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 March 31, 2021

OR

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

For the transition period from _____ to _____

Commission File Number 001-36150

SORRENTO THERAPEUTICS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**33-0344842**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification Number)**

4955 Directors Place

San Diego, California 92121
(Address of Principal Executive Offices)

(858) 203-4100

(Registrant's Telephone Number, Including Area Code)

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

Title of each class:	**Trading Symbol (s)**	**Name of each exchange on which registered:**
Common Stock, $0.0001 par value	SRNE	The Nasdaq Stock Market LLC

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 file, 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 ☒.

The number of shares of the issuer's common stock, par value $0.0001 per share, outstanding as of April 30, 2021 was 286,650,738.

Sorrento Therapeutics, Inc.

Form 10-Q for the Quarter Ended March 31, 2021

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PART I. FINANCIAL INFORMATION

Item 1. Consolidated Financial Statements.

SORRENTO THERAPEUTICS, INC.
CONSOLIDATED BALANCE SHEETS
(In thousands, except for share amounts; unaudited)

ASSETS	March 31, 2021	December 31, 2020
Current assets:		
Cash and cash equivalents	$ 41,678	$ 56,464
Marketable investment	194,431	—
Accounts receivables, net	16,309	15,506
Inventory	1,779	1,831
Prepaid expenses	7,656	8,712
Other current assets	3,848	3,721
Total current assets	265,701	86,234
Property and equipment, net	34,681	31,861
Operating lease right-of-use assets	39,011	42,052
Intangibles, net	72,640	73,675
Goodwill	43,554	43,554
Equity investments	155,979	256,397
Other assets, net	2,049	2,049
Total assets	$ 613,615	$ 535,822
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 25,060	$ 24,706
Accrued payroll and related benefits	16,286	20,859
Accrued expenses	27,728	19,198
Current portion of deferred revenue	1,120	4,485
Current portion of operating lease liabilities	3,734	3,626
Acquisition consideration payable	398	398
Current portion of debt	21,718	23,208
Total current liabilities	96,044	96,480
Long-term debt, net of discount	79,956	92,258
Deferred tax liabilities, net	6,699	6,918
Deferred revenue	116,926	113,185
Derivative liabilities	33,200	35,400
Operating lease liabilities	49,354	50,301
Other long-term liabilities	549	549
Total liabilities	$ 382,728	$ 395,091
Commitments and contingencies (See Note 10)		
Equity:		
Sorrento Therapeutics, Inc. equity		
Preferred stock, $0.0001 par value; 100,000,000 shares authorized and no shares issued or outstanding	—	—
Common stock, $0.0001 par value 750,000,000 shares authorized and 285,655,428 and 275,285,582 shares issued and outstanding at March 31, 2021 and December 31, 2020, respectively	29	28
Additional paid-in capital	1,236,195	1,172,346
Accumulated other comprehensive income (loss)	445	520
Accumulated deficit	(955,769)	(958,279)
Treasury stock, 7,568,182 shares at cost at March 31, 2021, and December 31, 2020	(49,464)	(49,464)
Total Sorrento Therapeutics, Inc. stockholders' equity	231,436	165,151
Noncontrolling interests	(549)	(24,420)
Total equity	230,887	140,731
Total liabilities and stockholders' equity	$ 613,615	$ 535,822

See accompanying notes to unaudited consolidated financial statements

SORRENTO THERAPEUTICS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except for per share amounts; unaudited)

	Three Months Ended March 31,	
	2021	2020
Revenues:		
Net product revenues	$ 7,023	$ 5,248
Service revenues	7,232	2,473
Total revenues	14,255	7,721
Operating costs and expenses:		
Cost of products sold	852	548
Cost of services	2,534	1,891
Research and development	43,833	21,154
Acquired in-process research and development	7,512	—
Selling, general and administrative	43,394	26,299
Intangible amortization	1,035	992
Total operating costs and expenses	99,160	50,884
Loss from operations	(84,905)	(43,163)
Gain on derivative liabilities	2,200	4,920
Loss on foreign currency exchange	(540)	(147)
Interest expense, net	(2,366)	(6,806)
Gain on marketable investment	94,431	—
Loss on equity method investments	(419)	(556)
Loss on debt extinguishment, net	(6,111)	(23,645)
Other loss	(78)	(59)
Income (loss) before income tax	2,212	(69,456)
Income tax benefit	(206)	(276)
Net income (loss)	2,418	(69,180)
Net loss attributable to noncontrolling interests	(92)	(3,985)
Net income (loss) attributable to Sorrento	$ 2,510	$ (65,195)
Net income (loss) per share - basic per share attributable to Sorrento	$ 0.01	$ (0.36)
Net income (loss) per share - diluted per share attributable to Sorrento	$ 0.01	$ (0.36)
Weighted-average shares used during period - basic per share attributable to Sorrento	280,604	182,609
Weighted-average shares used during period - diluted per share attributable to Sorrento	297,909	182,609

See accompanying notes to unaudited consolidated financial statements

SORRENTO THERAPEUTICS, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(In thousands; unaudited)

	Three Months Ended March 31,	
	2021	2020
Net income (loss)	$ 2,418	$ (69,180)
Other comprehensive loss (gain):		
Foreign currency translation adjustments	(75)	55
Total other comprehensive loss (gain)	(75)	55
Comprehensive income (loss)	2,343	(69,125)
Comprehensive loss attributable to noncontrolling interests	(92)	(3,985)
Comprehensive income (loss) attributable to Sorrento	$ 2,435	$ (65,140)

See accompanying notes to unaudited consolidated financial statements

SORRENTO THERAPEUTICS, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands; unaudited)

	Three Months Ended March 31, 2021								
	Common Stock		Treasury Stock						
	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Noncontrolling Interest	Total
Balance, December 31, 2020	275,286	$ 28	7,568	$ (49,464)	$ 1,172,346	$ 520	$ (958,279)	$ (24,420)	$ 140,731
Issuance of common stock under equity compensation plans	500	—	—	—	5,394	—	—	—	5,394
Issuance of common stock upon exercise of warrants	2,550	—	—	—	9,050	—	—	—	9,050
Issuance of common stock for equity offerings	3,901	1	—	—	42,208	—	—	—	42,209
Other acquisitions, license agreements and investments paid in equity	851	—	—	—	7,500	—	—	—	7,500
Changes to noncontrolling interests from increased ownership in Scilex Holding	2,567	—	—	—	(23,963)	—	—	23,963	—
Stock-based compensation	—	—	—	—	23,660	—	—	—	23,660
Foreign currency translation adjustment	—	—	—	—	—	(75)		—	(75)
Net Income (loss)	—	—	—	—	—	—	2,510	(92)	2,418
Balance, March 31, 2021	285,655	$ 29	7,568	$ (49,464)	$ 1,236,195	$ 445	$ (955,769)	$ (549)	$ 230,887

	Three Months Ended March 31, 2020								
	Common Stock		Treasury Stock						
	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Noncontrolling Interest	Total
Balance, December 31, 2019	167,798	$ 18	7,568	$ (49,464)	$ 788,122	$ (270)	$ (659,818)	$ (45,832)	$ 32,756
Issuance of common stock under equity compensation plans	49	—	—	—	99	—	—	—	99
Issuance of common stock upon exercise of warrants	5,009	1	—	—	13,534	—	—	—	13,535
Issuance of common stock for public placement, net	2,091	1	—	—	7,325	—	—	—	7,326
Stock-based compensation	—	—	—	—	3,682	—	—	—	3,682
Issuance of common stock from Aspire Purchase Agreement	29,619	3	—	—	62,950	—	—	—	62,953
Foreign currency translation adjustment	—	—	—	—	—	55		—	55
Net loss	—	—	—	—	—	—	(65,195)	(3,985)	(69,180)
Balance, March 31, 2020	204,566	$ 23	7,568	$ (49,464)	$ 875,712	$ (215)	$ (725,013)	$ (49,817)	$ 51,226

See accompanying notes to unaudited consolidated financial statements

SORRENTO THERAPEUTICS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands; unaudited)

	Three Months Ended March 31,	
Operating activities	**2021**	**2020**
Net income (loss)	$ 2,418	$ (69,180)
Adjustments to reconcile net loss to net cash used for operating activities:		
Depreciation and amortization	2,918	3,058
Non-cash operating lease cost	759	842
Non-cash interest expense and amortization of debt issuance costs	2,098	4,386
Payment on Scilex Notes attributed to accreted interest related to the debt discount	(4,548)	—
Acquired in-process research and development	7,512	—
Stock-based compensation	23,660	3,682
Loss on debt extinguishment	6,111	23,645
Gain on derivative liabilities	(2,200)	(4,920)
Gain on marketable investment	(94,431)	—
Loss on equity method investments	419	556
Deferred tax provision	(219)	(150)
Changes in operating assets and liabilities, excluding effect of acquisitions:		
Accounts receivable	(803)	4,432
Accrued payroll	(4,573)	(407)
Prepaid expenses, deposits and other assets	980	185
Accounts payable	(76)	728
Accrued expenses and other liabilities	11,066	(4,488)
Deferred revenue	376	(169)
Other	476	(750)
Net cash used for operating activities	(48,057)	(38,550)
Investing activities		
Purchases of property and equipment	(1,994)	(21)
Other acquisitions and investments	(12)	—
Net cash used for investing activities	(2,006)	(21)
Financing activities		
Proceeds from equity offerings, net of issuance costs	42,209	69,896
Proceeds from short-term debt, net of issuance costs	11,769	725
Proceeds from exercise of stock options and warrants	10,597	13,634
Repayments of debt and other obligations	(29,218)	(59,533)
Net cash provided by financing activities	35,357	24,722
Net change in cash, cash equivalents and restricted cash	(14,706)	(13,849)
Net effect of exchange rate changes on cash	(80)	27
Cash, cash equivalents and restricted cash at beginning of period	56,464	80,769
Cash, cash equivalents and restricted cash at end of period	$ 41,678	$ 66,947
Supplemental disclosures:		
Cash paid during the period for:		
Interest	83	1,569
Supplemental disclosures of non-cash investing and financing activities:		
Changes to noncontrolling interests from increased ownership in Scilex Holding	23,963	—
Other acquisitions, license agreements and investments paid in equity	7,500	—
Property and equipment costs incurred but not paid	1,031	628
Non-cash additions related to leasehold improvements	2,279	—
Reconciliation of cash, cash equivalents and restricted cash within the Company's consolidated balance sheets:		
Cash and cash equivalents	41,678	21,897
Restricted cash	-	45,050
Cash, cash equivalents, and restricted cash	$ 41,678	$ 66,947

See accompanying notes to unaudited consolidated financial statements

SORRENTO THERAPEUTICS, INC.
NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS
March 31, 2021

1. Description of Business and Basis of Presentation

Description of Business

Sorrento Therapeutics, Inc. (the "Company") is a clinical stage, antibody-centric, biopharmaceutical company developing new therapies to treat cancers and COVID-19. The Company's multimodal, multipronged approach to fighting cancer is made possible by its extensive immuno-oncology platforms, including key assets such as fully human antibodies ("G-MAB™ library"), clinical stage immuno-cellular therapies ("CAR-T", "DAR-T™"), antibody-drug conjugates ("ADCs") and clinical stage oncolytic virus (Seprehvir™). The Company is also developing potential antiviral therapies and vaccines against coronaviruses, including COVIGUARD™, COVI-AMG™, COVISHIELD™, Gene-MAb™, COVI-MSC™ and COVIDROPS™; and diagnostic test solutions, including COVITRACK™, COVISTIX™ and COVITRACE™.

The Company's commitment to life-enhancing therapies for patients is also demonstrated by its effort to advance a first-in-class (TRPV1 agonist) non-opioid pain management small molecule, resiniferatoxin ("RTX"), and SP-102 (10 mg, dexamethasone sodium phosphate viscous gel) (SEMDEXA™), a novel, viscous gel formulation of a widely used corticosteroid for epidural injections to treat lumbosacral radicular pain, or sciatica, and through the commercialization of ZTlido® (lidocaine topical system) 1.8% for the treatment of post-herpetic neuralgia.

Basis of Presentation and Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company's subsidiaries. For consolidated entities where the Company owns or is exposed to less than 100% of the economics, the Company records net income (loss) attributable to noncontrolling interests in its consolidated statements of operations equal to the percentage of the economic or ownership interest retained in such entities by the respective noncontrolling parties. All intercompany balances and transactions have been eliminated in consolidation.

These consolidated financial statements should be read in conjunction with the consolidated financial statements included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2020. Operating results for interim periods are not expected to be indicative of operating results for the Company's 2021 fiscal year, or any subsequent period. The unaudited interim financial statements included herein reflect all normal and recurring adjustments that are necessary for a fair presentation of the results for the interim periods presented.

Use of Estimates

To prepare consolidated financial statements in conformity with accounting principles generally accepted in the U.S. ("U.S. GAAP"), management must make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Significant Accounting Policies

During the three months ended March 31, 2021, there have been no changes to the Company`s significant accounting policies as described in its Annual Report on Form 10-K for the fiscal year ended December 31, 2020 outside of new accounting pronouncements as described below.

Revenue Recognition

The following table shows revenue disaggregated by product and service type for the three months ended March 31, 2021 and 2020 (in thousands):

	Three Months Ended March 31,	
	2021	2020
Scilex Pharmaceuticals Inc. product sales	$ 6,986	$ 5,211
Other product revenue	37	37
Net product revenue	$ 7,023	$ 5,248
Concortis Biosystems Corporation	$ 5,462	$ 1,321
Bioserv Corporation	1,199	1,032
Other service revenue	571	120
Service revenue	$ 7,232	$ 2,473

Recent Accounting Pronouncements

In December 2019, the Financial Accounting Standards Board issued Accounting Standards Update No. 2019-12, *Income Taxes Topic 740): Simplifying the Accounting for Income Taxes.* The amendments in this update simplify the accounting for income taxes by removing certain exceptions to the general principles in Accounting Standards Codification ("ASC") Topic 740. The amendments also improve consistent application of and simplify U.S. GAAP for other areas of ASC Topic 740 by clarifying and amending existing guidance. The amendments in this update are effective for interim and annual periods for the Company beginning after December 15, 2020. The Company adopted the standard on January 1, 2021. The adoption of the standard had no material impact on the Company`s consolidated financial statements.

2. Liquidity and Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company has recurring losses from operations, recurring negative cash flows from operations and substantial cumulative net losses to date and anticipates that it will continue to do so for the foreseeable future as it continues to identify and invest in advancing product candidates, as well as expanding corporate infrastructure.

The Company has plans in place to obtain sufficient additional fundraising to fulfill its operating, debt servicing and capital requirements for the next 12 months. The Company's plans include continuing to fund its operating losses and capital funding needs through public or private equity or debt financings, strategic collaborations, licensing arrangements, asset sales, government grants or other arrangements. Although management believes such plans, if executed, should provide the Company sufficient financing to meet its needs, successful completion of such plans is dependent on factors outside of the Company's control. As such, management cannot conclude that such plans will be effectively implemented within one year after the date that the financial statements are issued. As a result, management has concluded that the aforementioned conditions, among others, raise substantial doubt about the Company's ability to continue as a going concern for one year after the date the financial statements are issued.

If the Company is unable to raise additional capital in sufficient amounts or on terms acceptable, the Company may have to significantly delay, scale back or discontinue the development or commercialization of one or more of its product candidates. The Company may also seek collaborators for one or more of its current or future product candidates at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available. Furthermore, the spread of COVID-19, which has caused a broad impact globally, may materially affect the Company economically. While the potential economic impact brought by, and the duration of, COVID-19 may be difficult to assess or predict, a widespread pandemic could result in significant disruption of global financial markets, reducing the Company's ability to access capital, which could, in the future, negatively affect its liquidity. The consolidated financial statements do not reflect any adjustments that might be necessary if the Company is unable to continue as a going concern.

If the Company raises additional funds by issuing equity securities, substantial dilution to existing stockholders would result. If the Company raises additional funds by incurring debt financing, the terms of the debt may involve significant cash payment obligations as well as covenants and specific financial ratios that may restrict the Company's ability to operate its business.

3. Fair Value Measurements

The following table presents the Company's financial assets and liabilities that are measured at fair value on a recurring basis (in thousands):

	Fair Value Measurements at March 31, 2021			
	Balance	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash and cash equivalents	$ 41,678	$ 41,678	$ —	$ —
Marketable investment	194,431	194,431	—	—
Total assets	$ 236,109	$ 236,109	$ —	$ —
Liabilities:				
Derivative liabilities - non-current	$ 33,200	$ —	$ —	$ 33,200
Acquisition consideration payable	398	—	—	398
Acquisition consideration payable - non-current	549	—	—	549
Total liabilities	$ 34,147	$ —	$ —	$ 34,147

	Fair Value Measurements at December 31, 2020			
	Balance	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash and cash equivalents	$ 56,464	$ 56,464	$ —	$ —
Total assets	$ 56,464	$ 56,464	$ —	$ —
Liabilities:				
Derivative liabilities - non-current	35,400	—	—	35,400
Acquisition consideration payable	398	—	—	398
Acquisition consideration payable - non-current	549	—	—	549
Total liabilities	$ 36,347	$ —	$ —	$ 36,347

Derivative liabilities

The Company recorded a gain on derivative liabilities of $2.2 million for the three months ended March 31, 2021, which related to the compound derivative liabilities associated with the Scilex Notes (as defined in Note 7). The fair value of the derivative liabilities associated with the Scilex Notes was estimated using the discounted cash flow method under the income approach combined with a Monte Carlo simulation model. This involves significant Level 3 inputs and assumptions, including a 7% risk adjusted net sales forecast, an effective debt yield of 15% and an estimated probability of 100% of not obtaining marketing approval before March 31, 2021.

The following table includes a summary of the derivative liabilities measured at fair value using significant unobservable inputs (Level 3) during the three months ended March 31, 2021:

(in thousands)	Fair Value
Beginning Balance at December 31, 2020	$ 35,400
Re-measurement of Fair Value	(2,200)
Ending Balance at March 31, 2021	$ 33,200

4. Investments

The Company’s equity method investments include an ownership interest in Immunotherapy NANTibody, LLC (“NANTibody”), NantCancerStemCell, LLC (“NantStem”) and ImmuneOncia Therapeutics, LLC, among others. The Company’s other equity investments include an ownership interest in NantBioScience, Inc. (“NantBioScience”) and Celularity Inc. The Company`s marketable investment includes an ownership interest in ImmunityBio, Inc. (“ImmunityBio”).

On March 9, 2021, NantKwest, Inc. and ImmunityBio completed their previously announced 100% stock-for-stock merger (the “Merger”). The combined company operates under the name ImmunityBio, Inc. and its shares of common stock commenced trading on the Nasdaq Global Select Market on March 10, 2021 under the new ticker, “IBRX”. The former stockholders of ImmunityBio were entitled to receive 0.8190 shares of common stock of the combined company for each outstanding share of ImmunityBio common stock held immediately prior to the Merger. Prior to the closing of the Merger, the Company owned 10,000,000 shares of common stock of ImmunityBio, and the Company therefore received 8,190,000 shares of common stock of the post-merger company in the Merger.

The Company’s investment in ImmunityBio has historically been included as an equity investment in its consolidated balance sheets and accounted for as an equity security without a readily determinable fair value. As of the completion of the Merger, the Company accounts for its investment in ImmunityBio as an equity investment with a readily determinable fair value and has reclassified its investment in ImmunityBio to marketable investment within its consolidated balance sheets. The investment in ImmunityBio is classified as a current asset because the investment can be liquidated to finance the Company’s current operations. In connection with the change in fair value of its investment in ImmunityBio, the Company recorded a gain on marketable investment of $94.4 million during the three months ended March 31, 2021.

NANTibody

The Company's investment in NANTibody is reported in equity method investments on its consolidated balance sheets and its share of NANTibody's income or loss is recorded in loss on equity method investments on its consolidated statement of operations. The Company continues to hold 40% of the outstanding equity of NANTibody and NantCell, Inc. holds the remaining 60%. The Company`s investment in NANTibody had a carrying value of zero as of March 31, 2021 due to the Company's share of cumulative losses. As of March 31, 2020, the carrying value of the Company`s investment in NANTibody was approximately $1.9 million.

NANTibody recorded a net loss of $0.8 million and $1.4 million for the three months ended December 31, 2020 and 2019, respectively. As of December 31, 2020, NANTibody had $4.9 million in current assets, $5.5 million in current liabilities, $0.1 million in noncurrent assets and no noncurrent liabilities.

The financial statements of NANTibody are not received sufficiently timely for the Company to record its portion of earnings or loss in the current financial statements and therefore the Company reports its portion of earnings or loss on a one quarter lag.

NantStem

The Company's investment in NantStem is reported in equity method investments on its consolidated balance sheets and its share of NantStem's income or loss is recorded in loss on equity method investments on its consolidated statement of operations. The Company is accounting for its interest in NantStem as an equity method investment, due to the significant influence the Company has over the operations of NantStem through its board representation and 20% voting interest. The carrying value of the Company's investment in NantStem was approximately $18.2 million and $17.9 million as of March 31, 2021 and 2020, respectively.

NantStem recorded a net gain of $0.1 million and $0.2 million for the three months ended December 31, 2020 and 2019, respectively. As of December 31, 2020, NantStem had $80.9 million in current assets, $1.1 million in noncurrent assets and no current and noncurrent liabilities.

The financial statements of NantStem are not received sufficiently timely for the Company to record its portion of earnings or loss in the current financial statements and therefore the Company reports its portion of earnings or loss on a one quarter lag.

5. Goodwill and Intangible Assets

At both March 31, 2021 and December 31, 2020, the Company had goodwill of $43.6 million. Goodwill for the Sorrento Therapeutics segment and Scilex segment as defined in Note 13 was $36.9 million and $6.7 million, respectively, as of March 31, 2021.

Intangible assets with indefinite useful lives totaling $28.3 million are included in acquired in-process research and development in the table below. A summary of the Company's identifiable intangible assets as of March 31, 2021 and December 31, 2020 is as follows (in thousands, except for years):

March 31, 2021	Weighted Average Amortization Period (Years)	Gross Carrying Amount	Accumulated Amortization	Intangibles, Net
Customer relationships	6	$ 1,585	$ 1,433	$ 152
Acquired technology	19	3,410	1,280	2,130
Acquired in-process research and development	—	28,260	—	28,260
Technology placed in service	15	21,940	3,657	18,283
Patent rights	15	32,720	9,648	23,072
Assembled workforce	5	605	252	353
Internally developed software	2	520	130	390
Total intangible assets		$ 89,040	$ 16,400	$ 72,640

December 31, 2020	Weighted Average Amortization Period (Years)	Gross Carrying Amount	Accumulated Amortization	Intangibles, Net
Customer relationships	6	$ 1,585	$ 1,426	$ 159
Acquired technology	19	3,410	1,236	2,174
Acquired in-process research and development	—	28,260	—	28,260
Technology placed in service	15	21,940	3,291	18,649
Patent rights	15	32,720	9,103	23,617
Assembled workforce	5	605	222	383
Internally developed software	1	520	87	433
Total intangible assets		$ 89,040	$ 15,365	$ 73,675

Aggregate amortization expense was $1.0 million for each of the three months ended March 31, 2021 and 2020. Estimated future amortization expense related to intangible assets, excluding indefinite-lived intangible assets, at March 31, 2021 is as follows (in thousands):

Years Ending December 31,	Amount
2021 (Remaining nine months)	$ 3,105
2022	4,140
2023	4,048
2024	3,870
2025	3,845
Thereafter	25,373
Total expected future amortization	$ 44,381

6. Significant Agreements and Contracts

License Agreement with Icahn School of Medicine at Mount Sinai

In March 2021, the Company entered into an exclusive license agreement (the "Mount Sinai License Agreement") with Icahn School of Medicine at Mount Sinai ("Mount Sinai") to acquire a worldwide, exclusive, sublicensable license to certain of Mount Sinai's patents and monoclonal antibodies as well as technical information to develop, manufacture, commercialize, and exploit related products and services ("Licensed Products") for all fields, uses, and applications, including for the diagnosis, prevention, treatment and cure of coronavirus.

As consideration for the Mount Sinai License Agreement, the Company paid Mount Sinai and upfront license fee of $7.5 million comprised of 851,305 shares of the Company's common stock, which was expensed as acquired in-process research and development during the three months ended March 31, 2021. The Company also agreed to pay Mount Sinai (i) certain milestone payments upon the achievement of certain clinical trial and regulatory milestones, and (ii) certain royalties in the low-single digit to mid-single digit percentages of annual net sales of Licensed Products by the Company and a share of any sublicense revenue received by the Company from sublicensees.

Scilex Holding Ownership Increase

On January 29, 2021, the Company acquired additional shares of Scilex Holding Company ("Scilex Holding"), resulting in the Company holding approximately 99.9% of the outstanding common stock of Scilex Holding as of March 31, 2021.

Acquisition of SmartPharm Therapeutics, Inc.

On September 1, 2020, the Company completed the acquisition of SmartPharm Therapeutics, Inc. ("SmartPharm"), a gene-encoded protein therapeutics company developing non-viral DNA and RNA gene delivery platforms for COVID-19, Influenza and rare diseases with broad potential for application in enhancing antibody-centric therapeutics. The total base consideration paid to the holders of capital stock of SmartPharm in the acquisition was approximately $19.5 million, which was comprised of approximately 1.8 million shares of the Company's common stock.

The purchase price allocation resulted in net identifiable assets of $19.5 million, which includes separate and distinct indefinite lived intangible assets comprised of acquired in-process research and development of $13.9 million, goodwill of $5.3 million and other net assets of $0.3 million. Customary tax related matters such as the filing of pre-acquisition tax returns are subject to finalization as of March 31, 2021. Such matters may result in adjustments to the purchase price allocation, which has not changed since December 31, 2020. Goodwill largely reflects the synergies expected to be achieved with SmartPharm's gene delivery platforms and the assembled workforce. Goodwill is not deductible for tax purposes. Results of operations since the date of acquisition were not material.

License Agreement with NantCell

In April 2015, the Company and NantCell, Inc. ("NantCell") entered into a license agreement. Under the terms of the agreement, the Company granted an exclusive license to NantCell covering patent rights, know-how and materials related to certain antibodies, ADCs and two CAR-TNK products. NantCell agreed to pay a royalty not to exceed five percent (5%) to the Company on any net sales of products from the assets licensed by the Company to NantCell. In addition to the future royalties payable under this agreement, NantCell paid an upfront payment of $10.0 million to the Company and issued 10 million shares of NantCell common stock to the Company valued at $100.0 million based on an equity sale of NantCell common stock to a third party. The Company terminated the agreement, effective January 29, 2020, due to NantCell`s material breach of the agreement. The termination and remedies related to such termination are currently pending in an arbitration before the American Arbitration Association. The Company has therefore deferred recognition of the upfront payment and the value of the equity interest received until the arbitration is concluded or resolved. The Company's ownership interest in NantCell does not provide the Company with control or the ability to exercise significant influence; therefore the $100.0 million investment is carried at cost, less impairment, plus or minus changes resulting from observable price changes in orderly transactions for identical or similar investments of NantCell.

7. Debt

2018 Purchase Agreements and Indenture for Scilex

On September 7, 2018, Scilex Pharmaceuticals Inc. ("Scilex Pharma") entered into Purchase Agreements (the "2018 Purchase Agreements") with certain investors (collectively, the "Scilex Note Purchasers") and the Company. Pursuant to the 2018 Purchase Agreements, on September 7, 2018, Scilex Pharma issued and sold to the Scilex Note Purchasers senior secured notes due 2026 in an aggregate principal amount of $224.0 million (the "Scilex Notes") for an aggregate purchase price of $140.0 million (the "Scilex Notes Offering"). In connection with the Scilex Notes Offering, Scilex Pharma also entered into an Indenture (the "Indenture") governing the Scilex Notes with U.S. Bank National Association, a national banking association, as trustee and collateral agent, and

the Company. Pursuant to the Indenture, the Company agreed to irrevocably and unconditionally guarantee, on a senior unsecured basis, the punctual performance and payment when due of all obligations of Scilex Pharma under the Indenture. During the year ended December 31, 2020, Scilex Pharma repurchased an aggregate of $65.0 million in principal amount of the Scilex Notes.

In February 2021, Scilex Pharma repurchased an additional $20.0 million in principal amount of the Scilex Notes. In connection with the repurchase, the Company recorded a loss on partial debt extinguishment of $7.1 million during the three months ended March 31, 2021.

To estimate the fair value of the Scilex Notes, the Company uses the discounted cash flow method under the income approach, which involves significant Level 3 inputs and assumptions, combined with a Monte Carlo simulation as appropriate. The value of the debt instrument is based on the present value of future principal payments and the discounted rate of return reflective of the Company's credit risk.

Borrowings of the Scilex Notes consisted of the following (in thousands):

	March 31, 2021	December 31, 2020
Principal	$ 130,605	$ 151,872
Unamortized debt discount	(42,475)	(51,022)
Unamortized debt issuance costs	(3,096)	(3,698)
Carrying value	$ 85,034	$ 97,152
Estimated fair value	$ 129,900	$ 122,300

Future minimum payments under the Scilex Notes, based on a percentage of projected net sales of ZTlido are estimated as follows (in thousands):

Year Ending December 31,	
2021 (Remaining nine months)	3,731
2022	5,505
2023	7,157
2024	8,758
2025	10,077
Thereafter	95,377
Total future minimum payments	130,605
Unamortized debt discount	(42,475)
Unamortized capitalized debt issuance costs	(3,096)
Total Scilex Notes	85,034
Current portion	(5,084)
Long-term portion of Scilex Notes	$ 79,950

The Company made principal payments of $21.3 million and $1.6 million during the three months ended March 31, 2021 and 2020, respectively. The imputed effective interest rate at March 31, 2021 was 9.4%. The amount of debt discount and debt issuance costs included in interest expense for the three months ended March 31, 2021 and 2020 was approximately $2.1 million and $2.9 million, respectively. On April 13, 2021 the Company made an additional principal payment of $20.0 million.

The Company identified a number of embedded derivatives that require bifurcation from the Scilex Notes and that were separately accounted for in the consolidated financial statements as derivative liabilities. Certain of these embedded features include default interest provisions, contingent rate increases, contingent put options, optional and automatic acceleration provisions and tax indemnification obligations. The fair value of the derivative liabilities associated with the Scilex Notes was estimated using the discounted cash flow method under the income approach combined with a Monte Carlo simulation model. This involves significant Level 3 inputs and assumptions, including a risk adjusted net sales forecast, an effective debt yield, estimated marketing approval probabilities for SP-103 and an estimated probability of an initial public offering by Scilex Holding that satisfies certain valuation thresholds and timing considerations. The Company re-evaluates this assessment each reporting period.

8. Stockholders' Equity

Amended Sales Agreement

On December 4, 2020, the Company entered into Amendment No. 1 to that certain Sales Agreement dated April 27, 2020, with A.G.P./Alliance Global Partners, which provides that the Company may, from time to time, offer and sell securities to A.G.P./Alliance

Global Partners in at-the-market transactions (as amended, the "Amended Sales Agreement"). During the three months ended March 31, 2021, the Company issued and sold an aggregate of 3,901,460 shares of its common stock pursuant to the Amended Sales Agreement for aggregate net proceeds to the Company of approximately $42.2 million. Subsequent to March 31, 2021 and through April 30, 2021, the Company issued and sold an aggregate of 976,208 shares of its common stock pursuant to the Sales Agreement for aggregate net proceeds to the Company of approximately $7.7 million.

