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 June 30, 2019

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 July 28, 2019 was 130,978,668.

Sorrento Therapeutics, Inc.

Form 10-Q for the Quarter Ended June 30, 2019

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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	June 30, 2019	December 31, 2018
Current assets:		
Cash and cash equivalents	$ 61,385	$ 158,738
Restricted cash	9,592	9,592
Marketable securities	316	297
Grants and accounts receivables, net	9,786	3,833
Inventory	6,631	2,898
Income tax receivable	303	526
Prepaid expenses and other	5,493	3,680
Total current assets	93,506	179,564
Property and equipment, net	30,829	24,384
Operating lease right-of-use assets	46,686	—
Intangibles, net	64,825	66,283
Goodwill	38,298	38,298
Cost method investments	237,008	237,008
Equity method investments	25,509	27,980
Restricted cash	45,150	45,000
Other, net	5,232	5,570
Total assets	$ 587,043	$ 624,087
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 24,886	$ 13,817
Accrued payroll and related benefits	12,500	10,236
Accrued expenses	17,383	13,403
Current portion of deferred revenue	3,350	2,703
Acquisition consideration payable	11,312	11,312
Current portion of derivative liabilities	7,900	—
Current portion of debt	32,257	10,150
Current portion of operating lease liabilities	2,401	—
Total current liabilities	111,989	61,621
Long-term debt, net of discount	223,589	223,136
Deferred tax liabilities, net	8,923	9,416
Deferred revenue	115,192	116,274
Derivative liabilities	19,900	—
Operating lease liabilities	52,043	—
Deferred rent and other	791	6,140
Total liabilities	532,427	416,587
Commitments and contingencies (See Note 13)		
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 122,645,334 and 122,280,092 shares issued and outstanding at June 30, 2019 and December 31, 2018, respectively	13	13
Additional paid-in capital	665,515	626,658
Accumulated other comprehensive income	48	15
Accumulated deficit	(532,583)	(367,750)
Treasury stock, 7,568,182 shares at cost at June 30, 2019, and December 31, 2018	(49,464)	(49,464)
Total Sorrento Therapeutics, Inc. stockholders' equity	83,529	209,472
Noncontrolling interests	(28,913)	(1,972)
Total equity	54,616	207,500
Total liabilities and stockholders' equity	$ 587,043	$ 624,087

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 June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Revenues:				
Royalty and license	$ 120	$ 120	$ 240	$ 240
Sales and services	6,357	3,793	12,380	9,919
Total revenues	6,477	3,913	12,620	10,159
Operating costs and expenses:				
Costs of revenues	3,281	1,226	5,589	2,538
Research and development	24,759	17,925	50,343	32,554
Acquired in-process research and development	—	—	75,301	—
Selling, General and administrative	27,772	11,039	52,894	21,000
Intangible amortization	992	657	1,958	1,319
Loss on contingent liabilities and acquisition consideration payable	34	1,437	66	13,663
Total operating costs and expenses	56,838	32,284	186,151	71,074
Loss from operations	(50,361)	(28,371)	(173,531)	(60,915)
Gain (loss) on trading securities	(76)	(121)	18	(118)
Loss on derivative liabilities	(10,591)	—	(25,092)	—
Loss on foreign currency exchange	(411)	(586)	(98)	(569)
Interest expense	(9,520)	(45,009)	(18,600)	(46,061)
Interest income	305	6	839	10
Loss before income tax	(70,654)	(74,081)	(216,464)	(107,653)
Income tax benefit	(383)	(1,377)	(561)	(2,325)
Loss on equity method investments	(1,574)	(2,105)	(2,471)	(3,027)
Net loss	(71,845)	(74,809)	(218,374)	(108,355)
Net loss attributable to noncontrolling interests	(15,083)	(945)	(53,541)	(1,919)
Net loss attributable to Sorrento	$ (56,762)	$ (73,864)	$ (164,833)	$ (106,436)
Net loss per share - basic per share attributable to Sorrento	$ (0.46)	$ (0.73)	$ (1.35)	$ (1.15)
Net loss per share - diluted per share attributable to Sorrento	$ (0.47)	$ (0.73)	$ (1.51)	$ (1.15)
Weighted-average shares used during period - basic per share attributable to Sorrento	122,549	100,563	122,415	92,795
Weighted-average shares used during period - diluted per share attributable to Sorrento	132,459	100,563	128,132	92,795

See accompanying notes to unaudited consolidated financial statements

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net loss	$ (71,845)	$ (74,809)	$ (218,374)	$ (108,355)
Other comprehensive gain (loss):				
Foreign currency translation adjustments	(52)	(199)	33	(89)
Total other comprehensive gain (loss)	(52)	(199)	33	(89)
Comprehensive loss	(71,897)	(75,008)	(218,341)	(108,444)
Comprehensive loss attributable to noncontrolling interests	(15,083)	(945)	(53,541)	(1,919)
Comprehensive loss attributable to Sorrento	$ (56,814)	$ (74,063)	$ (164,800)	$ (106,525)

See accompanying notes to unaudited consolidated financial statements

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

Six Months Ended June 30, 2019

	Common Stock		Treasury Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Noncontrolling Interest	Total
	Shares	Amount	Shares	Amount					
Balance, December 31, 2018	122,280,092	$ 13	7,568,182	$ (49,464)	$ 626,658	$ 15	$ (367,750)	$ (1,972)	$ 207,500
Issuance of common stock upon exercise of stock options	365,242	—	—	—	1,206	—	—	—	1,206
Equity contribution related to Semnur acquisition	—	—	—	—	28,400	—	—	26,600	55,000
Stock-based compensation	—	—	—	—	4,963	—	—	—	4,963
Issuance of 2019 Warrants	—	—	—	—	4,288	—	—	—	4,288
Foreign currency translation adjustment	—	—	—	—	—	33		—	33
Net loss	—	—	—	—	—	—	(164,833)	(53,541)	(218,374)
Balance, June 30, 2019	122,645,334	$ 13	7,568,182	$ (49,464)	$ 665,515	$ 48	$ (532,583)	$ (28,913)	$ 54,616

Three Months Ended June 30, 2019

	Common Stock		Treasury Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Noncontrolling Interest	Total
	Shares	Amount	Shares	Amount					
Balance, March 31, 2019	122,311,917	$ 13	7,568,182	$ (49,464)	$ 657,115	$ 100	$ (475,821)	$ (13,830)	$ 118,113
Issuance of common stock upon exercise of stock options	333,417	—	—	—	1,125	—	—	—	1,125
Stock-based compensation	—	—	—	—	2,987	—	—	—	2,987
Issuance of 2019 Warrants	—	—	—	—	4,288	—	—	—	4,288
Foreign currency translation adjustment	—	—	—	—	—	(52)	—	—	(52)
Net loss	—	—	—	—	—	—	(56,762)	(15,083)	(71,845)
Balance, June 30, 2019	122,645,334	$ 13	7,568,182	$ (49,464)	$ 665,515	$ 48	$ (532,583)	$ (28,913)	$ 54,616

Six Months Ended June 30, 2018

	Common Stock		Treasury Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Noncontrolling Interest	Total
	Shares	Amount	Shares	Amount					
Balance, December 31, 2017	82,903,567	$ 9	7,568,182	$ (49,464)	$ 413,901	$ 242	$ (165,120)	$ 7,042	$ 206,610
Adoption impact of ASC 606	—	—	—	—	—	—	910	—	910
Issuance of common stock upon exercise of stock options	25,815	—	—	—	162	—	—	—	162
Issuance of common stock for BDL settlement	309,916	—	—	—	2,340	—	—	—	2,340
Issuance of common stock for Scilex settlement	1,381,346	—	—	—	13,744	—	—	—	13,744
Issuance of common stock for public placement and investments, net	7,786,743	1	—	—	58,272	—	—	—	58,273
Issuance of common stock for Virttu settlement	1,795,011	—	—	—	11,308	—	—	—	11,308
Issuance of common stock related to conversion of notes payable	22,038,565	2	—	—	49,998	—	—	—	50,000
Beneficial conversion feature recorded on convertible notes	—	—	—	—	12,006	—	—	—	12,006
Warrants issued in connection with convertible notes	—	—	—	—	9,646	—	—	—	9,646
Stock-based compensation	—	—	—	—	2,939	—	—	(29)	2,910
Foreign currency translation adjustment	—	—	—	—	—	(89)	—	—	(89)
Net loss	—	—	—	—	—	—	(106,436)	(1,919)	(108,355)
Balance, June 30, 2018	116,240,963	$ 12	7,568,182	$ (49,464)	$ 574,316	$ 153	$ (270,646)	$ 5,094	$ 259,465

Three Months Ended June 30, 2018

	Common Stock		Treasury Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Noncontrolling Interest	Total
	Shares	Amount	Shares	Amount					
Balance, March 31, 2018	91,028,089	$ 10	7,568,182	$ (49,464)	$ 480,691	$ 352	$ (196,782)	$ 6,068	$ 240,875
Issuance of common stock upon exercise of stock options	1,725	—	—	—	7	—	—	—	7
Issuance of common stock for public placement and investments, net	1,377,573	—	—	—	9,315	—	—	—	9,315
Issuance of common stock for Virttu settlement	1,795,011	—	—	—	11,308	—	—	—	11,308
Issuance of common stock related to conversion of notes payable	22,038,565	2	—	—	49,998	—	—	—	50,000
Beneficial conversion feature recorded on convertible notes	—	—	—	—	12,006	—	—	—	12,006
Warrants issued in connection with convertible notes	—	—	—	—	9,646	—	—	—	9,646
Stock-based compensation	—	—	—	—	1,345	—	—	(29)	1,316
Foreign currency translation adjustment	—	—	—	—	—	(199)	—	—	(199)
Net loss	—	—	—	—	—	—	(73,864)	(945)	(74,809)
Balance, June 30, 2018	116,240,963	$ 12	7,568,182	$ (49,464)	$ 574,316	$ 153	$ (270,646)	$ 5,094	$ 259,465

See accompanying notes to unaudited consolidated financial statements

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

	Six Months Ended June 30,	
Operating activities	**2019**	**2018**
Net loss	$ (218,374)	$ (108,355)
Adjustments to reconcile net loss to net cash used for operating activities:		
Depreciation and amortization	5,934	3,931
Non-cash operating lease cost	2,217	—
Non-cash interest expense	11,268	44,272
Semnur-related IPR&D	75,301	—
Amortization of debt issuance costs	1,073	515
Gain on trading securities	(18)	118
Stock-based compensation	4,963	2,910
Loss on derivative liabilities	25,092	—
Loss on equity method investments	2,471	3,027
Loss on contingent liabilities and acquisition consideration payable	66	13,663
Deferred tax provision	(493)	(2,253)
Changes in operating assets and liabilities, excluding effect of acquisitions:		
Grants and other receivables	(5,952)	7
Accrued payroll	2,264	2,187
Prepaid expenses and other	(4,528)	1,403
Accounts payable	5,655	(326)
Deferred revenue	(435)	(2,115)
Other	(98)	—
Acquisition consideration payable for Scilex	—	(2,020)
Accrued expenses and other liabilities	2,451	(3,049)
Net cash used in operating activities	(91,143)	(46,085)
Investing activities		
Purchases of property and equipment	(7,488)	(2,812)
Purchase of assets related to Semnur, net of cash acquired	(17,040)	—
Net cash used in investing activities	(24,528)	(2,812)
Financing activities		
Proceeds from Early Conditional Loan, net of issuance costs	18,858	—
Proceeds from bridge loan for Scilex regulatory milestone	—	20,000
Repayment of bridge loan for Scilex regulatory milestone	—	(20,000)
Proceeds from loan agreement	—	1,586
Short-term loan repayment	(740)	—
Scilex consideration for regulatory milestone	—	(22,466)
Payment on Scilex Notes	(918)	—
Proceeds from issuance of common stock, net	—	58,273
Proceeds from issuance of convertible notes	—	37,849
Proceeds from exercise of stock options	1,206	162
Net cash provided by financing activities	18,406	75,404
Net change in cash, cash equivalents and restricted cash	(97,265)	26,507
Net effect of exchange rate changes on cash	62	(152)
Cash, cash equivalents and restricted cash at beginning of period	213,330	20,429
Cash, cash equivalents and restricted cash at end of period	$ 116,127	$ 46,784

Supplemental disclosures:		
Cash paid during the period for:		
Income taxes	$ 13	$ 15
Interest paid	$ 6,178	$ 1,128
Supplemental disclosures of non-cash investing and financing activities:		
Semnur acquisition consideration paid in equity	$ 55,000	$ —
Semnur acquisition costs incurred but not paid	$ 601	$ —
BDL non-cash consideration	$ —	$ 2,340
Property and equipment costs incurred but not paid	$ 2,671	$ 391
Scilex non-cash consideration for regulatory milestone	$ —	$ 13,744
Conversion of convertible notes	$ —	$ 50,000
Reconciliation of cash, cash equivalents and restricted cash within the Company's consolidated balance sheets:		
Cash and cash equivalents	61,385	46,784
Restricted cash	54,742	—
Cash, cash equivalents, and restricted cash	$ 116,127	$ 46,784

See accompanying notes to unaudited consolidated financial statements

1. Nature of Operations and Business Activities

Nature of Operations and Basis of Presentation

Sorrento Therapeutics, Inc. (Nasdaq: SRNE), together with its subsidiaries (collectively, the "Company") is a clinical stage and commercial biopharma company focused on delivering innovative and clinically meaningful therapies to patients and their families, globally, to address unmet medical needs. The Company primarily focuses on therapeutic areas in Immuno-Oncology and Non-Opioid Pain Management. The Company also has programs assessing the use of its technologies and products in auto-immune, inflammatory and neurodegenerative diseases.

At its core, the Company is an antibody-centric company and leverages its proprietary G-MAB™ library and targeted delivery modalities to generate the next generation of cancer therapeutics. The Company's fully human antibodies include PD-1, PD-L1, CD38, CD123, CD47, c-MET, VEGFR2, CCR2 and CD137 among others.

The Company's 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. The Company acquired Sofusa®, a revolutionary drug delivery system, 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, the Company's majority owned subsidiary, Scilex Holding Company ("Scilex Holding"), acquired the assets of Semnur Pharmaceuticals, Inc. ("Semnur"). Semnur's SEMDEXA™ (SP-102) compound is expected to be the first FDA-approved non-opioid corticosteroid formulated as a viscous gel injection in development for the treatment of lumbosacral radicular pain/sciatica, containing no neurotoxic preservatives, surfactants, solvents or particulates.

With each of the Company's clinical and pre-clinical programs, it aims to tailor its therapies to treat specific stages in the evolution of cancer, from elimination, to equilibrium and escape. In addition, the Company's objective is to focus on tumors that are resistant to current treatments and where it can design focused trials based on a genetic signature or biomarker to ensure patients have the best chance of a durable and significant response. The Company has several immuno-oncology programs that are in or close to entering the clinic. These include cellular therapies, an oncolytic virus and a palliative care program targeted to treat intractable cancer pain.

Through June 30, 2019, the Company had devoted substantially all of its efforts to developing products, raising capital and building infrastructure.

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.

In the opinion of management, the unaudited financial information for the interim periods presented reflects all adjustments, which are only normal, recurring and necessary for a fair statement of financial position, results of operations and cash flows. 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, 2018. Operating results for interim periods are not expected to be indicative of operating results for the Company's 2019 fiscal year, or any subsequent period.

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 funds to fulfill its operating 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 within one year after the date the financial statements are issued.

As of June 30, 2019, the Company had $350.9 million of long term debt outstanding, comprised of convertible notes issued pursuant to the 2018 Securities Purchase Agreement (as defined below), the 2018 Purchase Agreements (as defined below) and the Indenture (as defined below) for Scilex Pharmaceuticals Inc. ("Scilex") and the Loan Agreement (as defined below) (collectively, the "Debt Arrangements") (See Note 10).

