
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): December 15, 2017

Merrimack Pharmaceuticals, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-35409
(Commission
File Number)

04-3210530
(IRS Employer
Identification No.)

One Kendall Square, Suite B7201
Cambridge, MA
(Address of principal executive offices)

02139
(Zip Code)

Registrant's telephone number, including area code: (617) 441-1000

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- ☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- ☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- ☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- ☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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 ☐

Item 8.01. Other Events.

Merrimack Pharmaceuticals, Inc. (“we,” “our” or the “Company”) is filing this Current Report on Form 8-K to revise and recast our historical consolidated financial statements and other information included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 (the “2016 Form 10-K”). The information included in Exhibit 99.1 to this Current Report on Form 8-K presents the financial results of our former Commercial Business (as defined below) as a discontinued operation and retroactively adjusts all share and per share amounts to reflect the Reverse Split (as defined below) for all periods presented. These updates are consistent with the presentation of all share and per share disclosures included in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 and the presentation of discontinued operations included in our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017, June 30, 2017 and September 30, 2017 filed with the Securities and Exchange Commission (the “SEC”) on May 10, 2017, August 9, 2017 and November 8, 2017, respectively, and with rules of the SEC requiring the reissuance of prior period financial statements included or incorporated by reference in a registration statement or proxy statement to retrospectively revise and reclassify such pre-event financial statements to reflect accounting changes, such as discontinued operations.

As previously disclosed, on April 3, 2017, we completed the transaction (the “Asset Sale”) with Ipsen S.A. (“Ipsen”). Pursuant to the Asset Purchase and Sale Agreement, dated as of January 7, 2017 (the “Asset Sale Agreement”), between us and Ipsen, we sold to Ipsen our right, title and interest in the non-cash assets, equipment, inventory, contracts and intellectual property primarily related to or used in our business operations and activities involving or relating to developing, manufacturing and commercializing ONIVYDE, our first commercial product, and MM-436 (the “Commercial Business”). We received a \$575.0 million upfront cash payment on April 3, 2017 and are eligible to receive up to \$450.0 million in additional regulatory approval-based milestone payments. As a result of the Asset Sale, the Commercial Business is accounted for as a discontinued operation for all periods presented in Exhibit 99.1 to this Current Report on Form 8-K.

As previously disclosed, on August 11, 2017, our stockholders approved an amendment to our certificate of incorporation to effect a one-for-ten reverse stock split of our issued and outstanding common stock (the “Reverse Split”). On September 5, 2017, we filed the amendment to our certificate of incorporation to effect the Reverse Split, and on September 6, 2017, the Reverse Split was effective for trading purposes. As a result of the Reverse Split, every ten shares of common stock issued and outstanding was converted into one share of common stock, reducing the number of issued and outstanding shares of common stock from approximately 132.8 million shares to approximately 13.28 million shares. No fractional shares were issued in connection with the Reverse Split. The amendment to the certificate of incorporation also proportionately reduced the number of authorized shares of common stock from 200 million to 20 million. The Reverse Split did not change the par value of the common stock. The Reverse Split did not change the number of authorized shares or par value of our preferred stock, of which there are no shares issued or outstanding. As a result, all share and per share amounts have been adjusted retroactively to reflect the Reverse Split for all periods presented in Exhibit 99.1 to this Current Report on Form 8-K.

The information included in Exhibit 99.1 to this Current Report on Form 8-K is presented in connection with the reporting changes described above and does not otherwise amend or restate our audited consolidated financial statements that were included in the 2016 Form 10-K. Unaffected items and unaffected portions of the 2016 Form 10-K have not been repeated in, and are not amended or modified by, Exhibit 99.1 to this Current Report on Form 8-K. Exhibit 99.1 to this Current Report on Form 8-K does not reflect events occurring after we filed the 2016 Form 10-K and does not modify or update the disclosures therein in any way, other than to reflect the presentation of our Commercial Business as a discontinued operation and to retroactively adjust all share and per share amounts to reflect the Reverse Split, as described above, and, where appropriate and as indicated, to reflect a more recent status of certain of our ongoing development programs. Therefore, Exhibit 99.1 to this Current Report on Form 8-K should be read in conjunction with our other filings made with the SEC, including, and subsequent to, the date of the 2016 Form 10-K.

We have revised the following portions of the 2016 Form 10-K to reflect the retrospective revisions described above:

Item 6. Selected Financial Data

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Item 8. Financial Statements and Supplementary Data

The revised portions of the 2016 Form 10-K described above are attached as Exhibit 99.1 hereto and incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
23.1	Consent of PricewaterhouseCoopers LLP
99.1	Form 10-K Item 6. Selected Financial Data, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and Item 8. Financial Statements and Supplementary Data
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 Database
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

SIGNATURE

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

MERRIMACK PHARMACEUTICALS, INC.