9. Stock Based Compensation

2019 Stock Incentive Plan ("2019 Plan")

Total stock-based compensation recorded as operating expense under the 2019 Plan was $8.7 million and $2.1 million for the three months ended March 31, 2021 and 2020, respectively. Total unrecognized compensation expense related to unvested stock option grants as of March 31, 2021 was $46.4 million with a weighted average remaining vesting period of 2.8 years. Total unrecognized compensation expense related to unvested restricted stock unit ("RSU") grants as of March 31, 2021 was $20.2 million, with a weighted average remaining vesting period of 4.0 years.

A summary of stock option activity under the 2019 Plan for the three months ended March 31, 2021 is as follows:

	Options Outstanding	Weighted-Average Exercise Price	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2020	18,762,920	$ 4.97	$ —
Options Granted	1,771,685	10.58	
Options Cancelled	(474,188)	4.81	
Options Exercised	(368,375)	4.20	
Outstanding at March 31, 2021	19,692,042	$ 5.49	$ 62,105

The estimated fair value of each stock option grant was determined on the grant date using the Black-Scholes valuation model with the following weighted-average assumptions:

	Three Months Ended March 31,	
	2021	2020
Weighted-average grant date fair value	$ 8.63	$ 1.36
Dividend yield	—%	—%
Volatility	111%	94%
Risk-free interest rate	1.00%	0.71%
Expected life of options (years)	6.0	5.9

A summary of RSU activity under the 2019 Plan for the three months ended March 31, 2021 is as follows:

	Number of Shares	Weighted-Average Grant Date Fair Value Per Share
Outstanding at December 31, 2020	—	$ —
RSUs Granted	2,148,070	10.41
RSUs Released	(132,540)	13.96
RSUs Cancelled	(5,941)	10.18
Outstanding at March 31, 2021	2,009,589	$ 10.18

The fair value of RSUs is determined based on the closing market price of the Company's common stock on the grant date.

Scilex Holding Company

Under the Scilex Holding Company 2019 Stock Option Plan, total stock-based compensation recorded as operating expense was $1.9 million and $1.6 million for the three months ended March 31, 2021 and 2020, respectively. The total unrecognized compensation expense related to unvested stock option grants as of March 31, 2021 was $20.1 million, with a weighted average vesting period of 2.9 years.

Employee Stock Purchase Plan

Total stock-based compensation recorded as operating expense for the Company`s 2020 Employee Stock Purchase Plan was $0.3 million for the three months ended March 31, 2021.

CEO Performance Award

Total stock-based compensation recorded as operating expense for the 10-year CEO performance award that was granted to the Company's chief executive officer in 2020 and tied solely to the Company achieving market capitalization milestones (the "CEO Performance Award") was $12.8 million for the three months ended March 31, 2021. As of March 31, 2021, the Company had approximately $126.7 million of total unrecognized stock-based compensation expense remaining under the CEO Performance Award.

10. Commitments and Contingencies

Litigation

In the normal course of business, the Company may be named as a defendant in one or more lawsuits. Other than as set forth below, the Company is not a party to any outstanding material litigation and management is currently not aware of any legal proceedings that, individually or in the aggregate, are deemed to be material to the Company's financial condition or results of operations.

On April 3, 2019, the Company filed two legal actions against, among others, Patrick Soon-Shiong and entities controlled by him, asserting claims for, among other things, fraud and breach of contract, arising out of Dr. Soon-Shiong's purchase of the drug Cynviloq™ from the Company in May 2015. The actions allege that Dr. Soon-Shiong and the other defendants, among other things, acquired the drug Cynviloq™ for the purpose of halting its progression to the market. Specifically, the Company has filed:

- An arbitration demand with the American Arbitration Association in Los Angeles, California against NantPharma, LLC and Chief Executive Officer Patrick Soon-Shiong, seeking damages in excess of $1.0 billion as well as additional punitive damages, related to alleged fraud and breaches of the Stock Sale and Purchase Agreement, dated May 14, 2015, entered into between NantPharma, LLC and the Company, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 7, 2015. On May 24, 2019, NantCell, Inc., Dr. Soon-Shiong and Immunotherapy NANTibody LLC ("NANTibody") General Counsel Charles Kim filed a motion in the Los Angeles Superior Court to stay or dismiss the Company's arbitration demand. On October 9, 2019, the Los Angeles Superior Court denied the motion to stay or dismiss the arbitration demand, and the arbitration is ongoing. On March 5, 2020, the Company filed a legal action against Dr. Soon-Shiong in Los Angeles Superior Court, asserting claims for fraudulent inducement and common law fraud, arising out of Dr. Soon-Shiong's purchase of the drug Cynviloq™ from the Company in May 2015. The action alleges that, among other things, Dr. Soon-Shiong acquired the drug Cynviloq™ for the purpose of halting its progression to the market. In connection with filing this civil action in the Los Angeles Superior Court, where the Company will have the right to a jury trial against Dr. Soon-Shiong, the Company has dismissed Dr. Soon-Shiong from the related, ongoing arbitration against NantPharma, LLC; and

- An action in the Los Angeles Superior Court derivatively on behalf of NANTibody against NantCell, Inc., NANTibody Board Member and NantCell, Inc. Chief Executive Officer Patrick Soon-Shiong, and NANTibody officer Charles Kim, related to several breaches of the June 11, 2015 Limited Liability Company Agreement for NANTibody entered into between the Company and NantCell, Inc. The suit also alleges breaches of fiduciary duties and seeks, inter alia, a declaration that the Assignment Agreement entered into on July 2, 2017, between NantPharma, LLC and NANTibody is void and an equitable unwinding of the Assignment Agreement. The suit calls for the restoration of $90.05 million to the NANTibody capital account, thereby restoring the Company's equity method investment in NANTibody to its invested amount as of June 30, 2017 of $40.0 million. On May 24, 2019, NantCell, Inc. and Dr. Soon-Shiong filed a cross-complaint against the Company and Dr. Ji, seeking unspecified damages, as well as additional punitive damages and specific performance, related to alleged fraud, alleged breaches of the Exclusive License Agreement for certain antibodies (dated April 21, 2015 and entered into between NantCell, Inc. and the Company), and tortious interference with contract. On May 24, 2019, NANTibody and NantPharma, LLC filed a new complaint in the action against the Company and Dr. Ji, seeking unspecified damages, as well as additional punitive damages and specific performance, related to alleged fraud, alleged breaches of the Stock Sale and Purchase Agreement, alleged breaches of the Exclusive License Agreement for certain antibodies (dated April 21, 2015 and entered into between NantCell, Inc. and the Company), and tortious interference with contract. On July 8, 2019, the Company and Dr. Ji filed motions to compel the cross-complaint and new action to arbitration. On October 9, 2019, the Los Angeles Superior Court granted the motions to compel to arbitration all of the claims brought by NANTibody, NantCell, Inc. and NantPharma, LLC, and denied the motions to compel as to the claims brought by Dr. Soon-Shiong. Subsequently, NANTibody, NantCell, Inc., and NantPharma, LLC have re-filed their claims in arbitration. On July 21, 2020, NantPharma, LLC's demands in arbitration were dismissed. The arbitration claims by NANTibody and NantCell, Inc. are currently pending before the American Arbitration Association. The claims against Dr. Soon-Shiong have been stayed pending resolution of the claims filed in arbitration. The original derivative action is no longer stayed, and the parties are currently engaged in discovery in the suit.

On May 26, 2020, Wasa Medical Holdings filed a putative federal securities class action in the U.S. District Court for the Southern District of California, Case No. 3:20-cv-00966-AJB-DEB, against the Company, its President, Chief Executive Officer and Chairman of the Board of Directors, Henry Ji, Ph.D., and its SVP of Regulatory Affairs, Mark R. Brunswick, Ph.D. The action alleges that the Company, Dr. Ji and Dr. Brunswick made materially false and/or misleading statements to the investing public by publicly issuing false and/or misleading statements regarding STI-1499 and its ability to inhibit the SARS-CoV-2 virus infection and that such statements violated Section 10(b) of the Securities Exchange Act of 1934, as amended, and Rule 10b-5 promulgated thereunder. The suit seeks to recover damages caused by the alleged violations of federal securities laws, along with the plaintiffs' reasonable costs and expenses incurred in the lawsuit, including counsel fees and expert fees. On June 11, 2020, Jeannette Calvo filed a second putative federal securities class action in the U.S. District Court for the Southern District of California, Case No. 3:20-cv-01066-JAH-WVG, against the same defendants alleging the same claims and seeking the same relief. On February 12, 2021, the U.S. District Court for the Southern District of California issued an order consolidating the cases and appointing a lead plaintiff, Andrew Zenoff ("Plaintiff"), and lead counsel. On April 5, 2021, Plaintiff filed a consolidated amended complaint in accordance with the U.S. District Court for the Southern District of California's scheduling order. Pursuant to that scheduling order, any responsive pleading or motion to dismiss by the defendants is due by May 20, 2021; Plaintiff's opposition to any motion to dismiss filed by the defendants is due by July 5, 2021; and any reply by the defendants is due by August 4, 2021. No hearing date for any motion by the defendants has been set. The Company is defending these matters vigorously.

Operating Leases

As of March 31, 2021, the Company's leases have remaining lease terms of approximately 0.3 to 8.7 years, some of which include options to extend the lease terms for up to five years, and some of which allow for early termination. Short-term operating lease costs were immaterial.

Supplemental quantitative information related to leases includes the following (in thousands, except for years and percentages):

	Three Months Ended March 31,	
	2021	2020
Operating cash outflows used for operating leases	$ 2,487	$ 2,414
ROU assets obtained in exchange for new and amended operating lease liabilities	$ —	$ 795
Weighted average remaining lease term in years	8.2	9.1
Weighted average discount rate	12.2%	12.2%

Maturities of lease liabilities were as follows (in thousands):

Years ending December 31,	Operating leases
2021 (Remaining nine months)	$ 7,621
2022	10,054
2023	10,285
2024	10,418
2025	9,757
Thereafter	37,586
Total lease payments	85,721
Less imputed interest	(32,633)
Total lease liabilities as of March 31, 2021	$ 53,088

11. Income Taxes

The Company maintains deferred tax assets that reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. These deferred tax assets include net operating loss carryforwards, research credits and temporary differences. In assessing the Company's ability to realize deferred tax assets, management considers, on a periodic basis, whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. As such, management has determined that it is appropriate to maintain a valuation allowance against the Company's U.S. federal and state deferred tax assets, with the exception of an amount equal to schedulable deferred tax liabilities.

The Company's income tax benefit of $0.2 million and $0.3 million reflect effective tax rates of 9.3% and 0.4% for the three months ended March 31, 2021 and 2020, respectively.

The difference between the expected statutory federal tax rate of 21% and the 9.3% effective tax rate for the three months ended March 31, 2021 was primarily attributable to the valuation allowance against most of the Company's deferred tax assets. For the three months ended March 31, 2021, when compared to the same period in 2020, the change in effective income tax rate was primarily attributable a similar tax benefit year over year applied against the amount of income in 2021 compared against the amount of loss in 2020.

The Company is subject to taxation in the U.S. and various state and foreign jurisdictions. The Company's tax years for 2007 forward are subject to examination by the U.S. and state tax authorities due to the existence of the net operating loss and research credit carryforwards.

12. Net Income (Loss) Per Share

For the three months ended March 31, 2021 and 2020, basic income (loss) per common share is computed by dividing net income (loss) by the weighted average number of shares of common stock outstanding during the period. Potentially dilutive shares of common stock from outstanding stock options, RSUs and warrants are determined using the average share price for each period under the treasury stock method. Proceeds from the exercises of stock options and warrants and the average amount of unrecognized compensation expense are assumed to be used to repurchase shares.

The following table sets forth the reconciliation of basic and diluted loss per share for the three months ended March 31, 2021 and 2020 (in thousands except per share amounts):

	Three Months Ended March 31,	
	2021	2020
Numerator		
Net income (loss) used for basic and diluted income (loss) per share	$ 2,510	$ (65,195)
Denominator for basic income (loss) per share	280,604	182,609
Potentially dilutive shares from stock options, RSUs and warrants	17,305	—
Denominator for diluted income (loss) per share	297,909	182,609
Basic income (loss) per share	$ 0.01	$ (0.36)
Diluted income (loss) per share	$ 0.01	$ (0.36)

Shares of common stock issuable pursuant to stock options and warrants that would have been excluded because the effect would have been anti-dilutive consisted of the following (in thousands):

	Three Months Ended March 31,	
	2021	2020
Anti-dilutive shares for outstanding options and RSUs	2,987	13,678
Anti-dilutive shares for outstanding warrants	—	52,548

13. Segment Information

The Company operates in two operating and reportable segments, Sorrento Therapeutics and Scilex. With the exception of unrestricted cash balances, the Company's Chief Operating Decision Maker does not regularly review asset information by reportable segment and, therefore, it does not report asset information by reportable segment. The majority of long-lived assets for both segments are located in the United States.

The following table presents information about the Company's reportable segments for the three months ended March 31, 2021 and 2020 (in thousands):

	Three Months Ended March 31,					
	2021			2020		
	Sorrento Therapeutics	Scilex	Total	Sorrento Therapeutics	Scilex	Total
External revenues	$ 7,269	$ 6,986	$ 14,255	$ 2,510	$ 5,211	$ 7,721
Operating expenses	81,877	17,283	99,160	33,248	17,636	50,884
Operating loss	(74,608)	(10,297)	(84,905)	(30,738)	(12,425)	(43,163)
Unrestricted cash	31,109	10,569	41,678	11,777	10,120	21,897

14. Subsequent Events

Merger Agreement for Proposed Acquisition of ACEA Therapeutics

On April 2, 2021, the Company entered into an Agreement and Plan of Merger (the "Merger Agreement") with ACEA Therapeutics, Inc., an exempted company incorporated with limited liability in the Cayman Islands ("ACEA"), AT Merger Sub, Inc., an exempted company incorporated with limited liability in the Cayman Islands and wholly owned subsidiary of the Company ("Merger Sub"), and Fortis Advisors LLC, as representative of the shareholders of ACEA (the "Shareholders' Representative"). The Merger Agreement provides for the merger of Merger Sub with and into ACEA (the "Merger"), with ACEA surviving as a wholly owned subsidiary of the Company.

As consideration for the Merger, following the closing of the Merger, the Company will pay to the holders of securities of ACEA (the "ACEA Equityholders") an amount equal to $38,000,000 (plus the Company's agreed upon share of certain interest, fees and other expenses), as such amount may be adjusted pursuant to the terms of the Merger Agreement for indebtedness, transaction expenses and cash (the "Closing Consideration"). A portion of the Closing Consideration otherwise payable to the ACEA Equityholders will be set aside for expenses incurred by the Shareholders' Representative. In addition to the Closing Consideration, and subject to the achievement of certain clinical and sales milestones (as described below), the Company shall also pay the ACEA Equityholders (i) up to $450,000,000 in additional payments, subject to the receipt of certain regulatory approvals and achievement of certain net sales targets with respect to the assets acquired in the Merger and (ii) with respect to specified royalty-bearing products, five to ten percent of the annual net sales thereof (the "Earn-Out Consideration" and together with the Closing Consideration, the "Merger Consideration"), in each case in accordance with the terms of an earn-out agreement to be entered into by and between the Company and the Shareholders' Representative in connection with the closing of the Merger.

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

This Quarterly Report on Form 10-Q contains "forward-looking statements" about our expectations, beliefs or intentions regarding our potential product offerings, business, financial condition, results of operations, strategies or prospects. You can identify forward-looking statements by the fact that these statements do not relate strictly to historical or current matters. Rather, forward-looking statements relate to anticipated or expected events, activities, trends or results as of the date they are made and are often identified by the use of words such as "assumes," "plans," "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "might," or "will," and similar expressions or variations. Because forward-looking statements relate to matters that have not yet occurred, these statements are inherently subject to risks and uncertainties that could cause our actual results to differ materially from any future results expressed or implied by the forward-looking statements. Many factors could cause our actual activities or results to differ materially from the activities and results anticipated in forward-looking statements. These factors include those described under the caption "Risk Factors" included elsewhere in this Quarterly Report on Form 10-Q and in our other filings with the Securities and Exchange Commission (the "SEC"). Furthermore, such forward-looking statements speak only as of the date of this report. We undertake no obligation to update any forward-looking statements to reflect events or circumstances occurring after the date of such statements.

Overview

Sorrento Therapeutics, Inc., together with its subsidiaries (collectively, the "Company", "we", "us", and "our") is a clinical stage and commercial biopharmaceutical company focused on delivering innovative and clinically meaningful therapies to address unmet medical needs.

At our core, we are antibody-centric and leverage our proprietary G-MAB™ library and targeted delivery modalities to generate the next generation of cancer therapeutics. Our fully human antibodies include PD-1, PD-L1, CD38, CD123, CD47, CTLA-4, CD137 and SARS-CoV-2 neutralizing antibodies, among others. We also have programs assessing the use of our technologies and products in autoimmune, inflammatory, viral and neurodegenerative diseases.

Our vision is to leverage these antibodies in conjunction with proprietary targeted delivery modalities to generate the next generation of cancer therapeutics. These modalities include proprietary chimeric antigen receptor T-cell therapy ("CAR-T"), dimeric antigen receptor T-cell therapy ("DAR-T"), antibody drug conjugates ("ADCs") as well as bispecific antibody approaches. We acquired Sofusa®, a drug delivery technology, in July 2018, which delivers biologics directly into the lymphatic system to potentially achieve improved efficacy and fewer adverse effects than standard parenteral immunotherapy. Additionally, our majority-owned subsidiary, Scilex Holding Company ("Scilex Holding"), acquired the assets of Semnur Pharmaceuticals, Inc. ("Semnur") in March 2019. Semnur's SEMDEXA™ ("SP-102") compound has the potential to become the first Food and Drug Administration ("FDA")-approved epidural steroid product for the treatment of sciatica. In response to the global SARS-CoV-2 ("COVID-19") pandemic, we are utilizing the Bruton's tyrosine kinase ("BTK") inhibitor (in-licensed from ACEA Therapeutics, Inc.) in a U.S. Phase II study of cytokine storm associated with a COVID-19 infection and in a Phase II trial in Brazil in mild, moderate and severe COVID-19 patients. We are also internally developing potential coronavirus antiviral therapies and vaccines, including ACE-MAB™, COVIDTRAP™, COVI-MAB™, COVIGUARD™, COVISHIELD™ , COVI-AMG™ and T-VIVA-19™; and diagnostic test solutions, including COVITRACK™, COVISTIX™ and COVITRACE™.

With each of our clinical and pre-clinical programs, we aim to tailor our therapies to treat specific stages in the evolution of a disease, from elimination, to equilibrium and escape. In addition, our objective is to focus on tumors that are resistant to current treatments and where we can design focused trials based on a genetic signature or biomarker to ensure patients have the best chance of a durable and significant response. We have several immuno-oncology programs that are in or near to entering the clinic. These include cellular therapies, oncolytic viruses (SeprehvecTM) and a palliative care program targeted to treat intractable cancer pain. Our cellular therapy programs focus on CAR-T and DAR-T for adoptive cellular immunotherapy to treat both solid and liquid tumors.

From the start of the COVID-19 pandemic, our mission has been to leverage our deep expertise in developing targeted antibodies for cancer immunotherapy to create best-in-category treatments and diagnostics to ease suffering and assist in the global response to COVID-19. We have leveraged, and continue to leverage, our G-MAB library and antibody development engineering capabilities to advance a number of promising diagnostics and neutralizing antibody candidates to test and treat COVID-19 and the immune reactions associated with SARS-CoV-2 infection.

Our first generation SARS-CoV-2 neutralizing antibody was STI-1499 (COVIGUARD™), which was engineered to prevent antibody dependent enhancement. This antibody was then optimized to produce the highly potent STI-2020, which is currently being developed in two outpatient formations: COVI-AMG (IV-push injection) and COVI-DROPS (nasal). COVI-AMG has been cleared by the U.S. Food and Drug Administration ("FDA") for a Phase I study of healthy volunteers, a Phase II study in outpatients with COVID-19 and a Phase II study in hospitalized patients with moderate or severe COVID-19, and we are awaiting FDA clearance for a Phase I study of COVIDROPS of healthy volunteers and patients with mild COVID-19. Sorrento also has developed two promising potential rescue treatments with Abivertinib, an oral next generation dual EGFR/BTK inhibitor, to treat moderate to severe hospitalized COVID-19 patients and COVI-MSC™, a human allogeneic adipose-derived mesenchymal stem cells for patients

suffering from COVID-19-induced acute respiratory distress (ARD). Both have been cleared by the FDA and are in Phase Ib clinical studies. We are also working with Brazilian regulators ("ANVISA") to conduct a COVID-19 study with Abivertinib and potentially with COVI-AMG ™. In pre-clinical development, we are rapidly screening new neutralizing antibodies to address the multiple emerging variants of SARS-CoV-2 to potentially add to STI-2020 in a cocktail (COVI-SHIELD™) and exploring novel mechanistic approaches such as soluble recombinant fusion protein traps (COVIDTRAP™) to potentially inhibit the binding of SARS-CoV-2's spike protein with host ACE2 receptors, thereby potentially preventing viral cell entry.

In furtherance of our goal to develop products across the entire continuum of COVID-19 solutions, we are further developing a number of highly sensitive and rapid diagnostic tests. COVISTIX™ is a lateral flow antigen test that uses a proprietary platinum-based colloid and antibody combination, resulting in high sensitivity and accuracy. This is a simple and rapid (15-minute) test with a shallow nasal swab and is designed for point-of-care and at-home use. COVITRACK™ is a rapid SARS-CoV-2 IgG/IgM antibody test kit intended for use initially in clinical laboratories and in point of care settings to quickly identify individuals with anti-SARS-CoV-2 antibodies post-infection or post- vaccination. COVITRACE™ was licensed from Columbia University as a rapid single step on-site colorimetric detection test for SARS-COV-2 genomic RNA from a saliva sample using targeted nucleic acid amplification for high throughput point-of-care situations.

We have reported early data from Phase I trials of our carcinoembryonic antigen ("CEA")-directed CAR-T program. We have treated five patients with stage 4, unresectable adenocarcinoma (four with pancreatic and one with colorectal cancer) and CEA-positive liver metastases with anti-CEA CAR-T. We successfully submitted an Investigational New Drug application ("IND") for anti-CD38 CAR-T for the treatment of refractory or relapsed multiple myeloma ("RRMM"), obtained clearance from the FDA and commenced a human clinical trial for this indication in early 2018. We have dosed eleven patients. We intend to close this study to further enrollment and start up a similar anti-CD38 CAR-T construct without the myc-tag (which cannot be used in Europe), and to continue treating RRMM patients in a Phase Ib/IIa study, which will begin enrollment in the first quarter of 2021. We filed INDs for our CD47 mAb and the first of our DAR-T platform product candidates in the first quarter of 2021.

Broadly speaking, we believe we are one of the world's leading CAR-T and DAR-T companies today due to our investments in technology and infrastructure, which have enabled significant progress in developing our next-generation non-viral, "off-the-shelf" allogeneic DAR-T solutions. With "off-the-shelf" solutions, DAR-T therapy can truly become a drug product platform rather than a treatment procedure.

With respect to our ADC program, we began enrolling patients in the first quarter of 2021 in a Phase Ib ascending dose study of our CD38 ADC for systemic Amyloid light-chain amyloidosis. Based upon our recently announced exclusive license from Mayo Clinic for its antibody-drug-nanoparticle albumin-bound ("ADNAB") platform, the next generation in ADC technology, we intend to file several INDs to treat various cancer targets.

Outside of immuno-oncology programs, as part of our global aim to provide a wide range of therapeutic products to meet underserved markets, we have made investments in non-opioid pain management. These include resiniferatoxin ("RTX"), which is a non-opioid-based toxin that specifically targets transient receptor potential vanilloid-1 ("TRPV1") which, depending on the site of injection, can ablate, or destroy, nerves expressing TRPV1 or temporarily defunctionalize them. TRPV1 is responsible for the noxious chronic and inflammatory pain signaling that occurs post injury or trauma, but leaves other nerve functions intact. RTX has been granted orphan drug status for the treatment of intractable pain with end-stage cancer and two Phase Ib trials (intrathecal and epidural routes) in that indication have or will soon be completed. A Phase Ib trial studying tolerance and efficacy of RTX for the control of moderate to severe osteoarthritis knee pain was initiated in late 2018 and intermediate results have shown efficacy with no dose limiting toxicities. The osteoarthritis trial enrolled the last patient in the first quarter of 2020, and we expect to release the final safety clinical data by the middle of 2021. We plan to start knee arthritis registrational trials after the completion of required preclinical studies.

Also, in this area, we have developed in-house and acquired proprietary technologies to responsibly develop next generation, branded pharmaceutical products to better manage patients' medical conditions, maximize the quality of life of patients and assist healthcare providers. The flagship product of our majority-owned subsidiary, Scilex Pharmaceuticals Inc. ("Scilex Pharma"), ZTlido® (lidocaine topical system 1.8%) ("ZTlido"), is a next-generation lidocaine delivery system, which was approved by the FDA for the treatment of postherpetic neuralgia, a severe neuropathic pain condition in February 2018, and was commercially launched in October 2018. Scilex Pharma has now built a full commercial organization, which includes sales, marketing, market access and medical affairs. ZTlido has demonstrated superior adhesion in comparative head-to-head studies as compared to Lidoderm and is manufactured by our Japanese partner in their state-of-the-art manufacturing facility.

Impact of COVID-19 on Our Business

We are closely monitoring the COVID-19 pandemic and its potential impact on our business. In an effort to protect the health and safety of our employees, we took proactive action from the earliest signs of the outbreak, including implementing social distancing policies at our facilities, facilitating remote working arrangements and imposing employee travel restrictions.

The COVID-19 pandemic has created uncertainties in the expected timelines for clinical stage biopharmaceutical companies such as ours, including possible delays in clinical trials and disruptions in the supply chain for raw materials used in clinical trial work. Such delays could materially impact our business. Accordingly, the extent to which the COVID-19 global pandemic impacts our business, results of operations and financial condition will depend on future developments, which remain unpredictable. These developments include, but are not limited to, the duration and spread of the outbreak, its severity, the actions to contain the virus or address its impact, U.S. and foreign government actions to respond to the reduction in global economic activity, and how quickly and to what extent normal economic and operating conditions can resume. For more information on the risks associated with COVID-19, refer to Part II, Item 1A, “Risk Factors” herein.

Results of Operations

Comparison of the Three Months Ended March 31, 2021 and 2020

Revenues. Revenues were $14.3 million for the three months ended March 31, 2021, as compared to $7.7 million for the three months ended March 31, 2020.

Revenues in our Sorrento Therapeutics segment increased from $2.5 million to $7.3 million for the three months ended March 31, 2021 compared to the same quarter of the prior year and were primarily attributed to higher contract manufacturing service revenues.

Revenues in our Scilex segment increased from $5.2 million to $7.0 million for the three months ended March 31, 2021 compared to the same quarter of the prior year and were attributed to increased product sales of ZTlido.

Cost of revenues. Cost of revenues for the three months ended March 31, 2021 and 2020 were $3.4 million and $2.4 million, respectively, and relate to product sales, the sale of customized reagents and providing contract manufacturing services. The costs generally include employee-related expenses, including salary and benefits, direct materials and overhead costs including rent, depreciation, utilities, facility maintenance and insurance.

Cost of revenues for our Sorrento Therapeutics segment increased by $0.6 million and was driven by the increase in revenues.

Cost of revenues for our Scilex segment increased by $0.3 million and was driven by higher sales of ZTlido.

Research and Development (“R&D”) Expenses. Research and development expenses for the three months ended March 31, 2021 and 2020 were $43.8 million and $21.2 million, respectively. Research and development expenses primarily include expenses associated with isolating and advancing human antibody drug candidates derived from our libraries, as well as advancing our RTX, COVID-19, SP-102, oncolytic virus, ADC and oncology programs. Such expenses consist primarily of salaries and personnel-related expenses, stock-based compensation expense, clinical development expenses, preclinical testing, lab supplies, consulting costs, depreciation and other expenses.

R&D expenses for our Sorrento Therapeutics segment increased by $22.5 million as compared to the same quarter of the prior year and were driven by higher headcount and increased clinical development costs across our R&D platforms.

R&D expenses for our Scilex segment increased by $0.2 million as compared to the same quarter of the prior year and were primarily driven by increased costs associated with our research and development product portfolio.

Acquired In-process Research and Development Expenses. Acquired in-process research and development expenses during the three months ended March 31, 2021 totaled $7.5 million. These expenses primarily related to licensing arrangements entered into during the period. We did not have acquired in-process research and development expenses during the three months ended March 31, 2020.

Selling, General and Administrative (“SG&A”) Expenses. SG&A expenses for the three months ended March 31, 2021 and 2020 were $43.4 million and $26.3 million, respectively, and consisted primarily of salaries and personnel-related expenses, stock-based compensation expense, professional fees, infrastructure expenses, legal and other general corporate expenses.

SG&A expenses for our Sorrento Therapeutics segment increased by approximately $17.9 million and were primarily attributed to higher headcount and stock-based compensation expense compared to the same quarter of the prior year.

SG&A expenses for our Scilex segment decreased by approximately $0.8 million and were attributed to cost savings resulting from a more focused marketing strategy for ZTlido and savings arising from the transfer of a contracted to in-house sales force.

Gain on Derivative Liabilities. Gain on derivative liabilities for the three months ended March 31, 2021 was $2.2 million compared to a gain of $4.9 million in the same quarter in 2020 and was primarily attributed to revised probabilities and revised sales

forecasts as further described in Note 3 of the accompanying notes to the consolidated financial statements in Part I, Item 1 of this Form 10-Q.

Gain on Marketable Investment. Gain on marketable investment reflects the change in fair value of our investment in ImmunityBio, Inc.

Loss on Debt Extinguishment, net. Loss on debt extinguishment for the three months ended March 31, 2021 was $6.1 million and was primarily attributed to the repurchases of the outstanding principal on the Scilex Notes (as defined below).

Loss on debt extinguishment for same quarter of the prior year was $23.6 million and was attributed to the repayments of outstanding principal on our prior term loans with certain funds and accounts managed by Oaktree Capital Management, L.P. (collectively, "Oaktree").

Interest Expense, net. Interest expense for the three months ended March 31, 2021 and 2020 was $2.4 million and $6.8 million, respectively. The decrease resulted primarily from a decrease in interest expense associated with the Oaktree term loans, which were fully repaid in year ended December 31, 2020. Interest income was immaterial for both periods.

Income Tax Benefit. Income tax benefit for the three months ended March 31, 2021 and 2020 was $0.2 million and $0.3 million, respectively. The decrease in income tax benefit was primarily attributable to the impact of earnings in the current year.

Net Income (Loss). Net income for the three months ended March 31, 2021 was $2.4 million. Net loss for the three months ended March 31, 2020 was $69.2 million.

Liquidity and Capital Resources

As of March 31, 2021, we had $41.7 million in cash and cash equivalents attributable in part to the following financing arrangements:

Debt Financings

Scilex Notes

In September 2018, Scilex Pharma entered into purchase agreements (the "2018 Purchase Agreements") with certain investors (collectively, the "Scilex Note Purchasers") and us. Pursuant to the 2018 Purchase Agreements, on September 7, 2018, Scilex Pharma issued and sold to the Scilex Note Purchasers senior secured notes due 2026 in an aggregate principal amount of $224.0 million (the "Scilex Notes") for an aggregate purchase price of $140.0 million (the "Scilex Notes Offering"). In connection with the Scilex Notes Offering, Scilex Pharma also entered into an Indenture (the "Indenture") governing the Scilex Notes with U.S. Bank National Association, a national banking association, as trustee and collateral agent, and us. Pursuant to the Indenture, we agreed to irrevocably and unconditionally guarantee, on a senior unsecured basis, the punctual performance and payment when due of all obligations of Scilex Pharma under the Indenture.