Each of the Debt Arrangements provides that, upon the occurrence of an event of default, the Purchasers or Lenders thereof (as applicable) may, by written notice to the Company, declare all of the outstanding principal and interest under such Debt Arrangement immediately due and payable. For purposes of the Debt Arrangements, an event of default includes, among other things, (i) the failure to pay outstanding indebtedness when due, (ii) the Company's breach of certain representations, warranties, covenants or obligations under the documents relating to the Debt Arrangements, or (iii) the occurrence of certain insolvency events involving the Company. The Company believes that it is not probable that the material adverse event clause under the Debt Arrangements will be exercised.

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. The consolidated financial statements do not reflect any adjustments that might be necessary if the Company is unable to continue as a going concern.

3. Significant Accounting Policies

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of expenses during the reporting period. Management believes that these estimates are reasonable; however, actual results may differ from these estimates.

Fair Value of Financial Instruments

The Company follows accounting guidance on fair value measurements for financial instruments measured on a recurring basis, as well as for certain assets and liabilities that are initially recorded at their estimated fair values. Fair value is defined as the exit price, or the amount that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Company uses the following three-level hierarchy that maximizes the use of observable inputs and minimizes the use of unobservable inputs to value its financial instruments:

- Level 1: Observable inputs such as unadjusted quoted prices in active markets for identical instruments.
- Level 2: Quoted prices for similar instruments that are directly or indirectly observable in the marketplace.
- Level 3: Significant unobservable inputs which are supported by little or no market activity and that are financial instruments whose values are determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant judgment or estimation.

Financial instruments measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires it to make judgments and consider factors specific to the asset or liability. The use of different assumptions and/or estimation methodologies may have a material effect on estimated fair values. Accordingly, the

fair value estimates disclosed or initial amounts recorded may not be indicative of the amount that the Company or holders of the instruments could realize in a current market exchange.

The carrying amounts of cash equivalents and marketable securities approximate their fair value based upon quoted market prices. Certain of the Company's financial instruments are not measured at fair value on a recurring basis, but are recorded at amounts that approximate their fair value due to their liquid or short-term nature, such as cash, accounts receivable and payable, and other financial instruments in current assets or current liabilities.

Inventory

The Company determines inventory cost on a first-in, first-out basis. The Company reduces the carrying value of inventories to a lower of cost or net realizable value for those items that are potentially excess, obsolete or slow-moving. The Company reserves for excess and obsolete inventory based upon historical experience, sales trends, and specific categories of inventory and age of on-hand inventory. As of June 30, 2019, the Company's inventory is primarily comprised of finished goods.

Research and Development Costs

All research and development costs are charged to expense as incurred. Such costs primarily consist of lab supplies, contract services, stock-based compensation expense, salaries and related benefits.

Acquired In-Process Research and Development Expense

The Company has acquired and may continue to acquire the rights to develop and commercialize new drug candidates. The up-front payments to acquire a new drug compound or drug delivery devices, as well as future milestone payments associated with asset acquisitions that do not meet the definition of a derivative and are deemed probable to achieve the milestones, are immediately expensed as acquired in-process research and development provided that the drug has not obtained regulatory approval for marketing and, absent obtaining such approval, have no alternative future use. The acquired in-process research and development related to the business combination of Virttu Biologics Limited ("Virttu"), for which certain products are under development and expected to be commercialized in the future, was capitalized and recorded within "Intangibles, net" on the accompanying consolidated balance sheet. The Company commenced amortization of acquired in-process research and development related to the business combination of Scilex upon commercialization of ZTlido® (lidocaine topical system) 1.8% in October 2018. Capitalized in-process research and development will be reviewed annually for impairment or more frequently as changes in circumstance or the occurrence of events suggest that the remaining value may not be recoverable. (See Note 4 for further discussion of acquired in-process research and development expense related to the acquisition of Semnur Pharmaceuticals, Inc.).

Revenue Recognition

As of June 30, 2019, the future performance obligations for royalty and license revenues relate to the license agreements with ImmuneOncia Therapeutics, LLC ("ImmuneOncia") and NantCell, Inc. ("NantCell").

The total consideration for the ImmuneOncia license performance obligation, effective September 1, 2016, represented $9.6 million. The estimated revenue expected to be recognized for future performance obligations, as of June 30, 2019, was approximately $8.2 million. The Company expects to recognize license revenue of approximately $0.5 million of the remaining performance obligation annually through the remaining term. The Company applied judgment in estimating the 20-year contract term, analogous to the expected life of the patent, over which revenue is recognized over time given the ongoing performance obligation related to the Company's participation on a steering committee for the technologies under the agreement.

As of June 30, 2019, the NantCell license agreement, effective April 21, 2015, represented $110.0 million of contract liabilities reflected in long-term deferred revenue. See Note 9 for additional information regarding the remaining performance obligation for the agreement.

Sales and Services Revenues

Sales and services revenues are comprised of Scilex product sales of ZTlido® (lidocaine topical system) 1.8%, contract manufacturing associated with sales of customized reagents at Concortis Biosystems Corp. ("Concortis"), materials and supply agreements, contract manufacturing services at BioServ Corporation, and the Company's joint development agreement with Celularity Inc. ("Celularity").

The Company does not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which it recognizes revenue at the amount to which it has the right to invoice for services performed. The Company applied the practical expedient in Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers* to the revenue contracts for Concortis sales and services and materials and supply agreements due to the general short-term length of such contracts.

The following table shows sales and service revenues disaggregated by product and services type for the three and six months ended June 30, 2019 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Scilex product sales	$ 4,660	$ —	$ 7,519	$ —
Concortis sales and services	1,205	895	3,015	2,358
Materials and supply agreements	39	—	539	861
Bioserv sales and services	453	1,231	1,307	3,367
Joint development agreement	—	1,667	—	3,333
	$ 6,357	$ 3,793	$ 12,380	$ 9,919

The Company is obligated to accept from customers the return of products sold that are damaged or do not meet certain specifications. The Company may authorize the return of products sold in accordance with the terms of its sales contracts, and estimates allowances for such amounts at the time of sale. The Company has not experienced any sales returns.

Bioserv Corporation ("Bioserv")

Contract manufacturing services associated with the Company's Bioserv operations related to finish and fill activities for drug products and reagents are recognized ratably over the contract term based on a time-based measure which reflects the transfer of services to the customer because the manufactured products are highly customized and do not have an alternative use to the Company. As of December 31, 2018 and June 30, 2019, the estimated revenue expected to be recognized for future performance obligations associated with contract manufacturing services was approximately $1.6 million and $0.9 million, respectively.

The following table includes Bioserv sales and services revenue expected to be recognized in the future related to performance obligations that are undelivered or partially delivered at the end of the reporting period and do not include contracts with original durations of one year or less (in thousands):

	Remainder of 2019	2020	2021 and thereafter
Contract manufacturing services	$413	$407	$109

Joint Development Agreement

On September 26, 2017, the Company entered into a joint development agreement with Celularity whereby the Company agreed to provide research services to Celularity through June 30, 2018 in exchange for an upfront payment of $5.0 million. The revenue related to the joint development agreement of $5.0 million was recognized over the length of the service agreement as services were performed. The Company recorded sales and services revenues under the joint development agreement of $3.3 million during the six months ended June 30, 2018. The Company recorded no sales and services revenues under the joint development agreement during the six months ended June 30, 2019 as such arrangement is complete.

Reorganization of Segments

Starting on January 1, 2019, the Company re-segmented its business into two new operating segments: the Sorrento Therapeutics segment and the Scilex segment.

Recent Accounting Pronouncements

In February 2016, the FASB issued ASU No. 2016-02, *Leases*. ASU No. 2016-02 is aimed at making leasing activities more transparent and comparable, and requires substantially all leases be recognized by lessees on their balance sheet as a

right-of-use asset and corresponding lease liability, including leases currently accounted for as operating leases. ASU No. 2016-2 is effective for financial statements issued for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. In July 2018, the FASB issued ASU No. 2018-11, which allows for an optional transition method to adopt the lease standard by recognizing a cumulative-effect adjustment to the opening balance sheet of retained earnings in the period of adoption, with no adjustment to prior comparative periods. In March 2019, the FASB issued ASU No. 2019-01, which clarifies that entities are not subject to the transition disclosure requirements in Accounting Standards Codification ("ASC") Topic 250-10-50-3 related to the effect of an accounting change on certain interim period financial information. ASU No. 2016-02 and all subsequent amendments (collectively, "ASC 842") were effective for public entities for annual reporting periods beginning after December 15, 2018, including interim periods therein. The Company adopted ASC 842 during the first quarter of 2019 and elected to apply the cumulative-effect adjustment to the opening balance sheet and optional transition method to not present comparable prior periods as allowed under ASU No. 2018-11. The Company made the following practical expedients elections: (1) elected the short-term lease exception, (2) did not elect hindsight, and (3) elected to not separate its non-lease components from lease components. The Company adopted the transitional practical expedients, which allowed the Company to carry forward its historical assessment of whether existing agreements contained a lease and the classification of the Company's existing operating leases, and also allowed the Company to not reassess initial direct costs. The adoption of ASC 842 resulted in the recording of $44.9 million in operating ROU assets and $2.6 million and $47.8 million in current portion of operating lease liabilities and non-current operating lease liabilities, respectively. Deferred rent, recorded in other current liabilities and other non-current liabilities, was derecognized. There were no adjustments to retained earnings. The Company will continue to report financial information for fiscal years ending on or before December 31, 2018 under the previous lease accounting standard.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, to improve financial reporting by requiring timelier recording of credit losses on loans and other financial instruments held by financial institutions and other organizations. The ASU requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions and reasonable and supportable forecasts. The ASU is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Early application will be permitted for all organizations for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The Company is currently evaluating the impact that the adoption of ASU No. 2016-13 will have on the Company's consolidated financial position, results of operations or cash flows.

4. Acquisitions

Acquisition of Semnur Pharmaceuticals, Inc.

On March 18, 2019, the Company, for limited purposes, entered into an Agreement and Plan of Merger (the "Merger Agreement") with Semnur, Scilex Holding, Sigma Merger Sub, Inc., a Delaware corporation and wholly owned subsidiary of Scilex Holding ("Merger Sub"), and Fortis Advisors LLC, solely as representative of the holders of Semnur equity (the "Equityholders' Representative"). Pursuant to the Merger Agreement, Merger Sub merged with and into Semnur (the "Merger"), with Semnur surviving as a wholly owned subsidiary of Scilex Holding.

Concurrently with the execution of the Merger Agreement, the Company and each of the other holders of outstanding shares of capital stock of Scilex, the Company's majority-owned subsidiary, contributed each share of Scilex capital stock that the Company or it owned to Scilex Holding in exchange for one share of Scilex Holding common stock (the "Contribution"). As a result of the Contribution, and prior to the consummation of the Merger, Scilex became a wholly-owned subsidiary of Scilex Holding and the Company became the owner of approximately 77% of Scilex Holding's issued and outstanding capital stock.

At the closing of the Semnur acquisition, Scilex Holding issued to the holders of Semnur's capital stock and options to purchase Semnur's common stock (collectively, the "Semnur Equityholders") upfront consideration with a value of approximately $70.0 million plus the aggregate exercise price of outstanding options to purchase Semnur's common stock (which amount was subsequently deducted from the amounts otherwise payable to the holders of such options), consisting of the following: (a) a cash payment of approximately $15.0 million, and (b) 47,392,287 shares of Scilex Holding common stock (the "Stock Consideration"). A portion of the cash consideration otherwise payable to the Semnur Equityholders was set aside for expenses incurred by the Equityholders' Representative, and 4,749,095 shares of Scilex Holding common stock otherwise issuable to Semnur Equityholders were placed in escrow with a third party as security for the indemnification obligations of the Semnur Equityholders under the Merger Agreement, including in respect of breaches of representations and warranties of Semnur included in the Merger Agreement. The Semnur Equityholders that receive the Stock Consideration were required to

sign an exchange and registration rights agreement with the Company (the “Exchange Agreement”), which is further described below.

Following the issuance of the Stock Consideration, the Company is the owner of approximately 58% of Scilex Holding’s issued and outstanding capital stock. Pursuant to the Merger Agreement, and upon the terms and subject to the conditions contained therein, Scilex Holding also agreed to pay the Semnur Equityholders up to $280.0 million in aggregate contingent cash consideration based on the achievement of certain milestones, including obtaining the first approval of a New Drug Application of a Semnur product by the U.S. Food and Drug Administration (“FDA”) and the achievement of certain amounts of net sales of Semnur products.

Pursuant to the Exchange Agreement, and upon the terms and subject to the conditions contained therein, if within 18 months following the closing of the Merger (the “Closing”), 100% of the outstanding equity of Scilex Holding has not been acquired by a third party and Scilex Holding has not entered into a definitive agreement with respect to, or otherwise consummated, a firmly underwritten offering of Scilex Holding capital stock on a major stock exchange that meets certain requirements and includes the Stock Consideration, then holders of the Stock Consideration may collectively elect to exchange, during the 60-day period commencing the date that is the 18 month anniversary of the Closing (the “Share Exchange”), the Stock Consideration for shares of the Company’s common stock with a value of $55.0 million based on a price per share of the Company’s common stock equal to the greater of (a) the 30-day trailing volume weighted average price of one share of the Company’s common stock as reported on The Nasdaq Stock Market LLC as of the consummation of the Share Exchange and (b) $5.55 (subject to adjustment for any stock dividend, stock split, stock combination, reclassification or similar transaction).

Pursuant to the terms of the Exchange Agreement, and subject to the limitations contained therein, within 30 days following consummation of the Share Exchange (if it occurs at all), the Company agreed to prepare and file with the SEC a registration statement to enable the public resale on a delayed or continuous basis of the shares of the Company’s common stock issued in the Share Exchange (the “Registration Statement”) and use its commercially reasonable efforts to maintain the effectiveness of such Registration Statement for up to three years thereafter. In the Exchange Agreement, the Company has also agreed to indemnify the applicable Semnur Equityholders and their affiliates for certain liabilities related to such Registration Statement, including certain liabilities arising under the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended.

Jaisim Shah, a member of the Company’s Board of Directors, was Semnur’s Chief Executive Officer, a member of its Board of Directors and a stockholder of Semnur prior to the acquisition transaction.

The transaction was accounted for as an asset acquisition since substantially all the value of the gross assets was concentrated in a single asset. Under the Merger Agreement, Scilex Holding acquired the Semnur SEMDEXA™ (SP-102) technology for consideration valued at approximately $70.0 million, excluding contingent consideration, transaction costs of $3.1 million, and liabilities assumed of $4.2 million, which was allocated based on the relative fair value of the assets acquired. The $70.0 million of consideration consisted of $15.0 million in cash and shares of Scilex Holding valued at $55.0 million. No contingent consideration was recorded as of June 30, 2019 since the related regulatory approval milestones are not deemed probable until they actually occur. As a result, approximately $75.3 million was expensed as a component of acquired in-process research and development.

5. 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 June 30, 2019			
	Balance	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash and cash equivalents	$ 61,385	$ 61,385	$ —	$ —
Restricted cash	54,742	54,742	—	—
Marketable securities	316	257	—	59
Total assets	$ 116,443	$ 116,384	$ —	$ 59
Liabilities:				
Derivative liabilities	$ 7,900	$ —	$ —	$ 7,900
Derivative liabilities - Non-current	19,900	—	—	19,900
Acquisition consideration payable	11,312	—	—	11,312
Acquisition consideration payable - Non-current	791	—	—	791
Total liabilities	$ 39,903	$ —	$ —	$ 39,903

	Fair Value Measurements at December 31, 2018			
	Balance	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash and cash equivalents	$ 158,738	$ 158,738	$ —	$ —
Restricted cash	54,592	54,592	—	—
Marketable securities	297	247	—	50
Total assets	$ 213,627	$ 213,577	$ —	$ 50
Liabilities:				
Acquisition consideration payable	$ 11,312	$ —	$ —	$ 11,312
Acquisition consideration payable - Non-current	725	—	—	725
Total liabilities	$ 12,037	$ —	$ —	$ 12,037

The Company's financial assets and liabilities carried at fair value are comprised of cash, cash equivalents, restricted cash, marketable securities and acquisition consideration payable. Cash and cash equivalents consist of money market accounts and bank deposits which are highly liquid and readily tradable. These investments are valued using inputs observable in active markets for identical securities. Marketable securities are valued using inputs observable in active markets for identical securities. The fair value of the contingent consideration is measured on a recurring basis using significant unobservable inputs (Level 3). Contingent consideration is measured using the income approach and discounting to present value the contingent payments expected to be made based on assessment of the probability that the Company would be required to make such future payment.

