights in the Subject Invention. The PAH acknowledges and shall instruct its employees, through employee agreements or other suitable educational programs, on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The PAH shall notify the CMF of any decision not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceedings on a patent, in any country, not less than thirty (30) days before the expiration of the response period required by the relevant patent office.

(4) The PAH shall include, within the specification of any United States patent application and any patent issuing thereon covering a Subject Invention, the following statement: "This invention was made with U.S. Government support under Base Agreement No. W15QKN-16-9-1002, awarded by the ACC-NJ to the MCDC. The Government has certain rights in the invention."

Section 10.07 Lower Tier Agreements

The PAH shall include the Article X, Patent Rights, suitably modified to identify the parties, in all lower tier PAs, regardless of tier, for experimental, development, or research work.

Section 10.08 Reporting on Utilization of Subject Inventions

The PAH shall submit, on request during the term of the PA, periodic reports no more frequently than annually on the utilization of a Subject Invention or on efforts at obtaining such utilization that are being made by the PAH or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the PAH, and such other data and information as the agency may reasonably specify. The PAH also agrees to provide additional reports, as may be requested by the Government, through CMF, in connection with any march-in proceedings undertaken by the Government in accordance with Section 10.10 of this Article X, Patent Rights. Consistent with 35 U.S.C. § 205, the Government agrees it shall not disclose such information to persons outside the Government without permission of the MCDC on behalf of the PAHs.

Section 10.09 Preference for American Industry

Notwithstanding any other provision of the Article X, Patent Rights, the PAH is not to grant to any person the exclusive right to use or sell any Subject Invention in the United States or Canada, unless such person agrees that any product embodying the Subject Invention or produced through the use of the Subject Invention, shall be manufactured substantially in the United States or Canada. However, in individual cases, the requirements for such an agreement may be waived by the Government upon a showing by the PAH that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that, under the circumstances, domestic manufacture is not commercially feasible.

Section 10.10 March-In Rights

The PAH agrees that, with respect to any Subject Invention in which its PAH has retained title, the Government, through CMF, has the right to require the PAH to obtain and grant a non-exclusive license to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the PAH refuses such a request, the Government has the right to grant such a licensee itself if the Government determines that:

(1) Such action is necessary because the PAH or assignee has not taken effective steps, consistent with the intent of this MCDC Base Agreement, to achieve practical application of the Subject Invention;

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the PAH, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use, and such requirements are not reasonably satisfied by the PAH, assignee, or licensees; or

(4) Such action is necessary because the agreement required by Section 10.09 of this Article X, Patent Rights, has not been obtained or waived or because a licensee who has the exclusive right to use or sell any Subject Invention in the United States is in the breach of such an agreement.

Section 10.11 Opportunity to Cure

Certain provisions of this Article X, Patent Rights, provide that the Government may gain title or license to a Subject Invention by reason of the PAH's action, or failure to act, within the times required by this Article X, Patent Rights. Prior to claiming such rights (including any rights under Article X, Section 10.10 March-In Rights), the Government will give written notice to the MCDC, through its CMF, and CMF will convey such written notice to PAH, of the Government's intent, and afford the PAH a reasonable time to cure such action or failure to act. The length of the cure period will depend on the circumstances, but in no event will be more than sixty (60) days. PAH may also use the cure period to show good cause why the claiming of such title or right would be inconsistent with the intent of the Base Agreement in light of the appropriate timing for introduction of the technology in question, the relative funding and participation of the parties in the development, and other factors.

Section 10.12 Background Information

In no event shall the provisions set forth in this Article X apply to any Background Inventions or Patents. The PAHs or their subcontractors, shall retain the entire right, title, and interest throughout the world to each such Inventions and Patents that each party has brought through MCDC to the project issued under this MCDC Base Agreement and the Government shall not have any rights under this MCDC Base Agreement. Projects to be funded under this MCDC Base Agreement will list Background Inventions and Patents anticipated to be used on the project; such listing may be amended by the parties, as appropriate, to reflect changes in such plans.

Section 10.13 Survival Rights

Provisions of this Article X shall survive termination of this MCDC Base Agreement under Article II.

Notwithstanding the terms of this Article, differing rights in patents may be negotiated among the Parties to each individual project on a case-by-case basis.

ARTICLE XI. DATA RIGHTS

This is a Data Rights Article specifically tailored for this OTA to address respective rights of the Government and MCDC on behalf of its actual or prospective MCDC PAHs to such Data as is owned, developed, to be developed or used by an actual or prospective MCDC member entity or PAH, (1) as identified in a MCDC member entity(ies) proposal submitted to the Government through the CMF in response to a competitive Government OTA RPP, and (2) when such proposal is selected by the Government for funded performance and the PA is issued by the CMF to that MCDC member entity for performance of such Government OTA project.

Section 11.01 Definitions

(1) "Commercial Computer Software" as used in the Article, is defined in DFARS 252-227-7014(a)(1) (FEB 2014).

(2) "Commercial Computer Software License" means the license terms under which commercial computer software and Data (as defined in this OTA) is sold or offered for sale, lease or license to the general public.

(3) "Computer Data Base" as used in this MCDC Base Agreement, means a collection of data recorded in a form capable of being processed by a computer. The term does not include computer software.

(4) "Computer Program" as used in this MCDC Base Agreement means a set of instructions, rules, or routines in a form that is capable of causing a computer to perform a specific operation or series of operations.

(5) "Computer Software" as used in this MCDC Base Agreement means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae and related material that would enable the software to be reproduced, recreated or recompiled. Computer software does not include computer data bases or computer software documentation.

(6) "Computer Software Documentation" means owner's manuals, user's manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.

(7) "Data" as used in this Article of the MCDC Base Agreement, means computer software, computer software documentation, form, fit and function data, and technical data as defined in this Article.

(8) "Form, Fit and Function Data" means technical data that describes the required overall physical, functional and performance characteristics (along with the qualification requirements, if applicable) of an item, component, or process to the extent necessary to permit identification of physically and functionally interchangeable items.

(9) "Government Purpose Rights" means the rights to use, modify, duplicate or disclose the "Data" licensed with such rights under this OTA within the Government for United States Government purposes only; and to release or disclose data outside the Government to any authorized persons pursuant to an executed non-disclosure agreement for such persons use, modification, or reproduction for United States Government purposes only. United States Government purposes include Foreign Military Sales purposes. Under this MCDC Base Agreement, the period of Government purpose rights shall be no less than ten (10) years, and during such time the MCDC member entity or PAH developing or providing such Data to the Government with government purpose rights, shall have the sole and exclusive right to use such Data for commercial purposes. In the event this Data is used to perform another project issued to that MCDC member entity or PAH under this OTA during this ten (10) year period, the period of government purpose rights shall be extended an additional ten (10) years, starting with the date of completion of performance of the additional project.

(10) "Limited Rights" as used in this Article, is as defined in DFARS 252.227-7013(a)(14) (FEB 2014).

(11) "Restricted Rights" as used in this Article, is as defined in DFARS 252.227-7014(a)(15) (FEB 2014).

(12) "Specifically Negotiated License Rights" are those rights to Data that have been specifically negotiated between the Government and the MCDC, on behalf of the member entity or PAH whose proposal is selected by the Government under an RPP issued under the OTA.

(13) "Technical Data" means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

(14) "Unlimited Rights" as used in this Article, is as defined in DFARS 252.227-7013(a)(16).

Section 11.02 Data Categories

(1) Category A is the Data developed and paid for totally by private funds, or the PAH's (or its subcontractor's) IR&D funds, and it is Data to which the PAH (or its subcontractor) retains all rights. Category A Data shall include, but not be limited to,

(a) Data as defined in this Article and any designs or other material provided by the PAH for a project under this MCDC Base Agreement which was not developed in the performance of work under that project, and for which the PAH retains all rights.

(b) Any initial Data or technical, marketing, or fmancial Data provided at the onset of the project by any of the MCDC member entities or PAHs. Such Data shall be marked "Category A" and any rights to be provided to the Government for such

Data under a specific project shall be as identified in the proposal submitted to the Government, and incorporated into PAs.

(2) Category B is any Data developed under this OTA with mixed funding, i.e. development was accomplished partially with costs charged to a PAH's indirect cost pools and/or costs not allocated to a PAH's PA under this OTA, and partially with Government funding under this OTA. Any Data developed outside of this OTA, whether or not developed with any Government funding in whole or in part under a Government agreement, contract or subcontract, shall have the rights negotiated under such prior agreement, contract or subcontract; the Government shall get no additional rights in such Data.

(3) Category C is any Data developed exclusively with Government funds under this OTA. Research and Development performed was not accomplished exclusively or partially at private expense. Under this category,

(a) the Government shall have Government Purpose Rights in Data developed exclusively with Government funds under a project funded by the Government under this OTA that is:

(i) Data pertaining to an item, component, or process which has been or will be developed exclusively with Government funds;

(ii) Studies, analyses, test data, or similar data produced for this contract, when the study, analysis, test, or similar work was specified as an element of performance;

(iii) Data created in the performance of the OTA that does not require the development, manufacture, construction, or production of items, components, or processes;

(iv) Form, fit, and function data;

(v) Data necessary for installation, operation, maintenance, or training purposes (other than detailed manufacturing or process data);

(vi) Corrections or changes to technical data furnished to the Contractor by the Government;

The Government can only order such Data as is developed under the OTA project, where the order request is made within one **(1)** year following OTA project completion. In the event the Government orders such Data, it shall pay the PAH the reasonable costs for all efforts to deliver such requested Data, including, but not limited to costs of locating such Data, formatting, reproducing, shipping, and associated administrative costs.

(b) The Government shall have Unlimited Rights in Data,

(i) Otherwise publicly available or that has been released or disclosed by PAH without restrictions on further use, release or disclosure, other than a release or disclosure resulting from the sale, transfer, or other assignment

of interest in the Data to another party, or the sale or transfer of some or all of a business entity or its assets to another party;

(ii) Data in which the Government has obtained unlimited rights under another Government contract, or as a result of negotiations; or

(iii) Data furnished to the Government, under this or any other Government contract or subcontract thereunder, with—

(1) Government Purpose Rights or limited rights, and the restrictive condition(s) has/have expired; or

(2) Government Purpose Rights and the PAH's exclusive right to use such Data for commercial purposes under such contract or subcontract, has expired.

(c) However, any Data developed outside of this OTA, whether or not developed with any Government funding in whole or in part under a Government agreement, contract or subcontract, shall have the rights negotiated under such prior agreement, contract or subcontract; the Government shall get no additional rights in such Data.

(d) Further, the Government's rights to Commercial Computer Software and Data licensed under a Commercial Computer Software License under this OTA, and the treatment of Data relating thereto, shall be as set forth in the Commercial Computer Software License.

(4) The parties to this MCDC Base Agreement understand and agree that the CMF shall require PAHs stamp all documents in accordance with this Article, and that the Freedom of Information Act (FOIA) and Trade Secrets Act (TSA) apply to Data.

Section 11.03 Allocation of Principal Rights

(1) The Government shall have no rights to Category A Data.

(2) The Government shall have immediate Government Purpose Rights to Category B or C Data, upon delivery or project/PA completion (whichever is earlier), except that

(a) Where the PAH, whose Data it is, is a small business as defined under the Small Business Innovation Research Program (SBIR) under 15 U.S.C. 638, and such data was developed under a project designated by the Government in the RPP as a SBIR program project, such PAH automatically shall be entitled to a delay in the start of the Government Purpose Rights period for at least five (5) years from project completion, or such longer period as may be negotiated among the Government and MCDC on behalf of the PAH, and

(b) The CMF, at the request of small business or an other than small business MCDC member entity or PAH, may request on such member entity's or PAH's behalf, a delay of the start of Government Purpose Rights in Category B or C Data for a period not to exceed five (5) years from project/PA completion (whichever is

earlier). Such requests will only be made in those cases where the CMF has provided information from the affected actual or prospective PAH demonstrating the need for this additional restriction on Government use, and shall be submitted to the ACC-NJ AO for approval, which approval shall not be unreasonably withheld. In the event of any dispute regarding approval of this request, the parties agree to treat this as a dispute and shall follow the provisions of Article VII, Disputes.

(c) For Article XI. Section 11.02 3(c) Category C Data, the Government shall have only the rights established under prior agreements.

(d) For Article XI.Section 11.02 3(d) Category C Data, the Government shall only have the rights set forth in the Commercial Computer Software Data license agreement.

(3) Data that will be delivered, furnished, or otherwise provided to the Government as specified in a specific project award funded under this MCDC Base Agreement, in which the Government has previously obtained rights, shall be delivered, furnished, or provided with the pre-existing rights, unless (a) the parties have agreed otherwise, or (b) any restrictions on the Government's rights to use, modify, reproduce, release, perform, display, or disclose the data have expired or no longer apply.

(4) Each proposal submitted by the MCDC member entities in response to a Government RPP under this OTA, shall include a list of the Category A, B, and C Data to be used or developed under the proposal, if selected. Rights in such Data shall be as established under the terms of this MCDC Base Agreement, unless otherwise asserted in the proposal and agreed to by the Government. The Government AO will incorporate the list of Category A, B, and C Data, and the identified rights therefor in the award document.

Following issuance of a TDL and subsequent CMF issuance of the PA to the PAH, the PAH shall update the list to identify any additional, previously unidentified Data, if such Data will be used or generated in the performance of the funded work. Rights in such Data shall be as established under the terms of this MCDC Base Agreement, unless otherwise asserted in a supplemental listing and agreed to by the Government.

Section 11.04 Marking of Data

Except for Data delivered with unlimited rights, Data to be delivered under this MCDC Base Agreement subject to restrictions on use, duplication or disclosure, shall be marked with the following legend:

Use, duplication, or disclosure is subject to the restrictions as stated in the Base Agreement between the U.S. Government and the MCDC, Agreement No. W15QKN-16-9-1002, Project Title and the MCDC PA [insert name of company] No._____.

It is not anticipated that any Category A Data will be delivered to the Government under this MCDC Base Agreement.

In the event commercial computer software and Data is licensed under a commercial computer software license under this OTA, a Special License rights marking legend shall be used as agreed to by the parties.

The Government shall have unlimited rights in all unmarked Data. In the event that a PAH learns of a release to the Government of its unmarked Data that should have contained a restricted legend, the CMF on behalf of the member entity or PAH, will have the opportunity to cure such omission going forward by providing written notice to the Government AO within three (3) months of the erroneous release.

Section 11.05 Copyright

The PAHs reserve the right to protect by copyright original works developed under this MCDC Base Agreement. All such copyrights will be in the name of the individual PAH. The PAH(s) hereby grant to the U.S. Government a non-exclusive, non-transferable, royalty-free, fully paid-up license to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, for Governmental purposes, any copyrighted materials developed under this MCDC Base Agreement, and to authorize others to do so.

In the event Data is exchanged with a notice indicating that the Data is protected under copyright as a published, copyrighted work, and it is also indicated on the Data that such Data existed prior to, or was produced outside of this MCDC Base Agreement, the Party receiving the Data and others acting on its behalf may reproduce, distribute, and prepare derivative works for the sole purpose of carrying out that Party's responsibilities under this Agreement with the written permission of the copyright holder.

Copyrighted Data that existed or was produced outside of this MCDC Base Agreement and is unpublished - having only been provided under licensing agreement with restrictions on its use and disclosure - and is provided under this MCDC Base Agreement shall be marked as unpublished copyright in addition to the appropriate license rights legend restricting its use, and treated in accordance with such license rights legend markings restricting its use.

The PAHs are responsible for affixing appropriate markings indicating the rights of the Government on all Data delivered under this MCDC Base Agreement.

The Government agrees not to remove any copyright notices placed on Data, and to include such notices on all reproductions of the Data.

Section 11.06 Data First Produced by the Government

As to Data first produced by the Government in carrying out the Government's responsibilities under this OTA, and which Data would embody trade secrets or would comprise commercial or financial information that is privileged or confidential if obtained from the CMF on behalf of any PAH, such Data will, to the extent permitted by law, be appropriately marked with a suitable notice or legend and maintained in confidence by the CMF and any PAH to whom disclosed for three (3) years after the development of the information, with the express understanding that during the aforesaid period, such Data may be disclosed and used by the CMF or any PAH, including its respective employees or subcontractors of any tier, (under suitable protective conditions) by or on behalf of the Government for Government purposes only.

Section 11.07 Prior Technology

(1) Government Prior Technology: In the event it is necessary for the Government to furnish the CMF or any MCDC member entity or PAH, including their respective employees or their subcontractors of any tier, with Data which existed prior to, or was produced outside of this MCDC Base Agreement, and such Data is so identified with a suitable notice or legend, the Data will be maintained in confidence and disclosed and used only for the purpose of carrying out their responsibilities under this MCDC Base Agreement. Data protection will include proprietary markings and handling, and the signing of non-

disclosure agreements by the CMF, PAHs, PAH subcontractors of any tier and their respective employees to whom such Data is provided for use under the OTA. Upon completion of activities under this MCDC Base Agreement, such Data will be disposed of, as requested by the Government.

(2) CMF and PAH Prior Technology: In the event it is necessary for the CMF or any PAH to furnish the Government with Data which existed prior to, or was produced outside of this MCDC Base Agreement, and such Data embodies trade secrets or comprises commercial or fmancial information which is privileged or confidential, and such Data is so identified with a suitable notice or legend, the Data will be maintained in confidence and disclosed and used by the Government and such Government Contractors or contract employees, that the Government may hire on a temporary or periodic basis only for the purpose of carrying out the Government's responsibilities under the Base Agreement. Data protection will include proprietary markings and handling, and the signing of non-disclosure agreements by such Government Contractors or contract employees. Neither the CMF nor any PAH, shall be obligated to provide Data that existed prior to, or was developed outside of this MCDC Base Agreement to the Government. Upon completion of activities under this MCDC Base Agreement, such Data will be disposed of as requested by the CMF on behalf of itself or PAHs.

(3) Oral and Visual Information: If information which the PAH (including their subcontractors of any tier and their respective employees) considers to embody trade secrets or to comprise commercial or fmancial information which is privileged or confidential, is expressly disclosed orally or visually directly to the Government and/or CMF, the exchange of such information must be memorialized in tangible, recorded form and marked with a suitable notice or legend, and furnished to the Government and/or CMF within ten (10) calendar days after such oral or visual disclosure, or the Government and/or CMF shall have no duty to limit or restrict, and shall not incur any liability for any disclosure and use of such information. Upon Government and/or CMF request, additional detailed information about the exchange will be provided subject to restrictions on use and disclosure.

(4) Disclaimer of Liability: Notwithstanding the above, neither the Government nor the CMF shall be restricted in, nor incur any liability for, the disclosure and use o£

(a) Data not identified with a suitable notice or legend as set forth in this Article; nor

(b) Information contained in any Data for which disclosure and use is restricted under Article VIII, entitled "Confidential Information" above, if such information is or becomes generally known without breach of the above, is properly known to the Government or CMF or is generated by the Government or CMF independent of carrying out responsibilities under this MCDC Base Agreement, is rightfully received from a third party without restriction, or is included in Data which the PAH has furnished, or is required to furnish to the Government or CMF without restriction on disclosure and use.