On December 14, 2020, we, Scilex Pharma, U.S. Bank National Association, as trustee and collateral agent, and the beneficial owners of the Scilex Notes and the Scilex Note Purchasers entered into a Consent Under and Amendment No. 3 to Indenture and Letter of Credit (the "Amendment"), which amended: (i) the Indenture, and (ii) the irrevocable standby letter of credit that we issued to Scilex Pharma in connection with the Indenture.

On December 14, 2020, and in connection with the Amendment, the aggregate $45.0 million in restricted funds held in previously established reserve and collateral accounts were released and Scilex Pharma utilized such funds to repurchase an aggregate of $45.0 million in principal amount of the Scilex Notes. Scilex Pharma also repurchased $20.0 million in principal amount of the Scilex Notes in each of December 2020 and February 2021.

Equity Financings

Amended Sales Agreement

On December 4, 2020, we entered into Amendment No. 1 to that certain Sales Agreement, dated April 27, 2020, with A.G.P./Alliance Global Partners, which provides that we may, from time to time, offer and sell securities to A.G.P./Alliance Global Partners in at-the-market transactions (as amended, the "Amended Sales Agreement"). During the three months ended March 31, 2020, we issued and sold an aggregate of 3,901,460 shares of our common stock pursuant to the Amended Sales Agreement for aggregate net proceeds of approximately $42.2 million. Subsequent to March 31, 2021 and through April 30, 2021, we issued and sold an aggregate of 976,208 shares of our common stock pursuant to the Sales Agreement for aggregate net proceeds of approximately $7.7 million.

Contingent Consideration

We have contingent consideration obligations in connection with certain acquisition and licensing transactions that are contingent upon achieving certain specified milestones or the occurrence of certain events, including those described within the accompanying notes to the consolidated financial statements in Part I, Item 1 of this Form 10-Q. Upon the achievement of such milestones or the occurrence of such events, we will be obligated to make certain cash or stock payments in accordance with the terms of such acquisition and license agreements.

Use of Cash

Cash Flows from Operating Activities. Net cash used for operating activities was $48.1 million for the three months ended March 31, 2021 as compared to $38.6 million for the three months ended March 31, 2020. Net cash used reflects the cash spent on our research activities and cash spent to support the commercial launch of our products.

We expect to continue to incur substantial and increasing losses and negative net cash flows from operating activities as we seek to expand and support our clinical and pre-clinical development and research activities, support the commercial launch of our products and fund our joint ventures, collaborations and other third-party agreements.

Cash Flows from Investing Activities. Net cash used by investing activities was $2.0 million for the three months ended March 31, 2021, which was primarily attributed to expenditures on laboratory equipment. During the three months ended March 31, 2020, net cash used by investing activities related to purchases of equipment and was not significant.

Cash Flows from Financing Activities. Net cash provided by financing activities was $35.4 million for the three months ended March 31, 2021 as compared to net cash provided by financing activities of $24.7 million for the three months ended March 31, 2020. During the three months ended March 31, 2021, we received $42.2 million from equity offerings, proceeds from short-term debt of $11.8 million and proceeds of $10.6 million from common stock issuances and warrant exercises. We repaid $21.3 million in principal amount of the Scilex Notes, of which $16.8 million was attributed to principal included within financing activities and $4.5 million was attributed to principal included in operating activities. We also repaid $11.8 million in other short-term debt. During the three months ended March 31, 2020, we repaid $55.5 million of outstanding principal under the prior term loans with Oaktree, and $2.3 million of related exit fees and prepayment fees thereon and a made payments of $1.6 million on the Scilex Notes. This use of cash was offset by proceeds received of $62.6 million from equity offerings and an additional $21.0 million from common stock issuances and warrant exercises.

Future Liquidity Needs. We have principally financed our operations through underwritten public offerings and private debt and equity financings, as we have not generated any significant product related revenue from our principal operations to date. We will need to raise additional capital before we exhaust our current cash resources in order to continue to fund our research and development, including our plans for clinical and preclinical trials and new product development, as well as to fund operations generally. We will seek to raise additional funds through various potential sources, such as equity and debt financings or through corporate collaboration, grant agreements and license agreements. We can give no assurances that we will be able to secure such additional sources of funds to support our operations, or, if such funds are available to us, that such additional financing will be sufficient to meet our needs. These conditions, among others, raise substantial doubt about our ability to continue as a going concern.

We cannot be certain that additional funding will be available on acceptable terms, or at all. If we issue additional equity securities to raise funds, the ownership percentage of existing stockholders would be reduced. New investors may demand rights, preferences or privileges senior to those of existing holders of common stock. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, scale back or discontinue the development or commercialization of one or more of our product candidates. We may also seek collaborators for one or more of our current or future product candidates at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available.

We anticipate that we will continue to incur net losses into the foreseeable future as we: (i) advance our product pipeline and other product candidates into clinical trials, (ii) continue our development of, and seek regulatory approvals for, our product candidates in clinical trials, (iii) expand our corporate infrastructure, and (iv) incur our share of joint venture and collaboration costs for our products and technologies.

Uses of Cash. We have and plan to expand our business and intellectual property portfolio through the acquisition of new businesses and technologies as well as entering into licensing arrangements.

Critical Accounting Policies and Estimates

Management's discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements which are prepared in accordance with accounting principles generally accepted in the U.S. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities, related 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. We continually evaluate our estimates and judgments, the most critical of which are those related to debt with detachable warrants, derivative liabilities, revenue recognition, leases, acquisition consideration payable, income taxes and stock-based compensation. We base our estimates and judgments on historical experience and other factors that we believe to be reasonable under the circumstances. Materially different results can occur as circumstances change and additional information becomes known. Our critical accounting policies and estimates are discussed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, and there have been no material changes during the three months ended March 31, 2021.

Contractual Obligations and Commitments

As of March 31, 2021, there were no material changes outside of the ordinary course of business, in our outstanding contractual obligations from those disclosed within "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

Off-Balance Sheet Arrangements

Since our inception through March 31, 2021, other than off balance sheet arrangements already disclosed, we have not engaged in any off-balance sheet arrangements as defined in Item 303(a)(4) of Regulation S-K.

New Accounting Pronouncements

Refer to Note 1, "Significant Accounting Policies" and "Recent Accounting Pronouncements" in the accompanying notes to the consolidated financial statements in Part I, Item 1 of this Form 10-Q for a discussion of recent accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

As of March 31, 2021, we held an investment in an equity security with a readily determinable fair value, which is included as a current marketable investment within our consolidated balance sheets. Our investment in this publicly traded equity security is recorded at fair value and is subject to market price volatility. Changes in the fair value of this investment is recorded in our consolidated statement of operations within gain (loss) on marketable investment. As of March 31, 2021, a price change of 10 percent would increase or decrease the fair value of our marketable investment by $19.4 million.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures. Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such terms are defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can only provide reasonable assurance of achieving the desired control objectives and in reaching a reasonable level of assurance. As a result, management was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation performed, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this Quarterly Report on Form 10-Q.

Changes in Internal Control over Financial Reporting. Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we carried out an evaluation of any potential changes in our internal control over financial reporting during the fiscal quarter covered by this Quarterly Report on Form 10-Q. There has been no change to our internal control over financial reporting during our most recent fiscal quarter that our certifying officers concluded materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings.

The information under the caption “Litigation” set forth in Note 10 in the accompanying notes to the consolidated financial statements in Part I, Item 1 of this Form 10-Q.is incorporated herein by reference.

Item 1A. Risk Factors.

Our Annual Report on Form 10-K for the year ended December 31, 2020, Part I –Item 1A, Risk Factors, describes important risk factors that could cause our business, financial condition, results of operations and growth prospects to differ materially from those indicated or suggested by forward-looking statements made in this Quarterly Report on Form 10-Q or presented elsewhere by management from time to time. Except as set forth below, there have been no material changes in our risk factors since the filing of our Annual Report on Form 10-K for the year ended December 31, 2020. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also materially and adversely affect our business.

Risks Related to Our Financial Position and Capital Requirements

We are a clinical stage company subject to significant risks and uncertainties, including the risk that we or our partners may never develop, obtain regulatory approval or market any of our product candidates or generate product related revenues.

We are primarily a clinical stage biotechnology company that began operating and commenced research and development activities in 2009. Pharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. There is no assurance that our libraries of fully-human mAbs or any of our other product candidates in development will be suitable for diagnostic or therapeutic use, or that we will be able to identify and isolate therapeutic product candidates, or develop, market and commercialize these candidates. We do not expect any of our product candidates in development, including, but not limited to, our fully-human mAbs, biosimilars/biobetters, fully human anti-PD-L1 checkpoint inhibitors derived from our proprietary G-MAB™ library platform, antibody drug conjugates ("ADCs"), bispecific antibodies ("BsAbs"), as well as Chimeric Antigen Receptor T Cells ("CAR-T") and Dimeric Antigen Receptor T Cells ("DAR-T") for adoptive cellular immunotherapy, resiniferatoxin ("RTX"), higher strength lidocaine topical system (SP-103) and non-opioid corticosteroid formulated as a viscous gel injection (SP-102) ("SEMDEXA™") to be commercially available for a few years, if at all. Additionally, our COVID-19 related product candidates, including STI-1499 (neutralizing antibody; COVIGUARD™), STI-2020 (affinity matured neutralizing antibody; COVI-AMG™), STI-2099 (intranasal affinity matured neutralizing antibody; COVIDROPS™), neutralizing antibody cocktail (COVISHIELD™), STI-5656 (Abivertinib), STI-4398 (ACE2 receptor decoy protein; COVIDTRAP™), STI-8282 (allogeneic adipose-derived mesenchymal stem cells; COVI-MSC™), STI-2030 (Salicyn-30) serological IgM/IgG antibody diagnostic test (COVITRACK™), saliva-based antigen diagnostic test for SARS-CoV-2 (COVITRACE™) and lateral flow viral antigen diagnostic test for SARS-CoV-2 (COVISTIX™), are subject to uncertainties relating to product development, regulatory approval and commercialization, and further risks based on the constantly evolving situation affecting the United States and the international community. Even if we are able to commercialize our product candidates, there is no assurance that these candidates would generate revenues or that any revenues generated would be sufficient for us to become profitable or thereafter maintain profitability.

We have incurred significant losses since inception and anticipate that we will incur continued losses for the foreseeable future.

As of March 31, 2021 and December 31, 2020, we had an accumulated deficit of $955.8 million and $958.3 million, respectively. We continue to incur significant research and development and other expenses related to our ongoing operations. We have incurred operating losses since our inception, expect to continue to incur significant operating losses for the foreseeable future, and we expect these losses to increase as we: (i) advance RTX, STI-6129 (anti-CD38 ADC), SP-103, SEMDEXA™ and our other product candidates, including our COVID-19 related product candidates, STI-2020 (COVI-AMG™), STI-2099 (COVIDROPS™), STI-8282 (COVI-MSC™) and STI-5656 (Abivertinib), into further clinical trials and pursue other development, acquire, develop and manufacture clinical trial materials and increase other regulatory operating activities, (ii) conduct further studies for our preclinical COVID-19 related product candidates, including a neutralizing antibody cocktail (COVISHIELD™), STI-4398 (COVIDTRAP™), and STI-2030 (Salicyn-30), to advance to clinical trials and seek regulatory approval; (iii) incur incremental expenses associated with our efforts to further advance a number of potential product candidates into preclinical development activities, (iv) continue to identify and advance a number of fully human therapeutic antibody and ADC preclinical product candidates, (v) incur higher salary, lab supply and infrastructure costs incurred in connection with supporting all of our programs, (vi) invest in our joint ventures, collaborations or other third party agreements, (vii) incur expenses in conjunction with defending and enforcing our rights in various litigation matters, (viii) expand our corporate, development and manufacturing infrastructure, and (ix) support our subsidiaries, including Scilex Holding Company and SmartPharm Therapeutics, Inc., in their clinical trial, development and commercialization efforts. As such, we are subject to all risks incidental to the development of new biopharmaceutical products and related companion diagnostics, and we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. Our prior losses, combined with expected future losses, have had and will continue to have an adverse effect on our stockholders' equity and working capital.

We will require substantial additional funding, which may not be available to us on acceptable terms, or at all. If we fail to raise the necessary additional capital, we may be unable to complete the development and commercialization of our product candidates or continue our development programs.

Our operations have consumed substantial amounts of cash since inception. We expect to significantly increase our spending to advance the preclinical and clinical development of our product candidates and launch and commercialize any product candidates for which we receive regulatory approval, including building our own commercial organization to address certain markets. We will

require additional capital for the further development and commercialization of our product candidates, as well as to fund our other operating expenses and capital expenditures.

As a result of our recurring losses from operations, recurring negative cash flows from operations and substantial cumulative losses, there is uncertainty regarding our ability to maintain liquidity sufficient to operate our business effectively, which raises substantial doubt about our ability to continue as a going concern. If we are unsuccessful in our efforts to raise outside financing, we may be required to significantly reduce or cease operations. The report of our independent registered public accounting firm on our audited financial statements for the year ended December 31, 2020 included a "going concern" explanatory paragraph indicating that our recurring losses from operations, negative working capital, recurring negative cash flows from operations and substantial cumulative net losses raise substantial doubt about our ability to continue as a going concern.

We cannot be certain that additional funding will be available on acceptable terms, or at all. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us we may have to significantly delay, scale back or discontinue the development or commercialization of one or more of our product candidates. We may also seek collaborators for one or more of our current or future product candidates at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available. Any of these events could significantly harm our business, financial condition and prospects.

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

- the progress of the development of our fully-human mAbs, including biosimilars/biobetters, fully human anti-PD-L1 checkpoint inhibitors derived from our proprietary G-MAB™ library platform, ADCs, BsAbs, CAR-T and DAR-T for adoptive cellular immunotherapy, RTX, SP-103 and SEMDEXA™, and our COVID-19 product candidates;
- the number of product candidates we pursue;
- our ability to develop and advance our current product candidates and programs into, and successfully complete, clinical studies;
- the time and costs involved in obtaining regulatory approvals;
- the costs involved in filing and prosecuting patent applications and enforcing or defending patent claims;
- our plans to establish sales, marketing and/or manufacturing capabilities;
- the effect of competing technological and market developments;
- the terms and timing of any collaborative, licensing and other arrangements that we may establish;
- general market conditions for offerings from biopharmaceutical companies;
- our ability to establish, enforce and maintain selected strategic alliances and activities required for product commercialization;
- our obligations under our debt arrangements;
- the time and costs involved in defending and enforcing our rights in various litigation matters;
- our ability to retain the continued service of our key professionals and to identify, hire and retain additional qualified professionals;
- the effect of the COVID-19 pandemic; and
- our revenues, if any, from successful development and commercialization of our product candidates, including ZTlido.

In order to carry out our business plan and implement our strategy, we anticipate that we will need to obtain additional financing from time to time and may choose to raise additional funds through strategic collaborations, licensing arrangements, joint ventures, public or private equity or debt financing, bank lines of credit, asset sales, government grants or other arrangements. We cannot be sure that any additional funding, if needed, will be available on terms favorable to us, or at all. Furthermore, any additional equity or equity-related financing may be dilutive to our stockholders, and debt or equity financing, if available, may subject us to restrictive covenants and significant interest costs. If we obtain funding through a strategic collaboration or licensing arrangement, we may be required to relinquish our rights to certain of our product candidates or marketing territories.

In addition, as discussed in the risk factor under the heading "The terms of our outstanding debt place restrictions on our operating and financial flexibility. If we raise additional capital through debt financing, the terms of any new debt could further restrict our ability to operate our business" below, the Scilex Indenture includes negative covenants that place limitations on the following: the incurrence of debt, the payment of dividends by Scilex Pharmaceuticals Inc. ("Scilex Pharma"), the repurchase of shares and, under certain conditions, making certain other restricted payments, the prepayment, redemption or repurchase of subordinated debt, a merger, amalgamation or consolidation involving Scilex Pharma, engaging in certain transactions with affiliates; and the making of investments other than those permitted by the Scilex Indenture.

Our inability to raise capital when needed would harm our business, financial condition and results of operations, and could cause our stock price to decline or require that we wind down our operations altogether.

Our portfolio of marketable securities is subject to market, interest and credit risk that may reduce its value.

We maintain a portfolio of marketable securities. Changes in the value of our portfolio of marketable securities could adversely affect our earnings. In particular, the value of our investments may decline due to increases in interest rates, downgrades of the bonds and other securities included in our portfolio, instability in the global financial markets that reduces the liquidity of securities included in our portfolio, declines in the value of collateral underlying the securities included in our portfolio and other factors. In addition, the COVID-19 pandemic has and may continue to adversely affect the financial markets in some or all countries worldwide. Each of these events may cause us to record charges to reduce the carrying value of our investment portfolio or sell investments for less than our acquisition cost. Although we attempt to mitigate these risks through diversification of our investments and continuous monitoring of our portfolio's overall risk profile, the value of our investments may nevertheless decline.

Risks Related to Our Business and Industry

Drug development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results.

Clinical testing is expensive and can take many years to complete, and its outcome is risky and uncertain. Failure can occur at any time during the clinical trial process. The results of preclinical studies and early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials. It is not uncommon for companies in the pharmaceutical industry to suffer significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials. Our future clinical trial results may not be successful.

This drug candidate development risk is heightened by any changes in the planned clinical trials compared to the completed clinical trials. As product candidates are developed through preclinical to early and late stage clinical trials towards approval and commercialization, it is customary that various aspects of the development program, such as manufacturing and methods of administration, are altered along the way in an effort to optimize processes and results. While these types of changes are common and are intended to optimize the product candidates for late stage clinical trials, approval and commercialization, such changes do carry the risk that they will not achieve these intended objectives.

Other than with respect to ZTlido, we have not completed a corporate-sponsored clinical trial. Phase I trials are ongoing for RTX for knee osteoarthritis, RTX for cancer-related pain and anti-CD38 CAR-T for multiple myeloma and a Phase III trial is ongoing for SEMDEXA™ for the treatment of lumbosacral radicular pain. Non-clinical studies are ongoing and a Phase II trial is planned to start in the second half of 2021 with higher strength SP-103. We are currently in a Phase II study of abivertinib for cytokine storm related to COVID-19 infection, a Phase I study of mesenchymal stem cells for the treatment of respiratory distress syndrome associated with COVID-19 infection and Phase I studies of STI-1499, STI-2020 and STI-8282 in healthy adults and/or mild or hospitalized patients with COVID-19. Despite this, we may not have the necessary capabilities, including adequate staffing, to successfully manage the execution and completion of any clinical trials we initiate, including our planned clinical trials of RTX, clinical trials of SP-103, clinical trials of SEMDEXA™, clinical trials of CAR-T, including targeting CD38 using a CAR-T cell therapy, our biosimilar/biobetters antibodies, clinical trials of our COVID-19 related product candidates and other product candidates, in a way that leads to our obtaining marketing approval for our product candidates in a timely manner, or at all.

In the event we are able to conduct a pivotal clinical trial of a product candidate, the results of such trial may not be adequate to support marketing approval. Because our product candidates are intended for use in life-threatening diseases, in some cases we ultimately intend to seek marketing approval for each product candidate based on the results of a single pivotal clinical trial. As a result, these trials may receive enhanced scrutiny from the FDA. For any such pivotal trial, if the FDA disagrees with our choice of primary endpoint or the results for the primary endpoint are not robust or significant relative to control, are subject to confounding factors, or are not adequately supported by other study endpoints, including possibly overall survival or complete response rate, the FDA may refuse to approve a New Drug Application, Biologics License Application or other application for marketing based on such pivotal trial. The FDA may require additional clinical trials as a condition for approving our product candidates.

There can be no assurance that the product candidates we are developing for the detection and treatment of COVID-19 will be granted an Emergency Use Authorization by the FDA. If no Emergency Use Authorization is granted or, once granted, it is terminated, we will be unable to sell our product candidates in the near future and will be required to pursue the drug approval process, which is lengthy and expensive.

On June 10, 2020, we announced the submission of an Emergency Use Authorization (“EUA”) to the FDA for our COVITRACK *in vitro* diagnostic test kit for the independent detection of IgG and IgM antibodies in sera of patients exposed to the SARS-CoV-2 virus. Additionally, on December 22, 2020, we announced the submission of an Emergency Use Authorization (“EUA”)

to the FDA for our COVISTIX *in vitro* diagnostic test kit for the rapid detection of the SARS-CoV-2 virus nucleocapsid antigen in nasal samples of patients.

An EUA would allow us to market and sell COVITRACK and/or COVISTIX without the need to pursue the lengthy and expensive drug approval process. The FDA may issue an EUA during a public health emergency if it determines that the potential benefits of a product outweigh the potential risks and if other regulatory criteria are met. If an EUA is granted for COVITRACK or COVISTIX, we will rely on the FDA policies and guidance in connection with the marketing and sale of COVITRACK and COVISTIX. If these policies and guidance change unexpectedly and/or materially or if we misinterpret them, potential sales of COVITRACK and COVISTIX could be adversely impacted. In addition, the FDA may revoke an EUA where it is determined that the underlying health emergency no longer exists or warrants such authorization. If granted, we cannot predict how long an EUA for COVITRACK or COVISTIX would remain in place. The termination of an EUA for COVITRACK or COVISTIX, if granted, could adversely impact our business, financial condition and results of operations.

We may also seek additional EUAs from the FDA for our other product candidates for the detection and/or treatment of COVID-19 and the SARS-CoV-2 virus. If granted, the additional EUAs would allow us to market and sell additional product candidates without the need to pursue the lengthy and expensive drug approval process. There is no guarantee that we will be able to obtain any additional EUAs. Failure to obtain additional EUAs or the termination of such EUAs, if obtained, could adversely impact our business, financial condition and results of operations.

Our business may be adversely affected if we do not manage our current growth and do not successfully execute our growth initiatives.

We have experienced growth in our headcount and operations, which has placed, and will continue to place, significant demands on our management and our operational and financial infrastructure. We anticipate further growing through both internal development projects as well as external opportunities, which include the acquisition, partnering and in-licensing of products, technologies and companies or the entry into strategic alliances and collaborations. The availability of high quality development opportunities is limited and we are not certain that we will be able to identify candidates that we and our shareholders consider suitable or complete transactions on terms that are acceptable to us and our shareholders. In order to pursue such opportunities, we may require significant additional financing, which may not be available to us on favorable terms, if at all. Even if we are able to successfully identify and complete acquisitions and other strategic alliances and collaborations, we may not be able to integrate them or take full advantage of them and therefore may not realize the benefits that we expect.

To effectively manage our current and future potential growth, we will need to continue to enhance our operational, financial and management processes and to effectively expand, train and manage our employee base. Supporting our growth initiatives will require significant capital expenditures and management resources, including investments in research and development, sales and marketing, manufacturing and other areas of our business. If we do not successfully manage our current growth and do not successfully execute our growth initiatives, then our business and financial results may be adversely affected and we may incur asset impairment or restructuring charges.

The growth of our business depends on our ability to attract and retain qualified personnel and to develop and maintain key relationships.

The achievement of our commercial, research and development and external growth objectives depends upon our ability to attract and retain qualified scientific, manufacturing, sales and marketing and executive personnel and to develop and maintain relationships with qualified clinical researchers and key distributors. Competition for these people and relationships is intense and comes from a variety of sources, including pharmaceutical and biotechnology companies, universities and non-profit research organizations.

Risks Related to Ownership of Our Common Stock

The market price of our common stock may fluctuate significantly, and investors in our common stock may lose all or a part of their investment.

The market prices for securities of biotechnology and pharmaceutical companies have historically been highly volatile, and the market has from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. For example, from March 31, 2020 to March 31, 2021, our closing stock price ranged from $1.73 to $18.82 per share, and from January 4, 2021 to April 30, 2021, our closing stock price ranged from $6.93 to $16.51 per share. The market price of our common stock may fluctuate significantly in response to numerous factors, some of which are beyond our control, such as:

- actual or anticipated adverse results or delays in our clinical trials;
- our failure to commercialize our product candidates, if approved;
- unanticipated serious safety concerns related to the use of any of our product candidates;

- adverse regulatory decisions;
- changes in laws or regulations applicable to our product candidates, including but not limited to clinical trial requirements for approvals;
- legal disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our product candidates, government investigations and the results of any proceedings or lawsuits, including, but not limited to, patent or stockholder litigation;
- our decision to initiate a clinical trial, not initiate a clinical trial or to terminate an existing clinical trial;
- our dependence on third parties, including CROs;
- announcements of the introduction of new products by our competitors;
- market conditions in the pharmaceutical and biotechnology sectors;
- announcements concerning product development results or intellectual property rights of others;
- future issuances of common stock or other securities;
- the addition or departure of key personnel;
- failure to meet or exceed any financial guidance or expectations regarding development milestones that we may provide to the public;
- actual or anticipated variations in quarterly operating results;
- our failure to meet or exceed the estimates and projections of the investment community;
- overall performance of the equity markets and other factors that may be unrelated to our operating performance or the operating performance of our competitors, including changes in market valuations of similar companies;
- conditions or trends in the biotechnology and biopharmaceutical industries;
- introduction of new products offered by us or our competitors;
- announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments by us or our competitors;
- issuances of debt or equity securities;
- sales of our common stock by us or our stockholders in the future;
- trading volume of our common stock;
- ineffectiveness of our internal controls;
- publication of research reports about us or our industry or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- failure to effectively integrate the acquired companies' operations;
- general political and economic conditions;
- effects of natural or man-made catastrophic events
- effects of public health crises, pandemics and epidemics, such as the COVID-19 pandemic; and
- other events or factors, many of which are beyond our control.

Further, the equity markets in general have recently experienced extreme price and volume fluctuations. Continued market fluctuations could result in extreme volatility in the price of our common stock, which could cause a decline in the value of our common stock. Price volatility of our common stock might worsen if the trading volume of our common stock is low. The realization of any of the above risks or any of a broad range of other risks, including those described in these "Risk Factors," could have a dramatic and material adverse impact on the market price of our common stock.

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

Since December 31, 2020, we have issued the following securities that were not registered under the Securities Act of 1933, as amended (the "Securities Act"):

(1) On January 29, 2021, we entered into certain Exchange Agreements (the "Exchange Agreements") with certain stockholders of Scilex Holding Company ("Scilex Holding"), pursuant to which we acquired additional shares of Scilex Holding in exchange for an aggregate of 2,567,456 shares of our common stock, which were issued on January 29, 2021. The issuance of the shares to the former Scilex Holding stockholders were not registered under the Securities Act in reliance upon the exemption from registration provided by Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D thereunder. Each of the former Scilex Holding stockholders represented that it was an "accredited investor," as defined in Regulation D, and was acquiring the shares of common stock for investment only and not with a view towards, or for resale in connection with, the public sale or distribution thereof.

(2) On March 4, 2021, we entered into an exclusive license agreement (the "Mount Sinai License Agreement") with Icahn School of Medicine at Mount Sinai ("Mount Sinai") to acquire a worldwide, exclusive, sublicensable license to certain of Mount Sinai's patents and monoclonal antibodies as well as technical information to develop, manufacture, commercialize, and exploit related products and services ("Licensed Products") for all fields, uses, and applications, including for the diagnosis, prevention, treatment and cure of coronavirus. As consideration for the Mount Sinai License Agreement, we paid Mount Sinai and upfront license fee of $7.5 million comprised of 851,305 shares of our common stock, which were issued on March 12, 2021. The issuances of the shares to Mount Sinai were not registered under the Securities Act in reliance upon the exemption from registration provided by Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D thereunder. Mount Sinai represented that it was an "accredited investor," as defined in Regulation D, and was acquiring the shares of common stock for investment only and not with a view towards, or for resale in connection with, the public sale or distribution thereof.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

EXHIBIT INDEX

Exhibit No.	Description
2.1^	Agreement and Plan of Merger, dated April 2, 2021, by and among Sorrento Therapeutics, Inc., AT Merger Sub, Inc., ACEA Therapeutics, Inc. and Fortis Advisors LLC, as representative of the shareholders of ACEA Therapeutics, Inc. (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on April 5, 2021).
3.1	Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed with the SEC on May 15, 2013).
3.2	Certificate of Amendment of the Restated Certificate of Incorporation of Sorrento Therapeutics, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on August 1, 2013).
3.3	Amended and Restated Bylaws of Sorrento Therapeutics, Inc. (incorporated by reference to Exhibit 3.3 to the Registrant's Annual Report on Form 10-K filed with the SEC on March 15, 2019).
4.1	Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on October 23, 2009).
4.2	Voting Agreement, dated as of April 29, 2016, by and between Sorrento Therapeutics, Inc. and Yuhan Corporation (incorporated by reference to Exhibit 4.12 to the Registrant's Registration Statement on Form S-3 filed with the SEC on June 29, 2016).
4.3	Registration Rights Agreement, dated November 8, 2016, by and among Sorrento Therapeutics, Inc. and the persons party thereto (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on November 8, 2016).
4.4	Registration Rights Agreement, dated April 27, 2017, by and among Sorrento Therapeutics, Inc. and the persons party thereto (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on April 28, 2017).
4.5	Form of Common Stock Purchase Warrant issued to investors pursuant to the Securities Purchase Agreement, dated as of December 11, 2017, by and among Sorrento Therapeutics, Inc. and the purchasers identified on Schedule A thereto (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed with the SEC on December 21, 2017).
4.6	Registration Rights Agreement, dated December 21, 2017, by and among Sorrento Therapeutics, Inc. and the purchasers identified on Schedule A thereto (incorporated by reference to Exhibit 4.3 to the Registrant's Current Report on Form 8-K filed with the SEC on December 21, 2017).
4.7	Form of Common Stock Purchase Warrant issued to investors pursuant to the Securities Purchase Agreement, dated as of June 13, 2018, by and among Sorrento Therapeutics, Inc. and the purchasers identified on Schedule A thereto (incorporated by reference to Exhibit 4.2 to the Registrant's Quarterly Report on Form 10-Q filed with the SEC on August 9, 2018).
4.8	Registration Rights Agreement, dated June 13, 2018, by and among Sorrento Therapeutics, Inc. and the purchasers identified on Schedule A thereto (incorporated by reference to Exhibit 4.3 to the Registrant's Quarterly Report on Form 10-Q filed with the SEC on August 9, 2018).
4.9	Form of Warrant, dated November 7, 2018, issued by Sorrento Therapeutics, Inc. (incorporated by reference to Exhibit 4.1 to the Registrant's Quarterly Report on Form 10-Q filed with the SEC on November 9, 2018).
4.10	Registration Rights Agreement, dated November 7, 2018, by and among Sorrento Therapeutics, Inc. and the parties identified on Schedule A thereto (incorporated by reference to Exhibit 4.2 to the Registrant's Quarterly Report on Form 10-Q filed with the SEC on November 9, 2018).