The following table includes a summary of the Company's contingent consideration liabilities and acquisition consideration payables associated with acquisitions.

(in thousands)	Fair Value
Beginning balance at December 31, 2018	$ 12,037
Re-measurement of Fair Value	66
Ending balance at June 30, 2019	$ 12,103

As of June 30, 2019, $9.9 million of the Virttu contingent liability remains to be paid in cash.

The principal significant unobservable inputs used in the valuations of the contingent considerations are the discount rates, and probabilities assigned to scenario outcomes.

The Company recorded a loss on derivative liabilities of $2.4 million and $16.9 million, respectively, for the three and six months ended June 30, 2019, which was attributed to revised probabilities related to the timing of marketing approval for ZTlido® (lidocaine topical system) 5.4% or SP-103 ("SP-103"), and revised sales forecasts. The fair value of the derivative liabilities is estimated using the discounted cash flow method under the income approach combined with a Monte Carlo simulation model, which involves significant Level 3 inputs and assumptions including a discount rate of approximately 22.1%, net sales forecasts and an estimated probability of 90% of not meeting marketing approval before a predetermined date. Due to changes in timing of marketing approval probabilities for SP-103 and a revised forecast of cumulative net sales of ZTlido® (lidocaine topical system) 1.8% and SP-103, the fair value of the derivative liabilities changed, resulting in a loss in the Company's consolidated statement of operations during the six months ended June 30, 2019 and a corresponding derivative liability in the Company's consolidated balance sheets at June 30, 2019. Further, due to the revised forecast of cumulative net sales of ZTlido® (lidocaine topical system) 1.8% and SP-103, the Company recorded a derivative liability of $3.0 million for the three and six months ended June 30, 2019, relating to tax indemnification obligations with respect to foreign note holders. The fair value of the derivative liability was estimated using a discounted cash flow probability model, which involves significant Level 3 inputs and assumptions including a risk-adjusted discount rate and estimated foreign tax withholdings.

The Company determined that the contingent acceleration feature of the Early Conditional Loan as further discussed in Note 10 represents an embedded derivative liability that met the criteria for bifurcation under ASU No. 2017-12, *Derivatives and hedging*. The fair value of the derivative liability involved significant Level 3 inputs and assumptions including estimated probabilities of satisfying certain commercial and financial milestones between August 7, 2019 and November 7, 2019 and is estimated using a with and without discounted cash flow approach. The Company recorded a debt discount for the fair value of the derivative liability of $7.0 million on the issuance date. The debt discount attributed to the derivative liability is being amortized over the remaining term of the Term Loans and is recorded as interest expense in the consolidated statement of operations. The Company performs a mark-to-market assessment for the derivative liability each reporting period. The Company recorded a loss on derivative liabilities associated with the 2019 Warrants (as defined in Note 10) of $4.3 million during the three months ended June 30, 2019 as the Conditional Warrants were issued with the Amendment (See Note 10).

The following table includes a summary of the derivative liabilities measured at fair value using significant unobservable inputs (Level 3) during the six months ended June 30, 2019:

(in thousands)	**Fair Value**
Beginning Balance at December 31, 2018	$ —
Additions	6,996
Re-measurement of Fair Value	20,804
Ending Balance at June 30, 2019	$ 27,800

Non-financial assets and liabilities measured on a nonrecurring basis

Certain non-financial assets and liabilities are measured at fair value, usually with Level 3 inputs including the discounted cash flow method or cost method, on a nonrecurring basis in accordance with authoritative guidance. These include items such as non-financial assets and liabilities initially measured at fair value in a business combination and non-financial long-lived assets measured at fair value for an impairment assessment. In general, non-financial assets, including goodwill, intangible assets and property and equipment, are measured at fair value when there is an indication of impairment and are recorded at fair value only when any impairment is recognized.

6. Property and Equipment

Property and equipment consisted of the following as of June 30, 2019 and December 31, 2018 (in thousands):

	June 30, 2019	December 31, 2018
Furniture and fixtures	$ 1,237	$ 1,127
Office equipment	678	632
Machinery and lab equipment	30,013	27,690
Leasehold improvements	9,798	9,001
Construction in progress	8,365	1,221
	50,091	39,671
Less accumulated depreciation	(19,262)	(15,287)
	$ 30,829	$ 24,384

Depreciation expense for the three months ended June 30, 2019 and 2018 was $1.9 million and $1.3 million, respectively. Depreciation expense for the six months ended June 30, 2019 and 2018 was $4.0 million and $2.6 million, respectively.

7. Investments

As of June 30, 2019 and December 31, 2018, the aggregate carrying amount of the Company's cost-method investments in non-publicly traded companies was $237.0 million and included an ownership interest in NantCell, Inc. ("NantCell"), NantBioScience, Inc. ("NantBioScience"), Globavir Biosciences, Inc., Brink Biologics, Inc., Coneksis, Inc., and Celularity. No impairment losses were recorded during the six months ended June 30, 2019.

NANTibody

In 2013, the Company acquired IgDraSol Inc. ("IgDraSol"), a private company focused on the development of oncologic agents for the treatment of cancer, from a third party unrelated to the NantWorks, LLC ("NantWorks") affiliated entities for 3.0 million shares of the Company's common stock and $380,000 of cash for a total purchase price of $29.1 million. This transaction included the acquisition of IgDraSol's lead compound, CynviloqTM, a micellar diblock copolymeric paclitaxel formulation drug product.

In May 2015, the Company entered into an agreement with NantPharma, LLC ("NantPharma"), a NantWorks company, pursuant to which the Company sold to NantPharma all of its equity interests in IgDraSol, which continued to hold the rights to CynviloqTM. Pursuant to the agreement, NantPharma paid the Company an upfront fee of $90.1 million, of which $60.0 million was required to be used by the Company to fund two joint ventures, as described below.

In April 2015, the Company and NantCell, a subsidiary of NantWorks, LLC ("NantWorks"), a private company owned by Dr. Patrick Soon-Shiong, established a new entity called Immunotherapy NANTibody, LLC ("NANTibody") as a stand-alone biotechnology company with $100.0 million initial joint funding. NantCell owns 60% of the equity interest of NANTibody and agreed to contribute $60.0 million to NANTibody. The Company owns 40% of NANTibody and in July 2015, the Company had NantPharma, LLC ("NantPharma") contribute its portion of the initial joint funding of $40.0 million to NANTibody from the proceeds of the sale of IgDraSol. Additionally, the Company and NantCell were allowed to appoint two and three representatives, respectively, to NANTibody's five-member Board of Directors. NANTibody will focus on accelerating the development of multiple immuno-oncology mAbs for the treatment of cancer, including but not limited to anti-PD-1, anti-PD-L1, anti-CTLA4mAbs, and other immune-check point antibodies as well as ADCs and bispecific antibodies.

NANTibody had been formed to advance pre-clinical and clinical immunology assets contributed by the Company and NantCell. The Company continues to hold 40% of the outstanding equity of NANTibody and NantCell holds the remaining 60%. Until July 2, 2017, NANTibody held approximately $100.0 million of cash and cash equivalents, and the Company recorded its investment in NANTibody at approximately $40.0 million. As an equity method investment, the Company's ratable portion of 40% of money expended for the development of intellectual property assets held by NANTibody would be reflected within income (loss) on equity method investments in its statement of operations. As a result of limited spending at NANTibody, the cash on hand at NANTibody remained at approximately $100.0 million since the inception of the NANTibody joint venture until July 2, 2017. Further, the Company's equity method investment in NANTibody remained at approximately $40.0 million until July 2, 2017.

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 quarter lag.

In February 2018, NANTibody notified the Company that on July 2, 2017, NANTibody acquired all of the outstanding equity of IgDraSol in exchange for $90.1 million in cash. NANTibody purchased IgDraSol from NantPharma, which is controlled by NantWorks, an entity with a controlling interest in NantCell and NantPharma.

Although the Company has had a designee serving on the Board of Directors of NANTibody since the formation of NANTibody in April 2015, and although the Company has held 40% of the outstanding equity of NANTibody since NANTibody's formation, neither the Company nor its director designee was given any advance notice of NANTibody's purchase of IgDraSol or of any board meeting or action to approve such purchase. As such, the Company's designee on NANTibody's Board of Directors was not given an opportunity to consider or vote on the transaction as a director and the Company was not given an opportunity to consider or vote on the transaction in its position as a significant (40%) equity holder of NANTibody.

As a result of the July 2, 2017 purchase of IgDraSol, NANTibody's cash and cash equivalents were reduced from $99.6 million as of June 30, 2017 to $9.5 million as of September 30, 2017, and NANTibody's contributed capital was reduced from $100.0 million as of June 30, 2017 to $10.0 million as of September 30, 2017, to effect the transfer of IgDraSol from NantPharma to NANTibody. No additional information was provided to the Company to explain why NANTibody's total assets as of September 30, 2017 were reduced by approximately $90.1 million. The Company requested, but did not receive, additional information from NANTibody for purposes of supporting the value of IgDraSol, including any information regarding clinical advancements in the entity since the sale of IgDraSol by the Company in May 2015.

Prior to the communication of the transfer of IgDraSol from NantPharma to NANTibody, the Company relied on the cash and cash equivalents of NANTibody for purposes of determining the value of its investment in NANTibody, which capital was expended by NANTibody to acquire IgDraSol on July 2, 2017. As a result of the transfer of IgDraSol, the Company reassessed the recoverability of its equity method investment in NANTibody as of July 2, 2017. In doing so, the Company considered the expected outcomes for the intellectual property assets held by NANTibody as of July 2, 2017. As a result of the lack of evidence of any development activity associated with any of the assets held in NANTibody, given the passage of time since the formation of the joint venture, many competitive products from other drug developers worldwide have advanced and/or commercialized for the targeted disease indications of the assets held in NANTibody, and given the Company's minority interest in NANTibody (the investee), the Company concluded that it does not have the ability to recover the carrying amount of the investment and an other-than-temporary decline in the value of the investment had occurred. Accordingly, an impairment was recorded to the Company's equity method investment in NANTibody for the three and nine months ended September 30, 2017. The fair value of the Company's investment in NANTibody was measured at fair value on July 2, 2017 using significant unobservable inputs (Level 3) due to the determination of fair value requiring significant judgment, including the potential outcomes of the intellectual property assets held by NANTibody. For these reasons, fair value was determined by applying the Company's 40% equity interest in NANTibody to the remaining cash and cash equivalents, which resulted in an impairment of $36.0 million. The impairment resulted in a revised carrying value of the Company's investment in NANTibody of $3.7 million which approximated its ratable 40% ownership of the cash maintained by NANTibody expected to be used for future research and development. As of June 30, 2019 and 2018, the carrying value of the Company's investment in NANTibody was approximately $3.2 million and $3.5 million, respectively.

NANTibody recorded a net loss of $257 thousand and $484 thousand for the three months ended March 31, 2019 and 2018, respectively. The Company recorded its portion of loss from NANTibody in loss on equity method investments on its consolidated statements of operations for the six months ended June 30, 2019 and 2018. As of March 31, 2019, NANTibody had $9.5 million in current assets and $1.2 million in current liabilities and no noncurrent assets or noncurrent liabilities. As of March 31, 2018, NANTibody had $9.8 million in current assets and $1.8 million in current liabilities and no noncurrent assets or noncurrent liabilities.

NantStem

In July 2015, the Company and NantBioScience established a new entity called NantCancerStemCell, LLC ("NantStem") as a stand-alone biotechnology company with $100.0 million initial joint funding. As initially organized, NantBioScience was obligated to make a $60.0 million cash contribution to NantStem for a 60% equity interest in NantStem, and the Company was obligated to make a $40.0 million cash contribution to NantStem for a 40% equity interest in NantStem. Fifty percent of these contributions were funded in July 2015 and the remaining amounts were to be made by no later than September 30, 2015. The Company had NantPharma contribute its portion of the initial joint funding of $20.0 million to NantStem from the proceeds of the sale of IgDraSol. Pursuant to a Side Letter dated October 13, 2015, the NantStem joint venture agreement was amended to relieve the Company of the obligation to contribute the second $20.0 million payment, and its ownership interest in NantStem was reduced to 20%. NantBioScience's funding obligations were unchanged. The Side Letter was negotiated at the same time the Company issued a call option on shares of NantKwest that it owned to Cambridge Equities, L.P. ("Cambridge"), a related party to NantBioScience.

A loss related to other-than-temporary impairment of $0.5 million was recognized for the equity investment in NantStem for the year ended December 31, 2018. There was no loss related to other-than-temporary impairment recognized for the equity investment for the three months ended March 31, 2019 and 2018.

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 Company's investment in NantStem is reported in equity method investments on its consolidated balance sheets and its share of NantStem's loss is recorded in loss on equity method investments on its consolidated statement of operations. As of June 30, 2019 and 2018, the carrying value of the Company's investment in NantStem was approximately $17.8 million and $18.2 million, respectively.

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 quarter lag.

NantStem recorded a net loss of $61 thousand and $331 thousand for the three months ended March 31, 2019 and 2018, respectively. The Company recorded its portion of loss from NantStem in income (loss) on equity method investments on its consolidated statements of operations for the six months ended June 30, 2019 and 2018. As of March 31, 2019, NantStem had $75.2 million in current assets and $83 thousand in current liabilities and $5.1 million in noncurrent assets and no noncurrent liabilities. As of March 31, 2018, NantStem had $82.3 million in current assets and $27 thousand in current liabilities and no noncurrent assets or noncurrent liabilities.

The Company records its portion of losses from other equity method investments in loss on equity method investments on its consolidated statements of operations for the six months ended June 30, 2019 and 2018.

8. Goodwill and Intangible Assets

At each of June 30, 2019 and December 31, 2018, the Company had recorded goodwill of $38.3 million.

Starting on January 1, 2019, the Company re-segmented its business into two new operating segments: the Sorrento Therapeutics segment and the Scilex segment. These segments are the Company's reporting units, and are the level at which the Company conducts its goodwill impairment evaluations. Goodwill was allocated to the Sorrento Therapeutics and the Scilex operating segments on a relative fair value basis. Goodwill for the Sorrento Therapeutics segment and Scilex segment was $31.6 million and $6.7 million, respectively, as of June 30, 2019.

Amortization for the intangible assets that have finite useful lives is generally recorded on a straight-line basis over their useful lives. Intangible assets with indefinite useful lives totaling $13.9 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 June 30, 2019 and December 31, 2018 is as follows (in thousands):

June 30, 2019	Weighted average amortization period (Years)	Gross Carrying Amount	Accumulated Amortization	Intangibles, net
Customer relationships	6	$ 1,585	$ 1,387	$ 198
Acquired technology	19	3,410	973	2,437
Acquired in-process research and development	15	35,834	1,097	34,737
Patent rights	15	32,720	5,831	26,889
Assembled workforce	5	$ 605	$ 41	$ 564
Total intangible assets		$ 74,154	$ 9,329	$ 64,825

December 31, 2018	Weighted average amortization period (Years)	Gross Carrying Amount	Accumulated Amortization	Intangibles, net
Customer relationships	6	$ 1,585	$ 1,373	$ 212
Acquired technology	19	3,410	885	2,525
Acquired in-process research and development	15	35,834	366	35,468
Patent rights	15	32,720	4,742	27,978
Assembled workforce	5	105	5	100
Total intangible assets		$ 73,654	$ 7,371	$ 66,283

As of June 30, 2019, the weighted average amortization period for identifiable intangible assets is 14.9 years. Aggregate amortization expense was $1.0 million and $0.7 million for the three months ended June 30, 2019 and 2018, respectively. Aggregate amortization expense was $2.0 million and $1.3 million for the six months ended June 30, 2019 and 2018, respectively.