(5) Marking of Data: Any Data delivered under this MCDC Base Agreement shall be marked with a suitable notice or legend.

Notwithstanding the paragraphs in this Article, differing rights in Data may be negotiated among the Parties to each individual project on a case-by-case basis.

Section 11.08 Lower Tier Agreements

The PAH shall include this Article, suitably modified to identify the parties, in all subcontracts or lower tier PAs, regardless of tier, or experimental, developmental, or research work.

Section 11.09 Survival Rights

Provisions of this Article shall survive termination of this Agreement under Article II.

Notwithstanding the terms of this in this Article, differing rights in data may be negotiated among the Parties to each individual PA on a case-by-case basis.

ARTICLE XII. EXPORT CONTROL

Export Control

(1) Information subject to Export Control Laws/International Traffic in Arms Regulation (ITAR).

Public Law 90-629, « Arms Export Control Act, » as amended (22 U.S.C. 2751 et. seq.) requires that all unclassified technical data with military application may not be exported lawfully without an approval, authorization, or license under EO 12470 or the Arms Export Control Act, and that such data require an approval, authorization, or license under EO 12470 or the Arms Export Control Act. For purposes of making this determination, the Military Critical Technologies List (MCTL) shall be used as general guidance. All documents determined to contain export controlled technical data will be marked with the following notice:

WARNING- This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., and Sec 2751, et seq.) or the Export Administration Act of 1979, as amended, Title 50, U.S.C., App. 2401, et seq. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provision of DOD Directive 5230.25.

(2) Flowdown.

The PAH shall include this Article, suitably modified, to identify all Parties, in all PAs or lower tier agreements. This Article shall, in turn, be included in all sub-tier subcontracts or other forms of lower tier agreements, regardless of tier.

ARTICLE XIII. TITLE AND DISPOSITION OF PROPERTY

Section 13.01 Definitions

In this Article, “property” means any tangible personal property other than property actually consumed during the execution of work under this MCDC Base Agreement.

Section 13.02 Title to Property

No significant items of property are expected to be acquired under this MCDC Base Agreement by the PAH. Title to any item of property valued $10,000.00 or less that is acquired by the PAH pursuant to a PA with the MCDC, in performance of the project issued to the PAH under this OTA, shall vest in the PAH upon acquisition with no further obligation of the Parties unless otherwise determined by the Government AO. Should any item of property with an acquisition value greater than $10,000.00 be required, the PAH through the CMF shall obtain prior written approval of the Government AO. Title to this property shall also vest in the MCDC member entity or PAH upon acquisition. That PAH shall be responsible for the maintenance, repair, protection, and preservation of all such property at its own expense. Property acquired

pursuant to this Article shall not be considered as in exchange for services in performance of the project, but shall be considered a Government contribution to the project.

Section 13.03 Government Furnished Property (GFP)

The Government may provide the PAH GFP to facilitate the performance of individual projects under this OTA Such GFP will be specifically identified to a particular project and incorporated into the applicable PA. The GFP shall be utilized only for the performance of that individual project, unless a specific exception is made in writing by the AO.

The PAH shall assume the risk of and be responsible for any loss or destruction of, or damage to, any GFP while in its possession or control, with the exception of reasonable wear and tear or reasonable and proper consumption. All property shall be returned at the end of the Project Agreement in as good as condition as when received, with the exception of said reasonable wear and tear or in accordance with the provisions of the PA regarding its use. The PAH shall obtain explicit written authorization for any transfer or disposition of GFP.

ARTICLE XIV. CIVIL RIGHTS ACT

This MCDC Base Agreement and any resulting PA is subject to the compliance requirements of Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000-d) relating to nondiscrimination in Federally assisted programs. It is the responsibility of each PAH to assure the PAH has signed an Assurance of Compliance with the nondiscriminatory provisions of the Act (Attachment 1).

ARTICLE XV. NO SMALL BUSINESS AFFILIATION

Reserved

ARTICLE XVI. ANTITRUST

In the MCDC Articles of Collaboration, members agree to comply with all applicable U.S. laws, including U.S. antitrust laws. The MCDC is recognized under the National Cooperative Research and Production Act of 1993, and the MCDC will be similarly filing under the Act.

ARTICLE XVII. SECURITY & OPSEC

All PAH shall comply with DFARS 252.204-7012 (Oct 2016): Safeguarding Covered Defense Information and Cyber Incident Reporting, when applicable.

Covered Defense Information (CDI) will be identified at the PA level. The MCDC Member shall comply with DFARS 252.204-7012 (Oct 2016): Safeguarding Covered Defense Information and Cyber Incident Reporting, which includes implementing on its covered contractor information systems the security requirements specified by DFARS 252.204-7012. Nothing in this paragraph shall be interpreted to foreclose the MCDC Member's right to seek alternate means of complying with the security requirements in National Institute of Standards and Technology (KIST) Special Publication (SP) 800-171 (as contemplated in DFARS 252.204-7008 (Compliance with Safeguarding Covered Defense Information Controls) (Oct 2016) and DFARS 252.204-7012 (Safeguarding Covered Defense Information and Cyber Incident Reporting (Oct 2016)).

This MCDC Base Agreement is Unclassified, however work performed by a PAH under a PA may involve access to Classified Information, including but not limited to, information classified as Controlled

Unclassified Information (CUI), Confidential, Secret, or Top Secret. As such, DoD Manual 5200.01 (DoD Information Security Program: Protection of Classified Information) shall apply and all appropriate measures shall be followed. MCDC Members shall also comply with Distribution Statements, as mandated by DoDI 5230.24 (Distribution Statements on Technical Documents). If a project involves a classified or CUI effort, the below listed Department of Defense Directives, FAR/DFARS Clauses, and supplemental clauses/guidance will be incorporated into the PAs by reference with the same force and effect as if they were given in full text.

The following process shall be utilized in determining Security / Operations Security (OPSEC) requirements, prior to project award:

(1) Each project Scope of Work will be provided by the AOR to the customer Program Office for dissemination to the appropriate security officer prior to award, for review.

(2) Each project Scope of Work will be subject to customer policy and procedure, according to DoD 5220.22M, (National Industrial Security Program Operating Manual, NISPOM), as deemed applicable and appropriate during the security review process and prior to award. Additional Communications Security (COMSEC) requirements may be required at other locations/facilities (based on service/command requirements).

(3) Specific applicable policies, instructions, and regulations will be identified in each project. Throughout the life of the MCDC Base Agreement, if any policy, instruction, or regulation is replaced or superseded, the replacement or superseding version shall apply. The following is a snapshot of key regulatory documents, policies, regulations, etc. that may be applicable at time of project award.

a) DoDM 5200.01, DoD Information Security Program, 24 Feb 12, Volumes 1-4 b) DoD 5200.2-R, Personnel Security Program, Jan 87
c) DoDD 5220.22, National Industrial Security Program, 28 Feb 06
d) DoD 5400.7-R, DoD Freedom of Information Act, Sept 98
e) DoDI 2000.12, DoD Antiterrorism Program, 01 Mar 12
f) FAR Clause 4.402, Safeguarding Classified Information Within Industry
g) FAR Clause 52.204-2, Security Requirements, Aug 1996

(4) For all PAs, the following statement shall be flowed to the MCDC member entities unless otherwise stated within the PAs.

a) Classification guidance for requirement: “The security level for this agreement is UNCLASSIFIED.”

(5) Anti-Terrorism Level I Training. This provision is for PAH employees with an area of performance within an Army controlled installation, facility or area. All PAH employees, to include subcontractor employees, requiring access to Army installations, facilities and controlled access areas, shall complete AT Level I Awareness Training within sixty (60) calendar days after project start date or effective date of incorporation of this requirement into the project, whichever is applicable. PAH(s) shall submit certificates of completion for each affected employee and PAH employee, to the AOR or to the AO, if an AOR is not assigned, within thirty (30) calendar days after completion of training by all employees or personnel. AT Level I Awareness Training is available at the following website: https: //jko.jten.mil/.

(6) Access and General Protection/Security Policy and Procedures. This standard language text is for PAH employees with an area of performance within an Army controlled installation, facility or area. PAH and all associated subcontractor employees shall comply with applicable installation, facility and area commander installation/facility access and local security policies and procedures (provided by government representative). The PAH also shall provide all information required for background checks to meet installation access requirements to be accomplished by installation Provost Marshal Office, Director of Emergency Services or Security Office. The PAH workforce must comply with all personal identity verification requirements as directed by DoD, HQDA, and/or local policy. In addition to the changes otherwise authorized by the changes Article of this Base Agreement, should the Force Protection Condition (FPCON) at any individual facility or installation change, the Government may require changes in PAH security matters or processes.

(7) Anti-Terrorism Awareness Training for PAH Personnel Traveling Overseas. This standard language text requires U.S.-based PAH and associated subcontractor employees, to make available and to receive Government provided Area of Responsibility (AoR) specific AT Awareness Training as directed by AR 525-13. Specific AoR training content is directed by the combatant commander with the unit Anti-Terrorism Officer (ATO) being the local point of contact.

(8) iWATCH Training. This standard language is for PAH employees with an area of performance within an Army controlled installation, facility or area. The PAH and all associated subcontractors, shall brief all employees on the local iWATCH program (training standards provided by the requiring activity ATO). This local developed training will be used to inform employees of the types of behavior to watch for, and instruct employees to report suspicious activity to the AOR. This training shall be completed within sixty (60)-calendar-days of a Project Agreement award and within sixty (60) calendar days of new employees' commencing performance, with the results reported to the AOR NLT thirty (30) calendar days after PA award.

(9) Impact on PAH Performance with Increased FPCON Level. During FPCONs Charlie and Delta, services may be discontinued / postponed due to a higher threat. Services will resume when the FPCON level is reduced to Bravo or lower.

(10) Random Antiterrorism Measures Program (RAMP) Participation. PAH personnel working on an installation are subject to participation in the installation RAMP security program (e.g. vehicle searches, wearing of ID badges, etc.).

(11) For PAH Employees who Require Access to Government Information Systems. All PAH employees with access to a Government information system, must be registered in the ATCTS (Army Training Certification Tracking System) at commencement of services, and must successfully complete the DoD Information Assurance Awareness Training prior to access to systems, and then annually thereafter.

(12) For Projects that require an OPSEC Standing Operating Procedure (SOP)/Plan. The PAH shall develop an OPSEC SOP/Plan within ninety (90) calendar days of project award, to be reviewed and approved by the responsible Government OPSEC officer, per AR 530-1, Operations Security. This plan will be submitted by MCDC on behalf of the PAH(s) to the AOR/AO for coordination of approvals. This SOP/Plan will include the Government's critical information, why it needs to be protected, where it is located, who is responsible

for it, and how to protect it. In addition, MCDC shall identify an individual who will be an OPSEC Coordinator. MCDC will ensure this individual becomes OPSEC Level II certified per AR 530-1.

(13) For projects that Require OPSEC Training. Per AR 530-1, Operations Security, new PAH employees assigned by the PAH to perform under a MCDC PA must complete Level I OPSEC Awareness Training within thirty (30) calendar days of their reporting for duty. All PAH employees performing under an OPSEC-designated project must complete annual Level I OP SEC Awareness Training. Level I OPSEC Awareness Training is available at the following website: https://www.cdse.edu/catalog/elearning/GS130.html.

(14) For Information Assurance (IA)/Information Technology (IT) Training. All PAH employees must complete the DoD IA Awareness Training before issuance of network access and annually thereafter. All PAHs working IA/IT functions must comply with DoD and Army training requirements in DoDD 8570.01, DoD 8570.01-M and AR 25-2 within six (6) months of employment.

(15) For IA/IT certification. Per DoD 8570.01-M, DFARS 252.239-7001, and AR 25-2, the PAH employees supporting IA/IT functions shall be appropriately certified upon PA award. The baseline certification as stipulated in DoD 8570.01-M must be completed upon PA award.

(16) For PAH Personnel Authorized to Accompany the Force. DFARS Clause 252.225-7040, Contractor Personnel Authorized to Accompany U.S. Armed Forces Deployed Outside the United States. The clause shall be used in projects that authorize PAH personnel to accompany U.S. Armed Forces deployed outside the U.S. in contingency operations; humanitarian or peacekeeping operations; or other military operations or exercises, when designated by the combatant commander. The clause discusses the following AT/OPSEC related topics: required compliance with laws and regulations, pre-deployment requirements, required training (per combatant command guidance) and personnel data required.

(17) For Projects Requiring Performance or Delivery in a Foreign Country. DFARS Clause 252.225-7043, Antiterrorism/Force Protection for Defense Contractors Outside the U.S. The clause shall be used in projects that require performance or delivery in a foreign country. This clause applies to both contingencies and non-contingency support. The key AT requirement is for non-local national PAH personnel to comply with theater clearance requirements, and allows the combatant commander to exercise oversight to ensure the PAH's compliance with combatant commander and subordinate task force commander policies and directives.

(18) For projects requiring the PAH to obtain U.S. Government Common Access Cards, installation badges, and/or access passes, the PAH shall return all issued U.S. Government Common Access Cards, installation badges, and/or access passes to the AOR when the project is completed, or when the PAH employee no longer requires access to the installation or facility.

(19) For projects that require access to Potential Critical Program Information (PCPI) / Critical Program Information (CPI):

a) The PAH shall comply with the associated Interim Program Protection Plan (IPPP) / Program Protection Plan (PPP) / or Technology Protection Plan (TPP). The PAH shall comply with DoD and DA technology protection requirements in DoDI 5200.39, AR 70-1, DA PAM 70-3, and AR-380-13.

(20) Work by the CMF and PAH under PAs may involve access to CUI, as well as information classified as "Confidential," "Secret," or "Top Secret." The CMF, PAH, and their employees who work on such PAs shall comply with (1) the Security Agreement (DD Form 441), including the National Industrial Security Program Operation Manual (DoD 5220.22M), (2) any revisions to that manual that may be issued, and (3) the PAH security classification specification (DD form 254), if included, and (4) all security requirements, including but not limited to, OPSEC plans and those security requirements specific to the individual projects. During the course of the PA, the Parties may determine that information developed by the PAH and/or the Government pursuant to this Agreement shall be treated as classified. Such information shall be classified in accordance with DoD 5220.22M.

a) Each project Scope of Work will be provided by the AOR to their local Security Office prior to award, for an in-depth review. For classified efforts, the Security Office will provide the overall Security Classification Specification (DD Form 254). The PAH will be responsible for providing a copy of any Subcontract Security Classification Specification (DD Form 254) to lower tier awards.

b) Specific applicable policies, instructions, and regulations will be identified in each PA, based on the reviews conducted. Throughout the life of the Base Agreement, if any policy, instruction, or regulation is replaced or superseded, the replacement or superseding version shall apply.

c) Base Agreement Structure

i) Research and Development under these PAs will be in accordance with the OTA between the ACC-NJ and the MCDC, in care of its CMF, ATI.

ii) Within the PAs, sharing of classified information will be on a need to know basis, as directed in required PAs.

iii) Upon PAcompletion or termination, the PAH must:

(1) Return ALL classified information received or generated under the PA;
(2) Destroy all of the classified information; or,
(3) Request retention for a specified period of time.

Flowdown for OPSEC/Security Requirements:

MCDC shall include the aspects of this Article as they pertain to each project requirement. Each project will include specific OP SEC / Security requirements within each SOW and RPP. The requirements delineated within each project, in turn, shall be included in all sub-tier subcontracts or other forms of lower-tier agreements, regardless of tier.

ARTICLE XVIII. SAFETY

The PAH shall adhere to all local, state, and federal rules and regulations required in maintaining a safe and nonhazardous occupational environment throughout the duration of the project. At a minimum, the PAH shall provide the following reports and materials on an as needed basis:

Accident/Incident Report: The PAH shall report immediately any major accident/incident (including fire) resulting in any one or more of the following: causing one or more fatalities or one or more disabling injuries; damage of Government property exceeding $10,000; affecting program planning or production schedules; degrading the safety of equipment under a project, such as personnel injury or property damage, may be involved; identifying a potential hazard requiring corrective action. The PAH shall prepare the report for each incident, in accordance with DI-SAFT-81563.

Material Safety Data Sheets (MSDS): The PAH shall prepare and maintain MSDS for all materials used and generated in support of this project.

Environmental Requirements include the following:

Pollution Prevention: Consideration should be given to alternative materials and processes in order to eliminate, reduce, or minimize hazardous waste being generated. This is to be accomplished while minimizing item cost and risk to item performance.

Environmental Compliance: All activities must be in compliance with Federal, State, and local environmental laws and regulations, executive orders, treaties, and agreements. The PAH shall evaluate the environmental consequences and identify the specific types and amounts of hazardous waste being generated during the conduct of efforts undertaken under the project.

Hazardous Waste Report: The PAH shall evaluate the environmental consequences and identify the specific types and amounts of hazardous waste being generated during the project. The PAH shall submit a Hazardous Waste Report, in accordance with DI-MGMT-80899.

Disposal Instructions for Residual/Scrap Materials: The PAH shall dispose of all residual and scrap materials generated under the project, including high explosives. The PAH shall specify the anticipated quantities, methods, and disposal costs.

ARTICLE XIX. REPRESENTATIONS AND WARRANTIES

Section 19.01 Representations and Warranties of All Parties

Each Party to this MCDC Base Agreement represents and warrants to the other Parties that, (1) it is free to enter into this MCDC Base Agreement; (2) in so doing, it will not violate any other agreement to which it is a party; and (3) it has taken all actions necessary to authorize the execution and delivery of this MCDC Base Agreement, and the performance of its obligations under this MCDC Base Agreement.

Section 19.02 Limitations

Except as expressly provided herein, no party to this MCDC Base Agreement makes any warranty, express or implied, either in fact or by operation of law, by statute or otherwise, relating to, (1) any research conducted under this MCDC Base Agreement, or (2) any invention conceived and/or reduced to practice under this MCDC Base Agreement, or (3) any other intellectual property developed under this MCDC Base

Agreement, and each party to this MCDC Base Agreement specifically disclaims any implied warranty of merchantability or warranty of fitness for a particular purpose.

ARTICLE XX. LIABILITY OF THE PARTIES

Section 20.01 Waiver of Liability

With regard to the activities undertaken pursuant to this MCDC Base Agreement, no Party shall make any claim against the others, employees of the others, the others' related entities (e.g., Government, contractors, subcontractors, etc.), or employees of the others' related entities for any injury to or death of its own employees or employees of its related entities, or for damage to or loss of its own property or that of its related entities, whether such injury, death, damage or loss arises through negligence or otherwise, except in the case of willful misconduct.

Section 20.02 Damages

The Parties shall not be liable to each other for consequential, punitive, special and incidental damages or other indirect damages, whether arising in contract (including warranty), tort (whether or not arising from the negligence of a Party) or otherwise, except to the extent such damages are caused by a Party's willful misconduct; Notwithstanding the foregoing, claims for contribution toward third-party injury, damage, or loss are not limited, waived, released, or disclaimed.