4.11	Agreement and Consent, dated November 7, 2018, by and among Sorrento Therapeutics, Inc. and the Warrant Holders party thereto (incorporated by reference to Exhibit 10.6 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on November 9, 2018).
4.12	Form of Warrant, dated May 3, 2019, issued by Sorrento Therapeutics, Inc. (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on May 3, 2019).
4.13	Amendment No. 1 to the Registration Rights Agreement, dated as of May 3, 2019, by and among Sorrento Therapeutics, Inc. and the persons party thereto (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed with the SEC on May 3, 2019).
4.14	Form of Series A Warrant (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on June 28, 2019).
4.15	Form of Series C Warrant (incorporated by reference to Exhibit 4.3 to the Registrant's Current Report on Form 8-K filed with the SEC on June 28, 2019).
4.16	Form of Warrant (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on October 8, 2019).
4.17	Amendment No. 2 to the Registration Rights Agreement, dated as of December 6, 2019, by and among Sorrento Therapeutics, Inc. and the persons party thereto (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed with the SEC on December 9, 2019).
4.18	Registration Rights Agreement, dated as of March 4, 2021, by and between Sorrento Therapeutics, Inc. and the Icahn School of Medicine at Mount Sinai (incorporated by reference to Exhibit 4.19 to the Registrant's Registration Statement on Form S-3 filed with the SEC on April 9, 2021).
10.1†	Binding Term Sheet, dated as of February 24, 2021, by and between Sorrento Therapeutics, Inc. and ANP Technologies, Inc.
10.2+*†	Exclusive License Agreement, dated as of March 4, 2021, by and between Sorrento Therapeutics, Inc. and the Icahn School of Medicine at Mount Sinai.
10.3	Stock Purchase Agreement, dated as of March 4, 2021, by and between Sorrento Therapeutics, Inc. and the Icahn School of Medicine at Mount Sinai (incorporated by reference to Exhibit 4.18 to the Registrant's Registration Statement on Form S-3 filed with the SEC on April 9, 2021).
10.4†	Amendment to Binding Term Sheet, dated as of April 20, 2021, by and between Sorrento Therapeutics, Inc. and ANP Technologies, Inc.
10.5#†	Sorrento Therapeutics, Inc. 2021 Cash-Settled Stock Appreciation Rights Plan.
10.6#†	Sorrento Therapeutics, Inc. Stock Appreciation Rights Award Agreement.
31.1	Certification of Henry Ji, Ph.D., Principal Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, as amended.
31.2	Certification of Najjam Asghar, Principal Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, as amended.
32.1	Certification of Henry Ji, Ph.D., Principal Executive Officer and Najjam Asghar, Principal Financial Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, as amended.
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File, formatted in Inline Extensible Business Reporting Language (iXBRL) (embedded within the Inline XBRL document)

+ Non-material schedules and exhibits have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The Registrant hereby undertakes to furnish supplementally copies of any of the omitted schedules and exhibits upon request by the SEC.

Management contract or compensatory plan.

* Certain identified information has been omitted pursuant to Item 601(b)(10) of Regulation S-K because such information is both (i) not material and (ii) would likely cause competitive harm to the Registrant if publicly disclosed. The Registrant hereby undertakes to furnish supplemental copies of the unredacted exhibit upon request by the SEC.

^ Non-material schedules and exhibits have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The Registrant hereby undertakes to furnish supplemental copies of any of the omitted schedules and exhibits upon request by the SEC.

† Filed 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.

Sorrento Therapeutics, Inc.

Date: May 05, 2021

By: /s/ Henry Ji, Ph.D.
Henry Ji, Ph.D.
Chairman of the Board of Directors, Chief Executive Officer & President
(Principal Executive Officer)

Date: May 05, 2021

By: /s/ Najjam Asghar
Najjam Asghar
Senior Vice President & Chief Financial Officer
(Principal Financial Officer)

Exhibit 10.1

TERM SHEET FOR ANP TECHNOLOGIES, INC. ACQUISITION

February 24, 2021

A.Transaction:

Sorrento Therapeutics, Inc. ("Sorrento") will acquire 100% of the issued and outstanding equity of ANP Technologies, Inc. ("ANP") and all of its subsidiaries by means of a reverse triangular merger in which a newly-formed subsidiary of Sorrento will merge with and into ANP (the "Transaction"). In order to consummate the Transaction, ANP and Sorrento will enter into definitive legal documentation (the "Transaction Documents"), including without limitation, a definitive merger agreement (the "Definitive Agreement"), incorporating the terms herein and such other terms reasonably acceptable to each of the Parties.

B.Parties:

The parties ("Parties") to the Transaction are as follows:

•Sorrento (including its newly-formed subsidiary)
•ANP

C.Merger Consideration:

The aggregate consideration payable by Sorrento upon completion of the Transaction is $100,000,000 (the "Base Purchase Price") ($10,000,000 in upfront cash and $90,000,000 in stock), subject to adjustment (pro rata across the cash and stock consideration) for company cash, net working capital, indebtedness and transaction expenses of ANP (the "Merger Consideration"); *provided, however,* that if the Closing VWAP (as defined below) is equal to or greater than 100% of the closing price of Sorrento common stock on The NASDAQ Stock Market LLC as of the execution date of this Term Sheet then ANP shall have the option to require Sorrento to pay up to an additional $40,000,000 of the aggregate Merger Consideration in cash and that portion of the Merger Consideration that was otherwise payable in shares of Sorrento common stock shall be reduced by the corresponding amount that ANP so elects to have paid in cash and in no event shall the Base Purchase Price exceed $100,000,000.

The Merger Consideration shall be paid by Sorrento in a $10,000,000 upfront cash payment (subject to the proviso in the preceding paragraph) and shares of Sorrento common stock (the "Purchase Shares"), with the number of shares to be issued in respect thereof to be determined based on the volume weighted average price of the shares of Sorrento common stock traded on The NASDAQ Stock Market LLC for seven consecutive trading days' beginning three trading days preceding the execution date of the Definitive Agreement and ending three trading days following such execution date (the "Closing VWAP"); *provided, however*, that for purposes of rules of The Nasdaq Stock Market LLC, the total number of shares of Sorrento stock issuable as Merger Consideration shall not exceed 19.99% of the outstanding shares of Sorrento as of immediately prior to the closing of the Transaction. The parties may determine to allocate the Purchase Shares to ANP's equityholders on other than a pro rata basis pending the availability of applicable securities law exemptions for the issuance of such shares.

Sorrento shall register all the Purchase Shares on a resale registration statement with the SEC upon completion of closing and such registration statement shall be filed no later than 60 days after the closing of the Transaction.

Sorrento will not assume any options, warrants or other rights to acquire the capital stock of ANP and no options, warrants or other rights to acquire Sorrento capital stock will be issued in consideration therefor. All such options, warrants and other rights shall be canceled and converted into the right to receive a portion of the Merger Consideration, less the exercise price thereof (if applicable).

The Parties intend to structure the Transaction as a reverse triangular merger in which a newly-formed subsidiary of Sorrento will merge with and into ANP. All Parties intend to treat the transaction as a tax-

free reorganization pursuant to Sections 368(a)(1)(A) and 368(a)(2)(E) of the Internal Revenue Code of 1986, as amended. Notwithstanding the foregoing, if mutually agreed by the Parties, the Parties may consider structuring the Transaction in a different manner.

Twenty percent (20%) of the Purchase Shares will be held in escrow and such escrowed Purchase Shares (the "Escrowed Shares") will be placed in the name of the existing stockholders of ANP (collectively, the "Existing Stockholders") (or designated representative thereof) with an independent escrow agent that is reasonably satisfactory to Sorrento and ANP.

The Escrowed Shares will be released twelve (12) months after the Closing Date, less the amount represented by that portion of the Escrowed Shares having a value equal to the amount of any pending claims, settlements or awards arising out of a breach of ANP's representations and warranties or covenants set forth in the Transaction Documents, as described in the section titled "Indemnification" below.

D.Due Diligence:	Subject to the Confidentiality Agreement (as defined below), ANP shall provide to Sorrento and its accountants, attorneys, partners, consultants and all other representatives and agents of Sorrento access, as reasonably necessary for Sorrento, to agreed-upon management, consultants, accountants, advisors and other representatives of ANP and to all properties, operating and financial data, records, agreements and other information relating to ANP and to the Transaction, to the extent reasonably requested by Sorrento.

E.Confidentiality:

This document and its terms and all related discussions and correspondence between the Parties (including any past discussions and correspondence) are confidential and subject to the terms of that certain Confidentiality Agreement by and between ANP and Sorrento dated January 1, 2021 (the "Confidentiality Agreement").

In addition, neither Party shall disclose the existence of this document or its terms or any related discussions and correspondence between the Parties without the prior written consent of the other Party and no public disclosure of such terms or discussions will be permitted without the prior written consent of the other Party, in each case except as required by applicable law or the rules of the stock exchange upon which it is traded. This offer should be discussed only by and between the senior officers, members of the board of directors or managers of ANP and Sorrento and professional advisors and ANP's stockholders and others as deemed necessary to accomplish the objectives of this Term Sheet. All such individuals shall be subject to obligations of confidentiality, to the extent not covered pursuant to the terms of the Confidentiality Agreement.

F.Indemnification:

Subject to the terms and conditions of the Definitive Agreement, the Existing Stockholders will agree to pay and/or reimburse Sorrento and its affiliates for any claims and/or liabilities (including, but not limited to, reasonable attorneys' fees and the costs and expenses of defending any claims) arising out of, relating to or based upon allegations pertaining to:

(i) any inaccuracy or breach of any representation or warranty of ANP contained in the definitive Transaction Documents;

(ii) any breach of any covenant by ANP contained in the Transaction Documents;

(iii) any liability or cost arising out of any event prior to the Closing Date in respect of the manner in which ANP compensates any employees and other persons who work or have worked for ANP; and

(iv) any taxes, past or present (including interest, penalties, etc.) imposed on the income, business, property or operations of ANP for the period up to and including the Closing Date.

Any such right of Sorrento to indemnification shall be on customary terms relating to cap and indemnity baskets and other matters as the Parties may mutually agree to in the Transaction Documents.

G.Covenants:

The Transaction Documents will contain customary pre-closing and post-closing covenants of the Parties.

H.Closing Conditions: The obligation of Sorrento to complete the Transaction contemplated herein will be subject, among other things, to the satisfaction of the following conditions:

(i)completion of legal, accounting, regulatory, tax, financial, technical, commercial and environmental due diligence, in Sorrento's reasonable satisfaction and discretion;

(ii)negotiation, execution and delivery of a satisfactory and mutually acceptable Definitive Agreement and related Transaction Documents;

(iii)absence of any material adverse change in the business, results of operations, condition (financial or otherwise) or prospects of ANP or any of its subsidiaries;

(iv)receipt of all necessary governmental, board of directors, investment committee, Existing Stockholder and third-party approvals, waivers and consents (including any governmental consents or clearances);

(v)absence of any action or proceeding against ANP that may affect the Transaction or the value of Sorrento's investment;

(vi)true and correct representations and warranties by ANP in Sorrento's reasonable satisfaction as of the Closing Date; and

(vii)as of the Closing Date, no indebtedness outstanding in any form save for normal trade creditors and apportionments that may be agreed to between the parties in the Transaction Documents.

I.Representations & Warranties: ANP shall represent and warrant, and the Existing Stockholders, jointly and severally, shall represent and warrant, among other things, that:

(i)ANP and its subsidiaries (if applicable) are business entities in good standing;

(ii)ANP and its Existing Stockholders have the requisite power and authority to execute the Transaction;

(iii)The Transaction and the assets of ANP, as of the Closing Date, will not infringe any third party's contractual or intellectual property rights;

(iv)As of the Closing Date, there are no undisclosed liabilities that are required to be reflected on a balance sheet of ANP under generally accepted accounting principles;

(v)There have been no material changes with respect to ANP and its subsidiaries, if any, and their assets, taken as a whole since its last audited accounts;

(vi)The assets of ANP and its subsidiaries, if any, arc transferred with good and valid title, free of any liens or any other encumbrances, except as may be permitted by Sorrento under the Definitive Agreement;

(vii)As of the Closing Date, all intellectual property owned, licensed or controlled by ANP and its subsidiaries, if any, are valid, and there has been no challenge to such intellectual property;

(viii)There has been no commenced or threatened litigation or claim against ANP or any of its subsidiaries, if any, except as disclosed or as is not likely to have a material adverse effect;

(ix)Prior to the Closing Date, ANP and its subsidiaries, if any, have been and will be in compliance with all applicable laws and regulations; and

(x)Prior to the Closing Date, ANP and its subsidiaries, if any, have and will procure and maintain all licenses and approvals necessary to conduct its business.

In addition to the foregoing, the Transaction Documents will contain representations and warranties of Sorrento and other representations and warranties of ANP that are customary for transactions of this size and nature including any mutually agreed upon disclosure letters, if any, between the Parties.

J.Standstill Period: For the period commencing on the date on which the Parties have executed this Term Sheet (the "Effective Date") and ending at 5:00 p.m. San Diego, California local time on the date that is 45 days from the Effective Date (the "Standstill Period"), ANP will not, and will cause its directors, officers, managers, employees and professional advisors not to, directly or indirectly, solicit, initiate, seek, entertain, knowingly encourage, knowingly facilitate or support any inquiry, proposal or offer from, furnish any information to, or participate in any discussions or negotiations with, any person or entity other than Sorrento and its representatives with respect to any sale or other disposition of any equity securities of ANP, or any merger, consolidation, business combination or similar transaction, any sale, license, lease or other disposition of all or substantially all of the assets of ANP (a "Competing Proposal"), or enter into any agreement with any such other person or entity concerning such a transaction. ANP further covenants and agrees to terminate any such discussions or negotiations in respect of a Competing Proposal in progress as of the Effective Date. If ANP (including any of its directors, officers, managers, employees or professional advisors) receives an offer or expression of interest to make an offer for a Competing Proposal from a third party, such Party will promptly (but in any event within 24 hours) notify Sorrento in writing of the terms and conditions of such offer and the identity of the person or entity making such offer.

K.Non-Compete Ray Yin will agree not to, directly or indirectly, enter into, assist, work, consult with or own any interest in any business which directly competes with the products or the business of ANP as conducted on the Closing Date, for a period of two (2) years following the Closing Date without the written consent of Sorrento. Nothing shall prohibit him from being employed by Sorrento or its affiliates or from being a passive owner of less than 2% of the outstanding stock or any class of securities of a corporation or other entity that is publicly-traded.

L.Expenses: Except as expressly set forth herein, each Party will bear its own costs and expenses related to pursuing or consummating the Transaction contemplated hereby; *provided, however,* that any fees and expenses incurred by the Parties in submitting any regulatory filings shall be borne one-half by Sorrento and one-half by ANP, with such fees and expenses that are to be borne by ANP to be deducted from the cash portion of the Merger Consideration.

M.Governing Law; Entire Agreement: This Term Sheet shall be construed and enforced in accordance with the laws of the State of Delaware without regard to conflicts of law principles. Any action or proceeding seeking to enforce any provision of, or based on any right arising out of, this Term Sheet may be brought against any Party in the federal and state courts of the State of Delaware and each Party consents to the jurisdiction of such courts in any such action or proceeding and waives any objection to venue laid therein. Process in any action or proceeding referred to in the preceding sentence may be served on any Party anywhere in the world.

This Term Sheet supersedes all prior discussions and writings and constitutes, with the Confidentiality Agreement, the entire agreement between the Parties with respect to the subject matter hereof. No waiver or modification of this Term Sheet will be binding upon either Party unless made in writing and signed by a duly authorized representative of such Party, and no failure or delay in enforcing any right will be deemed a waiver. In addition, this Term Sheet may be executed in two or more counterparts, each of which shall constitute an original and all of which together shall constitute one and the same instrument.

N.Intentions of the Parties: The Parties acknowledge and agree that this Term Sheet shall be binding on both Parties. The Parties further acknowledge and agree that this Term Sheet does not contain all matters upon which agreement must be reached for the Transaction to be consummated. The Parties shall negotiate in good faith the Transaction Documents to consummate such a transaction as promptly as possible. Notwithstanding any of the foregoing, Sorrento's obligations to consummate the transaction are conditioned on the approval of the board of directors of Sorrento.

O. Execution and Delivery of Term Sheet and Transaction Documents; Closing: Sorrento shall endeavor to prepare draft Transaction Documents, including an initial draft of the Definitive Agreement, for review by and negotiation with, ANP and its principals. The Parties shall diligently and in good faith negotiate, and endeavor to execute and deliver, the Definitive Agreement as promptly as practicable following the execution of this Term Sheet. The closing of the Transaction (the "Closing Date") will occur as soon as is reasonably possible and feasible following the execution of the Definitive Agreement and after all third-party consents and approvals and similar documents are finalized and the other closing conditions have been satisfied or waived.

P. Termination: This Term Sheet may be terminated by: (1) Either party if such party is not satisfied, in its reasonable discretion, with the results of its due diligence investigation related to the Transaction; (2) either Party if the Definitive Agreement has not been executed and delivered by all of the Parties thereto on or prior to the end of the Standstill Period, provided the Parties negotiated in good faith and without any undue delay and on terms consistent with the terms set forth herein; or (3) by mutual written agreement of the Parties.

Termination of this Term Sheet shall not affect any rights or binding obligations that have accrued or arisen hereunder prior to such termination, and such rights and binding obligations shall survive the termination of this Term Sheet.

(Signature Page Follows)

Accepted and Agreed as of the date first set forth above:

ANP TECHNOLOGIES, INC.	**SORRENTO THERAPEUTICS, INC.**
/s/ Ray Yin	/s/ Henry Ji
By: Ray Yin	By: Henry Ji
Title: President & CEO	Title: President & CEO
Date: February 24, 2021	Date: February 24, 2021

*****Certain identified information has been omitted from this exhibit because it is both (i) not material and (ii) would likely cause competitive harm to the Registrant if publicly disclosed. Such omitted information is indicated by brackets ("[...***...]") in this exhibit. *****

EXCLUSIVE LICENSE AGREEMENT

between

Sorrento Therapeutics, Inc.

and

Icahn School of Medicine at Mount Sinai

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Exclusive License Agreement

This Exclusive License Agreement (this "**Agreement**") is by and between Icahn School of Medicine at Mount Sinai, a New York not-for-profit education corporation, with a principal place of business at One Gustave L. Levy Place, New York, NY 10029 ("**Mount Sinai"**) and Sorrento Therapeutics, Inc., a Delaware corporation, with a principal place of business at 4955 Directors Place, San Diego, CA 92121 (referred to herein as "**Sorrento**" or "**Licensee**"). This Agreement will become effective on March 5, 2021, (the "**Effective Date**").

WHEREAS, Mount Sinai has created and owns certain intellectual property relating to antibodies for treating severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infection;

WHEREAS, Licensee wishes to obtain from Mount Sinai certain rights to such intellectual property and to develop and commercialize Licensed Products (as defined below); and

WHEREAS, Mount Sinai has determined that the exploitation of the intellectual property by Licensee subject to the terms and conditions of this Agreement is in the best interest of Mount Sinai, consistent with Mount Sinai's educational, research, and public health missions and goals.

NOW THEREFORE, in consideration of the mutual rights and obligations contained in this Agreement, and intending to be legally bound, Mount Sinai and Licensee (individually, a "**Party**", and together, the "**Parties**") agree as follows:

1. DEFINITIONS

1.1. "**Calendar Year**" means January 1 through December 31 of a given year.

1.2. "**Commercial Sale**" means any bona fide arms-length commercial sale of a Licensed Product from Licensee or its Sublicensee to a Third Party for which Licensee or its Sublicensee receives consideration from such Third Party for such sale. Commercial Sale is deemed completed when a bona fide transaction qualifies as a Gross Sale.

1.3. "**Commercialization**" means any and all activities related to the manufacturing, promotion, distribution, marketing, offering for sale and selling of or otherwise granting rights to a product or service, including advertising, educating, planning, obtaining, supporting and maintaining pricing and reimbursement approvals and Regulatory Authorizations, managing and responding to adverse events involving the product or service, pricing, price reporting, marketing, promoting, detailing, storing, handling, shipping, distributing, importing, exporting, using, offering for sale, or selling a product or service anywhere in the world. Commercialization excludes Development activities. When used as a verb, "**Commercialize**" means to engage in Commercialization.

1.4. "**Commercially Reasonable Efforts**" means, with respect to Licensee's obligations under this Agreement, dedication and expenditure of efforts, money, personnel, and other resources consistent with those that companies of similar size, type, characteristics, and

position to Licensee have reasonably used in pursuing the research, Development, Manufacturing or Commercialization of a similarly situated compound, product, or service, with similar market potential and product life, at a similar stage of Development or Commercialization as the applicable Licensed Product, taking into account reasonable and prudent scientific and business judgment, the safety and efficacy of the products, competitive products in the marketplace, proprietary position of the products (including patent coverage and regulatory exclusivity), the regulatory structure involved, anticipated or approved labelling, anticipated profitability of the products (including pricing and reimbursement), and all other relevant factors..

1.5. "**Confidential Information**" shall have the meaning assigned in Section 6.1.

1.6. "**Control**" or "**Controlled**" shall mean, with respect to any Patent, Technical Information, other intellectual property right or other intangible property, an Entity's ownership or the possession (whether by ownership, license or "control" over an affiliated entity having possession by ownership or license) of the ability to grant access to, or a license or sublicense to, such Patent, Technical Information, rights or property. For purposes of this definition, "control" and its various forms means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Entity, whether through ownership of voting securities, by contract or otherwise. Without limiting the generality of the foregoing, Mount Sinai will be deemed to control another Entity if Mount Sinai owns or directly or indirectly controls more than fifty percent (50%) of the voting stock or other securities of the Entity.

1.7. "**Development**" means any and all activities related to researching or developing a product or process or service, including preclinical and clinical research, testing and development activities relating to the discovery and/or development of product or process candidates and submission of information and applications to a Regulatory Authority, including toxicology, pharmacology, and other discovery, optimization, and preclinical efforts, test method development and stability testing, manufacturing process development, formulation development, upscaling, validation, delivery system development, quality assurance and quality control development, statistical analysis, managing and responding to adverse events involving a product, Phase I Clinical Studies, Phase II Clinical Studies, Phase III Clinical Studies, Pivotal Trial Studies, other clinical studies (including pre and post Regulatory Approval studies), and activities relating to obtaining Regulatory Approvals, but excluding Commercialization activities. When used as a verb, "**Develop**" means to engage in Development.

1.8. "**Development Plan**" means the then-current version of the plan for the Exploitation by Licensee of the Licensed Patents, Technical Information, and Materials, as such plan may be adjusted or updated from time to time, e.g., as contemplated by Section 3.1. For clarity no updated Development Plan will be effective until agreed to in writing by both Parties.

1.9. "**EMA**" means the European Medicines Agency or any successor Entities thereto.

1.10. "**Entity**" means a corporation, an association, a joint venture, a partnership, a trust, a business, an institution, an individual, a government or political subdivision thereof, including an agency, or any other organization that can exercise independent legal standing.

1.11. "**Exploit**" means, collectively, to Develop and Commercialize, including to Manufacture, to have Developed, to have Manufactured, to have Commercialized, to reproduce, modify, create derivative works of, use, have used, publicly perform, publicly display, transmit, and otherwise exploit without restriction. "**Exploitation**" has a correlative meaning.

1.12. "**Fair Market Value**" means (a) in the case of arm's length sale of a Licensed Product, (i) the cash consideration that Licensee or its Sublicensee has realized from such sale, or (ii) if there have been no such sales or such sales have been insufficient, the cash consideration that Licensee or its Sublicensee would have realized from an unaffiliated, unrelated buyer in an arm's length sale of Licensed Product in the same quantity, under the same terms, and at the same time and place as the sale for which Fair Market Value is being determined; (b) in the case of non-cash consideration received in a sale of a Licensed Product or in a transaction giving rise to Sublicense Income, the cash value of such consideration; or (c) in the case of determining the portion of proceeds from an issuance of equity to be included in Sublicense Income, the value per issued equity interest shall be calculated as follows: (1) if the equity is listed on any established stock exchange or national market system, the closing sales price for such equity as quoted on such exchange or system as of the date of issuance, (2) if the equity is regularly quoted on an automated quotation system or by a recognized securities dealer, the closing sales price for such equity as quoted on the principal exchange or system on which such equity is listed on the date of issuance, or, if selling prices are not reported, the mean between the high bid and low asked prices for equity on the date of issuance, or (3) in the absence of an established market for the equity, the value per equity interest as then most recently determined under U.S. Internal Revenue Code § 409A for purposes of the Licensee's equity grants (or, if the class of equity issued has not then been so valued, then a value based on the value of a class of equity that has been so valued, taking into account differences between the rights and preferences of the class of equity issued and those of the class of equity then most recently valued or, if no class of equity has been so valued, the value as mutually determined in good faith by Licensee's board of directors).

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

1.14. "**Field of Use**" means any and all fields, uses, and applications, including, the diagnosis, prevention, treatment, and cure of coronavirus infection.

1.15. "**First Commercial Sale**" means, on a Jurisdiction-by-Jurisdiction basis and Licensed Product-by-Licensed Product basis, the first time a Commercial Sale is made.

1.16. "**Good Clinical Practices**" means the then-current standards, practices and procedures for good clinical practices in the conduct of clinical trials, including adequate human subject protections, as promulgated or endorsed by the FDA and other applicable Governmental Authorities, such as set forth in, "International Conference on Harmonization - Guidance for Industry E6 Good Clinical Practice: Consolidated Guidance," or as otherwise required by applicable Law.

1.17. "**Good Laboratory Practices**" means the then-current standards, practices and procedures for good laboratory practices by facilities that perform non-clinical (including pre-clinical) laboratory studies, as promulgated or endorsed by the FDA and other applicable

Governmental Authorities, including as set forth in 21 C.F.R. Part 58, or as otherwise required by applicable Law.

1.18. "**Good Manufacturing Practices**" means the then-current standards, practices and procedures for the manufacture of drugs or medical devices, as applicable to the Licensed Products (including the practices of and methods to be used in, and the facilities or controls to be used for, the manufacture, processing, packaging, sterilizing, labeling, testing or holding of the Licensed Products), as promulgated or endorsed by the FDA and other applicable Governmental Authorities, including, as applicable, as set forth in 21 C.F.R. Parts 210, 211, and 820, or as otherwise required by applicable Law.

1.19. "**Governmental Authority**" means any supranational, national, federal, state, provincial, local or foreign Entity of any nature exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to government, including any governmental authority, agency, department, board, commission, court, tribunal, judicial body or instrumentality of any union of nations, federation, nation, state, municipality, county, locality or other political subdivision thereof.

1.20. "**Gross Sales**" means the gross amounts actually received from a Third Party by Licensee or its Sublicensees, as applicable, for Commercial Sales, prior to any discounts or other list price reductions granted. In the event Licensee or its Sublicensee transfers a Licensed Product to a Third Party in a bona fide arm's length transaction, for any consideration other than cash, then the Gross Sales price for such Licensed Product shall be deemed to be the standard average price actually received by Licensee or its Sublicensee, as applicable, in an arm's length transaction with similar companies. In the absence of such standard average price, then the Gross Sales price shall be the Fair Market Value of the Licensed Product. In the event of a Commercial Sale where Licensee or its Sublicensee sells, leases or otherwise Commercializes any Licensed Product at a reduced fee or price for the purpose of promoting other products, goods or services or for the purpose of facilitating the sale, license or lease of other products, goods or services, then notwithstanding anything herein to the contrary, the Gross Sales for purposes of payment to Mount Sinai hereunder shall be based upon the Fair Market Value of the Licensed Product.

1.21. "**Health Care Law**" means all applicable Laws relating in any way to patient care and human health and safety, including, to the extent applicable, such Laws pertaining to: (a) the Development, Manufacture and Commercialization of drugs and medical devices, including, without limitation, the United States Food, Drug and Cosmetic Act, the Public Health Service Act, the regulations promulgated thereunder (including with respect to Good Clinical Practices, Good Laboratory Practices and Good Manufacturing Practices), and equivalent applicable Laws of other Governmental Authorities; and (b) the reimbursement and payment for health care products and services, including any United States federal health care program (as such term is defined in 42 U.S.C. § 1320a-7b(f)), and programs and arrangements pertaining to providers of health care products or services that are paid for by any Governmental Authority or other Entity, including the federal Anti-Kickback Statute (42 U.S.C. § 1320a-7b(b)), the civil False Claims Act (31 U.S.C. § 3729 et seq.), the administrative False Claims Law (42 U.S.C. § 1320a-7b(a)), 42 U.S.C. § 1320a-7 and 42 U.S.C. § 1320a-7a, and the regulations promulgated pursuant to such statutes, Medicare (Title XVIII of the Social Security Act) and the regulations promulgated thereunder, Medicaid (Title XIX of the Social Security Act) and the regulations promulgated thereunder, and equivalent

applicable Laws of other Governmental Authorities; and (c) the privacy and security of patient-identifying information, including, without limitation, the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. § 1320d et seq.) and the regulations promulgated thereunder and equivalent applicable Laws of other Governmental Authorities; in each of the foregoing (a) through (c), as may be amended from time to time.

1.22. "**Infringement Action**" means any threatened, pending, or ongoing action, claim, litigation, or proceeding (other than oppositions, cancellations, interferences, reissue proceedings, or reexaminations), respecting any Licensed Patent and/or Licensed Product, whether initiated by or against a Party or its Sublicensee.

1.23. "**Initial Development Plan**" means the initial Development Plan for the Exploitation by Licensee of the Licensed Patents, Technical Information, and Materials.

1.24. "**Initiation**" means the administration of the first dose to the first patient in a Phase I Clinical Study, Phase II Clinical Study, Phase III Clinical Study or Pivotal Clinical Study. "**Initiate**" has a correlative meaning.

1.25. "**Interruption Royalty**" means […***…].

1.26. "**Jurisdiction**" means a geographic area (e.g. country or region) in which any Licensed Product is Exploited.

1.27. "**Laws**" means all active governmental constitutions, laws, statutes, ordinances, treaties, rules, common laws, rulings, regulations, orders, charges, directives, determinations, executive orders, writs, judgments, injunctions, decrees, restrictions or similar legally effective pronouncements of any Governmental Authority.

1.28. "**Licensed Patents**" means and includes (a) (i) the Patents listed on Exhibit A hereto, which is hereby incorporated into and made part of this Agreement, (ii) any and all patents issuing from the foregoing, (iii) any and all claims of continuation-in-part applications that claim priority to any of the foregoing, but only where such claims are directed to inventions disclosed in the manner provided in the first paragraph of 35 U.S.C. § 112 in such United States patent applications, and such claims in any patents issuing from such continuation-in-part applications, (iv) any and all foreign patent applications, foreign patents, or related foreign patent documents that claim priority to any of the foregoing, and (v) any and all divisionals, continuations, reissues, re-examinations, renewals, substitutions, and extensions of any of the foregoing.

1.29. "**Licensed Product**" means any product or service or component of either of the foregoing, the Exploitation, Development, Manufacturing, Commercialization, use, rental or lease of which (a) is covered by at least one Valid Claim or (b) arises from the use of, involves the use of, or incorporates, in whole or in part, the Materials or Technical Information.

1.30. "**Licensed Product Data**" means data (including clinical data) that is Controlled by Licensee directly relating to any Licensed Product and generated after the Effective Date.

1.31. "**Major Market**" shall mean the United States, the European Union, Japan, or China.

1.32. "**Manufacturing**" means all activities directed to sourcing of necessary raw materials, producing, processing, packaging, labeling, quality assurance testing, release of a Licensed Product or Licensed Product candidate, whether for Development or Commercialization. When used as a verb, "**Manufacture**" means to engage in Manufacturing.