Date: December 15, 2017

By: /s/ Jeffrey A. Munsie
Jeffrey A. Munsie
General Counsel

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-194312) and Form S-8 (Nos. 333-180996, 333-186370, 333-194313, 333-202346 and 333-209745) of Merrimack Pharmaceuticals, Inc. of our report dated March 1, 2017, except with respect to our opinion on the consolidated financial statements insofar as it relates to the effects of the reverse stock split discussed in Note 1, the disclosure regarding the Company's ability to continue as a going concern discussed in Note 1 and the discontinued operations discussed in Note 2, as to which the date is December 15, 2017, relating to the financial statements and the effectiveness of internal control over financial reporting which appears in this Current Report on Form 8-K.

/s/ PricewaterhouseCoopers LLP
Boston, Massachusetts
December 15, 2017

EXPLANATORY NOTE

Merrimack Pharmaceuticals, Inc. (“we,” “our” or the “Company”) is filing this Exhibit 99.1 to our Current Report on Form 8-K (this “Exhibit”) to revise and recast our historical consolidated financial statements and other information included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 (the “2016 Form 10-K”). The information included in this Exhibit presents the financial results of our former Commercial Business (as defined below) as a discontinued operation and retroactively adjusts all share and per share amounts to reflect the Reverse Split (as defined below) for all periods presented. These updates are consistent with the presentation of all share and per share disclosures included in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 and the presentation of discontinued operations included in our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017, June 30, 2017 and September 30, 2017 filed with the Securities and Exchange Commission (the “SEC”) on May 10, 2017, August 9, 2017 and November 8, 2017, respectively, and with rules of the SEC requiring the reissuance of prior period financial statements included or incorporated by reference in a registration statement or proxy statement to retrospectively revise and reclassify such pre-event financial statements to reflect accounting changes, such as discontinued operations.

As previously disclosed, on April 3, 2017, we completed the transaction (the “Asset Sale”) with Ipsen S.A. (“Ipsen”). Pursuant to the Asset Purchase and Sale Agreement, dated as of January 7, 2017 (the “Asset Sale Agreement”), between us and Ipsen, we sold to Ipsen our right, title and interest in the non-cash assets, equipment, inventory, contracts and intellectual property primarily related to or used in our business operations and activities involving or relating to developing, manufacturing and commercializing ONIVYDE, our first commercial product, and MM-436 (the “Commercial Business”). We received a \$575.0 million upfront cash payment on April 3, 2017 and are eligible to receive up to \$450.0 million in additional regulatory approval-based milestone payments. As a result of the Asset Sale, the Commercial Business is accounted for as a discontinued operation for all periods presented in this Exhibit.

As previously disclosed, on August 11, 2017, our stockholders approved an amendment to our certificate of incorporation to effect a one-for-ten reverse stock split of our issued and outstanding common stock (the “Reverse Split”). On September 5, 2017, we filed the amendment to our certificate of incorporation to effect the Reverse Split, and on September 6, 2017, the Reverse Split was effective for trading purposes. As a result of the Reverse Split, every ten shares of common stock issued and outstanding was converted into one share of common stock, reducing the number of issued and outstanding shares of common stock from approximately 132.8 million shares to approximately 13.28 million shares. No fractional shares were issued in connection with the Reverse Split. The amendment to the certificate of incorporation also proportionately reduced the number of authorized shares of common stock from 200 million to 20 million. The Reverse Split did not change the par value of the common stock. The Reverse Split did not change the number of authorized shares or par value of our preferred stock, of which there are no shares issued or outstanding. As a result, all share and per share amounts have been adjusted retroactively to reflect the Reverse Split for all periods presented in this Exhibit.

The information included in this Exhibit is presented in connection with the reporting changes described above and does not otherwise amend or restate our audited consolidated financial statements that were included in the 2016 Form 10-K. Unaffected items and unaffected portions of the 2016 Form 10-K have not been repeated in, and are not amended or modified by, this Exhibit. This Exhibit does not reflect events occurring after we filed the 2016 Form 10-K and does not modify or update the disclosures therein in any way, other than to reflect the presentation of our Commercial Business as a discontinued operation and to retroactively adjust all share and per share amounts to reflect the Reverse Split, as described above, and, where appropriate and as indicated, to reflect the current status of certain of our ongoing development programs. Therefore, this Exhibit should be read in conjunction with our other filings made with the SEC, including, and subsequent to, the date of the 2016 Form 10-K.