Section 20.03 Extension of Waiver of Liability

The PAH agrees to extend the waiver of liability as set forth above subawardees at any tier under a PA, by requiring them, by contract or otherwise, to agree to waive all claims against the Parties to this MCDC Base Agreement.

Section 20.04 Applicability

Notwithstanding the other provisions of this Article, this Waiver of Liability shall not be applicable to:

(1) Claims between the PAH and the CMF regarding a material breach, noncompliance, or nonpayment of funds;

(2) Claims for damage caused by willful misconduct; and

(3) Intellectual property claims.

Section 20.05 Limitation of Liability

In no case shall the CMF, or the PAH's financial liability exceed the amount obligated by the Government or committed as a Cash Contribution or In-kind Contribution by a MCDC member entity under a PA. Nothing in this Article shall be construed to create the basis of a claim or suit where none would otherwise exist.

ARTICLE XXI. GENERAL PROVISIONS

Section 21.01 Fees

The PAH will not be constrained from the payment of an appropriate fee or profit for the effort being conducted on a PA when cost share is not being contributed. The fees shall be specific to the individual PAs and negotiated on a project by project basis.

Section 21.02 Waiver

No waiver of any rights shall be effective unless assented to in writing by the party (Government, MCDC, CMF, or PAH) to be charged, and the waiver of any breach or default shall not constitute a waiver of any other right hereunder, or any subsequent breach or default.

Section 21.03 Section Headings

The headings and subheadings of the sections of this MCDC Base Agreement are intended for convenience of reference only, and are not intended to be a part of, or to affect the meaning or interpretation of this MCDC Base Agreement.

Section 21.04 Severability

In the event that any provision of this MCDC Base Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this MCDC Base Agreement shall continue in full force and effect without said provision; Provided that no such severability shall be effective if the result of such action materially changes the economic benefit of this MCDC Base Agreement to the Parties.

Section 21.05 Force Majeure

No failure or omission by the CMF or the MCDC PAH in the performance of any obligation of this MCDC Base Agreement, shall be deemed a breach of this MCDC Base Agreement, or create any liability if the same shall arise from any cause or causes beyond the control of the Parties, including but not limited to, the following: Acts of God; Acts or omissions of any Government; Any rules, regulations or orders issued by any Governmental authority or by any officer, department, and agency or instrumentality thereof; fire; storm; flood; earthquake; accident; war; rebellion; insurrection; riot; and invasion, and provided that such failure or omission resulting from one of the above causes is cured as soon as is practicable after the occurrence of one or more of the above mentioned causes.

Section 21.06 Regulatory Affairs

Development and production of medical products and processes fall under the purview of the FDA and research on these products involving animal or human studies is regulated by other laws, directives, and regulations. Project Awards under this MCDC Base Agreement that involve work in support of or related to FDA regulatory approval, will address contingencies for Government access to regulatory rights in the event of product development abandonment or failure. Efforts conducted under this OTA shall be done ethically and in accordance with all applicable laws, directives, and regulations.

The Government shall ensure performance includes regulatory expertise and guidance for candidate medical countermeasure development efforts:

(1) This includes allowing the Government to discuss/negotiate in partnership with the consortium, how to assume appropriate risk in regulatory strategies. The Government will review, negotiate, and come to consensus with the PAH on product-specific risk-based decisions.
(2) PAHs will use all regulatory programs to accelerate the pace of candidate medical countermeasure development, including fast-track status, and as appropriate meeting requirements for priority review vouchers, applying for breakthrough therapy and accelerated approval, as appropriate (see FDA Guidance for Industry: Expedited Programs for Serious Conditions — Drugs and Biologics).
(3) PAH will provide FDA submissions to the Government such as all documentation requested by the FDA and all proposals to FDA.
(4) PAH will allow the Government to monitor all FDA communications by listening to teleconferences and attending meetings.
(5) PAH will allow the Government to attend regulatory site visits and audits, and actively participate in all third-party audits.
(6) PAH will comply with Quality Assurance according to negotiated standards with the Government on reports, material for Interim Fielding Capability (such as Emergency Use Authorization or Expanded Access Protocols), product for trials, prototypes, etc.
(7) PAH will provide strategies to address contingencies that could arise from regulatory directives, and regulatory failures.

Section 21.07 Radioactive Materials

PAH shall ensure compliance with the provisions of Title 10 CFR 21. This regulation establishes procedures and requirements for implementation of Section 206 of the Energy Reorganization Act of 1974.

Section 21.08 Recombinant DNA

The PAH shall ensure that all work involving the use of recombinant DNA will be in compliance with guidance provided at the following website: https://osp.od.nih.gov/biotechnology/biosafety-and-recombinant-dna-activities/ (National Institutes of Health [NIH] Guidelines for Research Involving Recombinant DNA Molecules).

Section 21.09 Required Compliance for Use of Laboratory Animals

Notwithstanding any other provisions contained in this award or incorporated by reference herein, the PAH is expressly forbidden to use or subcontract for the use of laboratory animals in any manner whatsoever without the express written approval of the U.S. Army Medical Research and Development Command, Animal Care and Use Review Office (ACURO). The PAH shall receive written approval to begin research under the applicable protocol proposed for a PA from the U.S. Army Medical Research and Development Command, Animal Care and Use Review Office, ACURO, under separate letter to the PAH and Principal Investigator. A copy of this approval will be provided to the ACC-NJ for the official file. Non-compliance with any provision of this Article may result in the termination of award. Information is provided at the following website https://mrdc.amedd.army.mil/index.cfm/collaborate/research_protections/acuro. The PAH will conduct advanced development/pivotal studies, including human safety studies, animal efficacy studies or clinical studies required for approval using validated endpoints, and other studies as deemed necessary by the FDA for licensure of the candidate product in adherence to current Good Laboratory Practice regulations, current Good Clinical Practice regulations, and all other applicable FDA regulations in the conduct of non-clinical and clinical studies, as defined by FDA guidance (21 CFR Parts 210-211). The PAH shall coordinate with the Government in determining the applicability of requirements, based on the specific project.

Section 21.10 Required Compliance for Use of Human Subjects

Research under this award involving the use of human subjects may not begin until the U.S. Army Medical Research and Development Command's Office of Research Protections, Human Research Protection Office (HRPO) approves the protocol in accordance with 45 CFR Part 46. Written approval to begin research or subcontract for the use of human subjects under the applicable protocol proposed for this award, will be issued from the U.S. Army Medical Research and Development Command, HRPO, under separate letter, to the funded institution and the Principal Investigator. A copy of this approval will be provided to ACC-NJ for the official file. Non-compliance with any provision of this Article may result in withholding of funds and/or the termination of the award.

Information is provided at the following website:
https://mrdc.amedd.army.mil/index.cfm/collaborate/research_protections/hrpo. The PAH shall coordinate with the Government in determining the applicability of requirements, based on the specific project.

Section 21.11 Required Compliance for use of Human Anatomical Substances

Research at funded institutions using human anatomical substances may not begin until the U.S. Army Medical Research and Development Command's Office of Research Protections, Human Research Protections Office, HRPO, approves the protocol. Written approval to begin research or subcontract for the use of human anatomical substances under the applicable protocol proposed for this award, will be issued from the U.S. Army Medical Research and Development Command, HRPO, under separate letter, to the funded institution and the Principal Investigator. A copy of this approval will be provided to ACC-NJ, from the CMF, for the official file. Noncompliance with any provision of this Article may result in withholding of funds and/or the termination of the award. Information is provided at the following web site: https://mrdc.amedd.army.mil/index.cfm/collaborate/research_protections/hrpo. The PAH shall coordinate with the Government in determining the applicability of requirements, based on the specific project.

Section 21.12 Compliance with current Good Manufacturing Processes (cGMP)

Manufacturing Standards, as appropriate for the level of prototype material used for clinical trials, pivotal non-clinical studies, consistency lots, and other uses, as defined in regulatory plans, should be compliant with current cGMP, as defined by FDA guidance (21 CFR Parts 210-211). If at any time during the life of the award, the PAH fails to comply with cGMP in the manufacturing, processing and packaging of this product, and such failure results in a material adverse effect on the safety, purity or potency of the product (a material failure), as identified by the FDA, the PAH shall have thirty (30) calendar days from the time such material failure is identified to cure such material failure. The PAH shall coordinate with the Government in determining the applicability of requirements, based on the specific project.

Section 21.13 Registration with Select Agent Program

Where required, consortium members performing studies and tasks using select biological agent or toxins, should be registered with the program with the Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (DUBS), or the Animal and Plant Health Inspection Services (APHIS), U.S. Department of Agriculture (USDA), as applicable, before performing work, in accordance with 42 CFR 73. No Government funds can be used for work involving Select Agents, as defined in 42 CFR 73, if the final registration certificate is denied. Listings of select agents and toxins, biologic agents and toxins, and overlap agents or toxins, as well as information about the registration process, can be obtained on the Select Agent Program Web site at https://www.selectagents.gov/. The PAH shall coordinate with the Government in determining the applicability of requirements, based on the specific project.

Section 21.14 Duty-Free Entry

(a) *Definitions.* As used in this Article —

(1) "Component," means any item supplied to the Government as part of an end product or of another component.
(2) "Customs territory of the United States," means the 50 States, the District of Columbia, and Puerto Rico.
(3) "Eligible product," means —
  (i) "Designated country end product," as defined in the Trade Agreements clause;
  (ii) "Free Trade Agreement country end product" other than a "Bahrainian end product," a "Moroccan end product," a "Panamanian end product," or a "Peruvian end product," as defined in the Buy American Act — Free Trade Agreements — Balance of Payments Program clause; or
  (iii) "Canadian end product," as defined in Alternate I of the Buy American Act — Free Trade Agreements —Balance of Payments Program clause
  (iv) "Free Trade Agreement country end product," other than a "Bahrainian end product," "Korean end product," "Moroccan end product," "Panamanian end product," or "Peruvian end product," as defined in of the Buy American—Free Trade Agreements—Balance of Payments Program clause.
(4) "Qualifying country" and "qualifying country end product," have the meanings given in the Trade Agreements clause, the Buy American Act and Balance of Payments Program clause, or the Buy American Act—Free Trade Agreements—Balance of Payments Program clause.

(b) Except as provided in Paragraph (i) of this clause, or unless supplies were imported into the customs territory of the United States before the date of a PA or the applicable subcontract, the price of this PA shall not include any amount for duty on-
(1) End items that are eligible products or qualifying country end products;
(2) Components (including, without limitation, raw materials and intermediate assemblies) produced or made in qualifying countries, that are to be incorporated into U.S — made end products to be delivered under an PA; or
(3) Other supplies for which the PAH estimates that duty will exceed $200 per shipment into the customs territory of the Unites States.

(c) The PAH shall –
(1) Claim duty-free entry only for supplies that the PAH intends to deliver to the Government under a PA, either as end items or components of end items; and
(2) Pay duty on supplies, or any portion thereof, that are diverted to nongovernmental use, other than –
  (ii) Scrap or salvage; or
  (iii) Competitive sale made, directed, or authorized by the AO.

(d) Except as the PAH may otherwise agree, the Government will execute duty-free entry certificates and will afford such assistance as appropriate to obtain the duty-free entry of supplies –
(1) For which no duty is included in the PA price in accordance with Paragraph (b) of this clause; and
(2) For which shipping documents bear the notation specified in Paragraph (e) of this clause.

(e) For foreign supplies for which the Government will issue duty-free entry certificates in accordance with this clause, shipping documents submitted to Customs shall —

(1) Consign the shipments to the appropriate —
(ii) Military department in care of the PAH, including the PAH's delivery address; or
(iii) Military installation; and
(2) Include the following information:

(i) Prime agreement number and, if applicable, delivery order number.
(ii) Number of the subcontract for foreign supplies, if applicable.
(iii) Identification of the carrier.
(iv) (A) For direct shipments to a U.S. military installation, the notation: "UNITED STATES GOVERNMENT DEPARTMENT OF DEFENSE Duty-Free Entry to be claimed pursuant to Section XXII, Chapter 98, Subchapter VIII, Item 9808.00.30 of the Harmonized Tariff Schedule of the United States. Upon arrival of shipment at the appropriate port of entry, District Director of Customs, please release shipment under 19 CFR Part 142 and notify Commander, Defense Contract management Agency (DCMA) New York, ATTN: Customs Team, DCMAE-GNTF, 201 Varick Street, Room 905C, New York, New York, 10014, for execution of Customs Form 7501, 7501A, or 7506 and any required duty-free entry certificates."
(B) If the shipment will be consigned to other than a military installation, e.g., a domestic contractor's plant, the shipping document notation shall be altered to include the name and address of the contractor, agent, or broker who will notify Commander, DCMA New York, for execution of the duty-free certificate. (If the shipment will be consigned to a contractor's plant and no duty-free entry certificate is required due to a trade agreement, the PAH shall claim duty-free entry under the applicable trade agreement and shall comply with the U.S. Customs Service requirements. No notification to Commander, DCMA New York, is required.)
(v) Gross weight in pounds (if freight is based on space tonnage, state cubic feet in addition to gross shipping weight.)
(vi) Estimated value in U.S. dollars.
(viii) Activity address number of the contract administration office administering the prime agreement, e.g., for DCMA Dayton, 53605A.

(f) *Preparation of customs forms.*
(1) (i) Except for shipments consigned to a military installation, the PAH shall –

(A) Prepare any customs forms required for the entry of foreign supplies into the customs territory of the United States in connection with this agreement; and
(B) Submit the completed customs forms to the District Director of Customs, with a copy to DCMA NY for execution of any required duty-free entry certificates.
(ii) Shipments consigned directly to a military installation will be released in accordance with sections 10.101 and 10.102 of the U.S. Customs regulations.
(2) For shipments containing both supplies that are to be accorded duty-free entry and supplies that are not, the PAH shall identify on the customs forms those items that are eligible for duty-free entry.

(g) The PAH shall –

(1) Prepare (if the PAH is a foreign supplier), or shall instruct the foreign supplier to prepare, a sufficient number of copies of the bill of lading (or other shipping document) so that at least two (2) of the copies accompanying the shipment will be available for use by the District Director of Customs at the port of entry;
(2) Consign the shipment as specified in Paragraph (e) of this clause; and
(3) Mark on the exterior of all packages –
  (i) "UNITED STATES GOVERNMENT, DEPARTMENT OF DEFENSE"; and
  (ii) The activity address number of the contract administration office administering the prime agreement.

(h) The PAH, through the MCDC CMF, shall notify the ACO in writing of any purchase of eligible products of qualifying country supplies to be accorded duty-free entry, that are to be imported into the customs territory of the United States for delivery to the Government or for incorporation in end items to be delivered to the Government. The PAH, through the MCDC CMF, shall furnish the notice to the ACO immediately upon award to the supplier, and shall include in the notice –
(1) The PAH's name, address, and Commercial and Government Entity (CAGE) code;
(2) Prime agreement number and PA number;
(3) Total dollar value of the prime agreement or PA number;
(4) Date of the last scheduled delivery under the prime agreement or PA number;
(5) Foreign supplier's name and address;
(6) Number of the subcontract for foreign supplies;
(7) Total dollar value of the subcontract for foreign supplies;
(8) Date of the last scheduled delivery under the subcontract for foreign supplies;
(9) List of items purchased;
(10) An agreement that the PAH will pay duty on supplies, or any portion thereof, that are diverted to nongovernmental use other than –
  (i) Scrap of salvage; or
  (ii) Competitive sale made, directed, or authorized by the Agreements Officer;
(11) Country or origin; and
(12) Scheduled delivery date(s).

(i) This clause does not apply to purchases of eligible products or qualifying country supplies in connection with this agreement if –
(1) The supplies are identical in nature to supplies purchased by the PAH or any subcontractor in connection with its commercial business; and
(2) It is not economical or feasible to account for such supplies, so as to ensure that the amount of the supplies for which duty-free entry is claimed does not exceed the amount purchased in connection with this agreement.

(j) The PAH shall –
(1) Insert the substance of this clause, including this Paragraph (j), in all subcontracts for –
  (i) Qualifying country components; or
  (ii) Non-qualifying country components for which the PAH estimates that duty will exceed $200 per unit;
(2) Require subcontractors to include the number of this agreement on all shipping documents submitted to Customs for supplies for which duty-free entry is claimed pursuant to this clause; and
(3) Include in applicable subcontracts –
  (i) The name and address of the ACO for this agreement;
  (ii) The name, address, and activity address number of the contract administration office specified in this agreement; and

(iii) The information required by Paragraphs (h)(1), (2), and (3) of this clause.

Section 21.15 Follow-On Production

10 U.S.C. § 2371b(f) authorizes the use of a follow-on production contract (FAR) or transaction (OTA). In order to be eligible for follow-on production, the following criteria is required: (1) the follow-on shall be awarded to the same participants named in the PA; (2) competitive procedures were used to award the PA in question; and (3) the PA was successfully completed. This MCDC Base Agreement was the result of competitive procedures, and competitive procedures are used to award individual projects under this MCDC Base Agreement. The AO shall be responsible for documenting whether or not a PA was successfully completed. Follow-on production efforts shall be strictly limited to the scope of the successfully completed prototype. This MCDC Base Agreement will not be used to award follow-on production efforts; Government customers will be responsible for working with their contracting personnel.

All PAs shall include the following statement:

"In accordance with 10 U.S.C. § 2371b(f), and upon a determination that this competitively awarded prototype project has been successfully completed, this prototype project may result in the award of a follow-on production contract or transaction without the use of competitive procedures."

Section 21.16 Public Readiness and Emergency Preparedness Act (PREP Act)

The PREP Act authorizes the Secretary of the Department of Health and Human Services (Secretary) to issue a declaration (PREP Act declaration) that provides immunity from liability (except for willful misconduct) for claims of loss caused, arising out of, relating to, or resulting from administration or use of countermeasures to diseases, threats and conditions determined by the Secretary to constitute a present, or credible risk of a future public health emergency to entities and individuals involved in the development, manufacture, testing, distribution, administration, and use of such countermeasures. A PREP Act declaration is specifically for the purpose of providing immunity from liability, and is different from, and not dependent on, other emergency declarations.

Prior to award of individual projects under the program, current declarations will be reviewed by the Government via PHE.gov. If upon review, it is determined that a current declaration is applicable to the project to be awarded, appropriate PREP Act language will be incorporated into the SOW in coordination with the prospective PAH.

ARTICLE XXII. ASSIGNMENT OF AGENCY

Section 22.01 Assignment.

Neither this Agreement nor any rights or obligations of any party hereunder shall be assigned or otherwise transferred by either party without the prior written consent of the other party.

ARTICLE XXIII. ORDER OF PRECEDENCE

In the event of any inconsistency between the general terms of this MCDC Base Agreement, the inconsistency shall be resolved by giving precedence in the following order: (1) the Base Agreement; (2) this MCDC Base Agreement; and (3) Attachments to this MCDC Base Agreement; However, specifically negotiated PA terms and conditions and PA attachments will control over the general terms and conditions of this MCDC Base Agreement.