Estimated future amortization expense related to intangible assets at June 30, 2019 is as follows (in thousands):

Years Ending December 31,	Amount
2019 (Remaining nine months)	$ 1,435
2020	2,869
2021	3,923
2022	3,923
2023	3,918
2024	3,827
Thereafter	44,930
Total expected future amortization	$ 64,825

9. Significant Agreements and Contracts

License Agreement with NantCell

In April 2015, the Company and 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 (as defined) 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 a recent equity sale of NantCell common stock to a third party. As of June 30, 2019, the Company had not yet provided all of the items noted in the agreement, including research services for and on behalf of NantCell, and therefore has recorded the entire upfront payment and value of the equity interest received as deferred revenue. Specifically, only a portion of the materials associated with the licensed assets have been delivered while the majority of the licensed assets remain undelivered and the related research activities are still to be performed. The Company will recognize the upfront payment and the value of the equity interest received over the period beginning with the commencement of the last item delivered. 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 in the consolidated balance sheets and evaluated for other-than-temporary impairment on a quarterly basis.

10. Debt

2018 Securities Purchase Agreement in Private Placement and Amendment to Warrants

On March 26, 2018, the Company entered into a Securities Purchase Agreement (the "March 2018 Securities Purchase Agreement") with certain accredited investors (the "March 2018 Purchasers"). Pursuant to the March 2018 Securities Purchase Agreement, the Company agreed to issue and sell to the March 2018 Purchasers, in a Private Placement (the "March 2018 Private Placement"), (1) convertible promissory notes in an aggregate principal amount of $120,500,000 (the "Notes"), and (2)

warrants to purchase 8,591,794 shares of the common stock of the Company (the "Warrants"). On June 13, 2018, the Company entered into an amendment (the "June 2018 Amendment") to the March 2018 Securities Purchase Agreement. Under the terms of the June 2018 Amendment, the Company and the March 2018 Purchasers agreed that the aggregate principal amount of the Notes was reduced to $37,848,750 and that the aggregate number of shares of Common Stock issuable upon exercise of the Warrants was reduced to 2,698,662, and also agreed to certain other adjustments to the threshold principal amount of the Notes required to remain outstanding in order for certain rights and obligations to apply to the Notes.

On June 13, 2018, the Company issued and sold to the March 2018 Purchasers, in the March 2018 Private Placement (1) Notes in an aggregate principal amount of $37,848,750, and (2) Warrants to purchase an aggregate of 2,698,662 shares of Common Stock. The Notes accrue interest at a rate equal to 5.0% per annum and mature upon the earlier to occur of June 13, 2023 and the date of the closing of a change of control (the "Maturity Date"). In connection with the issuance of the Notes and the Warrants, the Company recorded a debt discount of approximately $21.6 million based on an allocation of proceeds to the Warrants of approximately $9.6 million and a beneficial conversion feature of approximately $12.0 million, before issuance costs.

On November 7, 2018, the Company entered into an Agreement and Consent (the "Agreement and Consent") with the March 2018 Purchasers and agreed to amend the Warrants to reduce the exercise price per share of its common stock thereunder from $8.77 to $3.28. The amendment of the Warrants resulted in a loss on debt extinguishment of $1.9 million representing the incremental fair value of the modified Warrants along with the difference between the fair value and carrying value of the Notes at the modification date of November 7, 2018.

The Company determined that the amendment of the Warrants resulted in an extinguishment at the modification date. As a result, the Company recorded a loss on debt extinguishment for the difference between the fair value of $23.1 million and the carrying value of $17.0 million, or $6.1 million. The Company recorded the loss as of the date of modification, or November 7, 2018. As of June 30, 2019, the estimated Level 3 fair value of the Notes was approximately $16.9 million, compared to the carrying value of $24.7 million. The fair value of the Notes was estimated using a lattice model with Level 3 inputs including the historical stock price volatility, risk-free interest rate and debt yield.

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

	June 30, 2019	December 31, 2018
Face value of loan	$ 37,849	$ 37,849
Unamortized debt discount	(14,288)	(14,804)
Accretion of debt discount	1,099	515
Ending balance	$ 24,660	$ 23,560

Interest expense recognized for stated interest on the Notes for the three and six months ended June 30, 2019 totaled $0.5 million and $0.9 million, respectively. The amount of debt discount and debt issuance costs included in interest expense for the three and six months ended June 30, 2019 was approximately $0.6 million and $1.1 million, respectively.

The Company identified a number of embedded derivatives that require bifurcation from the Notes and separate accounting as a single compound derivative. The current fair value attributed to the bifurcated compound derivative is immaterial. The Company will re-evaluate this assessment each reporting period.

2018 Purchase Agreements and Indenture for Scilex

On September 7, 2018, Scilex 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, among other things, issued and sold to the Scilex Note Purchasers senior secured notes due 2026 in an aggregate principal amount of $224,000,000 (the "Scilex Notes") for an aggregate purchase price of $140,000,000 (the "Scilex Notes Offering"). In connection with the Scilex Notes Offering, Scilex also entered into the Indenture governing the Scilex Notes with U.S. Bank National Association, a national banking association, as trustee (the "Trustee") and collateral agent (the "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 under the Indenture (the "Guarantee").

The net proceeds of the Scilex Notes Offering were approximately $89.3 million, after deducting the Scilex Notes Offering expenses payable by Scilex and funding a segregated reserve account with $20.0 million (the "Reserve Account") and

a segregated collateral account with $25.0 million (the “Collateral Account”) pursuant to the terms of the Indenture. As of June 30, 2019, the estimated fair value of the Scilex Notes was approximately $136.2 million compared to the carrying value of $149.0 million. 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 interest and principal payments, discounted at a rate of return reflective the Company’s credit risk.

Borrowings of the 2018 Purchase Agreements and Indenture for Scilex consisted of the following (in thousands):

	June 30, 2019	December 31, 2018
Face value of loan	$ 224,000	$ 224,000
Unamortized debt discount	(77,624)	(84,000)
Capitalized debt issuance costs	(5,313)	(5,748)
Accretion of debt discount	8,288	6,376
Amortization of debt issuance cost	570	435
Payments	(918)	—
Ending balance	$ 149,003	$ 141,063

Future minimum payments under the Scilex Notes, based on a percentage of projected net sales of ZTlido® (lidocaine topical system) 1.8% are estimated as follows (in thousands):

Year Ending December 31,	
2019 (Remaining six months)	$ 3,237
2020	17,960
2021	25,035
2022	41,705
2023	72,299
2024	62,846
Total future minimum payments	223,082
Unamortized debt discount	(69,336)
Unamortized capitalized debt issuance costs	(4,743)
Total minimum payment	149,003
Current portion	(11,532)
Long-term portion of Scilex Notes	$ 137,471

The amount of debt discount and debt issuance costs included in interest expense for the three and six months ended June 30, 2019 was approximately $4.2 million and $8.9 million, respectively.

The Company identified a number of embedded derivatives that require bifurcation from the Scilex Notes and separate accounting as a single compound derivative. The Company recorded this derivative within its consolidated financial statements (See Note 5). The Company re-evaluates this assessment each reporting period.

2018 Oaktree Term Loan Agreement

On November 7, 2018, the Company and certain of its domestic subsidiaries (the “Guarantors”) entered into a Term Loan Agreement (the “Loan Agreement”) with certain funds and accounts managed by Oaktree Capital Management, L.P. (collectively, the “Lenders”) and Oaktree Fund Administration, LLC, as administrative and collateral agent (the “Agent”), for an initial term loan of $100.0 million (the “Initial Loan”) and a second tranche of $50.0 million, subject to the achievement of certain commercial and financial milestones between August 7, 2019 and November 7, 2019 and the satisfaction of certain customary conditions (the “Conditional Loan”). The Initial Loan matures on November 7, 2023 (the “Maturity Date”) and bears interest at a rate equal to the London Interbank Offered Rate (“LIBOR”) plus the applicable margin, or 7%. The net proceeds of the Initial Loan were approximately $91.3 million, after deducting estimated loan costs, commissions, fees and expenses and funding a debt service reserve account with approximately $9.6 million (the “Debt Service Reserve Account”), and will be used for general corporate purposes. In connection with the Loan Agreement, the Company and the Guarantors entered into a Collateral Agreement with the Agent (the “Collateral Agreement”). The Collateral Agreement provides that the Term Loans are secured by substantially all of the Company’s and the Guarantors’ assets, and a pledge of 100% of the equity interests in other

entities each of the Company and the Guarantors holds (subject to certain exceptions and other than equity interests held by the Company or a Guarantor in certain foreign subsidiaries, which is limited to 65% of such voting equity interests). In connection with the Loan Agreement, on November 7, 2018, the Company issued to the Lenders warrants to purchase 6,288,985 shares of the Company's common stock (the "Initial Warrants"). The Initial Warrants have an exercise price per share of $3.28, subject to adjustment for stock splits, reverse stock splits, stock dividends and similar transactions, will be exercisable from May 7, 2019 through May 7, 2029 and will be exercisable on a cash basis, unless there is not an effective registration statement covering the resale of the shares issuable upon exercise of the Initial Warrants (the "Initial Warrant Shares"), in which case the Initial Warrants shall also be exercisable on a cashless exercise basis. In connection with the Loan Agreement, on November 7, 2018, the Company and the Lenders entered into a Registration Rights Agreement (the "Registration Rights Agreement") pursuant to which, among other things, the Company agreed to file one or more registration statements with the SEC for the purpose of registering for resale the Initial Warrant Shares and the shares of common stock issuable upon exercise of warrants that may be issued in connection with the Conditional Loan (the "Conditional Warrants"). Under the Registration Rights Agreement, the Company agreed to file a registration statement with the SEC registering all of the Initial Warrant Shares and the shares of common stock issuable upon exercise of the Conditional Warrants for resale by no later than the 45th day following the issuance of the Initial Warrants and the Conditional Warrants, respectively.

On May 3, 2019, the Company, the Guarantors and the Lenders and the Agent entered into an amendment (the "Amendment") to the Loan Agreement. Under the terms of the Amendment, among other things, the Lenders agreed to make available to the Company $20.0 million of the Conditional Loan, notwithstanding that the commercial and financial milestones had not occurred (the "Early Conditional Loan"). The Lenders also agreed to loan the Company the remaining $30.0 million of the Conditional Loan upon the satisfaction of the commercial and financial milestones between August 7, 2019 and November 7, 2019 (the "Remaining Conditional Loan" and, together with the Initial Loan and the Early Conditional Loan, the "Term Loans"). The Term Loans, other than the Early Conditional Loan, will mature on November 7, 2023. The Early Conditional Loan will mature on May 3, 2020; however, if the commercial and financial milestones have occurred on or prior to such date, the Early Conditional Loan will mature on November 7, 2023. The Term Loans may be prepaid by the Company, in whole or in part at any time, subject to a prepayment fee. Upon any prepayment or repayment of all or a portion of the Term Loans (including the Early Conditional Loan and the Remaining Conditional Loan), the Company has agreed to pay the Lenders an exit fee equal to 1.25% of the principal amount paid or prepaid amounting to approximately $1.5 million. The Early Conditional Loan was funded on May 3, 2019.

The Company accounted for the Amendment as a debt modification and not a debt extinguishment under ASC Topic 470-50, as the terms of the Early Conditional Loan were not substantially different from those of the Initial Loan. The Company incurred approximately $0.8 million in fees directly related to the Amendment which were expensed as incurred during the three months ended June 30, 2019.

In connection with the Amendment, on May 3, 2019, the Company issued to the Lenders warrants to purchase an aggregate of 1,333,304 shares of the Company's common stock (the "2019 Warrants"). The 2019 Warrants have an exercise price per share of $3.94, subject to adjustment for stock splits, reverse stock splits, stock dividends and similar transactions, will be exercisable from November 3, 2019 through November 3, 2029 and will be exercisable on a cash basis, unless there is not an effective registration statement covering the resale of the shares issuable upon exercise of the 2019 Warrants (the "2019 Warrant Shares"), in which case the 2019 Warrants shall also be exercisable on a cashless exercise basis. The Company recorded a loss on derivative liabilities associated with the 2019 Warrants of $4.3 million during the three months ended June 30, 2019 as the Conditional Warrants were issued with the Amendment.

The fair value of the Term Loans was estimated using a discounted cash flow model with Level 3 inputs with key inputs that include debt yield, coupon rate and maturity dates. As of June 30, 2019, the estimated fair value of the Term Loans was approximately $57.0 million. Borrowings under the Initial Loan and the Early Conditional Loan consisted of the following (in thousands):

	June 30, 2019	December 31, 2018
Face value of loan	$ 120,000	$ 100,000
Debt discount - warrants	(26,248)	(26,659)
Debt discount - derivative	(6,996)	—
Capitalized debt issuance costs	(7,685)	(6,658)
Accretion of debt discount	1,882	411
Amortization of debt issuance costs	503	115
Ending balance	$ 81,456	$ 67,209

Interest expense recognized for stated interest on the Term Loans totaled $2.7 million and $5.0 million for the three and six months ended June 30, 2019, respectively. The amount of debt discount and debt issuance costs included in interest expense on the Term Loans for the three and six months ended June 30, 2019 was approximately $1.3 million and $2.4 million, respectively.

The Company identified a number of embedded derivatives that require bifurcation from the Initial Loan and separate accounting as a single compound derivative. As the current fair value attributed to the bifurcated compound derivative is immaterial, the Company has not recorded this derivative within its consolidated financial statements. The Company re-evaluates this assessment each reporting period.

The Company identified certain embedded derivatives that require bifurcation from the Early Conditional Loan and separate accounting as a single compound derivative. Certain of these embedded features include a contingent accelerated repayment feature. The Company deems the contingent accelerated repayment feature derivative to be material and recorded it within its consolidated financial statements (See Note 5). The Company re-evaluates this assessment each reporting period.

11. Shareholder Equity

2019 Public Offering of Common Stock and Warrants

On June 28, 2019, the Company entered into an underwriting agreement (the "Underwriting Agreement") with JMP Securities LLC (the "Representative"), as representative of the several underwriters named therein (the "Underwriters"), relating to a firm commitment underwritten public offering (the "Offering") of 8,333,334 shares of the Company's common stock ("Common Stock"), Series A warrants to purchase up to an aggregate of 8,333,334 shares of Common Stock (the "Series A Warrants"), Series B warrants to purchase up to an aggregate of 8,333,334 shares of Common Stock (the "Series B Warrants") and Series C warrants to purchase up to an aggregate of 8,333,334 shares of Common Stock (the "Series C Warrants" and, together with the Series A Warrants and the Series B Warrants, the "Warrants"). The public offering price is $3.00 per share of Common Stock and accompanying Warrants and the Underwriters have agreed to purchase the Common Stock and accompanying Warrants pursuant to the Underwriting Agreement at a price of $2.82 per share and accompanying Warrants. The Series A Warrants will be exercisable six months from the date of issuance, will expire on the 10-year anniversary of the date of issuance and will have an exercise price of $3.75. The Series B warrants will be exercisable commencing on the date of issuance, will expire on the date that is nine months from the date of issuance and will have an exercise price of $3.00 per share. The Series C Warrants will be exercisable six months from the date of issuance and only to the extent and in proportion to a holder of the Series C warrants exercising its Series B Warrants, will expire on the 10-year anniversary of the date of issuance and will have an exercise price of $3.75 per share.

Under the terms of the Underwriting Agreement, the Company also granted to the Underwriters an option, exercisable in whole or in part at any time for a period of 30 days from the date of the Underwriting Agreement, to purchase up to an additional 1,250,000 shares of Common Stock ("Additional Shares") and/or 1,250,000 combinations of Warrants (comprised of an aggregate of 1,250,000 Series A Warrants, 1,250,000 Series B Warrants and 1,250,000 Series C Warrants) ("Warrant Combinations"), at the public offering price of $2.99 per Additional Share and the public offering price per Warrant Combination of $0.01, less underwriting discounts and commissions.