Accordingly, this Exhibit revises the following portions of the 2016 Form 10-K:

- Item 6. Selected Financial Data
- Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations
- Item 8. Financial Statements and Supplementary Data

CAUTIONARY NOTES REGARDING FORWARD-LOOKING STATEMENTS

The statements contained in this Exhibit contain forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this Exhibit, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “plan,” “predict,” “project,” “target,” “potential,” “will,” “would,” “could,” “should,” “continue” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this Exhibit include, among other things, statements about: our plans to develop and commercialize our clinical stage product candidates and diagnostics; our ongoing and planned discovery programs, preclinical studies and clinical trials; the timing of the completion of our clinical trials and the availability of results from such trials; our receipt of payments related to the milestone events under the asset purchase and sale agreement with Ipsen or under the license and collaboration agreement between Baxalta Incorporated, Baxalta US Inc., Baxalta GmbH and Ipsen, when expected or at all; our ability to establish and maintain additional collaborations; the timing of and our ability to obtain regulatory approvals for our products and product candidates; our intellectual property position; the potential use of our systems biology approach in fields other than oncology; and our estimates regarding expenses, future revenues, capital requirements and needs for additional financing.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this Exhibit and the 2016 Form 10-K, particularly in Part I, Item 1A. Risk Factors, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments that we may make.

You should read this Exhibit completely and with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

Item 6. Selected Financial Data

The following selected consolidated financial data is derived from our consolidated financial statements. We have derived the consolidated statements of operations data for the years ended December 31, 2016, 2015 and 2014 and the consolidated balance sheet data as of December 31, 2016 and 2015 from our audited consolidated financial statements included in this Exhibit. We have derived the consolidated statements of operations data for the years ended December 31, 2013 and 2012 and the consolidated balance sheet data as of December 31, 2014, 2013 and 2012 from our unaudited consolidated financial statements. This data has been updated to account for the Commercial Business as a discontinued operation and to retroactively reflect the Reverse Split for all periods presented. Our historical results for any prior period are not necessarily indicative of results to be expected in any future period. This data should be read in conjunction with the consolidated financial statements and notes thereto, and with Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” section.

(in thousands, except per share amounts)	Years Ended December 31,				
	2016	2015	2014	2013	2012
Consolidated Statements of Operations Data					
Collaboration revenues	\$ —	\$ —	\$ 92,296	\$ 47,786	\$ 48,921
Costs and expenses:					
Research and development expenses	109,565	121,033	103,310	116,929	102,500
General and administrative expenses	32,052	24,048	18,766	18,629	14,329
Restructuring expenses	5,710	—	—	—	—
Total costs and expenses	147,327	145,081	122,076	135,558	116,829
Loss from operations continuing operations	(147,327)	(145,081)	(29,780)	(87,772)	(67,908)
Other income and expenses:					
Interest income	276	99	114	166	184
Interest expense (1)	(22,449)	(18,769)	(18,230)	(10,938)	(553)
Other (expense) income, net	(8)	917	813	627	1,357
Net loss from continuing operations before income tax benefit	(169,508)	(162,834)	(47,083)	(97,917)	(66,920)
Income tax benefit	13,224	11,215	—	—	—
Net loss from continuing operations	(156,284)	(151,619)	(47,083)	(97,917)	(66,920)
Discontinued operations:					
Income (loss) from discontinued operations, net of tax	2,766	3,832	(36,476)	(32,768)	(24,834)
Net loss	(153,518)	(147,787)	(83,559)	(130,685)	(91,754)
Net income (loss) attributable to non-controlling interest	(1,778)	170	(268)	240	(477)
Net loss attributable to Merrimack Pharmaceuticals, Inc.	<u>\$ (151,740)</u>	<u>\$ (147,957)</u>	<u>\$ (83,291)</u>	<u>\$ (130,925)</u>	<u>\$ (91,277)</u>
Amounts attributable to Merrimack Pharmaceuticals, Inc.:					
Net loss from continuing operations	\$ (154,506)	\$ (151,789)	\$ (46,815)	\$ (98,157)	\$ (66,443)
Income (loss) from discontinued operations, net of tax	2,766	3,832	(36,476)	(32,768)	(24,834)
Net loss attributable to Merrimack Pharmaceuticals, Inc.	<u>\$ (151,740)</u>	<u>\$ (147,957)</u>	<u>\$ (83,291)</u>	<u>\$ (130,925)</u>	<u>\$ (91,277)</u>
Basic and dilutive net income (loss) per common share					
Net loss from continuing operations	\$ (12.33)	\$ (13.63)	\$ (4.49)	\$ (9.93)	\$ (9.12)
Net income (loss) from discontinued operations, net of tax	0.22	0.34	(3.49)	(3.31)	(3.41)
Net loss per share (2)	<u>\$ (12.11)</u>	<u>\$ (13.29)</u>	<u>\$ (7.98)</u>	<u>\$ (13.24)</u>	<u>\$ (12.53)</u>
Weighted-average common shares used per share calculations—basic and diluted (3)	12,533	11,136	10,441	9,892	7,283

- (1) In July 2013, we issued \$125.0 million aggregate principal amount of 4.50% convertible notes due 2020 in an underwritten public offering. In November and December 2012, we borrowed an aggregate principal amount of \$40.0 million under a loan agreement with Hercules Technology Growth Capital, Inc., or Hercules. These loans with Hercules were repaid in full in December 2015. In December 2015, we issued \$175.0 million aggregate principal amount of 11.50% senior secured notes due 2022 through a private placement. On April 13, 2016, we entered into separate, privately-negotiated conversion agreements with certain holders of the convertible notes. The execution of the conversion agreements resulted in the conversion of an aggregate principal amount of \$64.2 million of convertible notes. In addition, we recognized a one-time \$14.6 million non-cash loss on extinguishment during the second quarter of 2016. This loss on extinguishment was recorded as a component of interest expense. Transaction costs incurred with third parties directly related to the conversion were allocated to the liability and equity components, resulting in additional interest expense recognized of \$0.2 million during the second quarter of 2016.