ARTICLE XXIV. EXECUTION

This MCDC Base Agreement constitutes the entire MCDC Base Agreement of the Parties, and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions among the Parties, whether oral or written, with respect to the subject matter hereof. This MCDC Base Agreement may be revised only by written consent of the PAH and the CMF Contracting Representative designated in this Agreement.

ARTICLE XXV. USE OF UNDEFINITIZED PROJECT ACTIONS

The Government, when it is in its best interest, has the authority to award prototype projects on an undefinitized basis. The exact terms of the Undefinitized Project Action (UPA), to include the Scope, Not to Exceed Amount, and Definitization Schedule, will be provided on a project-by-project basis.

Attachment I — Assurance of Compliance with Title VI of the Civil Rights Act of 1964

Statement of Assurance of Compliance with
Title VI of the Civil Rights Act of 1964
For MCDC Member Organizations

ARREVUS, INC. hereby agrees that it will comply with the provisions of the Title VI Civil Rights Act of 1964 as amended (42 U.S.C 2000-d) and all requirements imposed pursuant thereto, to the end that, in accordance with Title VI of that Act and the Regulation, no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any MCDC Project for which the MCDC member organization receives Federal financial assistance from the Government.

The MCDC member organization agrees that compliance with this assurance constitutes a condition of continued receipt of Federal financial assistance, and that it is binding upon the MCDC member organization, its successors, transferees and assignees for the period during which such assistance is provided.

The MCDC member organization further recognizes and agrees that the United States shall have the right to seek judicial enforcement of this assurance.

The person or persons whose signature(s) appear(s) below is/are authorized to sign this assurance, and commit the MCDC member organization to the above provisions.

_____
Signature of Authorized Official

_____
Title of Authorized Official

_____
Name of MCDC Member Organization

_____
Date

Applied Technologies Center
315 Sigma Drive
Summerville, SC 29486
www.ati.org

PROJECT AGREEMENT NO.: 01

MCDC BASE AGREEMENT NO.: 2021-479

PROJECT TITLE: MCDC2104-001; Oral Regimen for Melioidosis Treatment and Post-Exposure Prophylaxis

PARTIES: Advanced Technology International ("MCDC CMF") and Arrevus, Inc. ("Project Agreement Holder")

This Project Agreement is awarded under the authority of MCDC Other Transaction Agreement No. W15QKN-16-9-1002 and herein incorporates all the terms and conditions of MCDC Base Agreement No. 2021-479.

1. PAYMENT METHOD
The Payment Method for this Project Agreement is Cost Plus Fixed Fee with a not to exceed ceiling.

2. TERM OF THE PROJECT AGREEMENT
The period of performance for this Project Agreement is from the effective date, which is the date of the last signature through December 31, 2026.

3. OBLIGATION
The MCDC CMF's liability to make payments to the Project Agreement Holder is limited to only those funds obligated under this Project Agreement or by modification to the Project Agreement. MCDC CMF may incrementally fund this Project Agreement.

4. ESTIMATED COST AND FIXED FEE
The total estimated cost and fixed fee for the services to be provided by the Project Agreement Holder is as follows:

	ESTIMATED COST
Estimated Cost	$[***]
Fixed Fee	$[***]
Total Cost	**$[***]**

5. INCREMENTAL FUNDING
The total amount of funding currently available for payment and allotted to this Project Agreement is $[***] The amount specified, or as such amount may be increased from time to time, shall apply irrespective of any other provisions of this Project Agreement and any work performed in excess thereof shall be at the Project Agreement Holder's risk. If at any time the Project Agreement Holder has reason to believe that the Total Estimated Cost which will accrue in the performance of this Project Agreement in the next succeeding thirty (30) days, when added to all other payments previously accrued, will exceed seventy-five percent (75%) of the then current

total authorized funding, the Project Agreement Holder shall notify the MCDC CMF to that effect, advising the estimate of additional funds required for the period specified. The Project Agreement Holder is not obligated to continue performance under this Project Agreement (including actions under the Termination clause of the MCDC Base Agreement) or otherwise incur costs in excess of the amount allotted to the Project Agreement by the MCDC CMF.

6. MILESTONE PAYMENT SCHEDULE

The Project Agreement Holder shall segregate and track all Project Agreement costs separately and shall document the accomplishments of each Project Payable Milestone under each Project Agreement. Acceptance of Milestones shall be contingent upon approval from the Government Agreements Officer Representative (AOR) detailed in Clause No. 10, Technical and Administrative Representatives. Milestone payments will be paid in the amount indicated in the attached Milestone Payment Schedule (Attachment A) and are adjustable based on actual expenditures.

7. PAYMENT OF FIXED FEE

The fixed fee specified herein, subject to any adjustments required by other provisions of this Project Agreement will be paid in installments at the time of each provisional payment on account of the allowable costs. The amount of fixed fee paid will be based upon the ratio that the Project Agreement Holder's incurred allowable costs bear to the total estimated cost. In the event the work cannot be completed within the estimated cost, the MCDC CMF may increase the estimated cost without increasing the fixed fee.

8. APPROACH TO MEETING THE OTHER TRANSACTION AUTHORITY

In accordance with provision contained in 10 USC 2371b governing the use Other Transaction Agreements each MCDC Member Organization must meet at least one of the following conditions: have at least one nontraditional defense contractor or nonprofit research institution participating to a significant extent in the performance of an awarded Project Agreement; all significant participants in the Project Agreement other than the Federal Government are small businesses (including small businesses participating in a program described under section 9 of the Small Business Act (15 U.S.C. 638)) or nontraditional defense contractors; or provide a cost share of no less than one third of the value of the Project Agreement awarded to the Member Organization. The Project Agreement Holder's approach to meeting the Other Transaction Authority requirement is identified below. Throughout the period of performance of any Project Agreement, the CMF and the Government will actively monitor the award to ensure compliance with this provision in accordance with implementation guidance from Headquarters – Department of the Army (HQDA) and/or Office of the Secretary of Defense (OSD). The Project Agreement Holder will be given the opportunity to become compliant with the guidance should they be found non-compliant. Failure to comply may result in termination.

The signed certifications submitted as part of the proposal are hereby incorporated into this Project Agreement. The Project Agreement Holder was proposed as a nontraditional defense contractor and determined to be providing a significant contribution.

9. STATEMENT OF WORK

The Statement of Work, Attachment A, provides a detailed description of the work to be accomplished and reports and deliverables required by this Project Agreement. All changes to

Attachment A must be incorporated via written modification to this Project Agreement. Additional guidance on report requirements is in Attachment B, Report Requirements.

10. TECHNICAL AND ADMINISTRATIVE REPRESENTATIVES
The following technical and contractual representatives of the Parties are hereby designated for this Project Agreement. Either party may change their designated representatives by written notification to the other.

MCDC CMF Contractual Representative:
MCDC Contracts
Advanced Technology International
315 Sigma Drive
Summerville, SC 29486
Email: contracts.mcdc@ati.org
Phone: (843) 760-3374

Government Technical Representatives:

Agreements Officer Representative (AOR):
Dr. Amanda Smith
8725 John J Kingman Rd
Fort Belvoir, VA 22060
Email: amanda.l.horstmansmith.civ@mail.mil
Phone: 571-616-6069

Alternate AOR:
MAJ Jeffrey Havens
8725 John J Kingman Rd
Fort Belvoir, VA 22060
Email: jeffrey.a.havens8.mil@mail.mil
Phone: 571-616-5890

Project Agreement Holder's Representatives:

Technical Representative:
Carl Kraus
2443 Lynn Road, Suite 210
Raleigh, NC 27612
Email: ckraus@arrevus.com
Phone: 919-366-5500

Contractual Representative:
Daina Zeng
2443 Lynn Road, Suite 210
Raleigh, NC 27612
Email: dzeng@arrevus.com
Phone: 919-366-5500

11. MARKING OF DELIVERABLES
Any Data delivered under this Project Agreement, by the Project Agreement Holder, shall be marked with a suitable notice or legend.

12. SECURITY ADMINISTRATION
The security level for this project is UNCLASSIFIED.

13. ATTACHMENTS
Attachments listed herein are hereby incorporated by reference into this Project Agreement.

A. Statement of Work, "Oral Regimen for Melioidosis Treatment and Post-Exposure Prophylaxis"

B. Report Requirements

C. Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment

14. GOVERNMENT FURNISHED PROPERTY
At this time, Government Furnished Property is not provided for use under this Project Agreement.

15. FOLLOW-ON PRODUCTION PROVISION
In accordance with 10.U.S.C. 2371b(f), and upon a determination that this competitively awarded prototype project has been successfully completed, this prototype project may result in the award of a follow-on production contract or transaction without the use of competitive procedures.

16. ENTIRE AGREEMENT
This Project Agreement and the MCDC Base Agreement under which it is issued constitute the entire understanding and agreement between the parties with respect to the subject matter hereof. Except as provided herein, all Terms and Conditions of the MCDC Base Agreement and its modifications remain unchanged and in full force and effect.

The Project Agreement Holder is required to sign this document and return to Advanced Technology International to finalize this action.

Arrevus, Inc.		Advanced Technology International	
By:	/s/ Carl N. Kraus	By:	/s/ Cynthia Locklear
Name:	Carl N. Kraus, M.D.	Name:	Cynthia Locklear
Title:	CEO	Title:	ATI Director of Contracts and Procurement
Date:	August 24, 2021	Date:	August 25, 2021

ACERAGEN, INC.
2021 STOCK INCENTIVE PLAN

1. Purpose

The purpose of this 2021 Stock Incentive Plan (the "**Plan**") of Aceragen, Inc., a Delaware corporation (the "**Company**"), is to advance the interests of the Company's stockholders by enhancing the Company's ability to attract, retain and motivate persons who are expected to make important contributions to the Company and by providing such persons with equity ownership opportunities and performance-based incentives that are intended to align their interests with those of the Company's stockholders. Except where the context otherwise requires, the term "Company" includes the Company's present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "**Code**") and other business ventures (including, without limitation, any joint venture or limited liability company) in which the Company has a controlling interest, as determined by the Board of Directors of the Company (the "**Board**").

2. Eligibility

All of the Company's employees, officers, directors, and individual consultants and advisors (each a "**Service Provider**") are eligible to receive options, restricted stock, restricted stock units and other stock-based awards (each, an "**Award**") under the Plan. Each person who receives an Award under the Plan is deemed a "**Participant**."

3. Administration and Delegation

(a) Administration by Board of Directors. The Plan shall be administered by the Board. The Board shall have authority to grant Awards and to adopt, amend and repeal such administrative rules, guidelines and practices relating to the Plan as it shall deem advisable. The Board may correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award in the manner and to the extent it shall deem expedient to carry the Plan into effect and it shall be the sole and final judge of such expediency. All decisions by the Board shall be made in the Board's sole discretion and shall be final and binding on all persons having or claiming any interest in the Plan or in any Award. No director or person acting pursuant to the authority delegated by the Board shall be liable for any action or determination relating to or under the Plan made in good faith.

(b) Appointment of Committees. To the extent permitted by applicable law, the Board may delegate any or all of its powers under the Plan to one or more committees or subcommittees of the Board (a "**Committee**"). All references in the Plan to the "**Board**" shall mean the Board or a Committee of the Board to the extent that the Board's powers or authority under the Plan have been delegated to such Committee.

4. Stock Available for Awards.

(a) Subject to adjustment under Section 8, Awards may be made under the Plan for up to 600,000 shares of the common stock of the Company, $0.001 par value per share (the "**Common Stock**"). If any Award expires or is terminated, surrendered or canceled without having been fully

exercised or is forfeited in whole or in part (including as the result of shares of Common Stock subject to such Award being repurchased by the Company at the original issuance price pursuant to a contractual repurchase right) or results in any Common Stock not being issued, the unused Common Stock covered by such Award shall again be available for the grant of Awards under the Plan. Further, shares of Common Stock tendered to the Company by a Participant to exercise an Award shall be added to the number of shares of Common Stock available for the grant of Awards under the Plan. However, in the case of Incentive Stock Options (as hereinafter defined), the foregoing provisions shall be subject to any limitations under the Code. Shares issued under the Plan may consist in whole or in part of authorized but unissued shares or treasury shares.

(b) Substitute Awards. In connection with a merger or consolidation of an entity with the Company or the acquisition by the Company of property or stock of an entity, the Board may grant Awards in substitution for any options or other stock or stock-based awards granted by such entity or an affiliate thereof. Substitute Awards may be granted on such terms as the Board deems appropriate in the circumstances, notwithstanding any limitations on Awards contained in the Plan. Substitute Awards shall not count against the overall share limit set forth in Section 4(a), except as may be required by reason of Section 422 and related provisions of the Code.

5. Stock Options

(a) General. The Board may grant options to purchase Common Stock (each, an "**Option**") and determine the number of shares of Common Stock to be covered by each Option, the exercise price of each Option and the conditions and limitations applicable to the exercise of each Option, including conditions relating to applicable federal or state securities laws, as it considers necessary or advisable. An Option, or portion of an Option, which is not intended to be or fails to qualify as an Incentive Stock Option (as hereinafter defined) shall be designated a "**Nonstatutory Stock Option**."

(b) Incentive Stock Options. An Option that the Board intends to be an "incentive stock option" as defined in Section 422 of the Code (an "**Incentive Stock Option**") shall only be granted to employees of the Company and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code, and shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. A Participant who owns more than 10% of the total combined voting power of all classes of outstanding stock of the Company shall not be eligible for the grant of an Incentive Stock Option unless (i) the exercise price is at least 110% of the Fair Market Value (as defined below) on the date the Option is granted and (ii) such Incentive Stock Option by its terms is not exercisable after the expiration of five years from the date the Option is granted. The Company shall have no liability to a Participant, or any other party, if an Option (or any part thereof) that is intended to be an Incentive Stock Option is not an Incentive Stock Option or for any action taken by the Board pursuant to Section 9(f), including without limitation the conversion of an Incentive Stock Option to a Nonstatutory Stock Option.

(c) Exercise Price. The Board shall establish the exercise price of each Option and specify such exercise price in the applicable option agreement. The exercise price shall be not less than 100% of the Fair Market Value on the date the Option is granted unless the Board specifically determines that the exercise price is intended to be less than such Fair Market Value, in which case the option agreement shall contain provisions complying with Section 409A of the Code; provided

that if the Board approves the grant of an Option with an exercise price to be determined on a future date, the exercise price shall be not less than 100% of the Fair Market Value on such future date. The term "**Fair Market Value**" shall mean, as of a given date: (i) if the Common Stock is listed on a national securities exchange, the last sale price of the Common Stock in the principal trading market for the Common Stock on such date; (ii) if the Common Stock is not listed on a national securities exchange, but is traded in the over-the counter market, the closing bid price for the Common Stock on such date, as reported by the OTC Bulletin Board or the National Quotation Bureau, Incorporated or similar publisher of such quotations; or (iii) if the Common Stock is not listed on a national securities exchange or traded in the over-the-counter market, such price as shall be determined by (or in a manner approved by) the Board in good faith and in compliance with applicable provisions of the Code and the regulations issued thereunder.

(d) Duration of Options. Each Option shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable option agreement.

(e) Exercise of Option. Options may be exercised by delivery to the Company of a written notice of exercise signed by the proper person or by any other form of notice (including electronic notice) approved by the Board together with payment in full as specified in Section 5(f) for the number of shares of Common Stock for which the Option is exercised. Shares of Common Stock subject to the Option will be delivered by the Company following exercise either as soon as practicable or, subject to such conditions as the Board shall specify, on a deferred basis (with the Company's obligation to be evidenced by an instrument providing for future delivery of the deferred shares at the time or times specified by the Board).

(f) Payment Upon Exercise. Common Stock purchased upon the exercise of an Option granted under the Plan shall be paid for as follows:

(1) in cash or by check, payable to the order of the Company;

(2) except as may otherwise be provided in the applicable option agreement, by (i) delivery of an irrevocable and unconditional undertaking by a creditworthy broker to deliver promptly to the Company sufficient funds to pay the exercise price and any required tax withholding or (ii) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a creditworthy broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price and any required tax withholding;

(3) when the Common Stock is registered under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**") and to the extent provided for in the applicable option agreement or approved by the Board, in its sole discretion, by delivery (either by actual delivery or attestation) of shares of Common Stock owned by the Participant valued at their Fair Market Value, provided (i) such method of payment is then permitted under applicable law, (ii) such Common Stock, if acquired directly from the Company, was owned by the Participant for such minimum period of time, if any, as may be established by the Board in its discretion and (iii) such Common Stock is not subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements;

(4) to the extent permitted by applicable law and provided for in the applicable option agreement or approved by the Board, in its sole discretion, by (i) delivery of a promissory note of the Participant to the Company on terms determined by the Board, or (ii) payment of such other lawful consideration as the Board may determine; or

(5) by any combination of the above permitted forms of payment.

6. Restricted Stock; Restricted Stock Units

(a) General. The Board may grant Awards entitling recipients to acquire shares of Common Stock ("**Restricted Stock**"), subject to the right of the Company to repurchase all or part of such shares at their issue price or other stated or formula price (or to require forfeiture of such shares if issued at no cost) from the recipient in the event that conditions specified by the Board in the applicable Award are not satisfied prior to the end of the applicable restriction period or periods established by the Board for such Award. Instead of granting Awards for Restricted Stock, the Board may grant Awards entitling the recipient to receive shares of Common Stock to be delivered at the time such shares of Common Stock vest ("**Restricted Stock Units**") (Restricted Stock and Restricted Stock Units are each referred to herein as a "**Restricted Stock Award**").

(b) Terms and Conditions. The Board shall determine the terms and conditions of a Restricted Stock Award, including the conditions for repurchase (or forfeiture) and the issue price, if any.

(c) Additional Provisions Relating to Restricted Stock.

(1) Dividends. Participants holding shares of Restricted Stock will be entitled to all ordinary cash dividends paid with respect to such shares, unless otherwise provided by the Board. If any such dividends or distributions are paid in shares, or consist of a dividend or distribution to holders of Common Stock other than an ordinary cash dividend, the shares, cash or other property will be subject to the same restrictions on transferability and forfeitability as the shares of Restricted Stock with respect to which they were paid. Each dividend payment will be made no later than the end of the calendar year in which the dividends are paid to stockholders of that class of stock or, if later, the 15th day of the third month following the date the dividends are paid to stockholders of that class of stock.

(2) Stock Certificates. The Company may require that any stock certificates issued in respect of a Restricted Stock Award shall be registered in the name of the Participant and be deposited by the Participant, together with a stock power endorsed in blank, with the Company (or its designee). After the expiration of the applicable restriction periods, upon request of a Participant or as otherwise determined by the Company, the Company (or such designee) shall deliver the certificates no longer subject to such restrictions to the Participant or if the Participant has died, to the beneficiary designated, in a manner determined by the Board, by a Participant to receive amounts due or exercise rights of the Participant in the event of the Participant's death (the "**Designated Beneficiary**"). In the absence of an effective designation by a Participant, "Designated Beneficiary" shall mean the Participant's then living spouse, or, if none, the Participant's estate.