The net proceeds from this offering were approximately $23.1 million, after deducting underwriting discounts and commissions and other estimated offering expenses, and were received in July 2019.

As of the firm commitment date of June 28, 2019, the Company entered into a forward contract to issue and sell a fixed number of shares of common stock and warrants in exchange for a stated purchase price payable on July 2, 2019, issued options to purchase a fixed number of shares of common stock for a fixed purchase price (subject to certain adjustments for dividends and similar distributions), and issued options to purchase additional warrants in exchange for a stated purchase price. Management determined that these instruments were freestanding financial instruments and qualified for equity classification as of the firm commitment date.

12. Stock Incentive Plans

2009 Stock Incentive Plan

The following table summarizes stock option activity as of June 30, 2019 and the changes for the period then ended (dollar values in thousands, other than weighted-average exercise price):

	Options Outstanding	Weighted-Average Exercise Price	Aggregate Intrinsic Value
Outstanding at December 31, 2018	10,523,075	$ 4.91	$ 1,723
Options Granted	2,666,800	$ 3.84	
Options Canceled	(661,525)	$ 1.86	
Options Exercised	(136,074)	$ 5.21	
Outstanding at June 30, 2019	12,392,276	$ 4.70	$ 2,350

The aggregate intrinsic value of options exercised during the three months ended June 30, 2019 and 2018 was $175 thousand and $4 thousand, respectively. The aggregate intrinsic value of options exercised during the six months ended June 30, 2019 and 2018 was $306 thousand and $52 thousand, respectively. The Company uses the Black-Scholes valuation model to calculate the fair value of stock options. The fair value of employee stock options was estimated at the grant date using the following assumptions:

	Six Months Ended June 30,	
	2019	2018
Weighted-average grant date fair value	$ 3.05	$ 7.39
Dividend yield	—%	—%
Volatility	100%	81%
Risk-free interest rate	1.87%	2.52%
Expected life of options	6.1 years	6.1 years

The total employee and director stock-based compensation recorded as operating expenses was $2.0 million and $1.0 million for the three months ended June 30, 2019 and 2018, respectively, and $3.5 million and $2.2 million for the six months ended June 30, 2019 and 2018, respectively.

The total unrecognized compensation cost related to unvested employee and director stock option grants as of June 30, 2019 was $19.6 million and the weighted average period over which these grants are expected to vest is 2.1 years.

Stock-based compensation expense related to non-employee consultants recorded as operating expenses was $0.1 million and $0.2 million for the three months ended June 30, 2019 and 2018, respectively, and $0.2 million and $0.3 million for the six months ended June 30, 2019 and 2018, respectively.

Common Stock Reserved for Future Issuance

Common stock reserved for future issuance consists of the following at June 30, 2019:

Common stock warrants outstanding under the loan and security agreements	7,688,181
Common stock warrants outstanding under the Hercules securities agreement	306,748
Common stock warrants outstanding under the convertible notes	14,819,872
Common stock options outstanding under the Non-Employee Director Plan	3,200
Authorized for future grant or issuance under the 2009 Stock Incentive Plan	18,188,332
Shares issuable upon the conversion of the 2018 Notes	5,397,325
Issuable under assignment agreement based upon achievement of certain milestones	80,000
	46,483,658

Scilex Pharmaceuticals Inc. 2017 Equity Incentive Plan

In June 2017, the Company's subsidiary Scilex Pharmaceuticals Inc. adopted the Scilex Pharmaceuticals Inc. 2017 Equity Incentive Plan, (the "Scilex Pharma 2017 Plan"). The Scilex Pharma 2017 Plan reserved 24.0 million shares of Scilex common stock. Stock options granted under this plan typically vest 1/4th of the shares on the first anniversary of the vesting commencement date and 1/48th of the remaining options vest each month thereafter. The Scilex Pharma 2017 Plan was amended and restated on July 5, 2018.

Upon closing of the Company's acquisition of Semnur, the Scilex Pharma 2017 Equity Incentive Plan was terminated, and each option to purchase Scilex Pharmaceuticals common stock outstanding and unexercised immediately prior to the Closing were cancelled and substituted for that number of options to acquire common stock of Scilex Holding, as further described in Note 4.

The total employee and director stock-based compensation recorded as operating expenses was $0.2 million and $0.1 million for the three months ended June 30, 2019 and 2018, respectively, and $0.3 million and $0.1 million for the six months ended June 30, 2019 and 2018, respectively.

Stock-based compensation expense related to non-employee consultants recorded as operating expenses was $0.6 million for each of the three and six months ended June 30, 2019. Stock-based compensation expense related to non-employee consultants was immaterial for the three and six months ended June 30, 2018.

Scilex Holding Company 2019 Stock Option Plan

The board of directors of Scilex Holding adopted the Scilex Holding Company 2019 Stock Option Plan (the "2019 Stock Option Plan") on May 28, 2019. The Scilex Holding 2019 Stock Option Plan was approved by the stockholders of Scilex Holding on June 7, 2019. As of June 30, 2019, options to purchase 25,412,608 shares of the common stock of Scilex Holding were outstanding and 8,035,276 shares were reserved for awards available for future issuance.

13. 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 Soon-Shiong's purchase of the drug Cynviloq™ from the Company in May 2015. The actions allege that 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 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, included as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed with the SEC on August 7, 2015. On May 24, 2019, NantCell, Inc., Mr. Soon-Shiong and NANTibody General Counsel Charles Kim filed a motion in the Los Angeles Superior Court to stay or dismiss the Company's arbitration demand. The Company makes no representations as to the likely success or outcome of such arbitration; and

- An action in the Los Angeles Superior Court derivatively on behalf of Immunotherapy NANTibody LLC ("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 amount of $40 million. On May 24, 2019, NantCell, Inc. and Mr. 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 a motion to compel this action to arbitration. The parties are currently engaged in discovery in the suit. The Company makes no representations as to the likely success or outcome of such lawsuit.

Operating Leases

The Company leases administrative, research and development, sales and marketing and manufacturing facilities under various non-cancelable lease agreements. Facility leases generally provide for periodic rent increases, and many contain escalation clauses and renewal options. As of June 30, 2019, the Company's leases have remaining lease terms of approximately 0.9 to 10.3 years, some of which include options to extend the lease terms for up to five years, and some of which allow for early termination. In calculating the lease liability, lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise such options. Many of the Company's leases are subject to variable lease payments. Variable lease payments are recognized in the period in which the obligation for those payments are incurred, are not included in the measurement of the right-of-use assets or lease liabilities and are immaterial. Additionally, certain leases may be subject to annual changes in the consumer price index ("CPI"). Changes in the CPI are treated as variable lease payments and do not result in a remeasurement of the right-of-use assets or lease liabilities.

As the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. The Company calculates the associated lease liability and corresponding right-of-use asset upon lease commencement using a discount rate based on a credit-adjusted secured borrowing rate commensurate with the term of the lease. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. As of June 30, 2019, the Company has no finance leases.

Operating lease costs were $2.7 million and $5.0 million for the three and six months ended June 30, 2019, respectively, and were primarily comprised of long-term operating lease costs. Short-term operating lease costs were immaterial.

Supplemental quantitative information related to leases includes the following (in thousands):

	Three months ended June 30, 2019	Six months ended June 30, 2019
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 1,867	$ 3,399
Right-of-use assets obtained in exchange for new and amended operating lease liabilities	$ 4,447	$ 4,747
Weighted average remaining lease term in years - operating leases	9.9 years	9.9 years
Weighted average discount rate - operating leases	12.2%	12.2%

During the second quarter of 2019, Scilex amended its Mission Viejo, CA lease resulting in an extended term through 2024 and approximately 4,000 square feet of additional office space. During the second quarter of 2019, the Company amended its cGMP fill and finish and storage lease resulting in an extended term through 2029 and approximately 21,300 square feet of additional space expected to be added in the first quarter of 2020.

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

Years ending December 31,	Operating leases
2019 (Remaining six months)	$ 3,602
2020	9,581
2021	9,041
2022	9,154
2023	9,404
2024	9,477
Thereafter	47,027
Total lease payments	97,286
Less imputed interest	(42,842)
Total lease liabilities as of June 30, 2019	$ 54,444

14. 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 its deferred tax liabilities.

The Company's income tax benefit of $0.6 million and $2.3 million reflect effective tax rates of 0.26% and 2.1% for the six months ended June 30, 2019 and 2018, respectively. The Company's income tax benefit of $0.4 million and $1.4 million reflect effective tax rates of 0.54% and 1.86% for the three months ended June 30, 2019 and 2018, respectively.

The difference between the expected statutory federal tax expense of 21% and the 0.26% effective tax expense for the six months ended June 30, 2019 was primarily attributable to the valuation allowance against most of the Company's deferred tax assets. For the six months ended June 30, 2019, when compared to the same period in 2018, the decrease in the tax benefit and change in effective income tax rate was primarily attributable to the increased valuation allowance in 2019.

The Company is subject to taxation in the U.S. and various state and foreign jurisdictions. The Company's tax years for 2007 and later are subject to examination by the U.S. and state tax authorities due to the existence of the NOL carryforwards.

15. Related Party Agreements

As further discussed in Note 4, on March 18, 2019, the Company entered into a Merger Agreement with Semnur, Scilex Holding, Merger Sub, and Fortis Advisors LLC, solely as representative of the Equityholders' Representative. Pursuant to the Merger Agreement, Merger Sub merged with and into Semnur, with Semnur surviving as a wholly owned subsidiary of Scilex Holding. Jaisim Shah, a member of the Company's Board of Directors, was Semnur's Chief Executive Officer, a member of its Board of Directors and a stockholder of Semnur prior to the acquisition transaction. Following the issuance of the Stock Consideration as discussed in Note 4, the Company is the owner of approximately 58% of Scilex Holding's issued and outstanding capital stock.

As of June 30, 2019, approximately 15% of the outstanding capital stock of Scilex Holding represents a noncontrolling interest and continues to be held by ITOCHU CHEMICAL FRONTIER Corporation. Scilex has entered into a product development agreement with ITOCHU CHEMICAL FRONTIER Corporation, which serves as the sole manufacturer and supplier to Scilex for the ZTlido® product. During the three and six months ended June 30, 2019, Scilex purchased approximately $2.5 million and $5.7 million, respectively, of inventory from ITOCHU CHEMICAL FRONTIER Corporation.

16. Loss Per Share

For the three and six months ended June 30, 2019 and 2018, basic loss per common share is computed by dividing net loss by the weighted average number of common shares outstanding during the period. Diluted loss per common share is calculated to give effect to all dilutive securities, using the treasury stock method.

The following table sets forth the reconciliation of basic and diluted loss per share for the three and six months ended June 30, 2019 and 2018 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Numerator				
Net loss attributable to Sorrento	$ (56,762)	$ (73,864)	$ (164,833)	$ (106,436)
Net loss attributable to Semnur holders of Scilex Holding	(6,093)	—	(28,824)	—
Net loss used for diluted earnings per share	$ (62,855)	$ (73,864)	$ (193,657)	$ (106,436)
Denominator for Basic Loss Per Share	122,549	100,563	122,415	92,795
Potentially dilutive shares of Sorrento common stock issuable upon Share Exchange	9,910	—	5,717	—
Denominator for Diluted Loss Per Share	132,459	100,563	128,132	92,795
Basic Loss Per Share	$ (0.46)	$ (0.73)	$ (1.35)	$ (1.15)
Diluted Loss Per Share	$ (0.47)	$ (0.73)	$ (1.51)	$ (1.15)

The potentially dilutive stock options that would have been excluded because the effect would have been anti-dilutive for the six months ended June 30, 2019 and 2018 were 9.7 million and 2.5 million, respectively. The potentially dilutive warrants that would have been excluded because the effect would have been anti-dilutive for the six months ended June 30, 2019 and 2018 were 10.7 million and 2.2 million, respectively.

17. Segment Information

During the quarter ended March 31, 2019, the Company realigned its businesses into two operating and reportable segments, Sorrento Therapeutics and Scilex. The Company reports segment information based on the management approach. The management approach designates the internal reporting used by the Chief Operating Decision Maker ("CODM"), which is the Company's Chief Executive Officer, for making decisions and assessing performance as the source of the Company's reportable segments. The CODM allocates resources and assesses the performance of each operating segment based on licensing, sales and services revenue, operating expenses, and operating income (loss) before interest and taxes. The Company has determined its reportable segments to be Sorrento Therapeutics and Scilex based on the information used by the CODM.

Sorrento Therapeutics. The Sorrento Therapeutics segment is organized around the Company's Immuno-Oncology therapeutic area, leveraging its proprietary G-MAB™ antibody library and 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. Additionally, this segment also includes Sofusa®, a revolutionary drug delivery system that delivers biologics directly into the lymphatic system to potentially achieve improved efficacy and fewer adverse effects than standard parenteral immunotherapy, and resiniferatoxin ("RTX"), which is a non-opioid-based neurotoxin and is currently in clinical trials for late stage cancer pain and osteoarthritis.

Scilex. The Scilex segment is largely organized around the Company's non-opioid pain management operations. As of June 30, 2019, revenues from the Scilex segment are exclusively derived from the sale of ZTlido® (lidocaine topical system) 1.8%.

- In October 2018, Scilex commercially launched its ZTlido® (lidocaine topical system) 1.8% product and began recognizing revenue in the fourth quarter of 2018.

- Semnur's SEMDEXA™ (SP-102) compound is the first non-opioid corticosteroid formulated as a viscous gel injection in development for the treatment of lumbosacral radicular pain/sciatica, containing no neurotoxic preservatives, surfactants, solvents or particulates. SEMDEXA™ has been awarded fast track status by the FDA. See Note 4 for further detail on the Semnur acquisition.

The Company manages its assets on a company basis, not by segments, as many of its assets are shared or commingled. The Company's CODM 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 and six months ended June 30, 2019 and 2018 (in thousands):

	Three months ended June 30,					
	2019			2018		
(in thousands)	Sorrento Therapeutics	Scilex	Total	Sorrento Therapeutics	Scilex	Total
External revenues	$ 1,817	$ 4,660	$ 6,477	$ 3,913	$ —	$ 3,913
Operating expenses	36,299	20,539	56,838	28,076	4,208	32,284
Operating loss before interest and taxes	(34,482)	(15,879)	(50,361)	(24,163)	(4,208)	(28,371)

	Six months ended June 30,					
	2019			2018		
(in thousands)	Sorrento Therapeutics	Scilex	Total	Sorrento Therapeutics	Scilex	Total
External revenues	$ 5,101	$ 7,519	$ 12,620	$ 10,159	$ —	$ 10,159
Operating expenses	71,431	114,720	186,151	63,776	7,298	71,074
Operating loss before interest and taxes	(66,330)	(107,201)	(173,531)	(53,617)	(7,298)	(60,915)

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. (Nasdaq: SRNE), together with its subsidiaries (collectively, the "Company", "we", "us" and "our") is a clinical stage and commercial biopharma company focused on delivering innovative and clinically meaningful therapies to patients and their families, globally, to address unmet medical needs. We primarily focus on therapeutic areas in Immuno-Oncology and Non-Opioid Pain Management. We also have programs assessing the use of our technologies and products in autoimmune, inflammatory and neurodegenerative diseases.

At our core, we are an antibody-centric company 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, c-MET, VEGFR2, CCR2 and CD137 among others.

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. Additionally, we acquired Sofusa®, a revolutionary drug delivery system, in July 2018, which delivers biologics directly into the lymphatic system to potentially achieve improved efficacy and fewer adverse effects than standard parenteral immunotherapy.

With each of our clinical and pre-clinical programs, we aim to tailor our therapies to treat specific stages in the evolution of cancer, 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 close to entering the clinic. These include cellular therapies, an oncolytic virus and a palliative care program targeted to treat intractable cancer pain. Our cellular therapy programs focus on CAR-T for adoptive cellular immunotherapy to treat both solid and liquid tumors. 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 and are currently expanding this study. We successfully submitted an Investigational New Drug application ("IND") for anti-CD38 CAR-T for the treatment of refractory or relapsed multiple myeloma ("RRMM") and obtained approval from the U.S. Food and Drug Administration (the "FDA") to commence a human clinical trial for this indication in early 2018. We have dosed two patients and are continuing the enrollment of additional patients.