- (2) The numerator in the calculation of net loss per share available to common stockholders—basic and diluted for the year ended December 31, 2012 includes unaccreted dividends on our convertible preferred stock. Upon closing of our initial public offering in April 2012, all outstanding shares of our convertible preferred stock were converted into 6.6 million shares of common stock.
- (3) In April 2012, we closed our initial public offering, which resulted in the sale of approximately 1.5 million shares of common stock and the conversion of all shares of outstanding convertible preferred stock into approximately 6.6 million shares of common stock. In July 2013, we closed an underwritten public offering of common stock, which resulted in the sale of approximately 0.6 million shares of common stock. In July 2015, we entered into an agreement to sell shares of our common stock through an “at the market offering” program. We concluded sales under this program in September 2015, having sold approximately 0.4 million shares of common stock.

(in thousands)	December 31,				
	2016	2015	2014	2013	2012 (1)
Consolidated Balance Sheet Data					
Cash and cash equivalents	\$ 21,524	\$ 185,606	\$ 35,688	\$ 65,086	\$ 37,714
Marketable securities	—	—	88,340	90,116	72,238
Assets held for sale	42,430	21,436	12,268	9,641	9,517
Total assets	81,483	234,880	158,506	192,233	148,974
Loans payable (2)	—	—	39,550	39,082	39,830
Derivative liability	—	—	—	—	196
4.50% convertible notes (3)	46,950	88,495	80,452	72,409	—
11.50% senior secured notes (4)	169,911	169,160	—	—	—
Deferred revenue	—	—	—	73,392	80,464
Liabilities held for sale	83,211	116,677	109,946	12,075	4,679
Total liabilities	334,142	418,569	260,577	235,361	155,394
Non-controlling interest	(1,539)	239	69	337	97
Total stockholders’ deficit	(251,120)	(183,928)	(102,140)	(43,465)	(6,517)

- (1) Upon closing of our initial public offering in April 2012, all outstanding shares of our convertible preferred stock were converted into 66.3 million shares of common stock, all outstanding warrants to purchase shares of convertible preferred stock were converted into warrants to purchase shares of common stock and approximately \$4.3 million of cash dividends became payable to the holders of Series B convertible preferred stock.
- (2) In November and December 2012, we borrowed an aggregate principal amount of \$40.0 million under a loan agreement with Hercules. These loans were repaid in full in December 2015.
- (3) In July 2013, we sold an aggregate of 0.6 million shares of our common stock at a price to the public of \$50.00 per share and issued \$125.0 million aggregate principal amount of convertible notes in concurrent underwritten public offerings, in which we received aggregate net proceeds of approximately \$147.3 million, after deducting underwriting discounts and commissions and offering expenses payable by us. On April 13, 2016, we entered into separate, privately-negotiated conversion agreements with certain holders of the convertible notes. The execution of the conversion agreements resulted in the conversion of an aggregate principal amount of \$64.2 million of convertible notes and the issuance of 1,236,766 shares of our common stock.
- (4) In December 2015, we closed a private placement of \$175.0 million aggregate principal amount of 11.50% senior secured notes due 2022 and received net proceeds of approximately \$168.5 million, after deducting private placement and offering expenses payable by us.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

The following discussion of our financial condition and results of operations should be read in conjunction with our financial statements and the notes to those financial statements appearing elsewhere in this Exhibit. This discussion contains forward-looking statements that involve significant risks and uncertainties. As a result of many factors, such as those set forth in Part I, Item 1A. Risk Factors of the 2016 Form 10-K, which are incorporated herein by reference, our actual results may differ materially from those anticipated in these forward-looking statements.

Overview

We are a biopharmaceutical company based in Cambridge, Massachusetts that is outthinking cancer to ensure that patients and their families live fulfilling lives. Our mission is to transform cancer care through the smart design and development of targeted solutions based on a deep understanding of cancer pathways and biological markers. All of our development programs, including four clinical studies in distinct indications and six candidates in preclinical development, fit into our strategy of (1) understanding the biological problems we are trying to solve, (2) designing specific solutions and (3) developing those solutions for biomarker-selected patients. This three-pronged strategy seeks to ensure optimal patient outcomes.