7. Other Stock-Based Awards

Other Awards of shares of Common Stock, and other Awards that are valued in whole or in part by reference to, or are otherwise based on, shares of Common Stock or other property, may be granted hereunder to Participants ("**Other Stock-Based Awards**"), including without limitation stock appreciation rights and Awards entitling recipients to receive shares of Common Stock to be delivered in the future. Such Other Stock-Based Awards shall also be available as a form of payment in the settlement of other Awards granted under the Plan or as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock-Based Awards may be paid in shares of Common Stock or cash, as the Board shall determine. Subject to the provisions of the Plan, the Board shall determine the conditions of each Other Stock-Based Award, including any purchase price applicable thereto.

8. Adjustments for Changes in Common Stock and Certain Other Events

(a) Changes in Capitalization. In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of Common Stock other than an ordinary cash dividend, (i) the number and class of securities available under this Plan, (ii) the number and class of securities and exercise price per share of each outstanding Option, (iii) the number of shares subject to and the repurchase price per share subject to each outstanding Restricted Stock Award, and (iv) the terms of each other outstanding Award shall be equitably adjusted by the Company (or substituted Awards may be made, if applicable) in the manner determined by the Board. Without limiting the generality of the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend and the exercise price of and the number of shares subject to an outstanding Option are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), then an optionee who exercises an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such Option exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

(b) Change in Control

(1) Definition. Unless otherwise specifically provided in an Award agreement, a "**Change in Control**" shall be deemed to have occurred upon the first to occur of:

(i) any "person" (as such term is used in sections 13(d) and 14(d) of the Exchange Act) becoming a "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing either (A) more than a majority of the voting power of the then outstanding securities of the Company, or (B) more than a majority of the aggregate fair market value of the then outstanding securities of the Company; provided, however, that a Change in Control shall not be deemed to occur as a result of (x) a transaction in which the Company becomes a subsidiary of another corporation and in which the stockholders of the Company, immediately prior to the transaction, will beneficially own, immediately after the transaction, shares entitling such stockholders to more than majority of all votes to which all stockholders of the parent corporation would be entitled in the election of directors, or (y) a transaction in which the person acquires newly issued securities of the Company in exchange for an investment in the Company; or

(ii) the consummation of either: (A) a merger, share exchange, consolidation or reorganization of the Company where the stockholders of the Company, immediately prior to the merger or consolidation, will not beneficially own, immediately after the merger, share exchange, consolidation or reorganization, shares entitling such stockholders to either (x) more than a majority of all votes to which all stockholders of the surviving corporation would be entitled in the election of directors, or (y) more than a majority of the aggregate fair market value of then outstanding securities of the Company; or (B) a sale or other disposition of all or substantially all of the assets of the Company.

(2) Consequences of a Change in Control on Awards Other than Restricted Stock Awards. In connection with a Change in Control, the Board may take any one or more of the following actions as to all (or any portion of) outstanding Awards other than Restricted Stock Awards on such terms as the Board determines: (i) provide that Awards shall be assumed, or substantially equivalent Awards shall be substituted, by the acquiring or succeeding corporation (or an affiliate thereof) in compliance with the applicable provisions of the Code, including Code Sections 409A, 422 and 424, (ii) upon written notice to a Participant, provide that the Participant's unexercised Options or other unexercised Awards will terminate immediately prior to the consummation of such Change in Control unless exercised by the Participant within a specified period following the date of such notice, (iii) provide that outstanding Awards shall become exercisable, realizable or deliverable, or restrictions applicable to an Award shall lapse, in whole or in part prior to or upon such Change in Control, (iv) in the event of a Change in Control under the terms of which holders of Common Stock will receive upon consummation thereof a cash payment for each share surrendered in the Change in Control (the "Acquisition Price"), make or provide for a cash payment to a Participant equal to the excess, if any, of (A) the Acquisition Price times the number of shares of Common Stock subject to the Participant's Options or other Awards (to the extent the exercise price does not exceed the Acquisition Price) less (B) the aggregate exercise price of all such outstanding Options or other Awards and any applicable tax withholdings, in exchange for the termination of such Options or other Awards, (v) provide that, in connection with a liquidation or dissolution of the Company, Awards shall convert into the right to receive liquidation proceeds (if applicable, net of the exercise price thereof) and (vi) any combination of the foregoing. In taking any of the actions permitted under this Section 8(b), the Board shall not be obligated by the Plan to treat all Awards, or all Awards of the same type, identically.

For purposes of clause (i) above, an Option shall be considered assumed if, following consummation of the Change in Control, the Option confers the right to purchase, for each share of Common Stock subject to the Option immediately prior to the consummation of the Change in Control, the consideration (whether cash, securities or other property) received as a result of the Change in Control by holders of Common Stock for each share of Common Stock held immediately prior to the consummation of the Change in Control (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); provided, however, that if the consideration received as a result of the Change in Control is not solely common stock of the acquiring or succeeding corporation (or an affiliate thereof), the Company may, with the consent of the acquiring or succeeding corporation, provide for the consideration to be received upon the exercise of Options to consist solely of common stock of the acquiring or succeeding corporation (or an affiliate

thereof) with equivalent in value (as determined by the Board) to the per share consideration received by holders of outstanding shares of Common Stock as a result of the Change in Control.

(3) Consequences of a Change in Control on Restricted Stock Awards. Upon the occurrence of a Change in Control other than a liquidation or dissolution of the Company, the repurchase and other rights of the Company under each outstanding Restricted Stock Award shall inure to the benefit of the Company's successor and shall, unless the Board determines otherwise, apply to the cash, securities or other property which the Common Stock was converted into or exchanged for pursuant to such Change in Control in the same manner and to the same extent as they applied to the Common Stock subject to such Restricted Stock Award. Upon the occurrence of a Change in Control involving the liquidation or dissolution of the Company, except to the extent specifically provided to the contrary in the instrument evidencing any Restricted Stock Award or any other agreement between a Participant and the Company, all restrictions and conditions on all Restricted Stock Awards then outstanding shall automatically be deemed terminated or satisfied.

9. General Provisions Applicable to Awards

(a) Transferability of Awards. Except as the Board may otherwise expressly determine or provide in an Award, Awards shall not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution or, other than in the case of an Incentive Stock Option, pursuant to a qualified domestic relations order, and, during the life of the Participant, shall be exercisable only by the Participant. References to a Participant, to the extent relevant in the context, shall include references to authorized transferees.

(b) Documentation. Unless otherwise expressly determined by the Board, each Incentive Stock Option shall be evidenced by a Notice of Incentive Stock Option and Incentive Stock Option Agreement substantially in the form attached as **Exhibit A**, each Nonstatutory Stock Option shall be evidenced by a Notice of Nonstatutory Stock Option and Nonstatutory Stock Option Agreement substantially in the form attached as **Exhibit B**, and each Restricted Stock Award shall be evidenced by a Summary of Restricted Stock Purchase and Restricted Stock Purchase Agreement substantially in the form attached as **Exhibit C**. Each Award may contain terms and conditions in addition to those set forth in the Plan.

(c) Board Discretion. Except as otherwise provided by the Plan, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award need not be identical, and the Board need not treat Participants uniformly.

(d) Termination of Status. The Board shall determine the effect on an Award of the disability, death, termination of employment, authorized leave of absence or other change in the employment or other status of a Participant and the extent to which, and the period during which, the Participant, or the Participant's legal representative, conservator, guardian or Designated Beneficiary, may exercise rights under the Award.

(e) Withholding. A Participant must satisfy all applicable federal, state, and local or other income and employment tax withholding obligations before the Company will deliver stock

certificates or otherwise recognize ownership of Common Stock under an Award. The Company may decide to satisfy the withholding obligations through additional withholding on salary or wages. If the Company elects not to or cannot withhold from other compensation, a Participant must pay the Company the full amount, if any, required for withholding or have a broker tender to the Company cash equal to the withholding obligations. Payment of withholding obligations is due before the Company will issue any shares on exercise or release from forfeiture of an Award or, if the Company so requires, at the same time as is payment of the exercise price unless the Company determines otherwise. If provided for in an Award or approved by the Board in its sole discretion, a Participant may satisfy such tax obligations in whole or in part by delivery of shares of Common Stock, including shares retained from the Award creating the tax obligation, valued at their Fair Market Value; provided, however, except as otherwise provided by the Board, that the total tax withholding where stock is being used to satisfy such tax obligations cannot exceed the Company's minimum statutory withholding obligations (based on minimum statutory withholding rates for federal and state tax purposes, including payroll taxes, that are applicable to such supplemental taxable income). Shares surrendered to satisfy tax withholding requirements cannot be subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements.

(f) Amendment of Award.

(1) The Board may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or realization, and converting an Incentive Stock Option to a Nonstatutory Stock Option, provided that the Participant's consent to such action shall be required unless the Board determines that the action, taking into account any related action, would not materially and adversely affect the Participant.

(2) The Board may, without stockholder approval, amend any outstanding Award granted under the Plan to provide an exercise price per share that is lower than the then-current exercise price per share of such outstanding Award provided that such amended exercise price is at least equal to the then-current Fair Market Value. The Board may also, without stockholder approval, cancel any outstanding award (whether or not granted under the Plan) and grant in substitution new Awards under the Plan covering the same or a different number of shares of Common Stock and having an exercise price per share lower than the then-current exercise price per share of the cancelled award.

(g) Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously delivered under the Plan until (i) all conditions of the Award have been met or removed to the satisfaction of the Company, (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and any applicable stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules, regulations or contracts of the Company.

(h) Acceleration. The Board may at any time provide that any Award shall become immediately exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in full or in part, as the case may be.

10. Miscellaneous

(a) No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award, and the grant of an Award shall not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan, except as expressly provided in the applicable Award.

(b) No Rights As Stockholder. Subject to the provisions of the applicable Award, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Award until becoming the record holder of such shares. Notwithstanding the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend or otherwise and the exercise price of and the number of shares subject to such Option are adjusted as of the effective date of the stock dividend or split (rather than as of the record date for such stock dividend or split), then an optionee who exercises an Option between the record date and the distribution date for such stock dividend or split shall be entitled to receive, on the distribution date, the stock dividend or split with respect to the shares of Common Stock acquired upon such Option exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend or split.

(c) Effective Date and Term of Plan. The Plan shall become effective on the date on which it is adopted by the Board. No Awards shall be granted under the Plan after the expiration of 10 years from the earlier of (i) the date on which the Plan was adopted by the Board or (ii) the date the Plan was approved by the Company's stockholders, but Awards previously granted may extend beyond that date.

(d) Amendment of Plan. The Board may amend, suspend or terminate the Plan or any portion thereof at any time; provided, however, that if at any time the approval of the Company's stockholders is required as to any modification or amendment under Section 422 of the Code or any successor provision with respect to Incentive Stock Options, the Board may not effect such modification or amendment without such approval. Unless otherwise specified in the amendment, any amendment to the Plan adopted in accordance with this Section 10(d) shall apply to, and be binding on the holders of, all Awards outstanding under the Plan at the time the amendment is adopted, provided the Board determines that such amendment does not materially and adversely affect the rights of Participants under the Plan.

(e) Authorization of Sub-Plans. The Board may from time to time establish one or more sub-plans under the Plan for purposes of satisfying applicable blue sky, securities or tax laws of various jurisdictions. The Board shall establish such sub-plans by adopting supplements to this Plan containing (i) such limitations on the Board's discretion under the Plan as the Board deems necessary or desirable or (ii) such additional terms and conditions not otherwise inconsistent with

the Plan as the Board shall deem necessary or desirable. All supplements adopted by the Board shall be deemed to be part of the Plan, but each supplement shall apply only to Participants within the affected jurisdiction and the Company shall not be required to provide copies of any supplement to Participants in any jurisdiction which is not the subject of such supplement.

(f) Non-Plan Equity-Based Awards. Nothing in this Plan is intended to, or shall, impair or affect the Board's ability to make non-Plan equity-based awards.

(g) Compliance with Code Section 409A. It is intended that all Awards granted hereunder be either exempt from, or issued in compliance with, Code Section 409A. The Company shall have no liability to a Participant, or any other party, if an Award that is intended to be exempt from, or compliant with, Code Section 409A is not so exempt or compliant, or for any action taken by the Board.

(h) Governing Law. The provisions of the Plan and all Awards made hereunder shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware, as to matters within the scope thereof, and the internal laws of the State of North Carolina (without reference to conflict of law provisions), as to all other matters.

* * * * * * * *

ACERAGEN, INC.

2021 STOCK INCENTIVE PLAN

CALIFORNIA SUPPLEMENT

Pursuant to Section 10(e) of the Plan, the Board has adopted this supplement for purposes of satisfying the requirements of Section 25102(o) of the California Corporations Code, as amended:

Any Awards granted under the Plan to a Participant who is a resident of the State of California on the date of grant (a "**California Participant**") shall be subject to the following additional limitations, terms and conditions:

1. Additional Limitations on Awards.

(a) Generally. The terms of all Awards granted to a California Participant under Sections 5, 6 or 7 of the Plan shall comply, to the extent applicable, with Section 260.140.41 or Section 260.140.42 of the California Regulations.

(b) Maximum Duration of Options. No Options granted to California Participants shall have a term in excess of 10 years measured from the Option grant date.

(c) Minimum Exercise Period Following Termination. Unless a California Participant's employment is terminated for cause (as defined by applicable law, the terms of any contract of employment between the Company and such Participant, or in the instrument evidencing the grant of such Participant's Option), in the event of termination of employment of such Participant, such Participant shall have the right to exercise an Option, to the extent that he or she was otherwise entitled to exercise such Option on the date employment terminated, until the earlier of the Option expiration date or: (i) at least six months from the date of termination, if termination was caused by such Participant's death or "permanent and total disability" (within the meaning of Section 22(e)(3) of the Code) and (ii) at least 30 days from the date of termination, if termination was caused other than by such Participant's death or "**permanent and total disability**" (within the meaning of Section 22(e)(3) of the Code).

2. Additional Requirement to Provide Information to California Participants. Unless the Plan or agreement complies with all conditions of Rule 701 of the Securities Act of 1933, as amended ("**Rule 701**"), the Company shall provide to each California Participant and to each California Participant who acquires Common Stock pursuant to the Plan, not less frequently than annually, copies of annual financial statements (which need not be audited). The Company shall not be required to provide such statements to key employees whose duties in connection with the Company assure their access to equivalent information or when the Plan or agreement complies with all conditions of Rule 701.

3. Additional Limitations on Timing of Awards. No Award granted to a California Participant shall become exercisable, vested or realizable, as applicable to such Award, unless the Plan has been approved by the holders of at least a majority of the Company's outstanding voting securities by the later of (i) within 12 months before or after the date the Plan was adopted by the

Board or the agreement entered into; and (ii) prior to or within 12 months of the granting of any option or issuance of any security under the Plan or agreement to a California Participant.

4. Additional Restriction Regarding Recapitalizations, Stock Splits, Etc. For purposes of Section 8 of the Plan, in the event of a stock split, reverse stock split, stock dividend, recapitalization, combination, reclassification or other distribution of the Company's securities, the number of securities allocated to each California Participant must be adjusted proportionately and without the receipt by the Company of any consideration from any California Participant.

EXHIBIT A

Notice of Incentive Stock Option
and Incentive Stock Option Agreement

ACERAGEN, INC.

NOTICE OF INCENTIVE STOCK OPTION
2021 STOCK INCENTIVE PLAN

Aceragen, Inc., a Delaware corporation (the "**Company**") grants to the undersigned (the "**Participant**") the following incentive stock option to purchase shares (the "**Shares**") of the common stock of the Company, par value $0.001 per share (the "**Common Stock**"), pursuant to the Company's 2021 Stock Incentive Plan (the "**Plan**"):

Participant:	[Participant Name]
Total Number of Shares:	[Number of Shares]
Grant Date:	[Grant Date]
Exercise Price per Share:	$*[Exercise Price]
Vesting Commencement Date:	[Vesting Date]
Vesting Schedule:	[Describe Vesting Schedule – for example: "25% of the Total Number of Shares shall vest and become exercisable on the 1 year anniversary of the Vesting Commencement Date and 1/48 of the Total Number of Shares shall vest and become exercisable on the corresponding day of each month thereafter, or on the last day of each month, to the extent each month thereafter does not have the corresponding day, until all of the Shares have vested on the fourth anniversary of the Vesting Commencement Date, subject to Participant continuing to be a Service Provider through each such date."] [In addition, this Option may vest and become exercisable on an accelerated basis under Section 2 of the Incentive Stock Option Agreement.]
Final Exercise Date:	[Expiration Date]. This Option may expire earlier pursuant to Section 3 of the Incentive Stock Option Agreement if the Participant's relationship with the Company is terminated or pursuant to Section 8 of the Plan.

This incentive stock option is granted under and governed by the terms and conditions of the Plan and the Incentive Stock Option Agreement, both of which are incorporated herein by reference. By signing below, the Participant accepts this incentive stock option, acknowledges receipt of a copy of the Plan and the Incentive Stock Option Agreement, and agrees to the terms thereof.

*[PARTICIPANT NAME]:	ACERAGEN, INC.
_____	By: _____
(Signature)	
	Name: _____
Address: _____	Title: _____
_____	Date: _____

THE OPTION GRANTED PURSUANT TO THIS AGREEMENT AND THE SHARES ISSUABLE UPON THE EXERCISE THEREOF HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAWS, AND MAY NOT BE SOLD, PLEDGED OR OTHERWISE TRANSFERRED WITHOUT AN EFFECTIVE REGISTRATION THEREOF UNDER SUCH ACT OR APPLICABLE LAWS OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY AND ITS COUNSEL THAT SUCH REGISTRATION IS NOT REQUIRED.

ACERAGEN, INC.

INCENTIVE STOCK OPTION AGREEMENT
Granted under 2021 Stock Incentive Plan

1. Grant of Option.

This Incentive Stock Option Agreement (the "**Agreement**") evidences the grant by Aceragen, Inc., a Delaware corporation (the "**Company**"), on the Grant Date to the Participant, an employee of the Company, of an option (this "**Option**") to purchase, in whole or in part, on the terms provided herein and in the Plan, the Total Number of Shares at the Exercise Price per Share, all as defined and set forth in the accompanying Notice of Incentive Stock Option (the "**Notice**"). Capitalized terms that are not otherwise defined herein or in the Notice shall have the meanings given to such terms in the Plan.

It is intended that this Option shall be an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "**Code**"). If for any reason the Option, or any portion thereof, does not meet the requirements of Section 422 of the Code, then the Option, or any portion thereof, as necessary, shall be deemed a nonstatutory stock option granted under the Plan. Except as otherwise indicated by the context, the term "Participant," as used in this Agreement, shall include any person who acquires the right to exercise this Option validly under its terms.

2. Vesting Schedule.

This Option shall vest and become exercisable at the time or times set forth in the accompanying Notice. [In addition, this Option may vest and become exercisable on an accelerated basis as follows:

*[Insert any applicable acceleration provisions, such as one of the following examples.]