Broadly speaking, we are one of the world's leading CAR-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 CAR-T solutions. With "off-the-shelf" solutions, CAR-T therapy can truly become a drug product rather than a treatment procedure. One of the approaches we have taken to develop the "off-the-shelf" allogeneic CAR-T solutions is through Celularity, Inc. ("Celularity"), our joint venture with Celgene, United Therapeutics and others. Celularity focuses on developing cell therapies with placenta-derived and cord blood T cells, which have natural allogeneic "off-the-shelf" characteristics. We are the single largest shareholder of Celularity with a stake of approximately 25%.

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 neurotoxin that specifically ablates nerves that conduct pain signals while leaving other nerve functions intact and is being studied for chronic pain treatment. RTX has been granted orphan drug status for the treatment of intractable pain with end-stage cancer and a Phase I trial with the National Institutes of Health ("NIH") is concluding. A Phase Ib trial studying tolerance and efficacy of RTX for the control of osteoarthritis knee pain was initiated in late 2018 and preliminary results have shown strong efficacy with no significant adverse effects. Other applications of RTX are expected to start Phase Ib trials in 2019.

Also in the area of non-opioid pain management, we have acquired proprietary technologies to responsibly develop next generation, branded pharmaceutical products to better manage patients' medical conditions and maximize the quality of life of patients and healthcare providers. The flagship product of our majority-owned subsidiary, Scilex Pharmaceuticals Inc. ("Scilex"), ZTlido® (lidocaine topical system) 1.8%, 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 late October 2018. Scilex now has built a full commercial organization, which includes sales, marketing, market access, and medical affairs. ZTlido® is positioned as a best-in-class product with superior adhesion compared to Lidoderm and is manufactured by our Japanese partner in their state-of-the-art manufacturing facility.

Recent Developments

Re-segmentation

Beginning in the quarter ended March 31, 2019, we re-segmented our business into two new operating segments: the Sorrento Therapeutics segment and the Scilex segment.

Acquisition of Semnur Pharmaceuticals, Inc.

On March 18, 2019, we, for limited purposes, entered into an Agreement and Plan of Merger (the "Merger Agreement") with Semnur Pharmaceuticals, Inc., a Delaware corporation ("Semnur"), Scilex Holding Company, a Delaware corporation ("Scilex Holding"), Sigma Merger Sub, Inc., a Delaware corporation and wholly owned subsidiary of Scilex Holding ("Merger Sub"), and Fortis Advisors LLC, solely as representative of the holders of Semnur equity (the "Equityholders' Representative"). Pursuant to the Merger Agreement, Merger Sub merged with and into Semnur (the "Merger"), with Semnur surviving as a wholly owned subsidiary of Scilex Holding. Semnur is included under the Scilex operating segment.

Concurrently with the execution of the Merger Agreement, we and each of the other holders of outstanding shares of capital stock of Scilex, our majority-owned subsidiary, contributed each share of Scilex capital stock we or it owned to Scilex Holding in exchange for one share of Scilex Holding common stock (the "Contribution"). As a result of the Contribution, and prior to the consummation of the Merger, Scilex became a wholly-owned subsidiary of Scilex Holding and we became the owner of approximately 77% of Scilex Holding's issued and outstanding capital stock. As of June 30, 2019, we own approximately 58% of Scilex Holding's issued and outstanding capital stock.

At the closing of the Semnur acquisition, Scilex Holding issued to the holders of Semnur's capital stock and options to purchase Semnur's common stock (collectively, the "Semnur Equityholders") upfront consideration with a value of approximately $70.0 million plus the aggregate exercise price of outstanding options to purchase Semnur's common stock (which amount will be subsequently deducted from the amounts otherwise payable to the holders of such options), consisting of the following: (a) a cash payment of approximately $15.0 million, and (b) 47,392,287 shares of Scilex Holding common stock (the "Stock Consideration"). A portion of the cash consideration otherwise payable to the Semnur Equityholders was set aside for expenses incurred by the Equityholders' Representative, and 4,749,095 shares of Scilex Holding common stock otherwise issuable to Semnur Equityholders were placed in escrow with a third party as security for the indemnification obligations of the Semnur Equityholders under the Merger Agreement, including in respect of breaches of representations and warranties of Semnur included in the Merger Agreement. The Semnur Equityholders that receive the Stock Consideration are required to sign an exchange and registration rights agreement with us (the "Exchange Agreement"), which is further described in Note 4 of the accompanying notes to the consolidated financial statements in Part I, Item 1 of this Form 10-Q.

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 GAAP. 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, 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.

During the quarter ended June 30, 2019, there were no significant changes to the items that we disclosed as our critical accounting policies and estimates in Note 4 to our consolidated financial statements for the year ended December 31, 2018 contained in our Annual Report on Form 10-K for the year ended December 31, 2018, as amended, as filed with the SEC, except as described below.

Leases

We determine if an arrangement is a lease at inception. Operating lease ROU assets and liabilities are recognized at the commencement date based on the present value of lease payments over the lease term. As our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. The operating lease ROU asset also includes any lease payments made and is reduced by lease incentives. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Derivative Liability

Derivative liabilities are recorded on our consolidated balance sheets at their fair value on the date of issuance and are revalued on each balance sheet date until such instruments are exercised or expire, with changes in the fair value between reporting periods recorded as other income or expense.

Results of Operations

Comparison of the Three Months Ended June 30, 2019 and 2018

Revenues. Revenues were $6.5 million for the three months ended June 30, 2019, as compared to $3.9 million for the three months ended June 30, 2018.

Revenue in our Sorrento Therapeutics segment decreased from $3.9 million to $1.8 million for the three months ended June 30, 2019, compared to the prior fiscal year. The decrease of $2.1 million is primarily attributable to higher revenues from the joint development agreement with Celularity Inc. in the prior year as well as lower contract manufacturing and service revenues compared to the prior year.

Our Scilex segment recognized revenues of $4.7 million for the three months ended June 30, 2019. The Scilex segment recognized no revenues for the three months ended June 30, 2018, as sales of ZTlido® (lidocaine topical system) 1.8% did not commence until October 2018.

We expect that any revenue we generate will fluctuate from year to year as a result of the unpredictability of the demand for products and services offered as well as the timing and amount of grant awards, research and development reimbursements and other payments received under any strategic collaborations.

Cost of revenues. Cost of revenues for the three months ended June 30, 2019 and 2018 were $3.3 million and $1.2 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 $1.5 million and is primarily attributable to indirect costs associated with our investments in contract manufacturing capacity expansion.

Cost of revenues for our Scilex segment increased by $0.6 million as compared to the same period quarter of the prior year as sales of ZTlido® (lidocaine topical system) 1.8% did not commence until October 2018.

Research and Development Expenses. Research and development expenses for the three months ended June 30, 2019 and 2018 were $24.8 million and $17.9 million, respectively. Research and development expenses include expenses associated

with the ramp up of ZTlido® (lidocaine topical system) 1.8% as well as the costs related to our RTX program activities towards entering into future clinical trials, costs to identify, isolate and advance human antibody drug candidates derived from our libraries as well as advancing our ADC preclinical drug candidates and preclinical testing expenses. 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 expense for our Sorrento Therapeutics segment increased by $6.2 million as compared to the same quarter of the prior year and was primarily attributable to increased clinical activities related to consulting and lab supply costs incurred in connection with our expanded research and development activities and activities to advance RTX and CAR-T into clinical trials.

R&D expense for our Scilex segment increased by $0.7 million as compared to the same quarter of the prior year and was primarily driven by research and development activities of $1.2 million and was partially offset by lower clinical trial costs associated with ZTlido® (lidocaine topical system) 1.8%, which obtained FDA approval in the first quarter of 2018.

Selling, General and Administrative Expenses ("SG&A") General and administrative expenses for the three months ended June 30, 2019 and 2018 were $27.8 million and $11.0 million, respectively, or an increase of $16.7 million.

SG&A expense for our Sorrento Therapeutics segment increased by approximately $2.1 million year over year and consisted primarily of salaries and personnel-related expenses for executive, finance and administrative personnel, stock-based compensation expense, professional fees, infrastructure expenses, legal and accounting expenses and other general corporate expenses.

SG&A expense for our Scilex segment increased by approximately $14.7 million year over year primarily due to increased sales activities associated with the commercialization of ZTlido® (lidocaine topical system) 1.8%.

Intangible Amortization. Intangible amortization for the three months ended June 30, 2019 and 2018 was $1.0 million and $0.7 million, respectively.

Amortization expense for our Sorrento Therapeutics segment remained relatively consistent with the prior year.

Amortization expense for our Scilex segment increased due to the amortization of acquired in-process research and development upon commercialization of ZTlido® (lidocaine topical system) 1.8% that occurred in the fourth quarter of 2018.

Loss on Derivative Liabilities. Loss on derivative liabilities for the three months ended June 30, 2019 was $10.6 million compared to no loss on derivative liabilities in the same period in 2018.

Loss on derivative liabilities for our Sorrento Therapeutics segment totaled $5.2 million and was primarily attributable to the 2019 Warrants as further described in Note 10 of the accompanying notes to the consolidated financial statements in Part I, Item 1 of this Form 10-Q.

Loss on derivative liabilities for our Scilex segment was $5.4 million and was attributed to revised probabilities related to timing of marketing approval for ZTlido® (lidocaine topical system 5.4%) (SP-103) and revised sales forecasts as further described in Note 10 of the accompanying notes to the consolidated financial statements in Part I, Item 1 of this Form 10-Q.

Loss on Contingent Liabilities. Changes in acquisition consideration payable for the three months ended June 30, 2019 and 2018 resulted in a loss of approximately $0.1 million and $1.4 million, respectively. The change in acquisition consideration payable for the three months ended June 30, 2019 as compared to the same period in 2018 relates primarily to changes in the fair value of contingent consideration for our acquisition of Virttu Biologics Limited from the prior year, which was settled in 2018.

Interest Expense. Interest expense for the three months ended June 30, 2019 and 2018 was $9.5 million and $45.0 million, respectively. The decrease in interest expense of $35.5 million as compared to the same period in 2018 resulted primarily from the conversion of the convertible notes issued in December 2017 that occurred in the second quarter of 2018. The unamortized discount remaining at the date of conversion of $44.3 million was recognized immediately at that date as interest expense in the three months ended June 30, 2018.

The decrease in interest expense compared to the same period in prior year was partially offset by interest expense associated with the loan agreement entered into with certain funds and accounts managed by Oaktree Capital Management, L.P. and Oaktree Fund Administration, LLC, as administrative and collateral agent and the senior secured notes due 2026 in an aggregate principal amount of $224.0 million entered into in the second half of fiscal year 2018.

Income Tax Expense (Benefit). Income tax benefit for the three months ended June 30, 2019 and June 30, 2018 was $(0.4) million and $(1.4) million, respectively. The decrease in income tax benefit was primarily attributable to the increased valuation allowance in 2019.

Net Loss. Net loss for the three months ended June 30, 2019 and 2018 was $71.8 million and $74.8 million, respectively.

Comparison of the Six Months Ended June 30, 2019 and 2018

Revenues. Revenues were $12.6 million for the six months ended June 30, 2019, as compared to $10.2 million for the six months ended June 30, 2018.

Revenue in our Sorrento Therapeutics segment decreased from $10.2 million to $5.1 million for the six months ended June 30, 2019, compared to the prior fiscal year. The decrease of $5.1 million is primarily attributable to higher revenues from the joint development agreement with Celularity Inc. in the prior year as well as lower contract manufacturing and service revenues compared to the prior year.

Our Scilex segment recognized revenues of $7.5 million for the six months ended June 30, 2019. The Scilex segment recognized no revenues for the six months ended June 30, 2018, as sales of ZTlido® (lidocaine topical system) 1.8% did not commence until October 2018.

We expect that any revenue we generate will fluctuate from year to year as a result of the unpredictability of the demand for products and services offered as well as the timing and amount of grant awards, research and development reimbursements and other payments received under any strategic collaborations.

Cost of revenues. Cost of revenues for the six months ended June 30, 2019 and 2018 were $5.6 million and $2.5 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 $2.2 million and is primarily attributable to indirect costs associated with our investments in contract manufacturing capacity expansion.

Cost of revenues for our Scilex segment increased by $0.9 million as compared to the same period quarter of the prior year as sales of ZTlido® (lidocaine topical system) 1.8% did not commence until October 2018.

Research and Development Expenses. Research and development expenses for the six months ended June 30, 2019 and 2018 were $50.3 million and $32.6 million, respectively. Research and development expenses include expenses associated with the ramp up of ZTlido® (lidocaine topical system) 1.8% as well as the costs related to our RTX program activities towards entering into future clinical trials, costs to identify, isolate and advance human antibody drug candidates derived from our libraries as well as advancing our ADC preclinical drug candidates and preclinical testing expenses. 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 expense for our Sorrento Therapeutics segment increased by $17.5 million as compared to the same period of the prior fiscal year and was primarily attributed to increased clinical activities related to consulting and lab supply costs incurred in connection with our expanded research and development activities and activities to advance RTX and CAR-T into clinical trials.

R&D expense for our Scilex segment increased by $0.2 million as compared to the same period of the prior fiscal year and was primarily driven by research and development activities of $2.0 million and was partially offset by lower clinical trial costs associated with ZTlido® (lidocaine topical system) 1.8%, which obtained FDA approval in the first quarter of 2018.

Acquired In-process Research and Development Expenses. Acquired in-process research and development expenses for the six months ended June 30, 2019 were $75.3 million were primarily due to acquired in-process research and development expenses associated with the acquisition of Semnur in March 2019. We did not have acquired in-process research and development expenses during the six months ended June 30, 2018.

Selling, General and Administrative Expenses. General and administrative expenses for the six months ended June 30, 2019 and 2018 were $52.9 million and $21.0 million, respectively, or an increase of $31.9 million.

SG&A expense for our Sorrento Therapeutics segment increased by approximately $1.7 million as compared to the same period of the prior fiscal year and consisted primarily of salaries and personnel-related expenses for executive, finance and administrative personnel, stock-based compensation expense, professional fees, infrastructure expenses, legal and accounting expenses and other general corporate expenses.

SG&A expense for our Scilex segment increased by approximately $30.2 million as compared to the same period of the prior fiscal year, and was primarily due to increased sales activities associated with the commercialization of ZTlido® (lidocaine topical system) 1.8%.

Intangible Amortization. Intangible amortization for the six months ended June 30, 2019 and 2018 was $2.0 million and $1.3 million, respectively.

Amortization expense for our Sorrento Therapeutics segment remained relatively consistent with the prior year.

Amortization expense for our Scilex segment increased by approximately $0.8 million as compared to the same period of the prior fiscal year, and was primarily due to the amortization of acquired in-process research and development upon commercialization of ZTlido® (lidocaine topical system) 1.8% that occurred in the fourth quarter of 2018.

Loss on Derivative Liabilities. Loss on derivative liabilities for the three months ended June 30, 2019 was $25.1 million compared to no loss on derivative liability in the same period in 2018.

Loss on derivative liabilities for our Sorrento Therapeutics segment totaled $5.2 million and was primarily attributed to the 2019 Warrants as further described in Note 10 of the accompanying notes to the consolidated financial statements in Part I, Item 1 of this Form 10-Q.

Loss on derivative liabilities for our Scilex segment was $19.9 million and was attributed to revised probabilities related to timing of marketing approval for ZTlido® (lidocaine topical system 5.4%) (SP-103) and revised sales forecasts as further described in Note 10 of the accompanying notes to the consolidated financial statements in Part I, Item 1 of this Form 10-Q. There were no derivative liabilities recorded during the same period of the prior year as the Scilex Notes were not issued until September 2018.

Contingent Liabilities and Acquisition Consideration Payable. Changes in acquisition consideration payable for the six months ended June 30, 2019 and 2018 resulted in a loss of approximately $0.1 million and $13.7 million, respectively.