On April 3, 2017, we announced that we commenced operating as a refocused research and clinical development company in connection with the completion of our previously announced transaction, or the asset sale, with Ipsen S.A., or Ipsen. Pursuant to the Asset Purchase and Sale Agreement, dated as of January 7, 2017, or the asset sale agreement, between us and Ipsen, Ipsen acquired our right, title and interest in the non-cash assets, equipment, inventory, contracts and intellectual property primarily related to or used in our business operations and activities involving or relating to developing, manufacturing and commercializing ONIVYDE, our first commercial product, and MM-436, or the commercial business. We received \$575.0 million in cash, subject to a working capital adjustment, and are eligible to receive up to \$450.0 million in additional regulatory approval-based milestone payments. We reached a settlement on certain working capital adjustments with Ipsen in the amount of \$0.8 million, which was received in September 2017. The final working capital adjustment of \$4.9 million was received in the fourth quarter of 2017. We also retained the right to receive net milestone payments of up to \$33.0 million that may become payable pursuant to the license and collaboration agreement with Baxalta Incorporated, Baxalta US Inc. and Baxalta GmbH, collectively Baxalta, which we refer to as the Baxalta agreement, for the ex-U.S. development and commercialization of ONIVYDE. As a result of the asset sale, the commercial business is accounted for as a discontinued operation for all periods presented.

Our non-commercial assets, including our clinical and preclinical development programs, or the pipeline business, were not included in the asset sale and remain assets of ours. Our most advanced assets and a description of the status of each as of the date of our most recent Quarterly Report on Form 10-Q are as follows:

- MM-121 (seribantumab), a fully human monoclonal antibody that binds to the ErbB3 (HER3) receptor and targets heregulin positive cancers. There are two active development programs for MM-121, each in a Phase 2 clinical trial. We are currently conducting the Phase 2 randomized SHERLOC clinical trial, evaluating MM-121 in patients with heregulin positive non-small cell adenocarcinoma of the lung in combination with docetaxel. We have also initiated trial sites for the Phase 2 randomized SHERBOC clinical trial in patients with heregulin positive, hormone receptor positive, ErbB2 (HER2) negative, metastatic breast cancer in combination with fulvestrant, and expect to dose the first patient in the SHERBOC clinical trial in the fourth quarter of 2017;
- MM-141 (istiratumab), a fully human bispecific tetravalent monoclonal antibody designed to block tumor survival signals by targeting receptor complexes containing the insulin-like growth factor 1, or IGF-1, receptor and ErbB3 (HER3) cell surface receptors. We are currently conducting and have completed enrollment of the Phase 2 randomized CARRIE clinical trial evaluating MM-141 in previously untreated metastatic pancreatic cancer patients with high levels of free IGF-1 in combination with nab-paclitaxel and gemcitabine; and
- MM-310, an antibody-directed nanotherapeutic, or ADN, that contains a novel prodrug of the highly potent chemotherapy docetaxel and targets the ephrin receptor A2, or EphA2, receptor, which is highly expressed in most solid tumor types. MM-310 was designed to improve the therapeutic window of docetaxel in major oncology indications, such as prostate, ovarian, bladder, gastric, pancreatic and lung cancers. We initiated a Phase 1 clinical trial to evaluate safety and preliminary activity of MM-310 in the first quarter of 2017.

We have devoted substantially all of our resources to our drug discovery and development efforts, including advancing our systems biology approach, conducting clinical trials for our product candidates, protecting our intellectual property and providing general and administrative support for these operations. We currently have no products approved for sale and all of our revenue to date has been collaboration revenue and through sales of ONIVYDE and, to date, we have financed our operations primarily through private placements of our convertible preferred stock, collaborations, public offerings of our securities, secured debt financings, sales of ONIVYDE and the asset sale of ONIVYDE.

On April 13, 2016, we entered into separate, privately-negotiated conversion agreements, or the conversion agreements, with certain holders of our 4.50% convertible notes due 2020, or the convertible notes. The execution of the conversion agreements resulted in the conversion of an aggregate principal amount of \$64.2 million of convertible notes and the issuance of 1,236,766 shares of our common stock. See Note 11, "Borrowings," in the accompanying notes to the consolidated financial statements for additional information.

On October 3, 2016, we announced a 22% reduction in headcount as part of a major corporate restructuring with the objective of prioritizing our research and development on a focused set of systems biology-derived oncology products and strengthening our financial runway. On this same date, we also announced the resignation of Robert Mulroy, our former President and Chief Executive Officer, or CEO. See Note 12, "Restructuring Activities," in the accompanying notes to the consolidated financial statements for additional information. In connection with this corporate restructuring, we also initiated a strategic review of our pipeline, including a clinical and financial prioritization of our programs. This strategic review was concluded in January 2017, as described in more detail below.

On November 8, 2016, we entered into a Loan and Security Agreement, or the credit agreement, with BioPharma Credit Investments IV Sub, LP, or Pharmakon, pursuant to which a credit facility of an aggregate principal amount of at least \$15.0 million and up to \$25.0 million is available to us. The credit facility was originally available at any time through March 15, 2017 upon our request and upon compliance with certain funding conditions. On April 7, 2017, the credit agreement expired.