*[If, prior to the Final Exercise Date, the Participant's status as a Service Provider is terminated by the Company without Cause (as defined in Section 3(e) below), then, immediately upon the effective date of such termination, this Option shall become exercisable as to **[partial acceleration:** that portion of the Total Number of Shares that otherwise would have vested during the *[___] month period following the effective date of such termination, it being understood that in no event shall the Participant be entitled to exercise the Option to purchase greater than the Total Number of Shares as a result of this provision.] **OR [full acceleration:** 100% of the Total Number

of Shares, it being understood that in no event shall the Participant be entitled to exercise the Option to purchase greater than the Total Number of Shares as a result of this provision.]

[Single Trigger] *[Immediately prior to the effective date of a Change in Control, this Option shall vest and become exercisable as to **[partial acceleration:** that portion of the Total Number of Shares that otherwise would have vested during the *[_____] month period following the effective date of such Change in Control, it being understood that in no event shall the Participant be entitled to exercise the Option to purchase greater than the Total Number of Shares as a result of this provision.] **OR [full acceleration:** 100% of the Total Number of Shares, it being understood that in no event shall the Participant be entitled to exercise the Option to purchase greater than the Total Number of Shares as a result of this provision.]

[Double Trigger] *[If (a) upon the consummation of a Change in Control this Option is assumed, or a substantially equivalent award is substituted, by the acquiring or succeeding corporation (in accordance with Section 8(b)(2)(i) of the Plan) and (b) within *[12] months following such Change in Control the Participant's status as a Service Provider is terminated by the acquiring or succeeding corporation without Cause (as defined in Section 3(e) below), then, immediately upon the effective date of such termination, this Option shall vest and become exercisable as to [partial acceleration: that portion of the Total Number of Shares that otherwise would have vested during the *[___] month period following the effective date of such termination, it being understood that in no event shall the Participant be entitled to exercise the Option to purchase greater than the Total Number of Shares as a result of this provision.] OR [full acceleration: 100% of the Total Number of Shares, it being understood that in no event shall the Participant be entitled to exercise the Option to purchase greater than the Total Number of Shares as a result of this provision.]

3. Exercise of Option.

(a) Form of Exercise. Each election to exercise this Option shall be in writing in substantially the form of the Notice of Stock Option Exercise attached to this Agreement as **Exhibit A**, signed by the Participant, and received by the Company at its principal office, accompanied by this Agreement, and payment in full in the manner provided in the Plan. The Participant may purchase less than the number of Shares subject to this Option; provided that, no partial exercise of this Option may be for any fractional share.

(b) Continuous Relationship with the Company Required. Except as otherwise provided in this Section 3, this Option may not be exercised unless the Participant, at the time of the exercise of this Option, is, and has been at all times since the Grant Date, a Service Provider to or of the Company or any subsidiary of the Company as defined in Section 424 (f) of the Code (an "**Eligible Participant**").

(c) Termination of Relationship with the Company. If the Participant ceases to be an Eligible Participant for any reason, then, except as provided in paragraphs (d) and (e) below, the right to exercise this Option shall terminate three months after such cessation (but in no event after the Final Exercise Date); provided that, this Option shall be exercisable only to the extent that the Participant was entitled to exercise this Option on the date of such cessation. Notwithstanding the foregoing, if the Participant, prior to the Final Exercise Date, violates the non-competition or

confidentiality provisions of any employment agreement, confidentiality and nondisclosure agreement, or other agreement between the Participant and the Company, the right to exercise this Option shall terminate immediately upon such violation.

(d) Exercise Period Upon Death or Disability. If the Participant dies or becomes disabled (within the meaning of Section 22(e)(3) of the Code) prior to the Final Exercise Date while the Participant is an Eligible Participant and the Company has not terminated such relationship for "Cause" (as defined below), this Option shall be exercisable, within the period of one year following the date of death or disability of the Participant, by the Participant (or in the case of death by an authorized transferee); provided that, this Option shall be exercisable only to the extent that this Option was exercisable by the Participant on the date of the Participant's death or disability, and further provided that this Option shall not be exercisable after the Final Exercise Date.

(e) Termination for Cause. If, prior to the Final Exercise Date, the Participant's status as a Service Provider is terminated by the Company for Cause (as defined below), the right to exercise this Option shall terminate immediately upon the effective date of such termination. If the Participant is party to an agreement with the Company that contains an applicable definition of "cause", "**Cause**" shall have the meaning ascribed to such term in such agreement. Otherwise, "**Cause**" shall mean willful misconduct by the Participant or willful failure by the Participant to perform the Participant's responsibilities to the Company (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), as determined by the Company, which determination shall be conclusive. The Participant shall be considered to have been discharged for Cause if the Company determines, within 30 days after the Participant's resignation or termination other than for Cause, that discharge for Cause was warranted.

4. Restrictions on Transfer; Rights of First Refusal and Stockholder Agreements.

(a) Bylaws. The Participant acknowledges and agrees that the Shares are subject to the provisions of the Company's Bylaws, as amended from time to time (the "**Bylaws**"), including without limitation, all restrictions on transfer and rights of first refusal described in the Bylaws. The Participant may inspect the Bylaws at the Company's principal office.

(b) Legend. Any certificate representing Shares shall bear a legend substantially in the following form (in addition to, or in combination with, any legend required by applicable federal and state securities laws and agreements relating to the transfer and/or voting of the Company securities):

> "The securities represented by this certificate, and the transfer thereof, are subject to the restriction on transfer provisions of the Bylaws of the Company, a copy of which is on file in, and may be examined at, the principal office of the Company"

(c) Stockholder Agreements. The Participant acknowledges and agrees that the Company may condition the issuance of the Shares upon the Participant joining and becoming a party to such stockholder agreements, which may impose certain contractual rights and obligations

on the Shares, as may be entered into from time to time by and among the Company and certain holders of the Company's capital stock

5. Agreement in Connection with Public Offering. The Participant agrees, in connection with the initial underwritten public offering of the Company's securities pursuant to a registration statement under the Securities Act of 1933, as amended (the "**Securities Act**"): (i) not to sell, make short sale of, loan, grant any options for the purchase of, or otherwise dispose of any shares of Common Stock held by the Participant (other than those shares included in the offering) without the prior written consent of the Company or the underwriters managing such initial underwritten public offering of the Company's securities for a period of 180 days from the effective date of such registration statement, which period may be extended upon the request of the underwriters for an additional period of up to 15 days if the Company issues or proposes to issue an earnings or other public release within 15 days of the expiration of the 180-day lockup period, and (ii) to execute any agreement reflecting clause (i) above as may be requested by the Company or the managing underwriters at the time of such offering.

The Participant agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters of such offering which are consistent with the foregoing or which are necessary to give further effect thereto. In addition, if requested, by the Company or the underwriters of such offering, the Participant shall provide, within 10 days of such request, such information as may be required by the Company or such underwriters in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section 5 shall not apply to a registration relating solely to employee benefits plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of the applicable period. Participant agrees that any transferee of this Option or Shares pursuant to this Agreement shall be bound by this Section 5.

6. Tax Matters.

(a) Withholding. No Shares shall be issued pursuant to the exercise of this Option unless and until the Participant pays to the Company, or makes provision satisfactory to the Company for payment of, any federal, state or local withholding taxes required by law to be withheld in respect of this Option.

(b) Disqualifying Disposition. If the Participant disposes of Shares acquired upon exercise of this Option within two years from the Grant Date or one year after such Shares were acquired pursuant to exercise of this Option, the Participant shall immediately notify the Company in writing of such disposition and shall timely satisfy all resulting tax obligations and shall hold the Company harmless with respect to any such tax obligations.

(c) Code Section 409A. The Exercise Price is intended to be the Fair Market Value of the Common Stock on the Grant Date. The Company has determined the Fair Market Value of the Common Stock in good faith and using the reasonable application of a reasonable valuation

method, for purposes of determining the Exercise Price. Notwithstanding this, the Internal Revenue Service may assert that the Fair Market Value of the Common Stock on the Grant Date was greater than the Exercise Price. Under Code Section 409A, if the Exercise Price is less than the Fair Market Value of the Common Stock as of the Grant Date, this Option may be treated as a form of deferred compensation and the Participant may be subject to an additional 20% tax, plus interest and possible penalties. The Participant acknowledges that the Company has advised the Participant to consult with a tax adviser regarding the potential impact of Code Section 409A and that the Company, in the exercise of its sole discretion and without the consent of the Participant, may amend or modify this Agreement in any manner and delay the payment of any amounts payable pursuant to this Agreement to the minimum extent necessary to meet the requirements of Code Section 409A, as amplified by any Internal Revenue Service or U.S. Treasury Department regulations or guidance as the Company deems appropriate or advisable.

7. Nontransferability of Option. This Option may not be sold, assigned, transferred, pledged or otherwise encumbered by the Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the lifetime of the Participant, this Option shall be exercisable only by the Participant.

8. Provisions of the Plan. This Option is subject to the provisions of the Plan, a copy of which is furnished to the Participant with this Option.

9. Entire Agreement; Governing Law. The Plan and the accompanying Notice are incorporated herein by reference. This Agreement, the Notice and the Plan constitute the entire agreement between the Company and the Participant with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and the Participant with respect to the subject matter hereof. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware, as to matters within the scope thereof, and the internal laws of the State of North Carolina (without reference to conflict of law provisions), as to all other matters.

10. Amendment. Except as set forth in Section 6(c), this Agreement may not be modified or amended in any manner adverse to the Participant's interest except by means of a writing signed by the Company and Participant.

11. No Guarantee of Continued Service. THE PARTICIPANT ACKNOWLEDGES AND AGREESTHAT THE VESTING OF OPTIONS PURSUANT TO THE VESTING SCHEDULE SET FORTH HEREIN AND IN THE NOTICE ARE EARNED ONLY BY CONTINUING SERVICE AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). THE PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED SERVICE FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE PARTICIPANT'S SERVICE WITH OR WITHOUT CAUSE.

* * *

Exhibit A

ACERAGEN, INC.

NOTICE OF INCENTIVE STOCK OPTION EXERCISE
2021 STOCK INCENTIVE PLAN

The undersigned (the "**Participant**") has previously been awarded an incentive stock option (the "**Option**") to purchase shares (the "Shares") of the common stock of Aceragen, Inc., a Delaware corporation (the "**Company**"), pursuant to the Company's 2021 Stock Incentive Plan (the "**Plan**"), and hereby notifies the Company of the Participant's desire to exercise the Option on the terms set forth herein:

PARTICIPANT INFORMATION:	**OPTION INFORMATION:**
Name: _____	Grant Date: _____
Address: _____	Exercise Price Per Share: $ _____
_____	
Taxpayer ID #: _____	Total Shares Covered by Option: _____

EXERCISE INFORMATION:

Number of Shares Being Purchased: _____

Aggregate Exercise Price: $ _____

Form of Payment (check all that apply):
☐ Check for $_____made payable to "Aceragen, Inc.
☐ Cash in the amount of $_____

Please register the Shares in my name as _____
(Print name as it is to appear on stock certificate)

REPRESENTATIONS AND WARRANTIES OF THE PARTICIPANT:

The Participant hereby represents and warrants to the Company that, as of the date hereof:

1. I am purchasing the Shares for my own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Shares in violation of the Securities Act of 1933 (the "Securities Act"), or any rule or regulation under the Securities Act.

2. I have had such opportunity as I have deemed adequate to obtain from representatives of the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company.

3. I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

4. I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period.

5. I acknowledge that I am acquiring the Shares subject to all other terms of the Plan, including the Notice of Incentive Stock Option and related Incentive Stock Option Agreement.

6. I acknowledge that the Company has encouraged me to consult my own adviser to determine the tax consequences of acquiring the Shares at this time. I acknowledge that the Company has encouraged me to consult my own adviser to determine the form of ownership that is appropriate for me.

7. I acknowledge that the Shares remain subject to the Company's right of first refusal and the market stand-off (sometimes referred to as the "lock-up"), all in accordance with the applicable Notice of Incentive Stock Option and related Incentive Stock Option Agreement.

8. I understand that (i) the Shares have not been registered under the Securities Act and are "restricted securities" within the meaning of Rule 144 under the Securities Act, (ii) the Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 will not be available for at least six months or one year (depending on whether the Company is subject to the reporting obligations of the Securities Exchange Act of 1934, as amended) and even then will not be available unless applicable terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register the Shares under the Securities Act.

_____

(Print Participant Name)

_____

(Signature)

Date: _____

EXHIBIT B

Notice of Nonstatutory Stock Option
and Nonstatutory Stock Option Agreement

ACERAGEN, INC.

NOTICE OF NONSTATUTORY STOCK OPTION
2021 STOCK INCENTIVE PLAN

Aceragen, Inc., a Delaware corporation (the "**Company**") grants to the undersigned (the "**Participant**") the following nonstatutory stock option to purchase shares (the "**Shares**") of the common stock of the Company, par value $0.001 per share (the "**Common Stock**") pursuant to the Company's 2021 Stock Incentive Plan (the "**Plan**"):

Participant:	*[Participant Name]
Total Number of Shares:	*[Number of Shares]
Grant Date:	*[Grant Date]
Exercise Price per Share:	$*[Exercise Price]
Vesting Commencement Date:	*[Vesting Date]
Vesting Schedule:	25% of the Total Number of Shares shall vest and become exercisable on the 1 year anniversary of the Vesting Commencement Date and 1/48 of the Total Number of Shares shall vest and become exercisable on the corresponding day of each month thereafter, or on the last day of each month, to the extent each month thereafter does not have the corresponding day, until all of the Shares have vested on the fourth anniversary of the Vesting Commencement Date, subject to Participant continuing to be a Service Provider through each such date. In addition, this option may vest and become exercisable on an accelerated basis under Section 2 of the Nonstatutory Stock Option Agreement.
Final Exercise Date:	*[Expiration Date]. This option may expire earlier pursuant to Section 3 of the Nonstatutory Stock Option Agreement if the Participant' relationship with the Company is terminated, or pursuant to Section 8 o the Plan.

This nonstatutory stock option is granted under and governed by the terms and conditions of the Plan and the accompanying Nonstatutory Stock Option Agreement, both of which are incorporated herein by reference. By signing below, the Participant accepts this nonstatutory stock option, acknowledges receipt of a copy of the Plan and the Nonstatutory Stock Option Agreement, and agrees to the terms thereof.

[PARTICIPANT NAME]:	**ACERAGEN, INC.:**
_____	By: _____
(Signature)	
	Name: _____
Address: _____	Title: _____
_____	Date: _____

THE OPTION GRANTED PURSUANT TO THIS AGREEMENT AND THE SHARES ISSUABLE UPON THE EXERCISE THEREOF HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAWS, AND MAY NOT BE SOLD, PLEDGED OR OTHERWISE TRANSFERRED WITHOUT AN EFFECTIVE REGISTRATION THEREOF UNDER SUCH ACT OR APPLICABLE LAWS OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY AND ITS COUNSEL THAT SUCH REGISTRATION IS NOT REQUIRED.

ACERAGEN, INC.

NONSTATUTORY STOCK OPTION AGREEMENT
Granted Under 2021 Stock Incentive Plan

1. Grant of Option.

This Nonstatutory Stock Option Agreement (the "**Agreement**") evidences the grant by Aceragen, Inc., a Delaware corporation (the "**Company**"), on the Grant Date to the Participant, a[n] *[employee/officer/director/consultant/advisor] of the Company, of an option (this "**Option**") to purchase, in whole or in part, on the terms provided herein and in the Plan, the Total Number of Shares of Common Stock at the Exercise Price per Share, all as defined and set forth in the accompanying Notice of Nonstatutory Stock Option (the "**Notice**"). Capitalized terms that are not otherwise defined herein or in the Notice shall have the meanings given to such terms in the Plan.

It is intended that this Option shall not be an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "**Code**"). Except as otherwise indicated by the context, the term "Participant," as used in this Agreement, shall include any person who acquires the right to exercise this Option validly under its terms.

2. Vesting Schedule.

This Option shall vest and become exercisable at the time or times set forth in the accompanying Notice.[In addition, the Option may vest and become exercisable on an accelerated basis as follows:

*[Insert any applicable acceleration provisions.]

*[If, prior to the Final Exercise Date, the Participant's status as a Service Provider is terminated by the Company without Cause (as defined in Section 3(e) below), then, immediately upon the effective date of such termination, this Option shall become exercisable as to **[partial acceleration:** that portion of the Total Number of Shares that otherwise would have vested during the *[___] month period following the effective date of such termination, it being understood that in no event shall the Participant be entitled to exercise the Option to purchase greater than the Total Number of Shares as a result of this provision.] **OR [full acceleration:** 100% of the Total Number of Shares, it being understood that in no event shall the Participant be entitled to exercise the Option to purchase greater than the Total Number of Shares as a result of this provision.]

[**Single Trigger**] *[Immediately prior to the effective date of a Change in Control, this Option shall vest and become exercisable as to [partial acceleration: that portion of the Total Number of Shares that otherwise would have vested during the *[____] month period following the effective date of such Change in Control, it being understood that in no event shall the Participant be entitled to exercise the Option to purchase greater than the Total Number of Shares as a result of this provision.] **OR [full acceleration:** 100% of the Total Number of Shares, it being understood that in no event shall the Participant be entitled to exercise the Option to purchase greater than the Total Number of Shares as a result of this provision.]

[**Double Trigger**] *[If (a) upon the consummation of a Change in Control this Option is assumed, or a substantially equivalent award is substituted, by the acquiring or succeeding corporation (in accordance with Section 8(b)(2)(i) of the Plan) and (b) within *[12] months following such Change in Control the Participant's status as a Service Provider is terminated by the acquiring or succeeding corporation without Cause (as defined in Section 3(e) below), then, immediately upon the effective date of such termination, this Option shall vest and become exercisable as to **[partial acceleration:** that portion of the Total Number of Shares that otherwise would have vested during the *[____] month period following the effective date of such termination, it being understood that in no event shall the Participant be entitled to exercise the Option to purchase greater than the Total Number of Shares as a result of this provision.] **OR [full acceleration:** 100% of the Total Number of Shares, it being understood that in no event shall the Participant be entitled to exercise the Option to purchase greater than the Total Number of Shares as a result of this provision.]

3. Exercise of Option.

(a) Form of Exercise. Each election to exercise this Option shall be in writing in substantially the form of the Notice of Stock Option Exercise attached to this Agreement as **Exhibit A**, signed by the Participant, and received by the Company at its principal office, accompanied by this Agreement, and payment in full in the manner provided in the Plan. The Participant may purchase less than the number of Shares subject to this Option; provided that, no partial exercise of this Option may be for any fractional share.

(b) Continuous Relationship with the Company Required. Except as otherwise provided in this Section 3, this Option may not be exercised unless the Participant, at the time of the exercise of this Option, is, and has been at all times since the Grant Date, a Service Provider to or of the Company or any subsidiary of the Company as defined in Section 424(f) of the Code (an "**Eligible Participant**").