1.33. "**Materials**" means the tangible physical material which has been and may from time to time be delivered to Licensee hereunder, as set forth in Exhibit B hereto (which is hereby incorporated into and made part of this Agreement), and any progeny, derivatives, or improvements thereof developed by Licensee or its Sublicensees, or by Mount Sinai pursuant to the Master Sponsored Research Agreement. Materials shall include the monoclonal antibodies provided to Licensee under that certain "Evaluation Materials Transfer Agreement" having an effective date of December 12, 2020, as amended by that certain "Amendment No. 1 to Evaluation Materials Transfer Agreement," which agreements are included in Exhibit B.

1.34. "**Mount Sinai Antibody**" means a monoclonal antibody for which the CDR sequence is disclosed in the Licensed Patents or which is contained in the Materials, or any fragment or derivative thereof capable of specific binding with the same antigen as its antibody counterpart.

1.35. "**Net Sales**" means all Gross Sales of Licensed Product less […***…]:

(a) […***…];

(b) […***…];

(c) […***…]; and

(d) […***…].

[…***…].

Sales or other transfers of Licensed Products between Licensee and its Sublicensees shall be excluded from the computation of Net Sales (and therefore no payments will be payable to Mount Sinai on such sales or transfers) except where such Sublicensees are end users or consumers of Licensed Products in which event, notwithstanding anything herein to the contrary, Licensed Product transfers to such Sublicensees shall be included in Net Sales. For avoidance of doubt, the sale of Licensed Product by Sublicensees to Third Parties shall be considered as part of Net Sales. Components of Net Sales shall be determined in the ordinary course of business using the accrual method of accounting in accordance with generally accepted accounting principles, consistently applied.

Any Write Offs that are at any time thereafter collected, in whatever amount, shall be deemed a Net Sale and will be subject to the running royalties pursuant to Section 4.3 hereunder.

No deductions shall be made from Net Sales for […***…].

For the avoidance of doubt, disposal of any Licensed Product without charge for use in any clinical trials, as free samples, or under compassionate use, patient assistance, named patient or test

marketing programs or non-registrational studies or other similar programs or studies where Licensed Product is supplied or delivered without charge, shall not result in any Net Sales. No Licensed Product donated by Licensee or its Sublicensee to non-profit institutions or government agencies for a non-commercial purpose shall result in any Net Sales.

In the event that Licensee or its Sublicensee contracts with a party to sell Licensed Products to third-party end users, including hospitals and pharmacies for direct sale to patients (as opposed to resale), such party shall be considered a "**Distributor**". Any Distributor shall be considered a Sublicensee for purposes of payment of royalties and fees under this Agreement.

For the avoidance of doubt, amounts received by Licensee […***…] (1) shall not constitute amounts received by a Licensee for the sale of a Licensed Product and shall not be included in any calculation of Net Sales hereunder, and (ii) shall not constitute Sublicensing Income.

1.36. "**Patents**" means (a) the United States and foreign patents and/or patent applications; (b) any and all patents issuing from the foregoing; (c) any and all claims of continuation-in-part applications that claim priority to the United States patent applications, but only where such claims are directed to inventions disclosed in the manner provided in the first paragraph of 35 U.S.C. § 112 in such United States patent applications, and such claims in any patents issuing from such continuation-in-part applications; (d) any and all foreign patent applications, foreign patents, or related foreign patent documents that claim priority to the patents and/or patent applications; and (e) any and all divisionals, continuations, reissues, re-examinations, renewals, substitutions, and extensions of the foregoing.

1.37. "**Phase I Clinical Study**" means a human clinical study conducted on a limited number of study subjects for the purpose of gaining evidence of the safety and tolerability of, and information regarding potential pharmacological and biological activity for, a product or technology, as described in 21 C.F.R. § 312.21(a), including any such clinical study in any country other than the United States.

1.38. "**Phase II Clinical Study**" means a human clinical study for which a primary endpoint is a preliminary determination of efficacy in patients with the disease being studied, as described in 21 C.F.R. § 312.21(b), including any such clinical study in any country other than the United States.

1.39. "**Phase IIa Clinical Study**" means Phase II Clinical Study to assess dosing requirements.

1.40. "**Phase IIb Clinical Study**" means Phase II Clinical Study to study efficacy.

1.41. "**Phase III Clinical Study**" means a human clinical study, whether controlled or uncontrolled, that is performed after preliminary evidence suggesting effectiveness of a product or technology has been obtained, and is intended to demonstrate or confirm the therapeutic benefit of such product or technology and to gather the additional information about effectiveness and safety that is needed to evaluate its overall benefit-risk relationship and to provide an adequate basis for prescriber labeling and marketing authorization, as described in 21 C.F.R. § 312.21(c), including any such clinical study in any country the United States.

1.42. "**Pivotal Trial Study**" means a human clinical study that is designed and executed to obtain statistically significant evidence of efficacy and/or safety to serve as the basis of Regulatory Approval in the relevant country, including approval of a new drug application, new molecular entity, abbreviated new drug application, supplemental biological license application, premarket approval, 510(k) clearance, or any similar application requiring approval by the FDA or other Regulatory Authority.

1.43. "**Prosecution**" means the filing, preparation, prosecution (including any interferences, reissue proceedings, reexaminations, and oppositions), extension, term adjustment, and maintenance of Licensed Patents. When used as a verb, "**Prosecute**" means to engage in Prosecution.

1.44. "**Quarter**" means each three-month period beginning on January 1, April 1, July 1 and October 1 of each Calendar Year; provided, however, that as it relates to the Commercial Sale of Licensed Products, the first Quarter shall be comprised of the time period beginning on the date of First Commercial Sale and ending at the end of the Quarter during which such First Commercial Sale occurs. "**Quarterly**" means once during each Quarter.

1.45. "**Quarterly Reports**" shall have the meaning assigned in Section 5.3.

1.46. "**Regulatory Approval**" means, with respect to a country or other jurisdiction, all approvals, licenses, clearances, marks, registrations, authorizations certificates, exemptions, consents, franchises, concessions, notices or other like item of or issued by any Governmental Authority, from the relevant Governmental Authority necessary or useful to commercially distribute, sell or market a Licensed Product in such country or other applicable jurisdiction (not including any applicable pricing and governmental reimbursement approvals unless legally required to market the Licensed Product in a country or other applicable jurisdiction).

1.47. "**Regulatory Authority**" means any applicable Governmental Authority involved in granting Regulatory Approval for, and responsible for the regulation of, the Licensed Product in any Jurisdiction, including the FDA, EMA, and any corresponding Governmental Authority.

1.48. "**Regulatory Exclusivity Period**" means periods of data exclusivity or marketing exclusivity, including supplementary protection certificates, pediatric exclusivity periods, and other periods of exclusivity approved or accepted by a Regulatory Authority in the country of sale and/or manufacture that effectively provide exclusivity for the Licensed Product in the country of sale.

1.49. "**Royalty Term**" means, on a Licensed Product-by-Licensed Product and Jurisdiction-by-Jurisdiction basis, the period from the First Commercial Sale of such Licensed Product in such Jurisdiction until the later of: (a) expiration of the last Valid Claim of a Licensed Patent covering such Licensed Product in such Jurisdiction; (b) expiration of any Regulatory Exclusivity Period; or (c) […***…] ([…***…]) years from First Commercial Sale of such Licensed Product in such Jurisdiction.

1.50. "**Sublicense Income**" means consideration Licensee receives from any Sublicensee that is expressly attributable to a Sublicense (other than royalties based on the sale of Licensed Products by a Sublicensee), which consideration may include any fixed fee, option fee, license fee,

maintenance fee, milestone payment, unearned portion of any minimum royalty payment, equity, joint marketing fee, intellectual property cross license, settlement agreement, research and development funding in excess of Licensee's budgeted cost of performing research and development activities expressly performed pursuant to a research plan and budget previously agreed to by Licensee and Sublicensee under a Sublicense, and any other property, consideration or thing of value given or exchanged in consideration for a Sublicense (other than royalties based on the sale of Licensed Products by a Sublicensee), regardless of how Licensee and Sublicensee characterize such payments or consideration.

1.51. "**Sublicensee**" means any Entity that enters into an agreement or arrangement with Licensee, or receives from Licensee a license grant or option for license grant under the Licensed Patents, Technical Information, or Materials, to exercise any of the rights granted to Licensee by Mount Sinai hereunder primarily for the benefit of such Entity (and not for, on behalf of, or for the primary benefit of, Licensee) (such agreement, arrangement, license, or amendments thereto herein referred to as a "**Sublicense**"), including to Manufacture, have Manufactured, Develop, have Developed, Commercialize, have Commercialized, or otherwise Exploit a Licensed Product, subject to the then-current applicable article, item, service, technology, and technical data-specific requirements of the U.S. export Laws.

1.52. "**Substantial Interruption Event**" means […***…].

1.53. "**Technical Information**" means any and all technical, scientific and other information, knowledge, know-how, technology, methods, processes, practices, formulae, assays, instructions, skills, techniques, procedures, experiences, ideas, technical assistance, designs, drawings, software, computer software or programs, assembly procedures, specifications, data and/or results (including but not limited to biological, chemical, pharmacological, toxicological, pharmaceutical, physical, analytical, preclinical, clinical, safety, or quality control data, including but not limited to study designs and protocols) relating to (i) the monoclonal antibodies (and protein sequences therefor) disclosed in the Licensed Patents and/or contained within the Materials and fragments or derivatives derived from such monoclonal antibodies (except to the extent such information relates to the development and manufacture of the Materials), and/or (ii) the use of such monoclonal antibodies or fragments or derivatives derived from such monoclonal antibodies, in all cases whether or not confidential, proprietary, patented, or patentable, developed in the laboratory of one or more named inventors of the Licensed Patents prior to the Effective Date of this Agreement or as may be added during the term of this Agreement under the Master Sponsored Research Agreement. For clarity, Technical Information includes any information contained within Licensed Patents or Materials.

1.54. "**Term**" means the term of this Agreement which will commence on the Effective Date and expire upon the expiration of the last Royalty Term for the last Licensed Product, unless terminated earlier pursuant to Article 12.

1.55. "**Territory**" means Worldwide.

1.56. "**Third Party**" means any Entity other than a Party.

1.57. "**Valid Claim**" means (a) an unexpired claim of an issued Patent within the Licensed Patents that has not been ruled unpatentable, invalid or unenforceable by a final and unappealable decision of a court or other competent authority in the subject Jurisdiction; or (b) a pending claim of a Patent application within the Licensed Patents that has been pending for less than seven (7) years following the first office action on the merits, provided however, that such pending claims shall become a Valid Claim if such application later issues as Patent, in which case Licensee shall make a true up of any payments under Article 4 that accrued during the period such pending claim ceased to be a Valid Claim.

2. LICENSE GRANT

2.1. **Exclusive License**. Subject to the terms and conditions set forth herein, Mount Sinai hereby grants to Licensee an irrevocable (except as provided in Article 12), transferable (solely in accordance with Section 14.5), sublicensable (through multiple tiers, to affiliates or in accordance with Section 2.3), royalty-bearing, exclusive (even as to Mount Sinai, subject to Section 2.4 hereof) license under the Licensed Patents and all other intellectual property rights Controlled by Mount Sinai in or to the Materials, to Exploit the Materials and any Licensed Product in the Field of Use throughout the Territory. The foregoing license includes the right for Third Parties to exercise such rights for, on behalf of, or for the benefit of Licensee.

2.2. **Non-Exclusive License**. Subject to the terms and conditions set forth herein, Mount Sinai hereby grants to Licensee an irrevocable (except as provided in Article 12), transferable (solely in accordance with Section 14.5), sublicensable (through multiple tiers, to affiliates or in accordance with Section 2.3) royalty-bearing, non-exclusive license to use and Exploit the Technical Information to the extent reasonably necessary or desirable for Exploitation of any Licensed Product in the Field of Use, during the Term and throughout the Territory. The foregoing license includes the right for Third Parties to exercise such rights for, on behalf of, or for the benefit of Licensee.

2.3. **Sublicensing**. Subject to the terms and conditions set forth herein, Mount Sinai hereby grants to Licensee the right to grant Sublicenses, provided that:

(a) Any and all such Sublicenses shall:

(i) Expressly identify Mount Sinai as a third party beneficiary

(ii) obligate the Sublicensee to abide by and be subject to all of the terms, conditions, and limitations of this Agreement applicable to the Licensee;

(iii) prohibit Sublicensee from making payments in exchange for receipt of Sublicense rights, e.g. royalty payments, into an escrow or similar account or to any Third Party;

(iv) cause the Sublicensee to comply with the provisions of Section 12.2(d) (Challenge of Patents) to the same extent as Licensee is required to comply and include a provision providing for the termination of the Sublicense, upon written request by Mount Sinai, in the event that the Sublicensee does not so comply;

(v) provide that, in the event of any inconsistency between the Sublicense and this Agreement, this Agreement shall control;

(vi) obligate the Sublicensee to submit annual, Quarterly, and interim reports to Mount Sinai consistent with the reporting provisions of Article 5 and all other relevant provisions herein;

(vii) be written in the English language (for clarity, this is a reference to the original Sublicense as executed; provision of a translation to Mount Sinai shall not satisfy this requirement);

(viii) comply with any marking requirements of the intellectual property Laws of the applicable countries in the Territory; and

(ix) specify that New York law shall control any dispute arising under such Sublicense, and that jurisdiction for resolving any such dispute shall New York City, New York State.

(b) If Licensee enters into any Sublicense purporting to grant rights to any Licensed Patents, Materials, or Technical Information, that does not comport with the requirements of this Section 2.2 (Sublicensing), or is otherwise inconsistent with the terms and conditions of this Agreement, such agreement, arrangement, or license shall be null and void.

(c) Licensee may grant any Sublicenses without the prior written consent of Mount Sinai so long as such Sublicense complies with Section 2.2(a). Licensee shall notify Mount Sinai in writing of any Sublicense and provide to Mount Sinai a copy (which may be redacted to protect any confidential information of Licensee or such Sublicensee, except that no financial information shall be redacted) of any Sublicense within thirty (30) days following execution thereof.

(d) Licensee hereby agrees to remain fully liable under this Agreement to Mount Sinai for the performance or non-performance under this Agreement and the relevant Sublicense by any party to those agreements. Licensee shall, subject to its reasonable business judgment, enforce all such Sublicenses against its Sublicensees to the extent necessary to ensure its Sublicensees' performance in accordance with the terms of this Agreement and the relevant Sublicense. For the avoidance of doubt, Mount Sinai at all times retains the right to enforce all such Sublicenses as a third party beneficiary. No such Sublicense or attempt to obtain a Sublicense shall relieve Licensee of its obligations hereunder to exercise its Commercially Reasonable Efforts (either directly or through a Sublicensee) to Develop and Commercialize Licensed Products, nor relieve Licensee of its obligations to pay Mount Sinai any and all license fees, royalties and other payments due under the Agreement.

2.4. **Retained Rights**. The grants provided hereunder are subject to and contingent upon Licensee's compliance with all of its obligations hereunder including, but not limited to, the payment by Licensee to Mount Sinai of all consideration required under this Agreement, and further subject to rights retained by Mount Sinai to: (a) practice the Licensed Patents, and permit other Entities to practice the Licensed Patents, outside of the Field of Use for any purpose; and (b) practice the Licensed Patents, and permit other non-commercial Entities to practice the Licensed

Patents, within the Field of Use for teaching and non-commercial academic research (including publication of any such research results). For clarity, industry sponsored research undertaken by Mount Sinai shall be considered non-commercial academic research for the purposes of this Section.

2.5. **Government Rights**. All rights and licenses granted by Mount Sinai to Licensee under this Agreement are subject to (a) any limitations imposed by the terms of any grant, contract or cooperative agreement by any Governmental Authority applicable to the technology that is the subject of this Agreement, and (b) applicable requirements of 35 U.S.C. § 200 et seq., as amended, and implementing regulations and policies. Without limitation of the foregoing, Licensee agrees that, to the extent required under 35 U.S.C. § 204, any Licensed Product used, sold, distributed, rented or leased by Licensee or its Sublicensees in the United States will be Manufactured substantially in the United States. In addition, Licensee agrees that, to the extent required by Law including under 35 U.S.C. § 202(c)(4), the United States government is granted a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States any Licensed Patent throughout the world. Mount Sinai represents and warrants that, to its knowledge, as of the Effective Date, no grant, contract, or cooperative agreement with any Governmental Authority has been used to fund the development of any of the Materials.

2.6. **No Implied Licenses**. Except as expressly provided under this Article 2, no right or license is granted under this Agreement (expressly or by implication or estoppel) by Mount Sinai to Licensee or its Sublicensees under any tangible or intellectual property, materials, Patent, Patent application, trademark, copyright, technical information, data, or other proprietary right.

2.7. **Technology Transfers**. In order to enable Licensee to fully exercise its license rights hereunder and maximize the Commercialization of Licensed Products, within ninety (90) days following the Effective Date and thereafter at any time at the reasonable request of Licensee, Mount Sinai will, at Licensee's expense, deliver to Licensee embodiments of all Technical Information and Materials in all cases to the extent not already in the possession of Licensee.

2.8. **Other IP Rights**. Mount Sinai agrees not to assert against Licensee or its Affiliates any other intellectual property rights Controlled by Mount Sinai as of the Effective Date based on Licensee's or its Affiliates' Exploitation of the Materials in the form provided by Mount Sinai, if and to the extent such Materials infringe or misappropriate such other intellectual property rights of Mount Sinai. For the avoidance of doubt, such forbearance is not transferrable without Mount Sinai's prior written consent.

3. DUE DILIGENCE

3.1. **Development Plan**. Licensee shall deliver to Licensor […***…] a proposed Initial Development Plan, which will become effective only upon Mount Sinai's written approval. Upon approval by Mount Sinai, in its discretion, the Initial Development Plan will become incorporated into and a part of this Agreement. With respect to each Calendar Year following the Effective Date, Licensee shall deliver to Mount Sinai an annual updated Development Plan in accordance with Section 5.5, which shall set forth in reasonable detail the planned Development activities for such Calendar Year and the subsequent Calendar Year, as well as the anticipated timeline and budget for such activities. Such updated Development Plan shall replace the prior

Development Plan and become incorporated into and a part of this Agreement only upon written approval of Mount Sinai of such updated Development Plan. Licensee will promptly provide additional information as reasonably requested by Mount Sinai.

3.2. **Commercially Reasonable Efforts**. Throughout the Term and at Licensee's sole cost and expense, Licensee shall use no less than Commercially Reasonable Efforts to Develop and Commercialize at least one Licensed Products in the Field of Use and Territory in accordance with the then applicable Development Plan. Licensee shall use Commercially Reasonable Efforts to Develop and Commercialize at least one Licensed Products at all times throughout the Term. For the avoidance of doubt, failure to adhere to or meet the Development Plan (including any failure to achieve any target milestone as specified in the Development Plan) or any milestones set forth in Section 3.3 hereof shall not be deemed to be a breach of this Agreement by Licensee so long as Licensee is continuing to use the Commercially Reasonable Efforts required under this Section 3.2 and as required under Section 3.3 hereof.

3.3. **Due Diligence Events**. In addition, Licensee shall use Commercially Reasonable Efforts to achieve the following Development milestones:

(a) Within […***…] ("**Milestone 1**").

(b) Within […***…] ("**Milestone 2**").

(c) Within […***…] ("**Milestone 3**").

(d) Within […***…] ("**Milestone 4**").

(e) Within […***…] ("**Milestone 5**").

(f) Within […***…] ("**Milestone 6**").

(g) Within […***…].

[…***…].

3.4 **Failure to Achieve Due Diligence Events**. If, despite use of Commercially Reasonable Efforts, Licensee is unable to achieve the due diligence events set forth in the Development Plan or the milestones set forth in Section 3.3 above, then the Parties will meet and discuss in good faith and agree on mutually acceptable revisions to the Development Plan and/or the milestone events. If, (i) despite any such revisions, Licensee continues to be unable to achieve the due diligence events set forth in the Development Plan or the milestones set forth in Section 3.3 (in all cases as amended) despite its use of Commercially Reasonable Efforts (a "**Diligence Failure**"), then, subject to this Section 3.4, and as Mount Sinai's sole and exclusive remedy, Mount Sinai may terminate this Agreement effective thirty (30) days following the date it provides Licensee with Mount Sinai's intent to so terminate, provided, however, that Mount Sinai may not terminate this Agreement pursuant to this Section 3.4 (and any such termination notice shall be ineffective) due to a Diligence Failure if Licensee pays Mount Sinai the applicable license maintenance fee set forth in the table below, which license maintenance fee shall be first due within

thirty (30) days following the date of Mount Sinai's notice of intent to terminate pursuant to this Section 3.4.

MISSED MILESTONE	LICENSE MAINTENANCE FEE
Milestone 1	[…***…] U.S. Dollars ($[…***…] USD)
Milestone 2	[…***…] U.S. Dollars ($[…***…] USD)
Milestone 3	[…***…] U.S. Dollars ($[…***…] USD)
Milestone 4	[…***…] U.S. Dollars ($[…***…] USD)
Milestone 5	[…***…] U.S. Dollars ($[…***…] USD)
Milestone 6	[…***…] U.S. Dollars ($[…***…] USD)

If Licensee pays the applicable license maintenance fee then Mount Sinai will have no further right to terminate this Agreement as a result of Licensee's or its Sublicensees' achievement (or failure to achieve) any applicable due diligence events or milestones for a period of three (3) years, provided that Licensee agrees to deliver to Mount Sinai within thirty (30) days of paying the license maintenance fee under this Section 3.4 a Development Plan (acceptable to Mount Sinai) setting forth a revised timeline for achieving the missed development milestones (and the periods for achieving the milestones set forth in Section 3.3 shall be deemed amended to be consistent with such Development Plan).

3.5 **Sponsored Research**.

(a) […***…].

(b) […***…].

4. FEES, ROYALTIES, MILESTONES, AND PAYMENTS

4.1. **License Grant Fee**. As partial consideration for the license and other rights granted under this Agreement, Licensee shall issue to Mount Sinai shares of Licensee's Common Stock (the "**License Shares**") in accordance with the terms of the Stock Purchase Agreement entered into between the Parties on the Effective Date in the form attached hereto as Exhibit C.

4.2. **Milestone Payments**. As additional consideration for the license and other rights granted under this Agreement, during the Term, Licensee shall make the following non-creditable, non-refundable milestone payments to Mount Sinai within sixty (60) days after the occurrence of each of the following events, and a report in accordance with Section 5.6, whether Licensee or its Sublicensee achieves the events:

MILESTONE EVENT	MILESTONE PAYMENT
Acceptance by a Regulatory Authority of […***…], for a Licensed Product	[…***…] U.S. Dollars ($[…***…] USD)
Initiation of the first […***…], for a Licensed Product	[…***…] U.S. Dollars ($[…***…] USD)
Initiation of the first […***…], for a Licensed Product	[…***…] U.S. Dollars ($[…***…] USD)
Receipt of the first […***…], for a Licensed Product	[…***…] U.S. Dollars ($[…***…] USD)
Receipt of the first […***…], for a Licensed Product	[…***…] U.S. Dollars ($[…***…] USD)

In the event that a Licensed Product is marketed under an EUA for […***…], such Licensed Product shall be deemed to have received Regulatory Approval in the applicable jurisdiction for purposes of the milestones set forth in this Section 4.2. If a particular Licensed Product is […***…] ("**Skipped Milestone**"), such Skipped Milestone will be deemed to have been achieved […***…] ("**Achieved Milestone**"). Payment for any Skipped Milestone that is owed in accordance with the provisions of this Section shall be due within sixty (60) days after the occurrence of the Achieved Milestone.

The milestones set forth in this Section 4.2 are successive and not creditable against any other obligations of Licensee. For the avoidance of doubt, each milestone event set forth above is payable only once, regardless of the number of times the milestone event is achieved, and the total, cumulative milestone payments payable to Mount Sinai hereunder shall in no event exceed […***…] U.S. Dollars ($[…***…] USD).

4.3. **Running Royalties**. As additional consideration for the license and other rights granted under this Agreement, during the Royalty Term, Licensee shall pay to Mount Sinai the annual percentage of Net Sales on a Licensed Product-by-Licensed Product basis as follows:

Worldwide Net Sales for the Applicable Calendar Year in the Territory	Running Royalty Percentage
If the Licensed Product contains […***…]:	[…***…]%
If the Licensed Product contains […***…]:	[…***…]%

On a country-by-country and Licensed Product-by-Licensed Product basis, in the event that there is no Valid Claim that covers a Licensed Product in a country within a Major Market in the

Territory, the royalty rate on Net Sales shall be […***…] percent ([…***…]%) of the royalty rates given in the table above for such Licensed Product for the remainder of the Royalty Term for sales of such Licensed Product in such country.

4.4. **Commercial Interruptions**. In the event that Licensee has a Substantial Interruption Event which lasts […***…], then the provisions of this Section 4.4 shall apply. Licensee shall notify Mount Sinai in writing promptly in the event that a Substantial Interruption Event occurs or is anticipated to occur, and such notice shall include a reasonably detailed description and projected timeline and plan for curing any such Substantial Interruption Event. For the period that such Substantial Interruption Event is in effect […***…], Licensee shall pay to Mount Sinai the Interruption Royalty. Running royalties under Section 4.3 are fully creditable against such Interruption Royalty. In no event shall such Interruption Royalty be less than the running royalty owed to Mount Sinai over any commensurate time period during the previous Calendar Year.

4.5. **Sublicense Fees**. In accordance with this Section, Licensee shall pay to Mount Sinai […***…] percent ([…***…]%) of all Sublicense Income within sixty (60) days after receipt of such Sublicense Income. All consideration received by Licensee from any Sublicensee shall be fully auditable by Mount Sinai pursuant to the audit right in Section 5.11.

5. REPORTS AND PAYMENTS

5.1. **Reporting of First Commercial Sale**. In addition to the Quarterly Reports required under Section 5.3, Licensee shall provide a written report to Mount Sinai setting forth the date of First Commercial Sale in each Jurisdiction within thirty (30) days of the occurrence thereof.

5.2. **Reporting of Regulatory Approvals**. In addition to the Quarterly reports required under Section 5.3, Licensee shall provide a written report to Mount Sinai setting forth the date of each Regulatory Approval in each Jurisdiction within seven (7) days of the occurrence thereof and cooperate with Mount Sinai in accordance with Section 7.3.

5.3. **Quarterly Royalty and Sublicense Income Report**. Within thirty (30) days after the Quarter in which any First Commercial Sale occurs, and within thirty (30) days after each Quarter thereafter, Licensee shall provide Mount Sinai with a written report detailing the amount of Gross Sales from Commercial Sales of Licensed Products during the preceding Quarter, the amount of Net Sales made during such Quarter and the royalty payments due to Mount Sinai for such Quarter pursuant to Article 4 (each such report, a "**Quarterly Report**"). Each Quarterly Report shall include at least the following:

(a) accounting for Net Sales, detailing the Gross Sales and specifying the deductions taken to arrive at Net Sales, listed by Licensed Product and by Jurisdiction;

(b) total royalty payments due to Mount Sinai by Licensed Product and by Jurisdiction;

(c) names and addresses of all Sublicensees, all Sublicense Income received by Licensee from such Sublicensees and all amounts payable under Section 4.5, as applicable; and

(d) milestones achieved or not achieved as provided in Section 4.2, as applicable, and any fees associated therewith.

5.4. **Format**. Each Quarterly Report shall be in substantially similar form as Exhibit D attached hereto (which is hereby incorporated into and made a part of this Agreement). With each Quarterly Report submitted, Licensee shall pay to Mount Sinai the royalties and fees due and payable under this Agreement, to the extent not already paid pursuant to Article 4. If no royalties or fees are due and payable, Licensee shall so report. Licensee's failure to timely submit to Mount Sinai payment or a Quarterly Report substantially in the required form will constitute a material breach of this Agreement permitting Mount Sinai to terminate this Agreement in full pursuant to Section 12.2 hereof in addition to Mount Sinai's right to exercise any and all remedies at law or otherwise. Licensee will continue to deliver payment and Quarterly Reports to Mount Sinai after the termination or expiration of this Agreement with respect to any Quarter during which this Agreement remained in effect and until such time as all Licensed Product(s) permitted to be sold after termination have been sold or destroyed, in accordance with Section 13.3.

5.5. **Annual Progress Report and Development Plan**. Within […***…] following the Effective Date while a Licensed Product is under development, Licensee shall submit to Mount Sinai (a) an updated Development Plan, in accordance with Section 3.1 and (b) a written report covering Licensee's and/or its Sublicensees', as applicable, Development and Commercialization activities, including (i) development and testing of all Licensed Products; (ii) achieving the due diligence events specified in Section 3.3; (iii) preparing, filing, and obtaining and maintaining of any Regulatory Approvals; and (iv) plans for the upcoming year related to commercializing the Licensed Product(s); and (v) any milestones achieved or not achieved in accordance with Section 4.2 (an "**Annual Progress Report**"). For clarity, SEC and other regulatory filings, marketing authorizations, and/or press releases are not sufficient to satisfy the requirements of the Annual Progress Report.

5.6. **Milestone Reports**. Within thirty (30) days after the due date of any milestone event, Licensee shall submit to Mount Sinai a written report which specifies, with respect to each milestone event set forth in Section 4.2, whether such milestone event has occurred as of the date of the report and, if so, (a) the date upon which such milestone event occurred, (b) the gross amount of the milestone payment due to Mount Sinai, and (c) an amount and description of any applicable fees, credits or deductions (a "**Milestone Report**"). After any First Commercial Sale has occurred, Licensee's obligation to provide Milestone Reports shall be satisfied by providing Quarterly Reports pursuant to Section 5.3.

5.7. **Annual Sublicense Reports**. On the first day of each Calendar Year following the Effective Date, Licensee shall submit to Mount Sinai a written report setting forth: (a) the names and addresses of all Sublicensees, (b) all Sublicense Income received by Licensee from each Sublicensee during the preceding Calendar Year, and (c) all amounts payable or paid to Mount Sinai under Section 4.5 during the preceding Calendar Year. In addition, within thirty (30) days of Licensee's receipt of any Sublicense Income, Licensee shall submit to Mount Sinai the amount payable to Mount Sinai under Section 4.5, together with a written report describing the triggering event, the gross amount of Sublicense Income received, any applicable fees, credits or deductions, and the net amount of Sublicense Income payable to Mount Sinai. After any First Commercial

Sale has occurred, Licensee's obligation to provide Annual Sublicense Reports shall be satisfied by providing Quarterly Reports in accordance with Section 5.3.

5.8. **Payment and Currency**. All dollar amounts referred to in this Agreement are expressed in United States dollars and Licensee shall make all payments due to Mount Sinai in U.S. Dollars, without deduction of exchange, collection, wiring fees, bank fees, or any other charges, in accordance with the appropriate sections requiring payments. Each payment will reference Agreement AGR-22931. All payments to Mount Sinai will be made in U.S. Dollars by wire transfer or check payable to the Icahn School of Medicine at Mount Sinai and sent to:

By Electronic Transfer:	By Check:
Bank Name: […***…] **Account #**: […***…] **Account Name**: Icahn School of Medicine at Mount Sinai **ABA # (routing)**: […***…] **IBAN** #: […***…] (For International Transfers) **Bank Contact Person**: […***…] **Telephone**: […***…] **Fax**: […***…] **Address**: […***…]	Mount Sinai Innovation Partners Icahn School of Medicine at Mount Sinai One Gustave L. Levy Place […***…] New York, NY 10029

5.9. **Currency Exchange; Taxes**. For converting any Net Sales made in a currency other than United States Dollars, the Parties will use the conversion rate published in the Wall Street Journal Eastern US Edition conversion rate, or other industry standard conversion rate approved in writing by Mount Sinai for the last day of the Quarter for which such royalty payment is due. All applicable taxes and other charges such as duties, customs, tariffs, imposts and government-imposed surcharges shall be borne by Licensee and will not be deducted from payments due to Mount Sinai.