On January 8, 2017, we announced a planned reduction in our headcount by approximately 30% in connection with the closing of the asset sale and the completion of our strategic pipeline review, and upon the closing of the asset sale we had approximately 80 employees. In connection with the completion of the asset sale and the completion of our strategic pipeline review, on April 3, 2017, we reduced our headcount by approximately 30%.

On January 16, 2017, we announced the hiring of Richard Peters, M.D., Ph.D., as our new CEO, effective as of February 6, 2017. Dr. Peters was also elected as a member of our board of directors.

We entered into an employment agreement with Dr. Peters commencing on February 6, 2017 whereby Dr. Peters will receive an annual base salary of \$700,000 and is eligible for an annual bonus of up to 65% of his base salary. Dr. Peters also received a one-time signing bonus of \$900,000. Subject to the further approval of our board of directors, we will also grant Dr. Peters an option to purchase a number of shares of our common stock equal to the lesser of (i) such number of shares that has a target grant date fair value of \$3.5 million and (ii) 0.2 million shares, with an exercise price per share equal to the fair market value of our common stock on the date of grant. The option will vest over four years at the rate of 25% on February 6, 2018 and the remainder in equal quarterly installments over the following three years.

As of December 31, 2016, we had unrestricted cash and cash equivalents of \$21.5 million. On April 3, 2017, we closed the asset sale with Ipsen and received a \$575.0 million upfront cash payment (subject to the working capital adjustment, which was finalized in the third quarter of 2017). We used a portion of the cash payment to redeem the \$175.0 million outstanding aggregate principal amount of 11.50% senior secured notes due 2022, or the 2022 notes, which also required an additional make-whole premium payment of approximately \$20.1 million, and deposited \$60.0 million into an escrow account in response to a lawsuit filed by the trustee and certain holders of our 4.50% convertible notes due 2020, or convertible notes. We also distributed \$140.0 million of the upfront cash payment in the form of a special cash dividend to stockholders in May 2017. After consideration of our cash and cash equivalents balance at March 31, 2017 of \$17.2 million and the net proceeds from the asset sale, we have concluded that the previous conditions and events that raised substantial doubt about our ability to continue as a going concern have been alleviated in the first quarter of 2017. As result of the cash received from the consummation of the asset sale, we believe that at our currently forecasted spending rates, our existing financial resources, together with the net milestone payments we expect to receive under the Baxalta agreement, assuming certain milestones under such agreement are met, will be sufficient to fund our planned operations into the second half of 2019.

We have never been profitable and, as of December 31, 2016, we had an accumulated deficit of \$954.8 million. Our net loss from continuing operations was \$156.3 million for the year ended December 31, 2016, \$151.6 million for the year ended December 31, 2015 and \$47.1 million for the year ended December 31, 2014. We expect to continue to incur significant research and development expenses in connection with our ongoing activities, particularly as we continue the research, development and clinical trials of our product candidates, including multiple simultaneous clinical trials for certain product candidates. Until such time, if ever, as we can generate sufficient product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, licensing arrangements and other marketing and distribution arrangements. We also could engage in discussions with third parties regarding partnerships, joint ventures, combinations or divestitures of one or more of our businesses as we seek to further the development of our research programs, improve our cash position and maximize stockholder value. There can be no assurance as to the timing, terms or consummation of any financing, collaboration, licensing arrangement or other marketing and distribution arrangement, partnership, joint venture, combination or divestiture. We may be unable to raise capital when needed or on attractive terms, which would force us to delay, limit, reduce or terminate our research and development programs. We will need to generate significant revenues to achieve profitability, and we may never do so.

On August 11, 2017, our stockholders approved an amendment to our certificate of incorporation to effect a one-for-ten reverse stock split of our issued and outstanding common stock, or the reverse split. On September 5, 2017, we filed the amendment to our certificate of incorporation to effect the reverse split, and on September 6, 2017, the reverse split was effective for trading purposes. As a result of the reverse split, every ten shares of common stock issued and outstanding was converted into one share of common stock, reducing the number of issued and outstanding shares of common stock from approximately 132.8 million shares to approximately 13.28 million shares. No fractional shares were issued in connection with the reverse split. The amendment to the certificate of incorporation also proportionately reduced the number of authorized shares of common stock from 200 million to 20 million. The reverse split did not change the par value of the common stock. The reverse split did not change the number of authorized shares or par value of our preferred stock, of which there are no shares issued or outstanding. All outstanding stock options and convertible notes entitling their holders to purchase shares of common stock or acquire shares of common stock upon conversion, as

the case may be, were adjusted as a result of the reverse split, as required by the terms of these securities. As a result, all share and per share amounts have been adjusted retroactively to reflect the reverse split for all periods presented.