(c) Termination of Relationship with the Company. If the Participant ceases to be an Eligible Participant for any reason, then, except as provided in paragraphs (d) and (e) below, the right to exercise this Option shall terminate three months after such cessation (but in no event after the Final Exercise Date); provided that, this Option shall be exercisable only to the extent that the Participant was entitled to exercise this Option on the date of such cessation. Notwithstanding the foregoing, if the Participant, prior to the Final Exercise Date, violates the non-competition or confidentiality provisions of any employment agreement, confidentiality and nondisclosure agreement, or other agreement between the Participant and the Company, the right to exercise this Option shall terminate immediately upon such violation.

(d) Exercise Period Upon Death or Disability. If the Participant dies or becomes disabled (within the meaning of Section 22(e)(3) of the Code) prior to the Final Exercise Date while the Participant is an Eligible Participant and the Company has not terminated such relationship for "Cause" (as defined below), this Option shall be exercisable, within the period of one year following the date of death or disability of the Participant, by the Participant (or in the case of death by an authorized transferee); provided that, this Option shall be exercisable only to the extent that this Option was exercisable by the Participant on the date of the Participant's death or disability, and further provided that this Option shall not be exercisable after the Final Exercise Date.

(e) Termination for Cause. If, prior to the Final Exercise Date, the Participant's status as a Service Provider is terminated by the Company for Cause (as defined below), the right to exercise this Option shall terminate immediately upon the effective date of such termination. If the Participant is party to an agreement with the Company that contains an applicable definition of "cause", "**Cause**" shall have the meaning ascribed to such term in such agreement. Otherwise, "**Cause**" shall mean willful misconduct by the Participant or willful failure by the Participant to perform the Participant's responsibilities to the Company (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), as determined by the Company, which determination shall be conclusive. The Participant shall be considered to have been discharged for "Cause" if the Company determines, within 30 days after the Participant's resignation or termination other than for Cause, that discharge for Cause was warranted.

4. Restrictions on Transfer; Rights of First Refusal and Stockholder Agreements.

(a) Bylaws. The Participant acknowledges and agrees that the Shares are subject to the provisions of the Company's Bylaws, as amended from time to time (the "**Bylaws**"), including without limitation, all restrictions on transfer and rights of first refusal described in the Bylaws. The Participant may inspect the Bylaws at the Company's principal office.

(b) Legend. Any certificate representing Shares shall bear a legend substantially in the following form (in addition to, or in combination with, any legend required by applicable federal and state securities laws and agreements relating to the transfer and/or voting of the Company securities):

"The securities represented by this certificate, and the transfer thereof, are subject to the restriction on transfer provisions of the Bylaws of the Company, a copy of which is on file in, and may be examined at, the principal office of the Company."

(c) Stockholder Agreements. The Participant acknowledges and agrees that [the Company may condition the issuance of the Shares upon the Participant joining and becoming a party to such stockholder agreements, which may impose certain contractual rights and obligations on the Shares, as may be entered into from time to time by and among the Company and certain holders of the Company's capital stock.

5. Agreement in Connection with Public Offering.

The Participant agrees, in connection with the initial underwritten public offering of the Company's securities pursuant to a registration statement under the Securities Act of 1933, as amended (the "**Securities Act**"): (i) not to sell, make short sale of, loan, grant any options for the purchase of, or otherwise dispose of any shares of Common Stock held by the Participant (other than those shares included in the offering) without the prior written consent of the Company or the underwriters managing such initial underwritten public offering of the Company's securities for a period of 180 days from the effective date of such registration statement, which period may be extended upon the request of the underwriters for an additional period of up to 15 days if the Company issues or proposes to issue an earnings or other public release within 15 days of the expiration of the 180-day lockup period, and (ii) to execute any agreement reflecting clause (i) above as may be requested by the Company or the managing underwriters at the time of such offering.

The Participant agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters of such offering which are consistent with the foregoing or which are necessary to give further effect thereto. In addition, if requested, by the Company or the underwriters of such offering, the Participant shall provide, within 10 days of such request, such information as may be required by the Company or such underwriters in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section 5 shall not apply to a registration relating solely to employee benefits plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of the applicable period. Participant agrees that any transferee of this Option or Shares pursuant to this Agreement shall be bound by this Section 5.

6. Tax Matters.

(a) Withholding. No Shares shall be issued pursuant to the exercise of this Option unless and until the Participant pays to the Company, or makes provision satisfactory to the Company for payment of, any federal, state or local withholding or other taxes required by law to be withheld in respect of this Option.

(b) Code Section 409A. The Exercise Price is intended to be not less than the Fair Market Value of the Common Stock on the Grant Date. The Company has determined the Fair Market Value of the Common Stock in good faith and using the reasonable application of a reasonable valuation method, for purposes of determining the Exercise Price. Notwithstanding this, the Internal Revenue Service may assert that the Fair Market Value of the Common Stock on the Grant Date was greater than the Exercise Price. Under Code Section 409A, if the Exercise Price is less than the Fair Market Value of the Common Stock as of the Grant Date, this Option may be treated as a form of deferred compensation and the Participant may be subject to an additional 20% tax, plus interest and possible penalties. The Participant acknowledges that the Company has advised the Participant to consult with a tax adviser regarding the potential impact of Code Section 409A and that the Company, in the exercise of its sole discretion and without the consent of the Participant, may amend or modify this Agreement in any manner and delay the payment of any amounts payable pursuant to this Agreement to the minimum extent necessary to meet the requirements of Code Section 409A, as amplified by any Internal Revenue Service or U.S. Treasury Department regulations or guidance as the Company deems appropriate or advisable.

7. Nontransferability of Option. This Option may not be sold, assigned, transferred, pledged or otherwise encumbered by the Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the lifetime of the Participant, this Option shall be exercisable only by the Participant.

8. Provisions of the Plan. This Option is subject to the provisions of the Plan, a copy of which is furnished to the Participant with this Option.

9. Entire Agreement; Governing Law. The Plan and the Notice are incorporated herein by reference. This Agreement, the Notice and the Plan constitute the entire agreement between the Company and the Participant with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and the Participant with respect to the subject matter hereof. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware, as to matters within the scope thereof, and the internal laws of the State of North Carolina (without reference to conflict of law provisions), as to all other matters.

10. Amendment. Except as set forth in Section 6(b), this Agreement may not be modified or amended in any manner adverse to the Participant’s interest except by means of a writing signed by the Company and Participant.

11. No Guarantee of Continued Service. THE PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF OPTIONS PURSUANT TO THE VESTING SCHEDULE SET FORTH HEREIN AND IN THE NOTICE ARE EARNED ONLY BY CONTINUING SERVICE AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). THE PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED SERVICE FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL,

AND SHALL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE PARTICIPANT'S SERVICE WITH OR WITHOUT CAUSE.

* * * * * * * * * * *

Exhibit A

ACERAGEN, INC.

NOTICE OF INCENTIVE STOCK OPTION EXERCISE
2021 STOCK INCENTIVE PLAN

The undersigned (the "Participant") has previously been awarded an incentive stock option (the "Option") to purchase shares (the "Shares") of the common stock of Aceragen, Inc., a Delaware corporation (the "Company"), pursuant to the Company's 2021 Stock Incentive Plan (the "Plan"), and hereby notifies the Company of the Participant's desire to exercise the Option on the terms set forth herein:

PARTICIPANT INFORMATION:	**OPTION INFORMATION:**
Name: _____	Grant Date: _____
Address: _____	Exercise Price Per Share: $ _____
_____	
Taxpayer ID #: _____	Total Shares Covered by Option: _____

EXERCISE INFORMATION:

Number of Shares Being Purchased: _____

Aggregate Exercise Price: $ _____

Form of Payment (check all that apply):
☐ Check for $_____made payable to "Aceragen, Inc.
☐ Cash in the amount of $_____

Please register the Shares in my name as _____
(Print name as it is to appear on stock certificate)

REPRESENTATIONS AND WARRANTIES OF THE PARTICIPANT:

The Participant hereby represents and warrants to the Company that, as of the date hereof:

1. I am purchasing the Shares for my own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Shares in violation of the Securities Act of 1933 (the "Securities Act"), or any rule or regulation under the Securities Act.

2. I have had such opportunity as I have deemed adequate to obtain from representatives of the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company.

3. I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

4. I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period.

5. I acknowledge that I am acquiring the Shares subject to all other terms of the Plan, including the Notice of Incentive Stock Option and related Incentive Stock Option Agreement.

6. I acknowledge that the Company has encouraged me to consult my own adviser to determine the tax consequences of acquiring the Shares at this time. I acknowledge that the Company has encouraged me to consult my own adviser to determine the form of ownership that is appropriate for me.

7. I acknowledge that the Shares remain subject to the Company's right of first refusal and the market stand-off (sometimes referred to as the "lock-up"), all in accordance with the applicable Notice of Incentive Stock Option and related Incentive Stock Option Agreement.

8. I understand that (i) the Shares have not been registered under the Securities Act and are "restricted securities" within the meaning of Rule 144 under the Securities Act, (ii) the Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 will not be available for at least six months or one year (depending on whether the Company is subject to the reporting obligations of the Securities Exchange Act of 1934, as amended) and even then will not be available unless applicable terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register the Shares under the Securities Act.

_____

(Print Participant Name)

_____

(Signature)

Date: _____

EXHIBIT C

Summary of Restricted Stock Purchase and Restricted Stock Purchase Agreement

ACERAGEN, INC.
SUMMARY OF RESTRICTED STOCK PURCHASE
2021 STOCK INCENTIVE PLAN

Aceragen, Inc., a Delaware corporation (the "**Company**") grants to the undersigned (the "**Participant**") the following nonstatutory stock option to purchase shares (the "**Shares**") of the common stock of the Company, par value $0.001 per share (the "**Common Stock**") pursuant to the Company's 2021 Stock Incentive Plan (the "**Plan**"):

Participant:	*[Participant Name]
Total Number of Shares:	*[Number of Shares]
Grant Date:	*[Grant Date]
Exercise Price per Share:	$*[Exercise Price]
Vesting Commencement Date:	*[Vesting Date]
Vesting Schedule:	25% of the Total Number of Shares shall vest and become exercisable on the 1 year anniversary of the Vesting Commencement Date and 1/48 of the Total Number of Shares shall vest and become exercisable on the corresponding day of each month thereafter, or on the last day of each month, to the extent each month thereafter does not have the corresponding day, until all of the Shares have vested on the fourth anniversary of the Vesting Commencement Date, subject to Participant continuing to be a Service Provider through each such date. In addition, this option may vest and become exercisable on an accelerated basis under Section 2 of the Nonstatutory Stock Option Agreement.

This nonstatutory stock option is granted under and governed by the terms and conditions of the Plan and the accompanying Nonstatutory Stock Option Agreement, both of which are incorporated herein by reference. By signing below, the Participant accepts this nonstatutory stock option, acknowledges receipt of a copy of the Plan and the Nonstatutory Stock Option Agreement, and agrees to the terms thereof.

[PARTICIPANT NAME]:

_____
(Signature)

Address: _____

ACERAGEN, INC.:

By: _____

Name: _____

Title: _____

Date: _____

SHARES PURCHASED HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAWS, AND MAY NOT BE SOLD, PLEDGED OR OTHERWISE TRANSFERRED WITHOUT AN EFFECTIVE REGISTRATION THEREOF UNDER SUCH ACT OR APPLICABLE LAWS OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY AND ITS COUNSEL THAT SUCH REGISTRATION IS NOT REQUIRED.

ACERAGEN, INC.

RESTRICTED STOCK PURCHASE AGREEMENT
2021 STOCK INCENTIVE PLAN

1. Purchase of Shares. The Company hereby issues and sells to the Participant, and the Participant hereby purchases from the Company, subject to the terms and conditions set forth in this Agreement and in the Plan, the Total Number of Shares at a price per share equal to the Purchase Price per Share, all as defined and set forth in the accompanying Summary of Restricted Stock Purchase. The aggregate purchase price for the Shares shall be paid by the Participant by a check payable to the order of the Company or such other method as may be acceptable to the Company. Upon receipt of said consideration by the Company for the Shares, the Company shall issue to the Participant one or more certificates in the name of the Participant for that number of the Shares purchased by the Participant.

2. Right of Repurchase. The Participant shall vest in, and the Company shall have a right of repurchase with respect to, the Shares (the "**Right of Repurchase**"), which such Right of Repurchase shall lapse according to the Vesting Schedule set forth in the accompanying Summary of Restricted Stock Purchase.[In addition, the Right of Repurchase shall lapse on an accelerated basis as follows:

*[Insert any applicable acceleration provisions, such as one of the following examples:]

*[If the Participant's status as a Service Provider is terminated by the Company without Cause (as defined below), then, immediately upon the effective date of such termination, the Right of Repurchase shall lapse as to **[partial acceleration:** that portion of the Total Number of Shares that would have vested during the *[___] month period following the effective date of such termination.] OR [full acceleration: 100% of the Total Number of Shares.]

[Single Trigger] *[Upon the consummation of a Change in Control the Right of Repurchase shall lapse as to **[partial acceleration:** that portion of the Total Number of Shares that would have vested during the *[___] month period following the effective date of such Change in Control.] **OR [full acceleration:** 100% of the Total Number of Shares.]

[Double Trigger] *[If within *[12] months following a Change in Control the Participant's status as a Service Provider is terminated by the acquiring or succeeding corporation without Cause (as defined below), then, immediately upon the effective date of such termination, the Right of Repurchase shall lapse as to **[partial acceleration:** that portion of the Total Number of Shares that

would have vested during the *[___] month period following the effective date of such termination.] **OR [full acceleration:** 100% of the Total Number of Shares.]

3. Exercise of Right of Repurchase and Closing.

(a) In the event the Participant ceases to be a Service Provider for any reason (other than Cause, as defined below) or no reason, including, without limitation, by reason of Participant's death or disability (as defined in Section 22(e)(3) of the Internal Revenue Code of 1986, as amended (the "**Code**"), the Company shall, upon the date of such termination (as reasonably fixed by the Company), have an irrevocable, exclusive right to purchase some or all of the Shares which have not yet vested and been released from the Right of Repurchase, at a price per share equal to the lesser of (x) the fair market value of the shares at the time the Right of Repurchase is exercised, as determined by the Company's board of directors and (y) the Purchase Price (the "**Repurchase Price**"). If, prior to the date on which the Shares are fully vested pursuant to the Vesting Schedule or any applicable vesting acceleration provision, (i) the Participant violates the non-competition, confidentiality or other provisions of any employment agreement, confidentiality, inventions and/or nondisclosure agreement, or other agreement between the Participant and the Company or (ii) the Participant's status as a Service Provider is terminated by the Company for Cause (as defined below), the Company's Right of Repurchase shall apply to the Total Number of Shares, and the Company shall have an irrevocable, exclusive right to purchase some or all of the Total Number of Shares, at the Repurchase Price. The number of Shares as to which the Right of Repurchase applies, as set forth in the preceding two sentences, shall be referred to herein as the "**Repurchase Shares**."

(b) The Company may exercise the Right of Repurchase as to any or all of the Repurchase Shares at any time following the Participant's termination; provided, however, that without requirement of further action on the part of either party hereto, the Company's Right of Repurchase shall be deemed to have been automatically exercised as to all Repurchase Shares at 5:00 p.m. EDT on the date that is 90 days following the date of the Participant's termination, unless the Company declines in writing to exercise the Right of Repurchase prior to such time.

(c) If the Company decides not to exercise the Right of Repurchase, it shall so notify the Participant within 90 days of the Participant's termination. If the Company decides to exercise its Right of Repurchase, the Company shall deliver payment (if any) to the Participant, with a copy to the Escrow Agent (as defined in Section 6 hereof), by any of the following methods, in the Company's sole discretion: (i) delivering to the Participant or the Participant's executor a check in the amount of the aggregate Repurchase Price; (ii) canceling an amount of the Participant's indebtedness to the Company equal to the aggregate Repurchase Price; or (iii) any combination of (i) and (ii) such that the combined payment and cancellation of indebtedness equals such aggregate Repurchase Price. Upon delivery of the payment of the aggregate Repurchase Price in any of the ways described above, the Company shall become the legal and beneficial owner of the Repurchase Shares being repurchased and all related rights and interests therein, and the Company shall have the right to retain and transfer to its own name the number of Repurchase Shares being repurchased by the Company. In the event that Participant's continuous status as a Service Provider terminates, and the Company neither notifies the Participant within 90 days thereafter of the Company's decision not to exercise the Right of Repurchase, nor delivers payment of the Repurchase Price to the Participant within 90 days thereafter, then the sole remedy of the

Participant thereafter shall be to receive the applicable Repurchase Price determined as set forth above from the Company in the manner set forth above, and in no case shall the Participant have any claim of ownership as to any of the Repurchase Shares.

(d) The Company in its sole discretion may designate and assign one or more employees, officers, directors or shareholders of the Company or other persons or organizations to exercise all or a part of the Company's Right of Repurchase to purchase all or a part of the Repurchase Shares.

(e) The Company or its assignee must notify the Participant that it does not elect to exercise the Right of Repurchase conferred above by giving the requisite written notice within 90 days following Participant's termination as a Service Provider to the Company. If the Company or its assignee gives such requisite notice, the Repurchase Option shall terminate.

(f) In the event that the Right of Repurchase is exercised, whether automatically in the manner provided for above or pursuant to written notice, then upon and following such exercise, the only remaining right of the Participant under this Agreement shall be the right to receive the applicable Repurchase Price, and the Participant have no right whatsoever to receive the Repurchase Shares. In the event that the Company's Right of Repurchase is terminated pursuant to clause (e) above, then upon and following such termination, the only remaining right of the Participant under this Agreement shall be the right to receive the Repurchase Shares, and the Participant shall have no right whatsoever to receive the Repurchase Price

(g) For purposes hereof, if the Participant is party to an agreement with the Company that contains an applicable definition of "cause", "Cause" shall have the meaning ascribed to such term in such agreement. Otherwise, "Cause" shall mean willful misconduct by the Participant or willful failure by the Participant to perform the Participant's responsibilities to the Company (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), as determined by the Company, which determination shall be conclusive. The Participant shall be considered to have been discharged for Cause if the Company determines, within 30 days after the Participant's resignation or termination other than for Cause, that discharge for Cause was warranted.

4. Restrictions on Transfer; Rights of First Refusal and Stockholder Agreements.

(a) The Participant acknowledges and agrees that the Shares are subject to the provisions of the Company's Bylaws, as amended from time to time (the "**Bylaws**"), including without limitation, all restrictions on transfer and rights of first refusal described in the Bylaws. The Participant may inspect the Bylaws at the Company's principal office.

(b) Legends. Any certificate representing Shares shall bear legends substantially in the following form (in addition to, or in combination with, any legend required by applicable federal and state securities laws and agreements relating to the transfer and/or voting of the Company securities):

> "The securities represented by this certificate are subject to restrictions on transfer and an option to purchase set forth in a

restricted stock agreement between the Company and the registered owner of these shares (or such owner's predecessor in interest), and such restricted stock agreement is available for inspection without charge at the principal office of the Company."