5.10. **Late Payments**. In the event royalty payments or other fees are not received by Mount Sinai when due hereunder, Licensee shall pay to Mount Sinai interest charges that will accrue interest until paid at a rate equal to one (1) percentage point above the U.S. Prime Rate, as reported in the Wall Street Journal, Eastern Edition from time-to-time (or the maximum allowed by Law, if less), calculated on the number of days such payment is overdue.

5.11. **Records and Audit Rights**. Licensee shall keep, and cause its Sublicensees to keep, complete, true and accurate records and books containing all particulars that may be necessary for the purpose of showing the amounts payable to Mount Sinai hereunder. The records for each Quarter will be maintained for at least […***…] ([…***…]) years after the Calendar Year in which the applicable report was submitted to Mount Sinai. Such books and the supporting data shall be open to inspection by an independent auditor of Mount Sinai that is reasonably acceptable to Licensee for a term of […***…] ([…***…]) years following the end of the Calendar

Year to which they pertain, for the sole purpose of verifying Licensee's royalty statement and compliance in other respects with the Agreement. Such access will be made available solely during Licensee's ordinary business hours with at least seven (7) days prior written notice to Licensee or its Sublicensee, as applicable, and not more than once each Calendar Year during the Term and for […***…] ([…***…]) years following expiration of termination of this Agreement. All books, records, data, and information learned through such inspection is and shall be treated as Licensee's Confidential Information (except as provided in Section 6.1). A full and complete copy of any report prepared by such auditor shall be promptly made available to Licensee. Should such inspection lead to the discovery of at least a […***…] percent ([…***…]%) discrepancy in reporting to Mount Sinai's detriment, Licensee agrees to pay the reasonable cost of such inspection. Should such inspection lead to the discovery of an overpayment by Licensee then Mount Sinai shall promptly refund any such overpayment to Licensee. For clarity, any amounts rightfully shown to be owed pursuant to any audits conducted under this Section 5.11 but unpaid will be due immediately and payable by Licensee within sixty (60) days after receipt of the auditor's report.

6. CONFIDENTIALITY; PUBLICITY; USE OF NAME

6.1. "**Confidential Information**" means any and all information of a Party (the "**Disclosing Party**"), or such information of such Party's or of Third Parties provided on behalf of such Party to the other Party ("**Receiving Party**"), that is disclosed in tangible form marked as "confidential" upon disclosure or, if disclosed in oral or other intangible form, is identified as confidential at the time of disclosure and summarized in a writing that is marked as "confidential" and provided to the Receiving Party within thirty (30) days of the intangible disclosure, provided however that failure to so mark, identify, or summarize shall not alter the status of such information as Confidential Information if a reasonable person would, based on the content and/or context of the disclosure, recognize such disclosure was intended as confidential. Notwithstanding the foregoing, Confidential Information shall not include information that the Receiving Party can demonstrate by written and/or electronic records: (i) is available to the public at the time of disclosure hereunder or, after disclosure, becomes a part of the public domain by publication or otherwise, through no breach by the Receiving Party; (ii) is already properly possessed by the Receiving Party prior to receipt from the Disclosing Party; (iii) was received by the Receiving Party without obligation of confidentiality or limitation on use from a Third Party who had the lawful right to disclose such information; or (iv) was independently developed by or for the Receiving Party by any person or persons who had no knowledge or benefit of the Disclosing Party's Confidential Information, where the written or electronic records demonstrating such exception were created contemporaneously with such independent development.

6.2. **Confidentiality**. The Receiving Party shall maintain in confidence and not disclose to any Third Party any of Disclosing Party's Confidential Information, using the same degree of care it uses to protect its own confidential information of a similar nature but in no event using less than a reasonable degree of care. The Receiving Party will use Disclosing Party's Confidential Information solely as reasonably required to undertake its rights and obligations under this Agreement (the "**Purpose**"). For clarity, except as provided for herein, the Purpose expressly excludes any use of Disclosing Party's Confidential Information for (i) regulatory or patent filing purposes other than in express support of Licensed Products as permitted hereunder, or (ii) initiation or pursuit of any proceeding to challenge the patentability, validity, or enforceability of

any patent application or issued patent (or any portion thereof) that is owned or Controlled by Disclosing Party (including, e.g., via pre-issuance submissions, post grant review, or inter partes review), in all cases other than in defense of an infringement claim first brought by the Disclosing Party. Any such excluded use is hereby deemed a material breach of this Agreement and in such event, notwithstanding anything to the contrary herein, the non-breaching Party shall have the right to terminate this agreement and seek resolution of such dispute in any court of competent jurisdiction notwithstanding any provisions herein regarding resolution of disputes between the Parties. The Receiving Party will ensure that its employees, independent contractors, and Sublicensees ("**Recipient Individuals**") have access to Disclosing Party's Confidential Information only on a need to know basis, are informed of all the obligations attaching to such Confidential Information in advance of being given access to it, and are required to comply with such Receiving Party's obligations under this Agreement, and Receiving Party shall be fully responsible to Disclosing Party for such compliance by its Recipient Individuals. If such Recipient Individual is not an employee of a Party hereto, then Recipient will enter into a legally binding confidentiality agreement with provisions at least as strict as the confidentiality obligations and use restrictions herein, with such Recipient Individual prior to disclosing Disclosing Party's Confidential Information to such Recipient Individual, and Receiving Party will be fully responsible to Disclosing Party for compliance with such obligations and restrictions by such Recipient Individual.

6.3. Notwithstanding the above Section 6.2, the Receiving Party may disclose Disclosing Party's Confidential Information to the limited extent required by Law, court order, or other governmental authority with jurisdiction, provided that the Receiving Party (a) promptly provides the Disclosing Party, to the extent legally permissible, with written notice of such requirement, (b) uses no less than reasonable efforts to obtain confidential treatment of such Disclosing Party's Confidential Information by such court or governmental authority, and (c) cooperates, at the Disclosing Party's written request and expense, with the Disclosing Party's legal efforts to prevent or limit the scope of such required disclosure; the Receiving Party shall in all other respects continue to hold such Confidential Information as confidential and subject to all obligations of this Article 6. The Receiving Party's obligations of confidentiality and non-use restrictions as set forth in this Article 6 shall remain in effect for a period of […***…] ([…***…]) years from receipt of the Confidential Information from the Disclosing Party.

6.4. Each Party agrees to treat the terms and conditions of this Agreement as the Confidential Information of the other Party, provided however that in addition to the above exceptions, each Party shall be free to disclose any of the terms of this Agreement (i) to the extent that it is required to do so by the regulations or rules of the Securities and Exchange Commission or any relevant stock exchange, (ii) to actual or prospective Sublicensees, (iii) to its accountants, attorneys and other professional advisors, or (iv) in connection with a financing, merger, consolidation, acquisition or a permitted assignment of this Agreement; provided that (l) in the case of any disclosure under clause (ii), (iii), or (iv) above, the recipient(s) are obligated and do so undertake to keep such terms of this Agreement confidential to the same extent as said Party (said Party being fully responsible to the other Party for such recipients' compliance), and (2) in the case of disclosure under clause (i), such disclosure shall be in accordance with Section 6.3.

6.5. **Publicity**. The Parties may issue a press release regarding this Agreement and the transactions contemplated hereby only upon mutual written agreement and, if so, will cooperate to determine the timing and content of such press release.

6.6. **Use of Either Party's Name**. Except as required by Law, each Party and its Sublicensees, employees and agents may not use the name, logo, seal, trademark, or service mark of the other Party, including any school or organization of Mount Sinai, or any faculty member, student, employee, officer, director, trustee, or other representative of such other Party (or any adaptation of any of the foregoing) without the prior written consent of such other Party, which consent will be granted or denied in that Party's sole discretion. Any request for use of Mount Sinai's name, logo, seal, trademark, or service mark must be first submitted to and prior approved in writing by Mount Sinai Innovation Partners.

7. PATENT PROSECUTION AND REIMBURSEMENT

7.1. **Patent Prosecution**. Mount Sinai shall control the Prosecution of Licensed Patents and the selection of patent counsel. Mount Sinai will request that copies of all documents prepared by patent counsel be provided to Licensee for review and comment prior to filing, to the extent practicable under the circumstances. Mount Sinai will consider any comments from Licensee in good faith; provided, however, that, subject to Section 7.4, Mount Sinai shall have final authority regarding all Prosecution decisions. All Licensed Patents will be in Mount Sinai's name, and Licensee acknowledges that Mount Sinai shall remain the sole client of such patent counsel and in every case shall retain the right to make the final decision with respect to any Prosecution matter. Licensee shall pay, within thirty (30) days of invoice, all reasonable expenses for Prosecuting the Licensed Patents, including without limitation, any taxes, annuities or maintenance fees on such Licensed Patents. Licensee agrees to receive invoices directly from patent counsel, with Mount Sinai receiving a copy of such invoice. Licensee shall pay such invoices directly to patent counsel with written confirmation of payment to Mount Sinai. Further, the Parties agree to enter into a Client and Billing Agreement with patent counsel substantially in the form of Exhibit E, which is hereby incorporated into and made a part of this Agreement.

7.2. **Patent Reimbursement**. Within thirty (30) days after the Effective Date, Licensee will reimburse Mount Sinai for all accrued attorneys' fees, expenses, official fees and all other charges accumulated prior to the Effective Date incident to the Prosecution of the Licensed Patents, which amount is currently estimated at […***…] U.S. dollars ($[…***…] USD) as of February 12, 2020, which is subject to change. In addition to such accrued, unreimbursed patent expenses, Licensee shall reimburse Mount Sinai for all ongoing patent prosecution expenses, regardless of the presence or absence of a Client and Billing Agreement, with thirty (30) days of invoice. To be clear, Licensee will reimburse Mount Sinai for all patent expenses after the Effective Date and prior to execution of a Client and Billing Agreement.

7.3. **Patent Extension**. Licensee shall, within three (3) days of the triggering event, notify Mount Sinai of any Regulatory Approval for any Licensed Product for which an application for Patent term extension may be based, including with respect to any Third Party product, or any other event in any Jurisdiction that would enable Mount Sinai or Licensee as appropriate to apply for Patent term extension or other regulatory or marketing exclusivity or extension thereof in any Jurisdiction. The Parties agree to cooperate fully with each other to provide any information or

documentation necessary to support an application for Patent term extension or other regulatory or marketing exclusivity.

7.4. **Abandonment**.

(a) **By Licensee.** Licensee will have the right to discontinue its obligation to pay for the Prosecution of any Licensed Patent hereunder in a particular Jurisdiction (a "**Licensee Abandoned Patent**"). In each such instance, Licensee will provide Mount Sinai with written notice at least sixty (60) days prior to any office action deadline to enable Mount Sinai to take appropriate action ("**Licensee Abandon Notice**"). Licensee shall be released from its obligation to reimburse Mount Sinai for the expenses incurred after sixty (60) days from receipt of an Licensee Abandon Notice; provided, however, that expenses incurred or authorized prior to the receipt by Mount Sinai of such Licensee Abandon Notice shall be deemed incurred prior to the notice. If any Licensed Patent becomes a Licensee Abandoned Patent hereunder, any license granted by Mount Sinai to Licensee hereunder with respect to such Licensee Abandoned Patent will immediately and automatically terminate, and Licensee will have no rights whatsoever to Exploit such Licensee Abandoned Patent. For clarity, Mount Sinai will then be free, without further notice or obligation to Licensee, to dispose of such Licensee Abandoned Patent in any manner.

(b) **By Mount Sinai.** Should Mount Sinai elect to discontinue Prosecution of any Licensed Patent hereunder in a particular Jurisdiction (a "**Mount Sinai Abandoned Patent**") (including in response to or as a result of any oppositions, cancellations, interferences, reissue proceedings, or reexaminations brought by a Third Party against a Licensed Patent) then, in each such instance, Mount Sinai will provide Licensee with written notice at least sixty (60) days prior to any deadline to enable Licensee to take appropriate action ("**Mount Sinai Abandon Notice**"). Upon receipt of a Mount Sinai Abandon Notice Licensee will be immediately released from its obligation to reimburse Mount Sinai for any expenses incurred in connection with the applicable Mount Sinai Abandoned Patent and, if Licensee desires to continue Prosecution (including any defense of any opposition, cancellation, interference, reissue proceeding, or reexamination) of a Mount Sinai Abandoned Patent then, at Licensee's request, Mount Sinai will, free of charge, promptly assign exclusive ownership of all right, title, and interest in and to such Mount Sinai Abandoned Patent to Licensee. If any Licensed Patent becomes a Mount Sinai Abandoned Patent hereunder then Licensee will have no obligation to pay any further royalties, milestones, or other consideration with respect to such Mount Sinai Abandoned Patent.

7.5. **Failure to Timely Pay Patent Expenses.** Should Licensee decline or fail to pay by the deadlines set forth herein the costs and legal fees for the Prosecution of any Licensed Patents payable under this Agreement (other than in accordance with Section 7.4(a)), and Licensee fails to cure the same within thirty (30) days of receiving written notice thereof by Mount Sinai, then Mount Sinai may, at its sole discretion, elect to (a) exclude by written notice the particular Licensed Patent from this Agreement, without terminating the Agreement in its entirety, and such Licensed Patent shall be deemed a Licensee Abandoned Patent under this Agreement upon such notice, or (b) terminate this Agreement in full pursuant to Section 12.2 hereof.

8. INFRINGEMENT

8.1. **Notice**. In the event that either Party becomes aware of any suspected infringement of any Licensed Patent or of any Infringement Action, such Party shall promptly notify the other Party thereof. Licensee and Mount Sinai will consult each other in a timely manner concerning any appropriate response to such suspected infringement or Infringement Action.

8.2. **Procedure**.

(a) As between the Parties, Licensee will have the first right, but not the obligation, to initiate, pursue, and control any Infringement Action (whether against an infringing Third Party or brought by a Third Party with respect to any Licensed Patent or Licensed Product) at its own expense. If, within fifteen (15) days after the notice, pursuant to Section 8.1, of any suspected infringement or Infringement Action, Licensee has elected not to initiate or defend such Infringement Action, as applicable, then Mount Sinai shall have the right, but not the obligation, to initiate and/or defend and control such Infringement Action at its own expense.

(b) The Party controlling any Infringement Action shall use reasonable efforts to: (i) inform the other Party of the status of such Infringement Action on a regular basis or as requested by the Party without primary control of the Infringement Action; (ii) provide to the other Party copies of any documents relating to the Infringement Action promptly upon receipt from any Third Party and/or, if practicable, prior to filing such documents; (iii) consult with the other Party regarding the advisability of any contemplated course of action; and (iv) consider any comments from the other Party regarding the Infringement Action. The Party without control of an Infringement Action shall cooperate, at controlling Party's expense (including reasonable fees and other expenses for the noncontrolling Party's attorney), with the Party controlling such Infringement Action to the extent reasonably possible, including joining the Infringement Action if necessary or desirable. The non-controlling Party's reasonable expenses will be paid by controlling Party within thirty (30) days of invoice.

(c) The Party controlling the Infringement Action shall not enter into a settlement of any Infringement Action that (i) restricts the scope of, (ii) adversely affects the enforceability of, (iii) grants a license to (other than a Sublicense in accordance with Section 2.2), or (iv) provides any other settlement action that adversely affects the value of this Agreement or any Patents related to a Licensed Product, or includes admission of fault or wrongdoing on behalf of the other Party, without the prior written consent of the other Party. For clarity, if the settlement of any Infringement Action includes granting a Sublicense, Licensee shall pay to Mount Sinai royalties on any Net Sales by such Sublicensee and a percentage of Sublicense Income, if applicable, in accordance with Article 4 in addition to any other share of recoveries due to Mount Sinai under this Section. For the purposes of settling an Infringement Action, a license granted as a non-revenue cross license shall be considered as a Sublicense, and must comply with all Sublicensing requirement herein, and the fair market value of such cross license to the extent attributable to the Sublicense shall be considered Sublicense Income.

8.3. **Recoveries**.

(a) Any recovery obtained by Licensee as the controlling Party that results of any Infringement Action, by settlement or otherwise, shall be applied in the following order of priority: (i) first, to reimburse each Parties' litigation costs (including attorneys' fees) incurred in connection with such proceeding and not otherwise recovered or reimbursed; and (ii) second, the remainder of the recovery shall be treated as Sublicense Income.

(b) Any recovery obtained by Mount Sinai as the controlling Party that results of any Infringement Action, by settlement or otherwise, shall be applied in the following order of priority: (i) first, to reimburse the Parties' litigation costs (including attorneys' fees) incurred in connection with such proceeding and not otherwise recovered or reimbursed; and (ii) second, the remainder of the recovery shall be retained by Mount Sinai.

9. REPRESENTATIONS; DISCLAIMER OF WARRANTIES; LIMITATION OF LIABILITIES

9.1. **Certain Representations**. Each Party represents to the other Party that, as of the Effective Date:

(a) it has the full right, power and authority to enter into this Agreement and to perform its obligations hereunder; and

(b) this Agreement has been duly authorized and executed by it and is legally binding upon it, enforceable in accordance with its terms, and does not conflict with any agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, nor violate any applicable Law or applicable regulation of any court, governmental body or administrative or other agency having jurisdiction over it.

9.2. **Health Care Law**. Licensee represents and warrants to Mount Sinai that:

(a) Licensee and its agents and employees who are or shall be involved in the performance of this Agreement, have not, as of the Effective Date, been debarred, excluded or disqualified (or convicted of any crime or engaged in any conduct for which debarment, exclusion or disqualification is mandated) under any Health Care Law, including pursuant to 21 U.S.C. § 335a;

(b) to its reasonable knowledge as of the Effective Date, no Third Party that, on behalf of Licensee, has been or during the Term of this Agreement will be, involved in the Development, Manufacture or Commercialization of the Licensed Products (each a "**Licensee Partner**"), has been or will be debarred, excluded or disqualified (or convicted of any crime or engaged in any conduct for which debarment, exclusion or disqualification is mandated) under any Health Care Law, including pursuant to 21 U.S.C. § 335a;

(c) Licensee and its agents and employees involved in the performance of this Agreement, and Licensee Partners, shall perform this Agreement in material compliance with all applicable Health Care Laws; and

(d) Licensee shall notify Mount Sinai in writing immediately in the event of a violation of any of the foregoing, and shall, with respect to any Entity involved in such violation, promptly remove such Entity from performing any role under this Agreement.

9.3. **Representations and Warranties by Mount Sinai**. Mount Sinai represents and warrants to Licensee that:

(a) the Patents set forth on Exhibit A and Materials set forth on Exhibit B are Controlled by Mount Sinai and are not and will not be subject to any agreements, understandings, contracts, grants, covenants, or options that would conflict with the rights and licenses granted to Licensee hereunder;

(b) Mount Sinai (i) has the full right and authority to grant the rights and licenses under this Agreement, and (ii) to the knowledge of Mount Sinai, has the right and authority to use all Materials and Technical Information and to license such use to Licensee as set forth herein;

(c) as of the Effective Date, no claim or litigation has been brought, asserted or threatened against Mount Sinai or its affiliates (i) alleging the invalidity, misuse, unregistrability, unenforceability or non-infringement of any of the Licensed Patent, or (2) challenging Mount Sinai's Control of or right to license any of the Licensed Patents, Materials, or Technical Information or making any adverse claim of ownership or inventorship thereof;

(d) as of the Effective Date, there is no action or other proceeding filed nor threatened in writing against Mount Sinai of any of its affiliates alleging that the Exploitation of any Materials or use of Technical Information as contemplated under this Agreement, violates, infringes, constitutes misappropriation any intellectual property or proprietary right of any Third Party; and

(e) the granting of the rights and licenses to Licensee hereunder, and Licensee's Exploitation of the Patents, Materials, and Technical Information as contemplated hereunder, are not subject to any terms or conditions between Mount Sinai and any Third Party and will not bind (or purport to bind) Licensee to any terms or conditions of or obligations to any Third Party.

9.4. **DISCLAIMER OF WARRANTIES**. EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, THE LICENSED PATENTS, MATERIALS, TECHNICAL INFORMATION, LICENSED PRODUCTS, AND ANY OTHER TECHNOLOGY OR INFORMATION PROVIDED OR LICENSED UNDER THIS AGREEMENT ARE PROVIDED ON AN "AS IS" BASIS, AND NEITHER PARTY MAKES ANY REPRESENTATIONS OR WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF ACCURACY, COMPLETENESS, NONINFRINGEMENT, PERFORMANCE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COMMERCIAL UTILITY, SCOPE, OR TITLE WITH RESPECT THERETO.

9.5. **DISCLAIMER OF LIABILITIES.** EXCEPT ARISING OUT OF LICENSEE'S OBLIGATIONS UNDER ARTICLE 10, NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY, ITS AFFILIATES, SUBLICENSEES, SUCCESSORS OR ASSIGNS, OR TO ANY THIRD PARTY FOR ANY LOST PROFITS, BUSINESS INTERRUPTION, OR ANY

INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES OF ANY KIND.

9.6. WITHOUT LIMITING THE GENERALITY OF ANYTHING IN THIS ARTICLE 9, NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS:

(a) A WARRANTY OR REPRESENTATION BY MOUNT SINAI THAT ANYTHING MADE, USED, SOLD, OFFERED FOR SALE, DISTRIBUTED, OR AS APPLICABLE PUBLICLY PERFORMED, PUBLICLY DISPLAYED, DERIVED FROM, OR OTHERWISE DISPOSED OF PURSUANT TO ANY LICENSE GRANTED UNDER THIS AGREEMENT IS OR WILL BE FREE FROM INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY;

(b) AN OBLIGATION BY MOUNT SINAI TO BRING OR PROSECUTE ACTIONS OR SUITS AGAINST THIRD PARTIES FOR INFRINGEMENT, MISAPPROPRIATION, OR OTHER SIMILAR CAUSES OF ACTION RELATED TO THE LICENSED PATENTS, TECHNICAL INFORMATION, OR MATERIALS; OR

(c) CONFERRING BY IMPLICATION, ESTOPPEL OR OTHERWISE ANY LICENSE OR RIGHTS UNDER ANY INTELLECTUAL PROPERTY RIGHTS OF MOUNT SINAI OTHER THAN AS AND TO THE EXTENT EXPRESSLY SET FORTH HEREIN.

10. INDEMNIFICATION

10.1. **Indemnification**. Licensee will defend Mount Sinai, and its trustees, officers, faculty, agents, employees and students (each, an "**Indemnified Party**") from and against any and all claims, actions, and allegations brought by a Third Party (collectively, "**Claims**") against an Indemnified Party arising out of or resulting from:

(i) the exercise by Licensee, its Sublicensees, or vendors of any license granted under this Agreement;

(ii) any material breach of this Agreement or any Sublicense by Licensee or its Sublicensees; and/or

(iii) any willful misconduct, any negligent act, error, or omission, or any violation of applicable Law, of or by Licensee or its Sublicensees, or any of Licensee's or its Sublicensees' officers, directors, employees or agents, in each case with respect to the performance of its or their obligations under this Agreement;

and Licensee will promptly pay all liabilities, losses, damages, costs and expenses (including, if applicable, reasonable attorneys' fees) (collectively, "**Liabilities**") finally awarded by a court of competent jurisdiction against an Indemnified Party as a result of any of the foregoing (i)-(iii); provided, however, that Licensee shall have no obligations under this Section 10.1 to the extent any Claims or Liabilities arise out of or are related to (1) an Indemnified Party's material breach of this Agreement, (2) an Indemnified Party's negligence, willful misconduct, or violation of applicable Law. Liabilities under this Section include, but are not limited to, Liabilities arising in connection with: (i) the use by a Third Party of a Licensed Product that was Developed,

Manufactured or Commercialized by Licensee, Sublicensees, assignees, vendors or Third Parties; (ii) a claim by a Third Party that the Licensed Patents, Materials, Technical Information, or the design, composition, or Exploitation of any Licensed Product infringes or violates or appropriates any Patent, copyright, trade secret, trademark or other intellectual property right of such Third Party; (iii) clinical trials or studies conducted by or on behalf of Licensee, its Sublicensees, assignees, vendors or associated Third Parties relating to the Licensed Patents, Materials, Technical Information, or Licensed Products, such as claims by or on behalf of a human subject of any such trial or study; or (iv) a failure to perform under this Agreement or any Sublicense in material compliance with all applicable Laws, including, without limitation, all Health Care Laws.

10.1. **Indemnification Procedure**. Licensee's defense and indemnification obligations hereunder are conditioned on the Indemnified Party (a) promptly providing Licensee with written notice of any Claim that is subject to Section 10.1, (b) giving Licensee sole control over the defense and settlement of such Claim, and (c) giving Licensee, at Licensee's request and expense, all reasonably requested information and assistance to assist in the defense and settlement of any such Claim, provided, however, that Licensee shall not settle or compromise any Claim in any manner that may impose restrictions or obligations on any Indemnified Party, or that grants any rights to the Licensed Patents, Technical Information, Materials or Licensed Products (other than a permitted Sublicense), or that concedes any fault or wrongdoing on the part of Indemnified Party, without the Indemnified Party's prior written consent (not to be unreasonably withheld, conditioned, or delayed). If Licensee fails or declines to assume the defense against any Claim within thirty (30) days after notice thereof, then the Indemnified Party may assume and control the defense of such Claim for the account and at the risk of Licensee, and any Liabilities related to such Claim will be conclusively deemed a liability of Licensee. The defense and indemnification rights of the Indemnified Party under this Article 10 are in addition to all other rights that an Indemnified Party may have at law, in equity or otherwise.

11. INSURANCE

11.1. **Coverages**. Licensee will procure and maintain insurance policies for the following coverages with respect to personal injury, bodily injury, property damage and contractual liability arising out of Licensee's performance under this Agreement as follows: (a) during the Term, comprehensive general liability, including broad form and contractual liability, in a minimum amount of […***…] U.S. Dollars ($[…***…] USD) combined single limit per occurrence and in the aggregate, written on an occurrence-basis, with no deductible, containing a separation of insureds provision, with additional coverage for broad form and contractual liability, completed operations; (b) prior to the commencement of clinical trials involving Licensed Products, clinical trials coverage in a minimum amount of […***…] U.S. Dollars ($[…***…] USD) combined single limit per occurrence and in the aggregate; and (c) prior to the sale of the first Licensed Product, product liability coverage, in a minimum amount of […***…] U.S. Dollars ($[…***…] USD) combined single limit per occurrence and in the aggregate. Mount Sinai may review periodically the adequacy of the minimum amounts of insurance for each type of coverage required by this Article 12, and Mount Sinai reserves the right to require Licensee to adjust the limits accordingly.

11.2. **Other Requirements**. Any policies of insurance required by Section 11.1 will be issued by an insurance carrier with an A.M. Best rating of "A" or better and will name Mount Sinai

as an additional insured, on a primary and non-contributory basis, with respect to Licensee's performance under this Agreement. Licensee will provide Mount Sinai with insurance certificates evidencing the required coverage within thirty (30) days after the commencement of each policy period and any renewal periods. Each certificate will provide that the insurance carrier will notify Mount Sinai in writing at least thirty (30) days prior to the cancellation or material change in coverage.

12. TERM AND TERMINATION

12.1. **Expiration of Royalty Term**. Upon expiration of the Royalty Term with respect to a Licensed Product in any Jurisdiction and payment in full of all amounts owed hereunder with respect to such Licensed Product in such Jurisdiction, the licenses set forth in Section 2.1 and Section 2.2 shall immediately become perpetual, irrevocable, fully paid up, and royalty-free for such Licensed Product in such Jurisdiction.

12.2. **Termination by Mount Sinai**.

(a) **For Cause**. Mount Sinai may give written notice of default to Licensee, if Licensee materially breaches any obligation, covenant, condition, or undertaking of this Agreement to be performed by it hereunder (including e.g., if Licensee should (i) fail to undertake Commercially Reasonable Efforts with respect to Licensed Products, (ii) fail to achieve the developmental milestones in Section 3.3 or adhere to the Development Plan, in each case subject to Section 3.4, (iii) fail to make any payment at the time such payment is due, (iv) fail to maintain the insurance coverage required hereunder, or (v) fail to timely and sufficiently submit any Quarterly Report, Annual Progress Report, or Development Plan). If Licensee should fail to cure such default within ninety (90) days of such notice, this Agreement, and all of the rights, privileges, and license granted hereunder, shall automatically terminate at the end of such ninety (90) days.

(b) **Immediate Termination**. If Licensee experiences an Event of Bankruptcy then Licensee shall notify Mount Sinai immediately. For purposes of this provision, the term "**Event of Bankruptcy**" means, with respect to a Party: (a) filing by such Party in any court or agency pursuant to any statute or regulation of any state or country, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of the Party or of its assets; (b) such Party being served with an involuntary petition against such Party, filed in any insolvency proceeding, where such petition has not been dismissed within sixty (60) days after the filing thereof; (c) such Party proposing or being a party to any dissolution or liquidation of such Party and this Agreement is not assigned to a successor in interest of the business or assets of such Party; or (d) such Party making a general assignment for the benefit of creditors. Mount Sinai has the right to immediately terminate this Agreement after sixty (60) days of such notice of an Event of Bankruptcy of Licensee provided that Licensee has not provided to Mount Sinai sufficient documentation that demonstrates Licensee is no longer under an Event of Bankruptcy.

(c) **Cessation of Business**. If Licensee at any time (i) ceases to carry on its business related to the rights granted in this Agreement with no intention to resume such business, (ii) liquidates all or a material portion of its assets or business locations, (iii) employs an agent or other third party to conduct a program of closings, liquidations or sales of any material portion of

its business related to the rights granted in this Agreement (other than to a successor or purchaser of all or substantially all of such business), or (iv) is no longer a Going Concern, then this Agreement shall terminate immediately upon written notice by Mount Sinai. "**Going Concern**" is defined by the Auditing Standards Board SAS No. 132.

(d) **Challenge of Patents**. Licensee acknowledges and agrees that nothing herein shall be construed as preventing it from challenging the validity or enforceability of the Licensed Patents at any time. In the event that Licensee or its Sublicensee shall, however, initiate a challenge to the validity or enforceability of any of the Licensed Patents in any forum through any means, or otherwise indicate the remittance of any payment due under this Agreement is made under protest or with any objection, Licensee agrees that Mount Sinai shall have the right, but not the obligation, in addition to any other remedy it may have available to it at law and/or in equity, to terminate this Agreement immediately upon providing written notice of the same to Licensee. Mount Sinai in response to such challenge by Licensee or following termination by Mount Sinai under this subsection may seek redress in any court of competent jurisdiction in its sole discretion notwithstanding Section 14.10 or any other provision of this Agreement. For the avoidance of doubt, Mount Sinai will have no rights or remedies pursuant to this Section 12.2(d) if Licensee or a Sublicensee challenges the validity or enforceability of any of the Licensed Patents in defense of an infringement claim first brought by Mount Sinai in a Court of competent jurisdiction.

12.3. **Termination by Licensee**.

(a) **Without Cause.** Licensee may terminate this Agreement, in whole or in part, at any time, without cause, by giving written notice thereof to Mount Sinai. Such termination shall become effective sixty (60) days after such notice and all of Licensee's rights associated therewith shall cease as of such effective date.