Strategic Partnerships, Licenses and Collaborations

Baxalta

On September 23, 2014, we entered into the Baxalta agreement for the development and commercialization of ONIVYDE outside of the United States and Taiwan, or the licensed territory. In connection with Baxter International Inc.'s separation of the Baxalta business, the Baxalta agreement was assigned to Baxalta during the second quarter of 2015. As part of the Baxalta agreement, we granted Baxalta an exclusive, royalty-bearing right and license under our patent rights and know-how to develop and commercialize ONIVYDE in the licensed territory. Baxalta is responsible for using commercially reasonable efforts to develop, obtain regulatory approvals for and, following regulatory approval, commercialize ONIVYDE in the licensed territory. A joint steering committee comprised of an equal number of representatives from each of Baxalta and us is responsible for approving changes to the global development plan for ONIVYDE, including all budgets, and overseeing the parties' development and commercialization activities with respect to ONIVYDE. Unless otherwise agreed, we will be responsible for conducting all clinical trials contemplated by the global development plan for ONIVYDE and manufacturing all clinical material needed for such trials. Baxalta also has the option to manufacture ONIVYDE, in which case we will perform a technology transfer of our manufacturing process to Baxalta.

Under the terms of the Baxalta agreement, we received a \$100.0 million nonrefundable upfront cash payment in September 2014. In addition, we are eligible to receive from Baxalta (i) up to an aggregate of \$100.0 million upon the achievement of specified research and development milestones, of which we have received \$62.5 million from Baxalta through December 31, 2016, (ii) up to an aggregate of \$520.0 million upon the achievement of specified regulatory milestones, of which we have received \$60.0 million from Baxalta through December 31, 2016, and (iii) up to an aggregate of \$250.0 million upon the achievement of specified sales milestones. Under the terms of the Baxalta agreement, we will bear up to the first \$98.8 million of costs related to the development of ONIVYDE for pancreatic cancer patients who have not previously received gemcitabine-based therapy; however, we expect most of these costs to be offset by payments received upon the achievement of clinical trial-related milestones. We will share equally with Baxalta all other clinical trial costs contemplated by the global development plan. We are also entitled to tiered, escalating royalties ranging from sub-teen double digits to low twenties percentages of net sales of ONIVYDE in the licensed territory.

If not terminated earlier by either party, the Baxalta agreement will expire upon expiration of all royalty and other payment obligations of Baxalta under the Baxalta agreement. Either party may terminate the Baxalta agreement in the event of an uncured material breach by the other party. Baxalta may also terminate the Baxalta agreement on a product-by-product, country-by-country or sub-territory-by-sub-territory basis or in its entirety, for its convenience, upon 180 days' prior written notice. In addition, we may terminate the Baxalta agreement if Baxalta challenges or supports any challenge of our licensed patent rights.

At the inception of the collaboration, we identified the following deliverables as part of the Baxalta agreement: (i) license to develop and commercialize ONIVYDE in Baxalta's territories, (ii) discovery, research, development and manufacturing services required to complete ongoing clinical trials related to ONIVYDE, (iii) discovery, research, development and manufacturing services needed to complete future clinical trials in further indications related to ONIVYDE, (iv) the option to perform a technology transfer of our manufacturing process related to the production of ONIVYDE to Baxalta and (v) participation on the joint steering committee.

We concluded that none of the deliverables identified at the inception of the collaboration has standalone value from the other undelivered elements. As such, all deliverables represent a single unit of accounting.

We have determined that the collaboration represents a services agreement and, as such, have estimated the level of effort expected to be completed as a result of providing the identified deliverables. We will recognize revenue from the nonrefundable upfront payment, forecasted non-substantive milestone payments and estimated payments related to discovery, research, development and technology transfer services based on proportional performance as effort is completed over the expected services period, which is estimated to be substantially complete by June 30, 2022. We will periodically review and, if necessary, revise the estimated service period related to our collaboration with Baxalta. As of December 31, 2016, we have achieved \$62.5 million of the \$90.0 million of forecasted non-substantive milestones that are included in our proportional performance revenue recognition model and \$60.0 million of the \$530.0 million of substantive milestones that are included in the Baxalta agreement.

Research, development and regulatory milestones that are considered substantive on the basis of the contingent nature of the milestone will be recognized as revenue in full in the period in which the associated milestone is achieved, assuming all other revenue recognition criteria are met. All sales milestones will be accounted for in the same manner as royalties and recorded as revenue upon achievement of the milestone, assuming all other revenue recognition criteria are met.