"The securities represented by this certificate, and the transfer thereof, are subject to the restriction on transfer provisions of the Bylaws of the Company, a copy of which is on file in, and may be examined at, the principal office of the Company"

(c) [Stockholder Agreements. The Participant acknowledges and agrees that upon the request of the Company, the Participant shall join and become a party to such stockholder agreements, which may impose certain contractual rights and obligations on the Shares, as may be entered into from time to time by and among the Company and the holders of the Company's capital stock

5. Agreement in Connection with Public Offering. The Participant agrees, in connection with the initial underwritten public offering of the Company's securities pursuant to a registration statement under the Securities Act of 1933, as amended (the "Securities Act"): (i) not to sell, make short sale of, loan, grant any options for the purchase of, or otherwise dispose of any shares of Common Stock held by the Participant (other than those shares included in the offering) without the prior written consent of the Company or the underwriters managing such initial underwritten public offering of the Company's securities for a period of 180 days from the effective date of such registration statement, which period may be extended upon the request of the underwriters for an additional period of up to 15 days if the Company issues or proposes to issue an earnings or other public release within 15 days of the expiration of the 180-day lockup period, and (ii) to execute any agreement reflecting clause (i) above as may be requested by the Company or the managing underwriters at the time of such offering.

The Participant agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters of such offering which are consistent with the foregoing or which are necessary to give further effect thereto. In addition, if requested, by the Company or the underwriters of such offering, the Participant shall provide, within 10 days of such request, such information as may be required by the Company or such underwriters in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section 5 shall not apply to a registration relating solely to employee benefits plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of the applicable period. Participant agrees that any transferee of the Shares pursuant to this Agreement shall be bound by this Section 5.

6. Escrow. The Participant shall, upon the execution of this Agreement, execute Joint Escrow Instructions in the form attached to this Agreement as **Exhibit A**. The Joint Escrow Instructions shall be delivered to the Secretary of the Company, as escrow agent thereunder (the "**Escrow**

Agent"). The Participant shall deliver to the Escrow Agent a stock assignment duly endorsed in blank, in the form attached to this Agreement as **Exhibit B**, and hereby instructs the Company to deliver to the Escrow Agent, on behalf of the Participant, the certificate(s) evidencing the Shares issued hereunder. Such materials shall be held by the Escrow Agent pursuant to the terms of the Joint Escrow Instructions.

7. Provisions of the Plan.

(a) This Agreement is subject to the provisions of the Plan, a copy of which is furnished to the Participant with this Agreement.

(b) As provided in the Plan, upon the occurrence of a Change in Control, the repurchase and other rights of the Company hereunder shall inure to the benefit of the Company's successor and shall apply to the cash, securities or other property which the Shares were converted into or exchanged for pursuant to such Change in Control in the same manner and to the same extent as they applied to the Shares under this Agreement. If, in connection with a Change in Control, a portion of the cash, securities and/or other property received upon the conversion or exchange of the Shares is to be deferred, contingent or placed into escrow to secure indemnification or for other reasons, the mix between the vested and unvested portion of such cash, securities and/or other property that is deferred, contingent or placed into escrow shall be the same as the mix between the vested and unvested portion of such cash, securities and/or other property that is not subject to deferral, contingence or escrow.

8. Investment Representations. The Participant represents, warrants and covenants as follows:

(a) The Participant is purchasing the Shares for the Participant's own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Shares in violation of the Securities Act, or any rule or regulation under the Securities Act.

(b) The Participant has had such opportunity as the Participant deems adequate to obtain from representatives of the Company such information as is necessary to permit the Participant to evaluate the merits and risks of the Participant's investment in the Company.

(c) The Participant has sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

(d) The Participant can afford a complete loss of the value of the Shares and is able to bear the economic risk of holding such Shares for an indefinite period.

(e) The Participant acknowledges that the Participant is acquiring the Shares subject to all other terms of the Plan and this Agreement, including the related Summary of Restricted Stock Purchase

(f) The Participant acknowledges that the Company has encouraged the Participant to consult the Participant's own adviser to determine the tax consequences of acquiring the Shares at this time.

(g) The Participant acknowledges that the Shares shall be subject to the Company's Right of Repurchase, right of first refusal and the market stand-off (sometimes referred to as the "lock-up"), all in accordance with the related Summary of Restricted Stock Purchase and this Agreement.

(h) The Participant understands that (i) the Shares have not been registered under the Securities Act and are "restricted securities" within the meaning of Rule 144 under the Securities Act, (ii) the Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 will not be available for at least six months or one year (depending on whether the Company is subject to the reporting obligations of the Securities Exchange Act of 1934, as amended) and even then will not be available unless applicable terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register the Shares under the Securities Act.

9. Withholding Taxes; Section 83(b) Election.

(a) The Participant acknowledges and agrees that the Company has the right to deduct from payments of any kind otherwise due to the Participant any federal, state or local taxes of any kind required by law to be withheld with respect to the purchase of the Shares by the Participant or the lapse of the Repurchase Option.

(b) The Participant has reviewed with the Participant's own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. The Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. The Participant understands that the Participant (and not the Company) shall be responsible for the Participant's own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement. The Participant understands that as a condition to the issuance of the Shares, Participant shall be required to file an election under Section 83(b) of the Internal Revenue Code of 1986 with the I.R.S. within 30 days from the date of this Agreement; if such election is not filed on a timely basis, the Company shall declare this Agreement, and the offer to issue the Shares, void. In such event, the Company shall return the full amount of the Purchase Price previously paid to the Participant. The Company shall not issue a stock certificate with respect to the Shares unless and until the 83(b) election has been timely filed.

THE PARTICIPANT ACKNOWLEDGES THAT IT IS SOLELY THE PARTICIPANT'S RESPONSIBILITY, AND NOT THE COMPANY'S, TO FILE TIMELY THE ELECTION UNDER SECTION 83(b), EVEN IF THE PARTICIPANT REQUESTS THE COMPANY OR ITS REPRESENTATIVES TO MAKE THIS FILING ON THE PARTICIPANT'S BEHALF.

10. Miscellaneous.

(a) No Rights to Continued Service. The Participant acknowledges and agrees that the vesting of the Shares is earned only by continuing service as a Service Provider at the will of the Company (not through the act of being hired or purchasing shares hereunder). The Participant further acknowledges and agrees that the transactions contemplated hereunder and the vesting schedule set forth herein do not constitute an express or implied promise of continued engagement as an employee or consultant for the vesting period, for any period, or at all.

(b) Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

(c) Waiver. Any provision for the benefit of the Company contained in this Agreement may be waived, either generally or in any particular instance, by the Board of Directors of the Company.

(d) Binding Effect. This Agreement shall be binding upon and inure to the benefit of the Company and the Participant and their respective heirs, executors, administrators, legal representatives, successors and assigns, subject to the restrictions on transfer set forth in Section 4 of this Agreement.

(e) Notice. All notices required or permitted hereunder shall be in writing and deemed effectively given upon personal delivery or five days after deposit in the United States Post Office, by registered or certified mail, postage prepaid, addressed to the other party hereto at the address shown beneath his or its respective signature to this Agreement, or at such other address or addresses as either party shall designate to the other in accordance with this Section 10(e).

(f) Pronouns. Whenever the context may require, any pronouns used in this Agreement shall include the corresponding masculine, feminine or neuter forms, and the singular form of nouns and pronouns shall include the plural, and vice versa.

(g) Entire Agreement; Governing Law. The Plan and the Bylaws are incorporated herein by reference. This Agreement, the Plan, and the Bylaws constitute the entire agreement between the Company and the Participant with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and the Participant with respect to the subject matter hereof, and this Agreement may not be modified adversely to the Participant's interest except by means of a writing signed by the Company and Participant. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware, as to matters within the scope thereof, and the internal laws of the State of North Carolina (without reference to conflict of law provisions), as to all other matters.

(h) Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Participant.

(i) Participant's Acknowledgments. The Participant acknowledges that the Participant: (i) has read this Agreement; (ii) has been represented in the preparation, negotiation, and execution of this Agreement by legal counsel of the Participant's own choice or has voluntarily declined to seek such counsel; (iii) understands the terms and consequences of this Agreement;

(iv) is fully aware of the legal and binding effect of this Agreement; and (v) understands that the law firm of Hutchison PLLC, is acting as counsel to the Company in connection with the transactions contemplated by the Agreement, and is not acting as counsel for the Participant.

[Remainder of Page Intentionally Left Blank]

Exhibit A

ACERAGEN, INC.

Joint Escrow Instructions

Corporate Secretary
Aceragen, Inc.

Dear Madam or Sir:

As Escrow Agent for Aceragen, Inc., a Delaware corporation (the "**Company**"), and its successors in interest under the Restricted Stock Purchase Agreement, and related Summary of Restricted Stock Purchase, each of even date herewith (the "**Agreement**"), to which a copy of these Joint Escrow Instructions is attached, and the undersigned person ("**Holder**"), you are hereby authorized and directed to hold the documents delivered to you pursuant to the terms of the Agreement in accordance with the following instructions:

1. Appointment. Holder irrevocably authorizes the Company to deposit with you any certificates evidencing the Shares (as defined in the Agreement) to be held by you hereunder and any additions and substitutions to said Shares. For purposes of these Joint Escrow Instructions, "Shares" shall be deemed to include any additional or substitute property. Holder does hereby irrevocably constitute and appoint you as his attorney-in-fact and agent for the term of this escrow to execute with respect to such Shares all documents necessary or appropriate to make such Shares negotiable and to complete any transaction herein contemplated. Subject to the provisions of this Section 1 and the terms of the Agreement, Holder shall exercise all rights and privileges of a stockholder of the Company while the Shares are held by you.

2. Closing of Repurchase.

(a) Upon any repurchase by the Company of the Shares pursuant to the Agreement, the Company shall give to Holder and you a written notice specifying the number of Shares to be repurchased, the purchase price for the Shares, as determined pursuant to the Agreement, and the time for a closing hereunder (the "**Closing**") at the principal office of the Company. Holder and the Company hereby irrevocably authorize and direct you to close the transaction contemplated by such notice in accordance with the terms of said notice.

(b) At the Closing, you are directed (i) to date the stock assignment form or forms necessary for the transfer of the Shares, (ii) to fill in on such form or forms the number of Shares being transferred, and (iii) to deliver the same, together with the certificate or certificates evidencing the Shares to be transferred, to the Company against the simultaneous delivery to you of the purchase price for the Shares being repurchased pursuant to the Agreement.

3. Withdrawal. The Holder shall have the right to withdraw from this escrow any of the Shares as to which the Right of Repurchase (as defined in the Agreement) has terminated or expired.

4. Duties of Escrow Agent.

(a) Your duties hereunder may be altered, amended, modified or revoked only by a writing signed by all of the parties hereto.

(b) You shall be obligated only for the performance of such duties as are specifically set forth herein and may rely and shall be protected in relying or refraining from acting on any instrument reasonably believed by you to be genuine and to have been signed or presented by the proper party or parties. You shall not be personally liable for any act you may do or omit to do hereunder as Escrow Agent or as attorney-in-fact of Holder while acting in good faith and in the exercise of your own good judgment, and any act done or omitted by you pursuant to the advice of your own attorneys shall be conclusive evidence of such good faith.

(c) You are hereby expressly authorized to disregard any and all warnings given by any of the parties hereto or by any other person or entity, excepting only orders or process of courts of law, and are hereby expressly authorized to comply with and obey orders, judgments or decrees of any court. If you are uncertain of any actions to be taken or instructions to be followed, you may refuse to act in the absence of an order, judgment or decrees of a court. In case you obey or comply with any such order, judgment or decree of any court, you shall not be liable to any of the parties hereto or to any other person or entity, by reason of such compliance, notwithstanding any such order, judgment or decree being subsequently reversed, modified, annulled, set aside, vacated or found to have been entered without jurisdiction.

(d) You shall not be liable in any respect on account of the identity, authority or rights of the parties executing or delivering or purporting to execute or deliver the Agreement or any documents or papers deposited or called for hereunder.

(e) You shall be entitled to employ such legal counsel and other experts as you may deem necessary properly to advise you in connection with your obligations hereunder and may rely upon the advice of such counsel.

(f) Your rights and responsibilities as Escrow Agent hereunder shall terminate if (i) you cease to be Secretary of the Company or (ii) you resign by written notice to each party. In the event of a termination under clause (i), your successor as Secretary shall become Escrow Agent hereunder; in the event of a termination under clause (ii), the Company shall appoint a successor Escrow Agent hereunder.

(g) If you reasonably require other or further instruments in connection with these Joint Escrow Instructions or obligations in respect hereto, the necessary parties hereto shall join in furnishing such instruments.

(h) It is understood and agreed that if you believe a dispute has arisen with respect to the delivery and/or ownership or right of possession of the securities held by you hereunder, you are authorized and directed to retain in your possession without liability to anyone all or any part of said securities until such dispute shall have been settled either by mutual written agreement of the parties concerned or by a final order, decree or judgment of a court of competent jurisdiction after the time for appeal has expired and no appeal has been perfected, but you shall be under no duty whatsoever to institute or defend any such proceedings.

(i) These Joint Escrow Instructions set forth your sole duties with respect to any and all matters pertinent hereto and no implied duties or obligations shall be read into these Joint Escrow Instructions against you.

(j) The Company shall indemnify you and hold you harmless against any and all damages, losses, liabilities, costs, and expenses, including attorneys' fees and disbursements, (including without limitation the fees of counsel retained pursuant to Section 4(e) above, for anything done or omitted to be done by you as Escrow Agent in connection with this Agreement or the performance of your duties hereunder, except such as shall result from your gross negligence or willful misconduct.

5. Notice. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery or upon deposit in the United States Post Office, by registered or certified mail with postage and fees prepaid, addressed to each of the other parties thereunto entitled at the following addresses, or at such other addresses as a party may designate by ten days' advance written notice to each of the other parties hereto.

COMPANY: Notices to the Company shall be sent to the address set forth in the salutation hereto, Attn: President

HOLDER: Notices to Holder shall be sent to the address set forth below Holder's signature below.

ESCROW AGENT: Notices to the Escrow Agent shall be sent to the address set forth in the salutation hereto.

6. Miscellaneous.

(a) By signing these Joint Escrow Instructions, you become a party hereto only for the purpose of said Joint Escrow Instructions, and you do not become a party to the Agreement.

(b) This instrument shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.

Very truly yours,

ACERAGEN, INC.

By: _____

Name: _____

HOLDER:

By: _____

Name: _____

Address: _____

_____

ESCROW AGENT:

By: _____ Date: _____

Name: _____

Exhibit B

ACERAGEN, INC.

STOCK ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED, I hereby sell, assign and transfer _____ shares of common stock, $0.001 par value per share, of Aceragen, Inc., a Delaware corporation (the "Company") standing in my name on the books of the Company represented by Certificate(s) Number _____ herewith, to _____ and do hereby irrevocably constitute and appoint Hutchison PLLC to transfer the said stock on the books of the Company with full power of substitution in the premises.

Dated: _____

HOLDER:

_____
(Signature)

_____
(Print Name)

EXHIBIT 10.15

FIRST AMENDMENT TO STOCK OPTION AGREEMENT

THIS FIRST AMENDMENT TO STOCK OPTION AGREEMENT (this "**Amendment**"), is entered into April ___, 2022 effective as of [July 19, 2021/October 8, 2021] (the "**Effective Date**") by and between Aceragen, Inc., a Delaware corporation (the "**Company**"), and the undersigned recipient (the "**Optionee**").

RECITALS

WHEREAS, the Company has previously issued to the Optionee a stock option (the "**Option**") to purchase shares of the Company's common stock (the "**Common Stock**"), pursuant to the terms of the [Incentive/Nonstatutory] Stock Option Agreement (the "**Option Agreement**") and Notice of [Incentive/Nonstatutory] Stock Option, each dated as of [July 19, 2021/October 8, 2021] (the "**Notice**") and the Aceragen, Inc. 2021 Stock Incentive Plan, as amended to date (the "**Plan**");

WHEREAS, the Board has determined that the fair market value per share of the Common Stock was not more than $3.24 as of the grant date of the Option;

WHEREAS, as a result of certain operational failures, the Option was issued with an exercise price of $3.07, which was less than the fair market value of a share of Common Stock as of the grant date of the Option;

WHEREAS, the Optionee is not an "insider" (as defined in Internal Revenue Service Notice 2008-113) and all other requirements set forth in Internal Revenue Service Notice 2008-113 for the correction of operational failures involving non-insider service providers in the taxable year immediately following the taxable year in which the failure occurs have been met;

WHEREAS, pursuant to the Plan and Internal Revenue Service Notice 2008-113, the Board has approved an amendment to the Option Agreement and the Notice to correct the exercise price of the Option to $3.24 per share.

NOW, THEREFORE, in consideration of the foregoing premises and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the foregoing amendment is hereby adopted:

1. The Notice shall be amended to delete the Exercise Price per Share of $3.07 and replace it with an Exercise Price per Share of $3.24.

2. All capitalized terms not otherwise defined herein shall have the meaning ascribed to such term in the Plan or the Option Agreement.

3. The Option Agreement, as amended hereby, constitutes the full and entire understanding between the parties regarding the subject matter herein. Except as otherwise expressly provided herein, the provisions hereof shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

4. Except as amended hereby, the Option Agreement, the Plan and any documents related thereto shall remain in full force and effect.

[Remainder of Page Left Blank]

IN WITNESS WHEREOF, the undersigned has executed this First Amendment to Stock Option Agreement effective as of the date set forth above.

COMPANY:

ACERAGEN, INC.

By: _____
John Taylor, Chief Executive Officer

IN WITNESS WHEREOF, the undersigned has executed this First Amendment to Stock Option Agreement effective as of the date set forth above.

OPTIONEE:

_____

[Name]

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO EXCHANGE ACT RULES 13a-14 AND 15d-14, AS ADOPTED PURSUANT TO SECTION 302 OF SARBANES-OXLEY ACT OF 2002

I, John Taylor, certify that:

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

Dated: November 14, 2022

/s/ JOHN TAYLOR
John Taylor
Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO EXCHANGE ACT RULES 13a-14 AND 15d-14, AS ADOPTED PURSUANT TO SECTION 302 OF SARBANES-OXLEY ACT OF 2002

I, John J. Kirby, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Idera Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: November 14, 2022

/s/ JOHN J. KIRBY
John J. Kirby
Chief Financial Officer

Exhibit 32.1

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

In connection with the Quarterly Report on Form 10-Q of Idera Pharmaceuticals, Inc. (the "Company") for the period ended September 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, John Taylor, Chief Executive Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, that to his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement has been provided to Idera Pharmaceuticals, Inc. and will be retained by Idera Pharmaceuticals, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Dated: November 14, 2022

/s/ JOHN TAYLOR
John Taylor
Chief Executive Officer

Exhibit 32.2

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

In connection with the Quarterly Report on Form 10-Q of Idera Pharmaceuticals, Inc. (the "Company") for the period ended September 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, John J. Kirby, Chief Financial Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, that to his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement has been provided to Idera Pharmaceuticals, Inc. and will be retained by Idera Pharmaceuticals, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Dated: November 14, 2022

/s/ JOHN J. KIRBY
John J. Kirby
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)