The loss resulting from the change in acquisition consideration payable for the six months ended June 30, 2018 relates primarily to changes in the fair value of contingent consideration from the Scilex and Virttu acquisitions of $6.0 million and $6.4 million, respectively.

Interest Expense. Interest expense for the six months ended June 30, 2019 and 2018 was $18.6 million and $46.1 million, respectively. The decrease in interest expense of $27.5 million as compared to the same period in 2018 resulted primarily from the conversion of the convertible notes issued in December 2017 that occurred in the second quarter of 2018.

The decrease in interest expense compared to the same period in prior year was partially offset by interest expense associated with the loan agreement entered into with certain funds and accounts managed by Oaktree Capital Management, L.P. and Oaktree Fund Administration, LLC, as administrative and collateral agent and the senior secured notes due 2026 in an aggregate principal amount of $224.0 million entered into in the second half of fiscal year 2018.

Income Tax (Benefit) Expense. Income tax benefit and income tax expense for the six months ended June 30, 2019 and 2018 was $(0.6) million and $2.3 million, respectively. The decrease in income tax expense resulted mainly from deferred tax expense recorded related to the intangibles transferred to Celularity as a result of the closing of Contribution Agreement in the prior year.

Loss on Equity Investments. Loss on equity investments for the six months ended June 30, 2019 and 2018 was $2.5 million and $3.0 million, respectively. (See Note 7 of the accompanying notes to the consolidated financial statements in Part I, Item 1 of this Form 10-Q for additional information.)

Net Loss. Net loss for the six months ended June 30, 2019 and 2018 was $218.4 million and $108.4 million, respectively.

Liquidity and Capital Resources

As of June 30, 2019, we had $61.4 million in cash and cash equivalents attributable in part to the following financing arrangements (See Note 10 of the accompanying notes to the consolidated financial statements in Part I, Item 1 of this Form 10-Q for additional information):

On July 2, 2018, we entered into an Asset Purchase Agreement (the "Sofusa Purchase Agreement") with Kimberly-Clark Corporation ("KCC"), Kimberly-Clark Global Sales, LLC ("KCCGS"), and Kimberly-Clark Worldwide, Inc. ("KCCW" and together with KCC and KCCGS, "Kimberly-Clark") pursuant to which, among other things, we acquired certain of Kimberly-Clark's assets related to micro-needle drug delivery system, including the Sofusa® platform (the "Sofusa Assets") and related fixed assets, and assumed certain of Kimberly-Clark's liabilities related to the Sofusa Assets (the "Sofusa Acquisition"). The closing of the Sofusa Acquisition (the "Sofusa Closing") occurred on July 2, 2018. At the Sofusa Closing, we paid $10 million and agreed to pay additional consideration to Kimberly-Clark upon the achievement of certain regulatory and net sales milestones, as well as a percentage in the low double-digits of any non-royalty amounts received by us in connection with any license, sale or other grant of rights by us to develop or commercialize the Sofusa Assets (all such additional consideration, the "Sofusa Contingent Consideration"). Under the Sofusa Purchase Agreement, the aggregate amount of the Sofusa Contingent Consideration payable by us will not exceed $300.0 million. We also agreed to pay Kimberly-Clark a low single-digit royalty on all net sales with respect to the first five products developed by us or our licensees that utilizes intellectual property included in the Sofusa Assets.

On September 7, 2018, Scilex entered into purchase agreements (the "2018 Purchase Agreements") with the certain investors (the "Purchasers") and us. Pursuant to the 2018 Purchase Agreements, on September 7, 2018, Scilex, among other things, issued and sold to the Purchasers the Scilex Notes with an aggregate principal of $224.0 million for an aggregate purchase price of $140.0 million (the "Offering"). The net proceeds of the Offering were approximately $89.3 million, after deducting the Offering expenses payable by Scilex and funding a segregated reserve account ($20.0 million) and a segregated collateral account ($25.0 million) pursuant to the terms of an indenture governing the Scilex Notes (the "Indenture"). The net proceeds of the Offering will be used by Scilex to support the commercialization of ZTlido® (lidocaine topical system) 1.8%, for working capital and general corporate purposes in respect of the commercialization of ZTlido® (lidocaine topical system) 1.8%. In connection with the Offering, Scilex also entered into the Indenture governing the Scilex Notes with U.S. Bank National 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 under the Indenture.

The holders of the Scilex Notes will be entitled to receive quarterly payments of principal of the Scilex Notes equal to a percentage, in the range of 10% to 20% of the net sales of ZTlido® (lidocaine topical system) 1.8% for the prior fiscal quarter, beginning on February 15, 2019. If Scilex has not received the Marketing Approval Letter by March 31, 2021, the percentage of net sales payable shall be increased to be in the range of 15% to 25%. If actual cumulative net sales of ZTlido® (lidocaine topical system) 1.8% from October 1, 2022 through September 30, 2023 are less than 60% of a predetermined target sales threshold for such period, then Scilex will be obligated to pay an additional installment of principal of the Scilex Notes each quarter in an amount equal to an amount to be determined by reference to the amount of such deficiency. The aggregate principal amount due under the Scilex Notes shall be increased by $28,000,000 on February 15, 2022 if actual cumulative net sales of ZTlido® (lidocaine topical system) 1.8% from the issue date of the Scilex Notes through December 31, 2021 do not equal or exceed 95% of a predetermined target sales threshold for such period. If actual cumulative net sales of ZTlido® (lidocaine topical system) 1.8% for the period from October 1, 2022 through September 30, 2023 do not equal or exceed 80% of a predetermined target sales threshold for such period, the aggregate principal amount shall also be increased on November 15, 2023 by an amount equal to an amount to be determined by reference to the amount of such deficiency.

On November 7, 2018, we and certain of our domestic subsidiaries entered into the Loan Agreement with the Lenders and Oaktree Fund Administration, LLC, as administrative and collateral agent, for an initial term loan of $100.0 million (the "Initial Loan") and a second tranche of $50.0 million, subject to the achievement of certain commercial and financial milestones between August 7, 2019 and November 7, 2019, and the satisfaction of certain customary conditions. The Initial Loan was funded on November 7, 2018. The net proceeds of the Initial Loan were approximately $91.3 million, after deducting estimated loan costs, commissions, fees and expenses.

On May 3, 2019, we, the Guarantors and the Lenders and the Agent entered into an amendment (the "Amendment") to the Loan Agreement. Under the terms of the Amendment, among other things, the Lenders agreed to make available to us $20.0 million of the Conditional Loan with a probable maturity of May 3, 2020 absence occurrence of certain qualifying events, notwithstanding that the commercial and financial milestones had not occurred (the "Early Conditional Loan"). The net proceeds of the Early Conditional Loan were approximately $18.9 million, after deducting estimated loan costs, commission, fees and expenses.

On March 18, 2019, we, for limited purposes, entered into an Agreement and Plan of Merger (the "Merger Agreement") with Semnur Pharmaceuticals, Inc., a Delaware corporation ("Semnur"), Scilex Holding Company, a Delaware corporation ("Scilex Holding"), Sigma Merger Sub, Inc., a Delaware corporation and wholly owned subsidiary of Scilex Holding ("Merger Sub"), and Fortis Advisors LLC, solely as representative of the holders of Semnur equity. Pursuant to the Merger Agreement, and upon the terms and subject to the conditions contained therein, Scilex Holding agreed to pay the Semnur Equityholders up to $280.0 million in aggregate contingent cash consideration based on the achievement of certain milestones, including obtaining the first approval of a New Drug Application of a Semnur product by the U.S. Food and Drug Administration ("FDA") and the achievement of certain amounts of net sales of Semnur products.

On June 28, 2019, we entered into an underwriting agreement (the "Underwriting Agreement") with JMP Securities LLC, as representative of the several underwriters named therein (the "Underwriters"), relating to a firm commitment underwritten public offering. The net proceeds from this offering were approximately $23.1 million, after deducting underwriting discounts and commissions and other estimated offering expenses, and were received in July 2019.

Cash Flows from Operating Activities. Net cash used for operating activities was $91.1 million for the six months ended June 30, 2019 as compared to $46.1 million for the six months ended June 30, 2018. Net cash used reflects a net loss of $218.4 million, which was partially offset by charges related to acquired in-process research and development of $75.3 million, as well as other non-cash reconciling items totaling approximately $52.6 million, primarily related to non-cash interest expense, depreciation and amortization, stock based compensation and a loss on derivative liabilities.

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 for investing activities was $24.5 million for the six months ended June 30, 2019 as compared to $2.8 million for the six months ended June 30, 2018. Our investing activities used $7.5 million to acquire equipment and building improvements during the six months ended June 30, 2019 and approximately $17.0 million associated with the acquisition of Semnur-related in-process research and development and related assets.

We expect to increase our investment in equipment as we seek to expand and progress our research and development capabilities.

Cash Flows from Financing Activities. Net cash provided by financing activities was $18.4 million for the six months ended June 30, 2019 as compared to net cash provided by financing of $75.4 million for the six months ended June 30, 2018. The decrease compared to the same period in prior year is primarily attributed to lower proceeds from the issuance of common stock as well as proceeds from the issuance of the convertible notes in prior year.

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, and do not expect to generate significant revenue for several years, if ever. 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. As and if necessary, we will seek to raise additional funds through various potential sources, such as equity and debt financings or through corporate collaboration 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. These factors raise substantial doubt about our ability to continue as a going concern. Our consolidated financial statements and related notes thereto included elsewhere in this Quarterly Report on Form 10-Q do not include any adjustments that might result from the outcome of this uncertainty.

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) continue our development of, and seek regulatory approvals for, our product

candidates, (iv) expand our corporate infrastructure, and (v) incur our share of joint venture and collaboration costs for our products and technologies.

We plan to continue to fund our 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.

If we raise additional funds by issuing equity securities, substantial dilution to existing stockholders would result. If we raise 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 our ability to operate our business.

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.

Contractual Obligations and Commitments

As of June 30, 2019, 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, 2018.

Off-Balance Sheet Arrangements

Since our inception through June 30, 2019, 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 3, "Significant Accounting Policies," 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.

Interest Rate Risk. Our exposure to market risk is confined to our cash and cash equivalents and debt securities. We have cash and cash equivalents and invest primarily in high-quality money market funds, which we believe are subject to limited credit risk. Due to the low risk profile of our investments, an immediate 10% change in interest rates would not have a material effect on the fair market value of our portfolio. We do not believe that we have any material exposure to interest rate risk arising from our investments.

The fair market value of our Loan Agreement is subject to interest rate risk as a portion of the interest rate fluctuates based on the LIBOR. Generally, the fair market value of the debt will vary as interest rates increase or decrease. We have determined that there was no material market risk exposure from such instruments to our consolidated financial position, results of operations or cash flows as of June 30, 2019. We are not subject to interest rate risk on the Notes issued in 2018 in connection with our Securities Purchase Agreement as the Notes have a fixed rate of 5.00%. We are not subject to interest rate risk on the Scilex Notes associated with our 2018 Purchase Agreements as repayment of the Scilex Notes is determined by projected net sales as further discussed in Note 10 in the accompanying notes to the consolidated financial statements in Part I, Item 1 of this Form 10-Q. For both the Notes and Scilex Notes, changes in interest rates will generally affect the fair value of the debt instrument, but not our earnings or cash flows.

Capital Market Risk. We currently do not have significant revenues from grants or sales and services and we have no product revenues from our planned principal operations and therefore depend on funds raised through other sources. One source of funding is through future debt or equity offerings. Our ability to raise funds in this manner depends upon, among other things, capital market forces affecting our stock price.

Item 4. Controls and Procedures.

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports filed under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported within the time periods specified in the SEC's regulations, rules and forms and that such information

is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow for timely decisions regarding required disclosure.

In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. As required by Rule 13a-15(b) promulgated by the SEC under the Exchange Act, we carried out an evaluation, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on the foregoing, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were not effective as of the end of the period covered by this Quarterly Report on Form 10-Q as a result of the material weaknesses described below.

In March 2018, in connection with the preparation of our 2017 financial statements, we identified that the accounting implications of terms in certain unusual or non-recurring and significant agreements were not identified and assessed on a timely basis. Further, valuation of certain associated assets or liabilities were not properly reassessed at the end of each reporting period. The material weakness did not result in a restatement of previously issued annual consolidated financial statements or condensed interim consolidated financial statements.

During 2018, we undertook remediation measures, including designing new controls and enhancing existing internal controls which, if effectively implemented, would provide reasonable assurance that we timely and precisely (1) identify and assess the accounting implications of terms in unusual or non-recurring and significant agreements and (2) reassess the valuation of associated assets or liabilities at the end of each reporting period. These included measures designed to improve centralized documentation control, improve the internal communication procedures between senior executive management, accounting personnel, and related business owners, leverage external accounting experts as appropriate to perform the necessary reviews, and strengthen policies and procedures related to the transferring of responsibilities and the handoff of personnel duties. However, in connection with the preparation of our consolidated financial statements for the year ended December 31, 2018 there were multiple errors identified related to management's review of significant agreements. We believe the errors identified are due to deficiencies in our internal control environment resulting from insufficient competent accounting resources, including the lack of a Chief Accounting Officer, to effectively operate internal controls over financial reporting in a timely manner.

This ineffective control environment contributed to the following material weaknesses: (i) management did not adequately evaluate the underlying assumptions associated with the accounting for key terms identified in significant agreements, which in the current year included convertible notes and debt agreements, and (ii) management did not accurately assess the significant assumptions in order to properly estimate the fair value of contingent consideration liabilities. We also identified the following deficiencies in our internal control environment resulting from insufficient accounting resources that collectively represent a material weakness: Management did not properly assess significant assumptions through the performance of precise reviews of accounting estimates including probability of occurrence and assumptions used in evaluating the fair value of embedded derivatives, fair value of indefinite-lived intangible assets, and income tax related balances. Such material weaknesses could result in material misstatements of the aforementioned account balances or disclosures in the annual or interim consolidated financial statements that would not be prevented or detected.

As a result of the material weaknesses, we hired a new Chief Accounting Officer and we are in the process of implementing remediation measures including, but not limited to, performing a comprehensive assessment of accounting and finance resource requirements and hiring other personnel with sufficient accounting expertise to improve the operating effectiveness of our review controls and monitoring activities, and utilizing external accounting experts as appropriate. In addition, we are in the process of implementing systems and processes to streamline business processes and improve the overall control environment. We believe that our remediation measures, if effectively implemented, will provide reasonable assurance that we timely identify terms in agreements that could have material accounting implications, assess the accounting and disclosure implications of the terms, and account for such items in the financial statements appropriately. Any failure to implement these improvements to our internal control over financial reporting would result in continued material weaknesses in our internal control and could impact our ability to produce reliable financial reports, effectively manage the Company or prevent fraud, and could potentially harm our business and our performance.

Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting during the quarter ended June 30, 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. Our plans for

remediating our material weaknesses, as identified above, are still in progress and would constitute changes in our internal control over financial reporting prospectively once implemented.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings.

To the best of our knowledge, we are not currently a party to any legal proceedings that, individually or in the aggregate, are deemed to be material to our financial condition or results of operations.

In the normal course of business, we may be named as a defendant in one or more lawsuits. We are 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 our financial condition or results of operations.

On April 3, 2019, we 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 Soon-Shiong's purchase of the drug Cynviloq™ from us in May 2015. The actions allege that Soon-Shiong and the other defendants, among other things, acquired the drug Cynviloq™ for the purpose of halting its progression to the market. Specifically, we have 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 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 us, included as Exhibit 10.2 to our Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission (the "SEC") on August 7, 2015. On May 24, 2019, NantCell, Inc., Mr. Soon-Shiong and NANTibody General Counsel Charles Kim filed a motion in the Los Angeles Superior Court to stay or dismiss the Company's arbitration demand. We make no representations as to the likely success or outcome of such arbitration; and

- An action in the Los Angeles Superior Court derivatively on behalf of Immunotherapy NANTibody LLC ("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 us 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 our equity method investment in NANTibody to its invested amount as of June 30, 2017 amount of $40 million. On May 24, 2019, NantCell, Inc. and Mr. 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 a motion to compel this action to arbitration. The parties are currently engaged in discovery in the suit. We make no representations as to the likely success or outcome of such lawsuit.