13. EFFECT OF TERMINATION

13.1. **Continuing Obligations of Licensee**. Termination shall not relieve Licensee of any monetary or any other obligation or liability accrued hereunder prior to the effective date of such termination, or rescind or give rise to any right to rescind any payments made or other consideration given to Mount Sinai hereunder prior to the effective date of such termination, nor shall such termination affect in any manner any rights of Mount Sinai arising under this Agreement prior to the date of such termination.

13.2. **Survival of Terms**. In addition to any provision which by its terms contemplates surviving termination or expiration of this Agreement or performance after the Term, the following provisions shall survive the expiration or termination of this Agreement: Articles 1 (Definitions), 4 (Fees, Royalties, Milestones, and Payments, solely with respect to monetary obligations which accrued prior to termination or expiration of this Agreement), 5 (Records and Audit Rights), 6 (Confidentiality; Publicity; Use of Name), 10 (Indemnification), 13 (Effect of Termination), and 14 (Additional Provisions), and Sections 9.4 (Disclaimer of Warranties), 9.5 (Disclaimer of Liabilities), and 12.1 (Expiration of Royalty Term).

13.3. **Licensed Product on Hand**. If this Agreement is terminated by Mount Sinai pursuant to Section 12.2 or by Licensee pursuant to Section 12.3(a) then (a) Licensee shall provide Mount Sinai with a written inventory of all Licensed Products in process of Manufacture, in use, or in stock, and (b) Licensee may dispose of any such Licensed Products within the ninety (90) day period following such termination; provided, however, that Licensee shall pay royalties and render reports to Mount Sinai thereon in the manner specified herein as if this Agreement were still in effect.

13.4. **Licensed Product Data**. If this Agreement is terminated by Mount Sinai pursuant to Section 13.2 or by Licensee pursuant to Section 12.3(a) then a copy of all Licensed Product Data must be transferred to Mount Sinai within forty-five (45) days of termination of this Agreement, and in such event Mount Sinai shall have a non-exclusive, world-wide, perpetual, non-cancelable, royalty-free, fully paid-up license, with right to sublicense, to use such Licensed Product Data to further advance the development of the Licensed Patents and Technical Information.

13.5. **Materials**. If this Agreement is terminated by Mount Sinai pursuant to Section 13.2 or by Licensee pursuant to Section 12.3(a) then, within thirty (30) days of such termination, Licensee shall provide to Mount Sinai a list of descriptions and amounts of Materials on hand. Within thirty (30) days of receipt of such list, Mount Sinai shall notify Licensee of any Materials it requires to be returned, provided, or destroyed (notwithstanding the Licensed Product disposition permissions under Section 13.3) and Licensee shall comply with instructions and certify adherence to instructions within thirty (30) days of receiving notice by Mount Sinai. Should any Materials be provided to Mount Sinai under this Section 13.5, such transfer shall be at Mount Sinai's sole expense.

14. ADDITIONAL PROVISIONS

14.1. **Independent Contractors**. The Parties are independent contractors. Nothing contained in this Agreement is intended to create an agency, partnership or joint venture between the Parties. At no time will either Party make commitments or incur any charges or expenses for or on behalf of the other Party.

14.2. **Compliance with Laws**. Licensee must comply with all prevailing Laws that apply to its activities or obligations under this Agreement. For example, Licensee will comply with applicable United States export Laws. The transfer of certain technical data and commodities may require a license from the applicable agency of the United States government and/or written assurances by Licensee that Licensee will not export data or commodities to certain foreign countries without prior approval of the agency. Mount Sinai does not represent that no license is required, or that, if required, the license will issue.

14.3. **Marking**. Licensee shall, and agrees to require its Sublicensees to, comply with any marking requirements of the intellectual property Laws of the applicable countries in the Territory, and particularly agrees to permanently and legibly mark all Licensed Products made, used, reproduced, or sold under the terms of this Agreement, or their respective containers. Any Sublicense shall impose on the Sublicensee obligations substantially similar to those imposed in this paragraph.

14.4. **Modification, Waiver and Remedies**. This Agreement may only be modified by a written amendment that is executed by an authorized representative of each Party. Any waiver must be express and in writing. No waiver by either Party of a breach by the other Party will constitute a waiver of any different or succeeding breach. Unless otherwise specified, all remedies are cumulative.

14.5. **Assignment**. Licensee may not assign its rights under this Agreement to any Third Party without the prior written consent of Mount Sinai; provided, that Licensee may assign this Agreement or any or all of its rights or obligations hereunder without the prior written consent of Mount Sinai to: (a) an affiliate of Licensee, or (b) a Third Party in connection with a sale of all or substantially all of the business or assets of Licensee related to this Agreement to such Third Party, provided notice is promptly given to Mount Sinai within thirty (30) days following such assignment. For the avoidance of doubt, should Licensee assign this Agreement to an affiliate or a Third Party, such assignment shall not be deemed to be a Sublicense and Mount Sinai agrees that such affiliate or Third Party will not be considered a Sublicensee. Any purported assignment in violation of this clause is void.

14.6. **Notices**. Except as otherwise expressly set forth herein, any notice or other required communication under this Agreement (each, a "**Notice**") must be in writing, addressed to the Party's respective Notice Address, and delivered personally or by globally recognized express delivery service, charges prepaid. A Notice will be deemed delivered and received: (a) in the case of personal delivery, on the date of such delivery; and (b) in the case of a globally recognized express delivery service, five (5) days from transmittal by Mount Sinai or Licensee, as applicable, to the other Party's address below. The "**Notice Address**" of each Party is as follows:

if to Mount Sinai, to:	Icahn School of Medicine at Mount Sinai Mount Sinai Innovation Partners One Gustave L. Levy Place, […***…] New York, NY 10029 Attention: Executive Vice President
and a copy of legal notices only to:	Icahn School of Medicine at Mount Sinai Place, One Gustave L. […***…], New York, NY 10029 Attention: Office of General Counsel
if to Licensee, to:	Sorrento Therapeutics, Inc. 4955 Directors Place San Diego, CA 92121 Facsimile:[…***…] Attention: Henry Ji, Ph.D., President & Chief Executive Officer

and a copy of legal notices only, which shall not constitute notice, to:

Sorrento Therapeutics, Inc.
4955 Directors Place
San Diego, CA 92121
Facsimile: […***…]
Attention: Legal Department

and

Paul Hastings LLP
1117 S. California Avenue
Palo Alto, CA 94304
Facsimile: […***…]
Attention: Jeffrey Hartlin, Esq.

14.7. **Severability and Reformation**. If any provision of this Agreement is held to be invalid or unenforceable by a court of competent jurisdiction, then the remaining provisions of this Agreement will remain in full force and effect. Such invalid or unenforceable provision will be revised by such court to be a valid or enforceable provision that comes as close as permitted by Law to the Parties' original intent.

14.8. **Headings and Counterparts**. The headings of the articles and sections included in this Agreement are inserted for convenience only and are not intended to affect the meaning or interpretation of this Agreement. This Agreement may be executed in several counterparts, and execution signatures may be exchanged electronically including by facsimile or as scanned e-mail attachments, and signatures so exchanged shall be considered as original for all purposes and taken together will constitute one and the same instrument.

14.9. **Governing Law**. This Agreement will be governed and construed in accordance with the Laws of the State of New York, without giving effect to the conflict of law provisions of any jurisdiction.

14.10. **Dispute Resolution; Venue**. Except as set forth in Section 12.2(d), if a dispute arises between the Parties concerning any right or duty under this Agreement, then the Parties will confer, as soon as practicable, in an attempt to resolve the dispute amicably. If the Parties are unable to resolve the dispute amicably, the Parties each hereby irrevocably submit to the exclusive jurisdiction of the state and federal courts located in the borough of Manhattan, New York, New York.

14.11. **Integration**. This Agreement, together with all attached Exhibits, contains the entire agreement between the Parties with respect to the Licensed Patents, Materials, and Technical Information, and supersedes all other oral or written representations, statements, or agreements with respect to such subject matter, including but not limited to, the term sheet exchanged prior to this Agreement.

14.12. **Force Majeure**. If either Party fails to fulfill its obligations hereunder (other than an obligation for the payment of money), when such failure is due to an act of God, or other circumstances beyond its reasonable control, including but not limited to fire, flood, civil

commotion, riot, war (declared and undeclared), revolution, pandemic, or embargoes, then said failure shall be excused for the duration of such event and for such a time thereafter as is reasonable to enable the parties to resume performance under this Agreement, provided however, that in no event shall such time extend for a period of more than one hundred eighty (180) days.

14.13. **Certain Conventions**. Any reference in this Agreement to an Article, Section, subsection, paragraph, clause or Exhibit shall be deemed to be a reference to an Article, Section, subsection, paragraph, clause or Exhibit, of or to, as the case may be, this Agreement, unless otherwise indicated. Unless the context of this Agreement otherwise requires, (a) all definitions set forth herein shall be deemed applicable whether the words defined are used herein with initial capital letters in the singular or the plural, (b) the word "will" shall be construed to have the same meaning and effect as the word "shall," (c) any definition of or reference to any agreement, instrument or other document herein shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), (d) any reference herein to any Party shall be construed to include the Party's successors and assigns, (e) the word "notice" shall mean notice in writing (whether or not specifically stated) and shall include notices, consents, approvals and other written communications contemplated under this Agreement, (f) provisions that require that a Party or the Parties "agree," "consent" or "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 (but excluding e-mail and instant messaging), (g) references to any specific Law, rule or regulation, or article, section or other division thereof, shall be deemed to include the then-current amendments thereto or any replacement or successor Law, rule or regulation thereof, (h) words of any gender include each other gender, (j) words such as "herein," "hereof" and "hereunder" refer to this Agreement as a whole and not merely to the particular provision in which such words appear, (i) the words "include," "includes" and "including" shall be deemed to be followed by the phrase "but not limited to," "without limitation," "inter alia" or words of similar import, and (j) "days" shall mean "calendar days." In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the Parties and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any of the provisions of this Agreement.

14.14. **Business Day Requirements**. In the event that any notice or other action 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 shall be deemed to be required to be taken on the next occurring business day.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

SORRENTO THERAPEUTICS, INC.:

BY: /s/ Henry Ji

NAME: Henry Ji

TITLE: CEO

ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI:

BY: /s/ Erik Lium

NAME: Erik Lium

TITLE: President

Exhibit 10.4

Sorrento Therapeutics, Inc.
4955 Directors Place
San Diego, CA 92121

April 20, 2021

ANP Technologies, Inc.
824 Interchange Boulevard
Newark, Delaware 19711
Attn: Ray Yin

Dear Ray:

Reference is made to that certain Term Sheet, dated February 24, 2021 (the "***Term Sheet***"), between Sorrento Therapeutics, Inc. and ANP Technologies, Inc. The Term Sheet is hereby amended to extend the "Standstill Period" referred to in Paragraph J (*Standstill Period*) thereof to expire at 5:00 p.m. San Diego, California local time on May 4, 2021. The Term Sheet is not otherwise modified by this letter.

Very truly yours,

Sorrento Therapeutics, Inc.

By: /s/ Henry Ji, Ph.D.
Name:Henry Ji, Ph.D.
Title:President and Chief Executive Officer

Acknowledged and agreed by:

ANP Technologies, Inc.

By: /s/ Ray Yin
Name: Ray Yin
Title: President & CEO

SORRENTO THERAPEUTICS, INC.
2021 CASH-SETTLED STOCK APPRECIATION RIGHTS PLAN

PLAN DOCUMENT

1. **Establishment, Purpose, and Types of Awards**

Sorrento Therapeutics, Inc. (the "***Company***") hereby establishes this equity-based cash incentive compensation plan to be known as the "Sorrento Therapeutics, Inc. 2021 Cash-Settled Stock Appreciation Rights Plan" (hereinafter referred to as the "***Plan***") in order to provide cash incentives to select employees, directors, consultants, and advisors of the Company and its Affiliates.

(a) *Awards*. The Plan permits grants of Stock Appreciation Rights ("***Awards***").

(b) *Effect on Other Plans*. The Plan is not intended to affect and shall not affect any stock options, equity-based compensation or other benefits that the Company or its Affiliates may have provided pursuant to any agreement, plan, or program that is independent of this Plan.

2. **Defined Terms**

Terms in the Plan that begin with an initial capital letter have the defined meaning set forth in ***Appendix A***, unless defined elsewhere in this Plan or the context of their use clearly indicates a different meaning.

3. **Shares Subject to the Plan**

Subject to the provisions of Section 9, the maximum number of Shares with respect to which the Company may grant Awards is 2,080,000 Shares.

4. **Administration**

(a) *General*. The Committee shall administer the Plan in accordance with its terms. In its sole discretion, the Board may, at any time and from time to time, exercise any and all rights and duties of the Committee under the Plan. Notwithstanding the foregoing, any action taken by the Committee shall be valid and effective, whether or not members of the Committee at the time of such action are later determined not to have satisfied the requirements for membership set forth in this Section 4 or otherwise provided in any charter of the Committee. The Committee shall hold meetings at such times and places as it may determine, and shall make such rules and regulations for the conduct of its business as it deems advisable.

(b) *Committee Composition*. The Board shall appoint the members of the Committee. If, and to the extent permitted by Applicable Law, the Committee may authorize one or more officers to make Awards to Eligible Persons who are not officers whom the Committee has specifically authorized to make Awards. The Board may at any time appoint additional members to the Committee, remove and replace members of the Committee with or without Cause, and fill vacancies on the Committee however caused.

(c) *Powers of the Committee*. Subject to the provisions of the Plan, the Committee shall have the authority, in its sole discretion:

(i) to determine Eligible Persons to whom Awards shall be granted from time to time, and the number of SARs to be covered by each Award;

(ii) to determine, from time to time, the Fair Market Value of Shares;

(iii) to determine, and to set forth in Award Agreements, the terms and conditions of all Awards, including any applicable exercise price, the installments and conditions under which an Award shall become vested (which may be based on performance), terminated, expired, cancelled, or replaced, and the circumstances for vesting acceleration or waiver of forfeiture restrictions, and other restrictions and limitations;

(iv) to approve the forms of Award Agreements, and all other documents, notices and certificates in connection therewith, which need not be identical either among Participants;

(v) to construe and interpret the terms of the Plan and any Award Agreement, to determine the meaning of their terms, and to prescribe, amend, and rescind rules and procedures relating to the Plan and its administration;

(vi) to the extent consistent with the purposes of the Plan, and without amending the Plan, to modify, cancel, or waive the Company's rights with respect to any Awards, to adjust or to modify Award Agreements for changes in Applicable Law, and to recognize differences in foreign law, tax policies, or customs;

(vii) to implement paperless documentation, granting, settlement, or exercise of Awards by a Participant may be permitted through the use of such an automated system, in all cases, in the event that the Company establishes for itself, or uses, the services of a third party to establish an automated system for the documentation, granting, or exercise of Awards, such as a system using an internet website or interactive voice response; and

(viii) to make all other interpretations, and to take all other actions that the Committee may consider necessary or advisable to administer the Plan, or to effectuate its purposes.

Subject to Applicable Law and the restrictions set forth in the Plan, the Committee may delegate administrative functions to individuals who are Reporting Persons, officers, or Employees of the Company or its Affiliates.

(d) *Action by Committee*. Each member of the Committee is entitled to, in good faith, rely or act upon any report or other information furnished to that member by an officer or other employee of the Company or any Affiliate thereof, the Company's independent certified public accounts, or any executive compensation consultant or other professional retained by the Company to assist in the administration of the Plan.

(e) *Deference to Committee Determinations*. The Committee shall have the discretion to interpret or construe ambiguous, unclear, or implied (but omitted) terms in any fashion it deems to be appropriate in its sole discretion, and to make any findings of fact needed in the administration of the Plan or Award Agreements. The Committee's prior exercise of its discretionary authority shall not obligate it to exercise its authority in a like fashion thereafter. The Committee's interpretation and construction of any provision of the Plan, or of any Award or Award Agreement, shall be final, binding, and conclusive. The validity of any such interpretation, construction, decision or finding of fact shall not be given de novo review if challenged in court, by arbitration, or in any other forum, and shall be upheld unless clearly made in bad faith or materially affected by fraud. The Committee may make any determination required hereunder, including determinations under Section 9, on an Award-by-Award basis.

(f) *No Liability; Indemnification*. Neither the Board nor any Committee member, nor any Person acting at the direction of the Board or the Committee, shall be liable for any act, omission, interpretation, construction or determination made in good faith with respect to the Plan, any Award or any Award Agreement. The Company and its Affiliates shall pay or reimburse any member of the Committee, as well as any Director, Employee, or Consultant who takes action in connection with the Plan, for all expenses incurred with respect to the Plan, and, to the fullest extent allowable under Applicable Law, shall indemnify each and every one of them for any claims, liabilities, and costs (including reasonable attorneys' fees) arising out of their good faith performance of duties under the Plan. The Company and its Affiliates may obtain liability insurance for this purpose.

5. **Eligibility**

(a) *General Rule*. A Participant who has been granted an Award may be granted an additional Award or Awards if the Committee shall so determine, if such person is otherwise an Eligible Person and, if otherwise, in accordance with the terms of the Plan.

(b) *Grant of Awards.* Subject to the express provisions of the Plan, the Committee shall determine from the class of Eligible Persons those individuals to whom Awards under the Plan may be granted, the number of Shares subject to each Award, and the exercise price (if any) with respect to any Award. Each Award shall be evidenced by an Award Agreement signed by the Company and, if required by the Committee, by the Participant. The Award Agreement shall set forth the material terms and conditions of the Award established by the Committee, and each Award shall be subject to the terms and conditions set forth in Sections 17, 18, and 20 unless otherwise specifically provided in an Award Agreement.

(c) *Replacement Awards*. Subject to Applicable Laws (including any associated stockholder approval requirements), the Committee may, in its sole discretion and upon such terms as it deems appropriate, require as a condition of the grant of an Award to a Participant that the Participant surrender for cancellation some or all of the Awards that have previously been granted to the Participant under this Plan or otherwise. An Award that is conditioned upon such surrender may or may not be the same type of Award, may cover the same (or a lesser or greater) number of Shares as such surrendered Award, may have other terms that are determined without regard to the terms or conditions of such surrendered Award, and may contain any other terms that the Committee deems appropriate.

6. **Stock Appreciation Rights (SARs)**

(a) *Grants*. The Committee may, in its discretion, grant Stock Appreciation Rights to any Eligible Person pursuant to Award Agreements, in any of the following forms:

(i) General. The Committee may grant SARs subject to such conditions as the Committee may in its discretion determine, which conditions will be set forth in the applicable Award Agreement.

(ii) Limited SARs. The Committee may grant SARs exercisable only upon, or in respect of, a Change in Control or any other specified event, and such limited SARs may relate to or operate in tandem or combination with or substitution for other SARs, or on a stand-alone basis, and may be payable in cash based on the spread between the exercise price of the SAR, and (A) a price based upon, or equal to, the Fair Market Value of the Shares during a specified period, at a specified time within a specified period before, after or including the date of such event, or (B) a price related to consideration payable to Company's stockholders generally in connection with the event.

(b) *Exercise Price*. The per Share exercise price of an SAR shall be determined in the sole discretion of the Committee, shall be set forth in the applicable Award Agreement.

(c) *Exercise of SARs*. An SAR may not have a term exceeding ten years from its Grant Date and an SAR will be exercisable pursuant to the terms of the Award Agreement. An SAR may only be exercised when the Fair Market Value of the Shares underlying the SAR exceeds the exercise price of the SAR. Except as limited by the Plan, at any time after the grant of an SAR, the Committee, in its sole discretion, and subject to whatever terms and conditions it selects, may accelerate the period during which an SAR vests.

(d) *Payment*. Upon exercise of an SAR, the Participant will be entitled to receive payment, solely in cash, of an amount determined by multiplying:

(i) the excess of the Fair Market Value of a Share (or the applicable percentage thereof specified in the Award Agreement) on the date of exercise of the SAR over the exercise price per Share of the SAR, by

(ii) the number of Shares with respect to which the SAR has been exercised.

Notwithstanding the foregoing, an SAR (i) may limit the amount payable to the Participant to a percentage specified in the Award Agreement, and (ii) shall be subject to any payment or other restrictions that the Committee may, at any time, impose in its discretion, including restrictions intended to conform the SARs with Section 409A of the Code.

(e) *Termination of Employment or Consulting Relationship***.** The Committee shall establish, and set forth in the applicable Award Agreement, the terms and conditions on which an SAR shall remain exercisable, if at all, following termination of a Participant's Continuous Service. Except as limited by the requirements of Section 409A of the Code and regulations and rulings thereunder, the Committee may waive or modify these provisions at any time. To the extent that a Participant is not entitled to exercise an SAR at the date of his or her termination of Continuous Service, or if the Participant (or other person entitled to exercise the SAR) does not exercise the SAR to the extent so entitled within the time specified in the Award Agreement or below (as applicable), the SAR shall terminate and the Shares underlying the unexercised portion of the SAR shall revert to the Plan and become available for future Awards. Notwithstanding any other provision in this Plan, in no event may any SAR be exercised after the expiration of the SAR term as set forth in the Award Agreement.

The following provisions shall apply to the extent an Award Agreement does not specify the terms and conditions upon which an SAR shall terminate when there is a termination of a Participant's Continuous Service:

(i) Termination other than Upon Disability or Death or for Cause. In the event of termination of a Participant's Continuous Service (other than as a result of Participant's death, Disability or termination for Cause), the Participant shall have the right to exercise an SAR at any time within 3 months following such termination to the extent the Participant was entitled to exercise such SAR at the date of such termination.

(ii) Disability. In the event of termination of a Participant's Continuous Service as a result of his or her being Disabled, the Participant shall have the right to exercise an SAR at any time within one year following such termination to the extent the Participant was entitled to exercise such SAR at the date of such termination.

(iii) Death. In the event of the death of a Participant either during the period of Continuous Service since the Grant Date of an SAR, or within 30 days following termination of the Participant's Continuous Service for any reason other than due to Cause, the SAR may be exercised, at any time within one year following the date of the Participant's death, by the Participant's estate or by a person who acquired the right to exercise the SAR by bequest or inheritance, but only to the extent the right to exercise the SAR had vested as of the earlier to occur of the date of the Participant's death or the date the Participant's Continuous Service terminated.

(iv) Cause. If the Committee determines that a Participant's Continuous Service terminated due to Cause, the Participant shall immediately forfeit the right to exercise any SAR, and any such SAR shall be considered immediately null and void.

7. **Taxes**

(a) *General*. As a condition to the exercise of an SAR, the Participant (or in the case of the Participant's death, the person who succeeds to the Participant's rights) shall make such arrangements as the Company may require for the satisfaction of any applicable federal, state, local or foreign withholding tax obligations that may arise in connection with the Award and the exercise thereof. The Company shall not be required to provide any payment upon exercise of an SAR until such obligations are satisfied.

(b) *Default Rule for Employees*. In the absence of any other arrangement, an Employee shall be deemed to have directed the Company or its Affiliates to withhold or collect, from his or her cash compensation, an amount sufficient to satisfy such tax obligations from the next payroll payment otherwise payable after the date of the exercise of an Award.

(c) *Income Taxes and Deferred Compensation*. Participants are solely responsible and liable for the satisfaction of all taxes and penalties that may arise in connection with Awards (including any taxes arising under Section 409A of the Code), and the Company shall not have any obligation to indemnify or otherwise hold any Participant harmless from any or all of such taxes. The Committee shall have the discretion to organize any deferral program, to require deferral election forms, and to grant or to unilaterally modify any Award in a manner (i) that conforms with the requirements of Section 409A of the Code with respect to compensation that is deferred and that vests after December 31, 2004, (ii) that voids any Participant election to the extent it would violate Section 409A of the Code, and (iii) for any distribution election that would violate Section 409A of the Code, to make distributions

pursuant to the Award at the earliest to occur of a distribution event that is allowable under Section 409A of the Code or any distribution event that is both allowable under Section 409A of the Code and is elected by the Participant, subject to any valid second election to defer, provided that the Committee permits second elections to defer in accordance with Section 409A(a)(4)(C) of the Code. The Committee shall have the sole discretion to interpret the requirements of the Code, including Section 409A, for purposes of the Plan and all Awards.

8. **Non-Transferability of Awards**

(a) *General*. Except as set forth in this Section 8, or as otherwise approved by the Committee, Awards may not be sold, pledged, assigned, hypothecated, transferred or disposed of in any manner other than by will or by the laws of descent or distribution. The designation of a beneficiary by a Participant will not constitute a transfer. An Award may be exercised, during the lifetime of the holder of an Award, only by such holder, the duly-authorized legal representative of a Participant who is Disabled, a transferee permitted by this Section 8.

(b) *Limited Transferability Rights*. Notwithstanding anything else in this Section 8, the Committee may in its discretion provide in an Award Agreement that an Award may be transferred, on such terms and conditions as the Committee deems appropriate, either (i) by instrument to the Participant's "***Immediate Family***" (as defined below), (ii) by instrument to an inter vivos or testamentary trust (or other entity) in which the Award is to be passed to the Participant's designated beneficiaries, or (iii) by gift to charitable institutions. Such transferee shall execute any and all documents requested by the Committee, including, without limitation, documents to (i) confirm the status of the transferee as a permitted transferee, (ii) satisfy any requirements for an exemption for the transfer under Applicable Law and (iii) evidence the transfer. "***Immediate Family***" means any child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, and shall include adoptive relationships.

9. **Adjustments Upon Changes in Capitalization, Dissolution, Liquidation or a Change in Control**

(a) *Changes in Capitalization*. The Committee shall equitably adjust the number of Shares covered by each outstanding Award and the number of Awards have been authorized for grant under the Plan but as to which no Awards have yet been granted or that have been returned to the Plan upon cancellation, forfeiture, or expiration of an Award, as well as the price per Share covered by each such outstanding Award, to reflect any increase or decrease in the number of issued Shares resulting from a stock split, reverse stock split, stock dividend, combination, recapitalization or reclassification of the Shares, or any other increase or decrease in the number of issued Shares effected without receipt of consideration by the Company, in each case effected at any time after this Plan is approved by the Board. In the event of any such transaction or event, the Committee may provide in substitution for any or all outstanding Awards under the Plan such alternative consideration (including securities of any surviving entity) as it may in good faith determine to be equitable under the circumstances and may require in connection therewith the surrender of all Awards so replaced. In any case, such substitution of securities shall not require the consent of any person who is granted Awards pursuant to the Plan. Except as expressly provided herein, or in an Award Agreement, if the Company issues for consideration shares of stock of any class or securities convertible into shares of stock of any class, the issuance shall not affect, and no adjustment by reason thereof shall be required to be made with respect to the number or price of Shares subject to any Award.

(b) *Dissolution or Liquidation*. In the event of the dissolution or liquidation of the Company other than as part of a Change in Control, each Award will terminate immediately prior to the consummation of such action, subject to the ability of the Committee to exercise any discretion authorized in the case of a Change in Control.

(c) *Change in Control*. In the event of a Change in Control, the Committee may, in its sole and absolute discretion and authority, without obtaining the approval or consent of the Company's stockholders or any Participant with respect to his or her outstanding Awards, take one or more of the following actions:

(i) cause or otherwise provide that each outstanding Award shall be assumed through the continuation of the Plan and the assumption of the agreements covering the Award or substituted for a substantially similar award issued by a successor entity or a parent or subsidiary of such successor entity (the "***Successor Entity***"), in each case with appropriate adjustments as to the number and kind of shares subject to the Award, the exercise price of such Award and such other terms deemed appropriate, as applicable;

(ii) arrange or otherwise provide for the payment of cash or other consideration to Participants in exchange for the satisfaction and cancellation of outstanding Awards;

(iii) accelerate, in part or in full, to a date prior to the effective time of such Change in Control as the Committee shall determine (or, if the Committee shall not determine such a date, to the date that is four days prior to the effective time of the Change in Control) the vesting of Awards so that Awards shall vest (and, to the extent applicable, become exercisable) as to the Shares that otherwise would have been unvested; or

(iv) make such other modifications, adjustments or amendments to outstanding Awards or this Plan as the Committee deems necessary or appropriate, subject, however, to the terms of Section 11.

Notwithstanding the above, (i) to the extent that an Award is not exercised prior to consummation of a transaction, including a Change in Control, in which the Award is not being assumed or substituted for in such transaction, such Award shall automatically terminate as of immediately prior to the consummation of such transaction; and (ii) in the event a Participant holding an Award assumed or substituted by the Successor Entity in a Change in Control is Involuntarily Terminated by the Successor Entity in connection with, or within 12 months following consummation of, the Change in Control, then any assumed or substituted Award held by the terminated Participant at the time of termination shall accelerate and become fully vested (and exercisable in full), and any repurchase right applicable to any Shares shall lapse in full, unless an Award Agreement provides for a more restrictive acceleration or vesting schedule or more restrictive limitations on the lapse of repurchase rights or otherwise places additional restrictions, limitations and conditions on an Award. The acceleration of vesting and lapse of repurchase rights provided for in the previous sentence shall occur immediately prior to the effective time of the Participant's termination, unless an Award Agreement provides otherwise.

(d) *Certain Distributions*. In the event of any distribution to the Company's stockholders of securities of any other entity or other assets (other than dividends payable in cash or stock of the Company) without receipt of consideration by the Company, the Committee may, in its discretion, appropriately adjust the price per Share covered by each outstanding Award to reflect the effect of such distribution.

(e) *Limitation on Adjustments*. No action shall be taken under this Section 9 which shall cause an Award to fail to be exempt from or comply with Section 409A of the Code or the regulations thereunder.

10. **Time of Granting Awards**.

The date of grant ("***Grant Date***") of an Award shall be the date on which the Committee makes the determination granting such Award or such other date as is determined by the Committee and set forth in the Award Agreement.

11. **Modification of Awards**.

Within the limitations of the Plan, the Committee may modify an Award to accelerate the rate at which an SAR may be exercised (including without limitation permitting an SAR to be exercised in full without regard to the installment or vesting provisions of the applicable Award Agreement or whether the SAR is at the time exercisable, to the extent it has not previously been exercised), to accelerate the vesting of any Award only in the event of a Change in Control, to extend or renew outstanding Awards or to accept the cancellation of outstanding Awards to the extent not previously exercised. Notwithstanding the foregoing provision, no modification of an outstanding Award shall materially and adversely affect such Participant's rights thereunder, unless either the Participant provides written consent or there is an express Plan provision permitting the Committee to act unilaterally to make the modification.

12. **Term of Plan**.

The Plan shall continue in effect for a term of ten years from the date this Plan is first adopted by the Board, unless the Plan is sooner terminated under Section 13.

13. **Amendment and Termination of the Plan**.

(a) *Authority to Amend or Terminate*. Subject to Applicable Laws, the Board may, from time to time, amend, alter, suspend, discontinue, or terminate the Plan.

(b) *Effect of Amendment or Termination*. No amendment, suspension, or termination of the Plan shall materially and adversely affect Awards already granted unless either it relates to an adjustment pursuant to Section 9, or it is otherwise mutually agreed between the Participant and the Committee, which agreement must be in writing and signed by the Participant and the Company. Notwithstanding the foregoing, the Committee may amend the Plan to eliminate provisions which are no longer necessary as a result of changes in tax or securities laws or regulations, or in the interpretation thereof.

14. **Effective Date and Contingencies**.

The Plan shall become effective on the date it is adopted by the Board or the Committee.

15. **Controlling Law**.

This Plan shall be governed by the laws of the State of Delaware (without regard to conflicts of laws principles), to the extent not preempted by United States federal law. If any provision of this Plan is held by a court of competent jurisdiction to be invalid and unenforceable, the remaining provisions shall continue to be fully effective.

16. **Laws and Regulations**.

(a) *U.S. Laws*. This Plan, the grant of Awards, and the exercise SARs under this Plan shall be subject to all Applicable Law.

(b) *Other Jurisdictions*. To facilitate the making of any grant of an Award under this Plan, the Committee may provide for such special terms for Awards to Participants who are foreign nationals or who are employed by the Company or any Affiliate outside of the United States of America as the Committee may consider necessary or appropriate to accommodate differences in local law, tax policy or custom. The Company may adopt rules and procedures relating to the operation and administration of this Plan to accommodate the specific requirements of local laws and procedures of particular countries. Without limiting the foregoing, the Company is specifically authorized to adopt rules and procedures regarding the conversion of local currency, taxes, withholding procedures and handling of stock certificates which vary with the customs and requirements of particular countries. The Company may adopt sub-plans and establish escrow accounts and trusts as may be appropriate or applicable to particular locations and countries.

(c) *Data Privacy*. As a condition of receipt of any Award, each Participant explicitly and unambiguously consents to the collection, use, and transfer, in electronic or other form, of personal data as described in this Section by and among, as applicable, the Company and its Affiliates for the exclusive purpose of implementing, administering, and managing this Plan and Awards and the Participant's participation in this Plan. In furtherance of such implementation, administration, and management, the Company and its Affiliates may hold certain personal information about a Participant with respect to one or more Awards under the Plan, including, but not limited to, the Participant's name, home address, telephone number, date of birth, social security or insurance number or other identification number, salary, nationality, job title(s), information regarding any securities of the Company or any of its Affiliates, and details of all Awards (the "***Data***"). In addition to transferring the Data amongst themselves as necessary for the purpose of implementation, administration, and management of this Plan and Awards and the Participant's participation in this Plan, the Company and its Affiliates each may transfer the Data to any third parties assisting the Company in the implementation, administration, and management of this Plan and Awards and the Participant's participation in this Plan. Recipients of the Data may be located in the Participant's country or elsewhere, and the Participant's country and any given recipient's country may have different data privacy laws and protections. By accepting an Award, each Participant authorizes such recipients to receive, possess, use, retain, and transfer the Data, in electronic or other form, for the purposes of assisting the Company in the implementation, administration, and management of this Plan and Awards and the Participant's participation in this Plan, including any requisite transfer of such Data as may be required to a broker or other third party with whom the Company or the Participant may elect to deposit any Shares. A Participant may, at any time, view the Data held by the Company

with respect to such Participant, request additional information about the storage and processing of the Data with respect to such Participant, recommend any necessary corrections to the Data with respect to the Participant, or refuse or withdraw the consents herein in writing, in any case without cost, by contacting such Participant's local human resources representative. The Company may cancel the Participant's eligibility to participate in this Plan, and in the Committee's discretion, the Participant may forfeit any outstanding Awards if the Participant refuses or withdraws the consents described herein. For more information on the consequences of refusal to consent or withdrawal of consent, Participants may contact their local human resources representative.

17. **No Stockholder Rights**. Neither a Participant nor any transferee of a Participant shall have any rights as a stockholder of the Company with respect to any Shares underlying any Award.

18. **No Employment Rights**. The Plan shall not confer upon any Participant any right to continue an employment, service or consulting relationship with the Company, nor shall it affect in any way a Participant's right or the Company's right to terminate the Participant's employment, service, or consulting relationship at any time, with or without Cause.

19. **References**. All references herein to sections and appendices shall be deemed to be references to sections and appendices, respectively, of this Plan unless the context shall otherwise require. The words "include," "includes" and "including" shall be deemed to be followed by the phrase "without limitation." Unless otherwise expressly provided herein, any agreement, instrument or statute defined or referred to herein or in any agreement or instrument defined or referred to herein means such agreement, instrument or statute as from time to time amended, modified or supplemented, including (in the case of agreements or instruments) by waiver or consent and (in the case of statutes) by succession of comparable successor statutes, and references to all attachments thereto and instruments incorporated therein.

20. **Termination, Rescission and Recapture of Awards**. Notwithstanding any other provision of the Plan, but only to the extent specifically provided in any Award Agreement, this Section shall only apply to a Participant who is, on the date of an Award, an Employee of the Company or its Affiliates, and shall automatically cease to apply to any Participant from and after his or her termination of Continuous Service after a Change in Control.

(a) Each Award under the Plan is intended to align the Participant's long-term interest with those of the Company. If the Participant engages in certain activities discussed below, either during employment or after employment with the Company, the Participant is acting contrary to the long-term interests of the Company. Accordingly, except as otherwise expressly provided in the Award Agreement, the Company may terminate any outstanding, unexercised, unexpired, unpaid, or deferred Awards ("***Termination***"), rescind any exercise or payment pursuant to the Award ("***Rescission***"), or recapture any proceeds from the Participant's exercise of an Award ("***Recapture***"), if the Participant does not comply with the conditions of subsections (b) and (c) hereof (collectively, the "***Conditions***").

(b) A Participant shall not, without the Company's prior written authorization, disclose to anyone outside the Company, or use in other than the Company's business, any proprietary or confidential information or material, as those or other similar terms are used in any applicable patent, confidentiality, inventions, secrecy, or other agreement between the Participant and the Company with regard to any such proprietary or confidential information or material.

(c) Pursuant to any agreement between the Participant and the Company with regard to intellectual property (including but not limited to patents, trademarks, copyrights, trade secrets, inventions, developments, improvements, proprietary information, confidential business and personnel information), a Participant shall promptly disclose and assign to the Company or its designee all right, title, and interest in such intellectual property, and shall take all reasonable steps necessary to enable the Company to secure all right, title and interest in such intellectual property in the United States and in any foreign country.

(d) Upon exercise or payment of cash pursuant to an Award, the Participant shall certify on a form acceptable to the Company that he or she is in compliance with the terms and conditions of the Plan and, if a severance of Continuous Service has occurred for any reason, shall state the name and address of the Participant's then-current

employer or any entity for which the Participant performs business services and the Participant's title, and shall identify any organization or business in which the Participant owns a greater-than-five-percent equity interest.

(e) To the extent permitted by Applicable Law, if the Company determines, in its sole and absolute discretion, that (i) a Participant has violated any of the Conditions or (ii) during his or her Continuous Service, or within one (1) year after Participant's termination for any reason, a Participant (A) has rendered services to or otherwise directly or indirectly engaged in or assisted, any organization or business that, in the judgment of the Company in its sole and absolute discretion, is or is working to become competitive with the Company; (B) has solicited any non-administrative employee of the Company to terminate employment with the Company; or (C) has engaged in activities which are materially prejudicial to or in conflict with the interests of the Company, including any breaches of fiduciary duty or the duty of loyalty, then the Company may, in its sole and absolute discretion, impose a Termination, Rescission, and/or Recapture with respect to any or all of the Participant's relevant Awards and the proceeds from an exercise thereof.

(f) Within ten days after receiving notice from the Company of any such activity, the Participant shall deliver to the Company the payment received as a result of the rescinded exercise or payment. Any payment by the Participant to the Company pursuant to this Section 20 shall be made in cash. It shall not be a basis for Termination, Rescission or Recapture if, after termination of a Participant's Continuous Service, the Participant purchases, as an investment or otherwise, stock or other securities of such an organization or business, so long as (i) such stock or other securities are listed upon a recognized securities exchange or traded over-the-counter, and (ii) such investment does not represent more than a five percent (5%) equity interest in the organization or business.

(g) Notwithstanding the foregoing provisions of this Section, the Company has sole and absolute discretion not to require Termination, Rescission and/or Recapture, and its determination not to require Termination, Rescission and/or Recapture with respect to any particular act by a particular Participant or Award shall not in any way reduce or eliminate the Company's authority to require Termination, Rescission and/or Recapture with respect to any other act or Participant or Award. Nothing in this Section shall be construed to impose obligations on the Participant to refrain from engaging in lawful competition with the Company after the termination of employment that does not violate subsections (b) or (c) of this Section, other than any obligations that are part of any separate agreement between the Company and the Participant or that arise under Applicable Law.

(h) All administrative and discretionary authority given to the Company under this Section shall be exercised by the most senior human resources executive of the Company or such other person or committee (including without limitation the Committee) as the Committee may designate from time to time.

(i) Notwithstanding any provision of this Section, if any provision of this Section is determined to be unenforceable or invalid under any Applicable Law, such provision will be applied to the maximum extent permitted by Applicable Law, and shall automatically be deemed amended in a manner consistent with its objectives to the extent necessary to conform to any limitations required under Applicable Law. Furthermore, if any provision of this Section is illegal under any Applicable Law, such provision shall be null and void to the extent necessary to comply with Applicable Law.

(j) All Awards (including any proceeds, gains or other economic benefit actually or constructively received by the Participant upon any receipt or exercise of any Award or upon the receipt or resale of any Shares underlying the Award) shall be subject to the provisions of any claw-back policy implemented by the Company, including, without limitation, any claw-back policy adopted to comply with the requirements of Applicable Law, including, without limitation, the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder, to the extent set forth in such claw-back policy and/or in the applicable Award Agreement.

21. **Recoupment of Awards**. Unless otherwise specifically provided in an Award Agreement, and to the extent permitted by Applicable Law, the Committee may in its sole and absolute discretion, without obtaining the approval or consent of the Company's stockholders or of any Participant, require that any Participant reimburse the Company for all or any portion of any Awards granted to him or her under this Plan ("***Reimbursement***"), or the Committee may require the Termination or Rescission of, or the Recapture associated with, any Award, if and to the extent:

(a) the granting, vesting, or payment of such Award (or portion thereof) was predicated upon the achievement of certain financial results or other performance criteria;

(b) in the Committee's view, the Participant either benefited from a calculation that later proves to be materially inaccurate, or engaged in one or more material acts of fraud or misconduct that caused or partially caused the need for a financial restatement by the Company or any material Affiliate thereof; and

(c) a lower granting, vesting or payment of such Award would have occurred based upon the conduct described in clause (b) of this Section 21.

In each instance, the Committee may, to the extent practicable and allowable under Applicable Laws, require Reimbursement, Termination or Rescission of, or Recapture relating to, any such Award granted to a Participant; provided that the Company will not seek Reimbursement, Termination or Rescission of, or Recapture relating to, any such Awards that were paid or vested more than three years prior to the first date of the applicable restatement period.

[APPENDIX A FOLLOWS]

Appendix A: Definitions

As used in the Plan, the following definitions shall apply:

"***Affiliate***" means, with respect to any Person, any other Person that directly or indirectly controls or is controlled by or under common control with such Person. For the purposes of this definition, "***control***," when used with respect to any Person, means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of such Person or the power to elect directors, whether through the ownership of voting securities, by contract or otherwise; and the terms "***affiliated***," "***controlling***" and "***controlled***" have meanings correlative to the foregoing.

"***Applicable Law***" means the legal requirements relating to the administration of share-based plans settled in cash under applicable U.S. federal and state laws, the Code, any applicable stock exchange or automated quotation system rules or regulations, and the applicable laws of any other country or jurisdiction where Awards are granted, as such laws, rules, regulations and requirements shall be in place from time to time.

"***Award***" means any award of an SAR made pursuant to the Plan.

"***Award Agreement***" means any written document setting forth the terms of an Award that has been authorized by the Committee. The Committee shall determine the form or forms of documents to be used, and may change them from time to time for any reason.

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

"***Cause***" for termination of a Participant's Continuous Service will have the meaning set forth in any unexpired employment, consulting or service agreement between the Company and the Participant. In the absence of such an agreement, "***Cause***" will exist if the Participant is terminated from employment or other service with the Company or an Affiliate for any of the following reasons: (i) the Participant's failure to substantially perform his or her duties and responsibilities to the Company or violation of a material Company policy; (ii) the Participant's commission of any act or acts of fraud, embezzlement, dishonesty, or other misconduct; (iii) the Participant's unauthorized use or disclosure of any proprietary information or trade secrets of the Company or any other party to whom the Participant owes an obligation of nondisclosure as a result of his or her relationship with the Company; or (iv) the Participant's material breach of any of his or her obligations under any written agreement or covenant with the Company.

The Committee shall in its discretion determine whether or not a Participant is being terminated for Cause. The Committee's determination shall, unless arbitrary and capricious, be final and binding on the Participant, the Company, and all other affected persons. The foregoing definition does not in any way limit the Company's ability to terminate a Participant's employment, consulting or service relationship at any time, and the term "Company" will be interpreted herein to include any Affiliate or successor thereto, if appropriate.

"***Change in Control***" shall mean the occurrence during the term of the Plan of any of the following events, subject however to the Committee's determination (to the extent required to conform with Section 409A of the Code) that any occurrence listed below is a permissible distribution event within the meaning of Section 409A of the Code (it being the intention of the Company to set forth, interpret and apply the following provisions in a manner conforming with Section 409A insofar as applicable): (i) the acquisition, directly or indirectly, by any person or group (within the meaning of Section 13(d)(3) of the Exchange Act of the beneficial ownership of securities of the Company possessing more than fifty percent (50%) of the combined voting power of all outstanding securities of the Company; (ii) a merger or consolidation in which the Company is not the surviving entity, except for a transaction

in which the holders of the outstanding voting securities of the Company immediately prior to such merger or consolidation hold, in the aggregate, securities possessing more than fifty percent (50%) of the total combined voting power of all outstanding voting securities of the surviving entity immediately after such merger or consolidation; (iii) the sale, transfer or other disposition (in one or more transactions or series of related transactions) of all or substantially all of the assets of the Company; (iv) a complete liquidation or dissolution of the Company; or (v) any reverse merger in which the Company is the surviving entity but in which securities possessing more than fifty percent (50%) of the total combined voting power of the Company's outstanding voting securities are transferred to or acquired by one or more Persons different from the Persons (or their Affiliates) holding those securities immediately prior to such merger.

Notwithstanding the foregoing, a "***Change in Control***" shall not be deemed to have occurred by virtue of the consummation of any transaction or series of integrated transactions immediately following which the record holders of the common stock of the Company immediately prior to such transaction or series of transactions have substantially the same proportionate ownership in an entity which owns all or substantially all of the former assets or capital stock of the Company immediately following such transaction or series of transactions.

"***Code***" means the U.S. Internal Revenue Code of 1986, as amended.

"***Committee***" means one or more committees or subcommittees of the Board appointed by the Board to administer the Plan in accordance with Section 4.

"***Company***" means Sorrento Therapeutics, Inc., a Delaware corporation; provided, however, that in the event the Company reincorporates to another jurisdiction, all references to the term "***Company***" shall refer to the Company in such new jurisdiction.

"***Consultant***" means any person, including an advisor, who is engaged by the Company or any Affiliate to render services and is compensated for such services.

"***Continuous Service***" means a Participant's most recent period of service, in the absence of any interruption or termination of service, as an Employee, Director, or Consultant. Continuous Service shall not be considered interrupted in the case of: (i) sick leave; (ii) military leave; (iii) any other leave of absence approved by the Committee, provided that such leave is for a period of not more than 90 days, unless reemployment upon the expiration of such leave is guaranteed by contract or statute, or unless provided otherwise pursuant to Company policy adopted from time to time; (iv) changes in status from Director to advisory director or emeritus status; or (iv) in the case of transfers between locations of the Company or between the Company, its Affiliates or their respective successors. Changes in status between service as an Employee, Director, and a Consultant will not, by itself, constitute an interruption of Continuous Service.

"***Director***" means a member of the Board, or a member of the board of directors of an Affiliate.

"***Disabled***" or "***Disability***" means a condition under which a Participant:

(a) is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than 12 months; or

(b) has, by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than 12 months, received income replacement benefits for a period of not less than 3 months under an accident or health plan covering employees of the Company.

"***Eligible Person***" means any Consultant, Director or Employee and includes non-Employees to whom an offer of employment has been extended by the Company or an Affiliate.

"***Employee***" means any person whom the Company or any Affiliate classifies as an employee (including an officer) for employment tax purposes, whether or not that classification is correct. The payment by the Company of a director's fee to a Director shall not be sufficient to constitute "***employment***" of such Director by the Company.

"***Exchange Act***" means the Securities Exchange Act of 1934, as amended.

"***Fair Market Value***" means, unless otherwise determined by the Board on the committee, as of any date (the "***Determination Date***"): (i) the closing price of a Share on the New York Stock Exchange, the American Stock Exchange or The Nasdaq Stock Market LLC (as applicable, the "***Exchange***"), on the Determination Date, or, if shares were listed, but not traded, on such Exchange on the Determination Date, then on the nearest preceding trading day during which a sale occurred; or (ii) if such stock is not quoted on an Exchange, but is otherwise traded on the Over-the-Counter Bulletin Board™ or the Pink Sheets®, the mean between the representative bid and asked prices on the Determination Date or the last preceding date for which such information is available; or (iii) if subsections (i) and (ii) do not apply, the fair market value established in good faith by the Board.

"***Involuntarily Terminated***" means a Participant's Continuous Service is terminated under the following circumstances occurring in connection with, or within 12 months following consummation of, a Change in Control: (i) termination without Cause by the Company or an Affiliate or successor thereto, as appropriate; or (ii) voluntary termination by the Participant within 60 days following (A) a material reduction in the Participant's job responsibilities, provided that neither a mere change in title alone nor reassignment to a substantially similar position shall constitute a material reduction in job responsibilities; (B) an involuntary relocation of the Participant's work site to a facility or location more than 50 miles from the Participant's principal work site as of immediately prior to the Change in Control; or (C) a material reduction in Participant's total compensation other than as part of a reduction by the same percentage amount in the compensation of all other similarly-situated Employees, Directors or Consultants.

"***Non-Employee Director***" means a Director of the Company who is not an Employee.

"***Participant***" means any holder of one or more Awards under the Plan.

"***Person***" means any natural person, association, trust, business trust, cooperative, corporation, general partnership, joint venture, joint-stock company, limited partnership, limited liability company, real estate investment trust, regulatory body, governmental agency or instrumentality, unincorporated organization or organizational entity.

"***SAR***" or "***Stock Appreciation Right***" means Awards granted pursuant to Section 7.

"***Share***" means a share of common stock of the Company, as adjusted in accordance with Section 9.

SORRENTO THERAPEUTICS, INC.
2021 CASH-SETTLED STOCK APPRECIATION RIGHTS PLAN

Stock Appreciation Rights Award Agreement

Award No. _____

You (the "***Participant***") are hereby awarded the following stock appreciation rights (the "***SARs***") with respect to Shares of Sorrento Therapeutics, Inc. (the "***Company***"), subject to the terms and conditions set forth in this Stock Appreciation Rights Award Agreement (as may be amended or restated from time to time, the "***Award Agreement***") and in the Sorrento Therapeutics, Inc. 2021 Cash-Settled Stock Appreciation Rights Plan (as may be amended or restated from time to time, the "***Plan***"). The Plan is available upon request to the Company. You should carefully review these documents, and consult with your personal financial advisor, in order to fully understand the implications of this Award, including your tax alternatives or their consequences. This Award is conditioned on your execution of this Award Agreement within 21 days following the Grant Date designated in Section 1 below.

By executing this Award Agreement, you agree to be bound by all of the Plan's terms and conditions as if they had been set out verbatim in this Award Agreement. In addition, you recognize and agree that all determinations, interpretations, or other actions respecting the Plan and this Award Agreement will be made by the Board of Directors (the "***Board***") of Sorrento Therapeutics, Inc. (the "***Company***") or the Committee pursuant to Section 4 of the Plan, and that such determinations, interpretations or other actions shall (in the absence of manifest bad faith or fraud) be final, conclusive and binding upon all parties, including you and your heirs, representatives and successors-in-interest. Capitalized terms used but not otherwise defined herein shall have the meanings set forth in the Plan.

1. **Variable Terms.** The SARs shall have, and be interpreted according to, the following terms, subject to the provisions of the Plan in all instances:

Name of Participant: _____

Number of Shares subject to the SARs: _____

Exercise Price per SAR: $[●] (equal to the Applicable Percentage of the Fair Market Value of a Share on the Grant Date)

Applicable Percentage: 10%

Grant Date: _____

Vesting Schedule: *(Establishes the Participant's rights to exercise the SARs with respect to the Number of Shares stated above, subject to any stockholder approval requirement set forth in the Plan.)*

Vesting Commencement Date: _____

☒ 0% on Vesting Commencement Date.

☒ 1/4th of the SARs shall vest on the first anniversary of the Vesting Commencement Date and 1/4th of the SARs shall vest on each of the next three (3) anniversaries of the Commencement Date thereafter, subject to the

Participant's continued service or employment with the Company through each such vesting date.

Lifetime Transfer:	☐Allowed pursuant to Section 6 below.
Expiration Date:	☐____ years after Grant Date; or
	☒10 years after Grant Date

2. **Term of SARs.** The term of the SARs will expire at 5:00 p.m. (P.D.T. or P.S.T., as applicable) on the Expiration Date.

3. **Manner of Exercise.** The vested SARs may be exercised by following such exercise procedures as may be specified by the Company. The amount of vested SARs which may be exercised is cumulative; that is, if you fail to exercise all of the SARs during any period set forth above, then any such vested SARs that are not exercised during such period may be exercised during any subsequent period, until the expiration or termination of the SARs pursuant to Sections 2 and 5 of this Award Agreement and the terms of the Plan. Upon the exercise of vested SARs in accordance with this Award Agreement, the Company or one of its Affiliates will pay you, within thirty (30) days after the exercise date, a cash amount equal to the product of (a) the number of Vested SARs exercised, multiplied by (b) the excess of (i) the Fair Market Value of a Share on the exercise date multiplied by the Applicable Percentage, less (ii) the Exercise Price, which payment shall be subject to applicable withholding.

4. **Termination of Continuous Service.** If your Continuous Service is terminated for any reason, the SARs shall terminate on the date on which you cease to have any right to exercise the SARs pursuant to the terms and conditions set forth in Section 6(e) of the Plan.

5. **Long-term Consideration for Award**. The Participant recognizes and agrees that the Company's key consideration in granting this Award is securing the long-term commitment of the Participant to serve as an employee who will advance and promote the business interests and objectives of the Company and/or its Affiliates (the "***Company Group***"). Accordingly, the Participant agrees that this Award shall be subject to the terms and conditions set forth in Section 25 of the Plan (relating to the termination, rescission, and recapture if you violate certain commitments made therein to the Company Group), as well as to the following terms and conditions as material and indivisible consideration for this Award:

(a) Fiduciary Duty. During his or her service with the Company Group the Participant shall devote his or her full energies, abilities, attention and business time to the performance of his or her service responsibilities and shall not engage in any activity which conflicts or interferes with, or in any way compromises, his or her performance of such responsibilities.

(b) Confidential Information. The Participant recognizes that by virtue of his or her service with the Company Group, he or she will be granted otherwise prohibited access to confidential information and proprietary data which are not known, and not readily accessible to the Company Group's competitors. This information (the "***Confidential Information***") includes, but is not limited to, current and prospective customers; the identity of key contacts at such customers; customers' particularized preferences and needs; marketing strategies and plans; financial data; personnel data; compensation data; proprietary procedures and processes; and other unique and specialized practices, programs and plans of the Company Group and their respective customers and prospective customers. The Participant recognizes that this Confidential Information constitutes a valuable property of the Company Group, developed over a significant period of time and at substantial expense. Accordingly, the Participant agrees that he or she shall not, at any time during or after his or her service with the Company Group, divulge such Confidential Information or make use

of it for his or her own purposes or the purposes of any person or entity other than the Company Group.

(c) Non-Solicitation of Customers. The Participant recognizes that by virtue of his or her service with the Company Group he or she will be introduced to and involved in the solicitation and servicing of existing customers of the Company Group and new customers obtained by the Company Group during his or her service. The Participant understands and agrees that all efforts expended in soliciting and servicing such customers shall be for the permanent benefit of the Company Group. The Participant further agrees that during his or her service with the Company Group the Participant will not engage in any conduct which could in any way jeopardize or disturb any of the Company Group's customer relationships

(d) Non-Solicitation of Employees. The Participant recognizes the substantial expenditure of time and effort which the Company Group devotes to the recruitment, hiring, orientation, training and retention of its employees. Accordingly, the Participant agrees that, in the event the Participant, directly or indirectly, for himself or herself or on behalf of any other person or entity, solicits, or offers employment to any employee of the Company Group, the SARs shall immediately expire.

(e) Survival of Commitments; Potential Recapture of Award and Proceeds. The Participant acknowledges and agrees that the terms and conditions of this Section regarding confidentiality and non-solicitation shall survive both (i) the termination of Participant's service with the Company Group for any reason, and (ii) the termination of the Plan, for any reason. The Participant acknowledges and agrees that the grant of SARs in this Award Agreement is just and adequate consideration for the survival of the restrictions set forth herein, and that the Company Group may pursue any or all of the following remedies if the Participant either violates the terms of this Section or succeeds for any reason in invalidating any part of it (it being

understood that the invalidity of any term hereof would result in a failure of consideration for the Award):

(i) declaration that the Award is null and void and of no further force or effect; and

(ii) recapture of any cash paid to the Participant, or any designee or beneficiary of the Participant, pursuant to the Award.

The remedies provided above are not intended to be exclusive, and the Company Group may seek such other remedies as are provided by law, including equitable relief.

(f) Acknowledgement. The Participant acknowledges and agrees that his or her adherence to the foregoing requirements will not prevent him or her from engaging in his or her chosen occupation and earning a satisfactory livelihood following the termination of his or her service with the Company Group.

6. **Restrictions on Transfer**. Except as set forth in the Plan, this Award may not be sold, pledged, or otherwise transferred without the prior written consent of the Committee. Notwithstanding the foregoing, the Participant may transfer the SARs if allowed under Section 1 hereof (i) by instrument to an inter vivos or testamentary trust (or other entity) in which each beneficiary is a permissible gift recipient, as such is set forth in clause (ii) of this Section, or (ii) by gift to charitable institutions or by gift or transfer for consideration to any of your relatives as follows (or to an inter vivos trust, testamentary trust or other entity primarily for the benefit of any of your relatives): any child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, domestic partner, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships. Any transferee of the Participant's rights shall succeed and be subject to all of the terms of this Award Agreement and the Plan.

7. **Income Taxes**. The Participant is solely responsible and liable for the satisfaction of all taxes and penalties that may arise in connection with this Award and the Company shall not have any obligation to indemnify or otherwise hold any Participant harmless from any or all of such taxes. The Participant hereby represents that he or she is not subject to United States income taxation.

8. **Notices.** Any notice or communication required or permitted by any provision of this Award Agreement to be given to you shall be in writing and shall be delivered personally or sent by certified mail, return receipt requested, addressed to you at the last address that the Company had for you on its records. Each party may, from time to time, by notice to the other party hereto, specify a new address for delivery of notices relating to this Award Agreement. Any such notice shall be deemed to be given as of the date such notice is personally delivered or properly mailed.

9. **Binding Effect.** Except as otherwise provided in this Award Agreement or in the Plan, every covenant, term, and provision of this Award Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, legatees, legal representatives, successors, transferees, and assigns.

10. **Modifications**. This Award Agreement may be modified or amended at any time, in accordance with Section 14 of the Plan, provided that you must consent in writing to any modification that adversely alters or impairs any of your rights or obligations under this Award Agreement, unless there is an express Plan provision that permits the Committee to unilaterally make the modification.

11. **Headings.** Section and other headings contained in this Award Agreement are for reference purposes only and are not intended to describe, interpret, define or limit the scope or intent of this Award Agreement or any provision hereof.

12. **Severability.** Every provision of this Award Agreement and of the Plan is intended to be severable. If any term hereof is illegal or invalid for any reason, such illegality

or invalidity shall not affect the validity or legality of the remaining terms of this Award Agreement.

13. **Counterparts.** This Award Agreement may be executed by the parties hereto in separate counterparts, each of which when so executed and delivered shall be an original, but all such counterparts shall together constitute one and the same instrument.

14. **Plan Governs.** By executing this Award Agreement, you acknowledge that you have received a copy of the Plan and that your Award Agreement is subject to all the provisions contained in the Plan, the provisions of which are made a part of this Award Agreement, and that your Award is subject to all interpretations, amendments, rules and regulations which from time to time may be promulgated and adopted pursuant to the Plan. In the event of a conflict between the provisions of this Award Agreement and those of the Plan, the provisions of the Plan shall control.

15. **Governing Law.** The laws of the State of Delaware (without regard to conflicts of laws principles) shall govern the validity of this Award Agreement, the construction of its terms, and the interpretation of the rights and duties of the parties hereto.

16. **Not a Contract of Employment**. By executing this Award Agreement you acknowledge and agree that (i) any person whose service is terminated before full vesting of an award, such as the one granted to you by this Award Agreement, could claim that he or she was terminated to preclude vesting; (ii) you promise never to make such a claim; (iii) nothing in this Award Agreement or the Plan confers on you any right to continue an employment, service or consulting relationship with the Company Group, nor shall it affect in any way your right or the Company Group's right to terminate your employment, service, or consulting relationship at any time, with or without Cause; and (iv) the Company would not have granted this Award to you but for these acknowledgements and agreements.

<Signature Page Follows>

BY YOUR SIGNATURE BELOW, along with the signature of the Company's representative, you and the Company agree that the SARs are awarded under and governed by the terms and conditions of this Award Agreement and the Plan.

SORRENTO THERAPEUTICS, INC.

By:

Name:

Title:

PARTICIPANT

The undersigned Participant hereby accepts the terms of this Award Agreement and the Plan.

By:

Name of Participant:

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
Pursuant to Rule 13a-14(a) adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Henry Ji, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Sorrento Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) 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(s) 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.

/s/ Henry Ji, Ph.D.

Henry Ji, Ph.D.
Chairman of the Board of Directors, Chief Executive Officer and President
(Principal Executive Officer)

Dated: May 05, 2021

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
Pursuant to Rule 13a-14(a) adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Najjam Asghar, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Sorrento Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) 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(s) 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.

/s/ Najjam Asghar

Najjam Asghar
Chief Financial Officer
(Principal Financial Officer)

Dated: May 05, 2021

Exhibit 32.1

CERTIFICATIONS OF
PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Henry Ji, principal executive officer of Sorrento Therapeutics, Inc. (the "Company"), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that to my knowledge:

1. The Quarterly Report on Form 10-Q of the Company for the period ended March 31, 2021 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date:May 05, 2021

By: /s/ Henry Ji, Ph.D.

Henry Ji, Ph.D.

Chairman of the Board of Directors, Chief Executive Officer and President

(Principal Executive Officer)

I, Najjam Asghar, principal financial officer of Sorrento Therapeutics, Inc. (the "Company"), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that to my knowledge:

1. The Quarterly Report on Form 10-Q of the Company for the period ended March 31, 2021 (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.

Date:May 05, 2021

By: /s/ Najjam Asghar

Najjam Asghar

Chief Financial Officer

(Principal Financial Officer)

A signed original of these certifications has been provided to Sorrento Therapeutics, Inc. and will be retained by Sorrento Therapeutics, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

These certifications are being furnished solely to accompany this quarterly report pursuant to 18 U.S.C. Section 1350, and shall not be deemed filed for purposes of Section 18 of the Securities Exchange Act of 1934 and are not to be incorporated by reference into any filing of Sorrento Therapeutics, Inc., whether made before or after the date hereof, regardless of any general incorporation language in such filing.