Item 1A. Risk Factors.

Our Annual Report on Form 10-K for the year ended December 31, 2018, 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, 2018. 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 therapeutics 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 and anti-PD-1 checkpoint inhibitors derived from our proprietary G-MAB™ library platform, antibody drug conjugates ("ADCs"), ZTlido® (lidocaine topical system 5.4%) ("SP-103"), BsAbs, as well as Chimeric Antigen Receptor-T Cell ("CAR-T") for adoptive cellular immunotherapy, resiniferatoxin ("RTX") and non-opioid corticosteroid formulated as a viscous gel injection (SP-102) ("SEMDEXA™") to be commercially available for a few years, if at all. 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 June 30, 2019 and December 31, 2018, we had an accumulated deficit of $532.6 million and $367.8 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, SP-103, SEMDEXA™ and our other product candidates into further clinical trials and pursue other development, acquire, develop and manufacture clinical trial materials and increase other regulatory operating activities, (ii) incur incremental expenses associated with our efforts to further advance a number of potential product candidates into preclinical development activities, (iii) continue to identify and advance a number of fully human therapeutic antibody and ADC preclinical product candidates, (iv) incur higher salary, lab supply and infrastructure costs incurred in connection with supporting all of our programs, (v) invest in our joint ventures, collaborations or other third party agreements, (vi) incur expenses in conjunction with defending and enforcing our rights in various litigation matters, (vii) expand our corporate, development and manufacturing infrastructure, and (viii) support our subsidiaries, such as Scilex Pharmaceuticals Inc. and Semnur Pharmaceuticals, 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, 2018 included a "going concern" explanatory paragraph indicating that our recurring losses from operations, recurring negative cash flows from operations and substantial cumulative 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. In addition, in connection with our underwritten public offering of common stock and warrants that closed in July 2019, we generally agreed, subject to certain exceptions, that we would not sell, offer to sell, contract to sell or lend any shares of our common stock or derivative securities prior to September 26, 2019 without the prior written consent of JMP Securities LLC. 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 and anti-PD-1 checkpoint inhibitors derived from our proprietary G-MAB™ library platform, ADCs, BsAbs, as well as CAR-T for adoptive cellular immunotherapy, RTX, SP-103 and SEMDEXA™;
- the number of product candidates we pursue;
- 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; and
- our revenues, if any, from successful development and commercialization of our product candidates, including ZTlido® (lidocaine topical system) 1.8%.

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.

Further, there is uncertainty related to future National Institutes of Health ("NIH") grant funding, and the NIH's plans for new grants or cooperative agreements may be re-scoped, delayed, or canceled depending on the nature of the work and the availability of resources. As a result, we cannot assure you that we will receive any additional funding under our existing NIH grants, and we may not be successful in securing additional grants from the NIH in the future.

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.

Risks Related to Our Business and Industry

A fast track product designation or other designation to facilitate product candidate development may not lead to faster development or regulatory review or approval process, and it does not increase the likelihood that our product candidates will receive marketing approval.

A product sponsor may apply for fast track designation from the U.S. Food and Drug Administration ("FDA") if a product is intended for the treatment of a serious or life-threatening condition and preclinical or clinical data demonstrate the potential to address an unmet medical need for this condition ("Fast Track Designation"). The FDA has broad discretion whether or not to grant this designation. We have received Fast Track Designation for SEMDEXA™, which is in development for the treatment of lumbosacral radicular pain. Even though SEMDEXA™ has received Fast Track Designation, we may not experience a faster process, review or approval compared to conventional FDA procedures. Fast Track Designation does not accelerate clinical trials, mean that regulatory requirements are less stringent or provide assurance of ultimate marketing approval by the FDA. Instead, Fast Track Designation provides opportunities for frequent interactions with FDA review staff, as well as eligibility for priority review, if relevant criteria are met, and rolling review. The FDA may rescind the fast track designation if it believes that the designation is no longer supported by data from our clinical development program. The FDA may also withdraw any fast track designation at any time.

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® (lidocaine topical system) 1.8%, we have not completed a corporate-sponsored clinical trial. Phase I trials are ongoing for RTX for knee osteoarthritis, RTX for cancer-related pain, anti-CD38 CAR-T for multiple myeloma and anti-CEA CAR-T for intrahepatic CEA positive metastases and for intraperitoneal tumor implantation (malignant ascites) and a Phase III trial is ongoing for SEMDEXA™ for the treatment of lumbosacral radicular pain. Non-clinical studies are ongoing and Phase II trial is planned to start in the second half of 2019 with higher strength SP-103. 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 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.

The terms of our outstanding convertible promissory notes 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.

On June 13, 2018, we issued and sold convertible promissory notes in an aggregate principal amount of $37.8 million (the "Convertible Notes") to certain accredited investors pursuant to a Securities Purchase Agreement, as amended (the "Securities Purchase Agreement"). The Convertible Notes accrue interest at a rate equal to 5.0% per annum and mature upon the earlier to occur of June 13, 2023 and the date of the closing of a change of control (the "Maturity Date"). At any time and from time to time before the Maturity Date, the holders of the Convertible Notes have the option to convert any portion of the outstanding principal amount of the Convertible Notes that is equal to or greater than the lesser of: (1) $4,000,000, and (2) the then-outstanding principal amount of the Convertible Note being converted into shares of common stock at a price per share of $7.0125, subject to adjustment for stock splits, reverse stock splits, stock dividends and similar transactions. Any conversion of the Convertible Notes could result in material dilution to our existing stockholders. Accrued but unpaid interest on the Convertible Notes shall be paid in cash semi-annually in arrears on or prior to the 30th day of June and 31st day of December of each calendar year commencing with the year ended December 31, 2018. If a holder elects to convert any of the principal amount of their Convertible Note, then all accrued but unpaid interest on such portion of the principal amount shall become due and payable in cash. The Securities Purchase Agreement and the Convertible Notes contain customary restrictive covenants, which will remain in effect so long as the aggregate outstanding principal amount of the Convertible Notes is at least $18.8 million, including significant limitations on incurring additional indebtedness, liens, declaring cash dividends or making cash distributions and dispositions of our assets, in each case subject to customary exceptions. The breach of such covenants or the occurrence of certain other events would result in the occurrence of an event of default. Upon the occurrence of an event of default and following any applicable cure periods, the interest rate under the Convertible Notes will automatically increase to 12.0% per annum, effective until the day after such default is cured, and the holders of the Convertible Notes may declare all outstanding obligations immediately due and payable and take such other actions as set forth in the Convertible Notes, potentially requiring us to renegotiate our agreement on terms less favorable to us or to immediately cease operations. Any declaration by the holders of the Convertible Notes of an event of default could significantly harm our business and prospects and could cause the price of our common stock to decline.

On September 7, 2018, Scilex Pharmaceuticals Inc. ("Scilex") issued and sold senior secured notes due 2026 in an aggregate principal amount of $224,000,000 (the "Scilex Notes") for an aggregate purchase price of $140,000,000 (the "Scilex Offering"). In connection with the Scilex Offering, we also entered into an indenture (the "Scilex Indenture") governing the Scilex Notes with U.S. Bank National Association, a national banking association, as trustee (the "Trustee") and collateral agent, and Scilex. Pursuant to the Scilex 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 under the Scilex Indenture.

The Scilex Indenture governing the Scilex Notes contains customary events of default with respect to the Scilex Notes (including a failure to make any payment of principal on the Scilex Notes when due and payable), and, upon certain events of default occurring and continuing, the Trustee by notice to Scilex, or the holders of at least 25% in principal amount of the outstanding Scilex Notes by notice to Scilex and the Trustee, may (subject to the provisions of the Scilex Indenture) declare 100% of the then-outstanding principal amount of the Scilex Notes to be due and payable. Upon such a declaration of acceleration, such principal will be due and payable immediately. In the case of certain events, including bankruptcy, insolvency or reorganization involving us or Scilex, the Scilex Notes will automatically become due and payable.

Pursuant to the Scilex Indenture, we and Scilex must also comply with certain covenants with respect to the commercialization of ZTlido® (lidocaine topical system) 1.8%, as well as customary additional affirmative covenants, such as furnishing financial statements to the holders of the Scilex Notes, minimum cash requirements and net sales reports, and negative covenants, including limitations on the following: the incurrence of debt, the payment of dividends, 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, engaging in certain transactions with affiliates; and the making of investments other than those permitted by the Scilex Indenture.

On November 7, 2018, we and certain of our domestic subsidiaries (the "Guarantors") entered into a Term Loan Agreement (the "Initial Loan Agreement") with certain funds and accounts managed by Oaktree Capital Management, L.P. (collectively, the "Lenders") and Oaktree Fund Administration, LLC, as administrative and collateral agent (the "Agent"), for an initial term loan of $100.0 million (the "Initial Loan") and a second tranche of $50.0 million, subject to the achievement of certain commercial and financial milestones between August 7, 2019 and November 7, 2019, and the satisfaction of certain customary conditions (the "Original Delayed Draw Term Loan"). The Initial Loan was funded on November 7, 2018. On May 3, 2019, we, the Guarantors, the Lenders and the Agent entered into an amendment to the Initial Loan Agreement (the "Amendment" and, together with the Initial Loan Agreement, the "Loan Agreement"). Under the Amendment, the Lenders funded $20.0 million of the Original Delayed Draw Term Loan on May 3, 2019. The Loan Agreement contains customary affirmative and restrictive covenants and representations and warranties, including financial reporting obligations and minimum liquidity requirements and limitations on indebtedness, liens, negative pledges, certain restricted payments, subsidiary distributions, investments, fundamental transactions, dispositions of assets and transactions with affiliates. The Loan

Agreement also contains other customary provisions, such as expense reimbursement and confidentiality obligations, as well as indemnification rights for the benefit of the Lenders.

If we raise any additional debt financing, the terms of such additional debt could further restrict our operating and financial flexibility.

We have significantly restructured our business and implemented a new segment reporting structure. Our two industry segments, designated as Sorrento Therapeutics and Scilex, have been in effect for a limited period of time and there are no assurances that we will be able to successfully operate as a restructured business.

We have traditionally focused on the discovery and development of innovative therapies focused on oncology and the treatment of chronic cancer pain as well as immunology and infectious diseases based on our platform technologies.

With our previous acquisition of a majority stake in Scilex, a developer of specialty pharmaceutical products for the treatment of chronic pain, and the subsequent contribution of such stake to our majority-owned subsidiary Scilex Holding Company ("SHC") in connection with SHC's acquisition of Semnur, a pharmaceutical company developing an injectable product for the treatment of lower back pain, SHC will focus on non-opioid pain management.

Our strategy is based on a number of factors and assumptions, some of which are not within our control, such as the actions of third parties. There can be no assurance that we will be able to successfully execute all or any elements of our strategy, or that our ability to successfully execute our strategy will be unaffected by external factors. If we are unsuccessful in growing our business as planned, our financial performance could be adversely affected.

We are involved, and may become involved in the future, in disputes and other legal or regulatory proceedings that, if adversely decided or settled, could materially and adversely affect our business, financial condition and results of operations.

We are, and may in the future become, party to litigation, regulatory proceedings or other disputes. For example, on April 3, 2019, we 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 Soon-Shiong's purchase of the drug Cynviloq™ from our company in May 2015. The actions allege that Soon-Shiong and the other defendants, among other things, acquired the drug Cynviloq™ for the purpose of halting its progression to the market. In general, claims made by or against us in disputes and other legal or regulatory proceedings can be expensive and time consuming to bring or defend against, requiring us to expend significant resources and divert the efforts and attention of our management and other personnel from our business operations. Any failure to prevail in any claims made by us or any adverse determination against us in these proceedings, or even the allegations contained in the claims, regardless of whether they are ultimately found to be without merit, may also result in settlements, injunctions or damages that could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to Acquisitions

We have and plan to continue to acquire assets, businesses and technologies and may fail to realize the anticipated benefits of the acquisitions, and acquisitions can be costly and dilutive.

We have and plan to continue to expand our business and intellectual property portfolio through the acquisition of new assets, businesses and technologies.

For example, in November 2016, we acquired a majority of the outstanding capital stock of Scilex, which was contributed to our majority-owned subsidiary SHC in connection with the acquisition of Semnur by SHC in March 2019. These assets, together, constitute our Scilex segment. We also acquired Virttu Biologics Limited in 2017 and Sofusa®, a revolutionary drug delivery system, in July 2018, and we are in the process of integrating this company and technology with ours.

The success of any acquisition depends on, among other things, our ability to combine our business with the acquired assets and businesses in a manner that does not materially disrupt existing relationships and that allows us to achieve development and operational synergies. If we are unable to achieve these objectives, the anticipated benefits of the acquisition may not be realized fully or at all or may take longer to realize than expected. In particular, the acquisition may not be accretive to our stock value or development pipeline in the near or long term.

It is possible that the integration process could result in the loss of key employees; the disruption of our ongoing business or the ongoing business of the acquired companies; or inconsistencies in standards, controls, procedures or policies

that could adversely affect our ability to maintain relationships with third parties and employees or to achieve the anticipated benefits of the acquisition. Integration efforts between us and the acquired company will also divert management's attention from our core business and other opportunities that could have been beneficial to our stockholders. An inability to realize the full extent of, or any of, the anticipated benefits of the acquisition, as well as any delays encountered in the integration process, could have an adverse effect on our business and results of operations, which may affect the value of the shares of our common stock after the completion of the acquisition. If we are unable to achieve these objectives, the anticipated benefits of the acquisition may not be realized fully or at all or may take longer to realize than expected. In particular, the acquisition may not be accretive to our stock value or development pipeline in the near or long term.

We expect to incur additional costs integrating the operations of any companies we acquire, higher development and regulatory costs, and personnel, which cannot be estimated accurately at this time. If the total costs of the integration of our companies and advancement of acquired product candidates and technologies exceed the anticipated benefits of the acquisition, our financial results could be adversely affected.

In addition, we may issue shares of our common stock or other equity-linked securities in connection with future acquisitions of businesses and technologies. Any such issuances of shares of our common stock could result in material dilution to our existing stockholders.

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 July 2, 2018 to June 28, 2019, our closing stock price ranged from $1.86 to $7.50 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; 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.

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

EXHIBIT INDEX

2.1+	Agreement and Plan of Merger, dated as of March 18, 2019, by and among Sorrento Therapeutics, Inc., Semnur Pharmaceuticals, Inc., Scilex Holding Company, Sigma Merger Sub, Inc. and Fortis Advisors LLC, solely as the Equityholders' Representative (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on March 22, 2019).
3.1	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	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).
4.2	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).
4.3	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).
4.4	Form of Series B Warrant (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed with the SEC on June 28, 2019).
4.5	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).
10.1*+	Amendment No. 1 to Term Loan Agreement, dated as of May 3, 2019, by and among Sorrento Therapeutics, Inc., certain subsidiaries of Sorrento Therapeutics, Inc., as guarantors, certain funds affiliated with Oaktree Capital Management, L.P. and Oaktree Fund Administration, LLC. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on May 3, 2019).
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 Jiong Shao, 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 Jiong Shao, Principal Financial Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, as amended.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

+ Non-material schedules and exhibits have been omitted pursuant to Item 601(b)(2) 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.

* 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.

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: August 9, 2019

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

Henry Ji, Ph.D.

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

(Principal Executive Officer)

Date: August 9, 2019

By: /s/ Jiong Shao

Jiong Shao

Executive Vice President & Chief Financial Officer

(Principal Financial Officer)

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: August 9, 2019

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, Jiong Shao, 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/ Jiong Shao

Jiong Shao
Chief Financial Officer
(Principal Financial Officer)

Dated: August 9, 2019

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 June 30, 2019 (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: August 9, 2019

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, Jiong Shao, 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 June 30, 2019 (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: August 9, 2019

By: /s/ Jiong Shao
Jiong Shao
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.