From the inception of the Baxalta agreement through December 31, 2016, we have achieved the following substantive and non-substantive milestones:

- In July 2015, the European Medicines Agency, or EMA, accepted for review a Marketing Authorization Application, or MAA, filed by Baxalta for ONIVYDE. As a result of this acceptance, we recognized \$20.0 million of license and collaboration revenue in income from discontinued operations related to a substantive milestone payment owed from Baxalta.
- In August 2015, we achieved a \$15.0 million milestone related to the submission of the protocol for our Phase 2 clinical trial of ONIVYDE in front-line metastatic pancreatic cancer. This milestone is a non-substantive milestone, and revenue related to the achievement of this milestone will be recognized through the proportional performance revenue recognition model.
- In October 2015, we achieved a \$47.5 million milestone related to the enrollment of the first patient in a Phase 2 clinical trial of ONIVYDE in front-line pancreatic cancer. This milestone is a non-substantive milestone, and revenue related to the achievement of this milestone will be recognized through the proportional performance revenue recognition model.
- In June 2016, the South Korean Ministry of Food and Drug Safety, or MFDS, accepted for review a new drug application filed by Baxalta for ONIVYDE. As a result of this acceptance, we recognized \$10.0 million of license and collaboration revenue in income from discontinued operations related to a substantive milestone payment owed from Baxalta.
- In October 2016, the European Commission granted marketing authorization to Baxalta for ONIVYDE in combination with 5-FU and leucovorin for the treatment of adult patients with metastatic adenocarcinoma of the pancreas who have progressed following gemcitabine-based therapy. As a result of this approval and the first commercial sale of ONIVYDE made by Baxalta during the fourth quarter of 2016, we recognized \$30.0 million of license and collaboration revenue in income from discontinued operations related to a substantive milestone payment owed from Baxalta.

During the years ended December 31, 2016, 2015 and 2014, we recognized license and collaboration revenues in income from discontinued operations based on the following components of the Baxalta agreement:

(in thousands)	Years Ended December 31,		
	2016	2015	2014
Proportional performance revenue recognition model	\$ 47,119	\$ 64,930	\$ 10,460
Substantive milestones	40,000	20,000	—
Total	\$ 87,119	\$ 84,930	\$ 10,460

During the year ended December 31, 2016, we also recognized royalty revenues in income from discontinued operations of \$0.2 million related to the Baxalta agreement.

As of December 31, 2016 and 2015, we maintained the following assets and liabilities held for sale related to the Baxalta agreement:

(in thousands)	December 31,	
	2016	2015
Accounts receivable, billed	\$ 860	\$ 1,336
Accounts receivable, unbilled	581	626
Deferred revenues	56,779	97,365

Of the \$56.8 million of deferred revenue in discontinued operations related to the Baxalta agreement as of December 31, 2016, \$36.2 million is classified as current liabilities of discontinued operations in the consolidated balance sheets based upon our estimate of revenue that will be recognized under the proportional performance revenue recognition model as a result of effort expected to be completed within the next twelve months.

In February 2016, we entered into a commercial supply agreement with Baxalta, or the Baxalta supply agreement, pursuant to which we supply ONIVYDE to Baxalta and, at Baxalta's option, manage fill and finish activities conducted by a third-party contract manufacturer for Baxalta.

On April 3, 2017, the Baxalta agreement was assigned to Ipsen in connection with the completion of the sale of the commercial business. We retained the rights to receive net milestone payments that may become payable pursuant to the Baxalta agreement for the ex-U.S. development and commercialization of ONIVYDE for up to \$33.0 million, which is comprised of potential payments of \$18.0 million from the sale of ONIVYDE in two additional major European countries, \$5.0 million related to the sale of ONIVYDE in the

first major non-European, non-Asian country and \$10.0 million for the first patient dosed in a pivotal clinical trial in an indication other than pancreatic cancer.

On April 3, 2017, in connection with the asset sale, all agreements related to our collaboration with Baxalta and any associated obligations, including our agreement related to commercial supply of ONIVYDE, were assigned to Ipsen.

All operating results recognized related to the Baxalta agreements are presented as income (loss) from discontinued operations, net of tax in the condensed consolidated statements of operations for all periods presented. In addition, in the condensed consolidated balance sheet as of December 31, 2016, 2015 and 2014, the assets and liabilities related to the Baxalta agreements have been presented separately.

Sanofi

In September 2009, we entered into a license and collaboration agreement with Sanofi, which we refer to as the Sanofi agreement, for the development and commercialization of MM-121. In June 2014, we agreed with Sanofi to terminate the Sanofi agreement effective December 17, 2014. In connection with the agreement to terminate the Sanofi agreement, among other things, Sanofi transferred ownership of the investigational new drug application for MM-121 back to us in July 2014, and we waived Sanofi's obligation to reimburse us for MM-121 development costs incurred after the effective termination date. As a result of the termination of the Sanofi agreement, we are not entitled to receive any additional fees, milestone payments or reimbursements from the collaboration.

We received total milestone payments of \$25.0 million pursuant to the Sanofi agreement. Under the Sanofi agreement, Sanofi was responsible for all MM-121 development and manufacturing costs. Sanofi reimbursed us for internal time at a designated full-time equivalent rate per year and reimbursed us for direct costs and services related to the development and manufacturing of MM-121.

We recognized cost reimbursements for MM-121 development services within the period they were incurred and billable. Billable expenses were defined during each specified budget period. In the event that total development services expense incurred and expected to be incurred during any particular budget period exceeded the total contractually allowed billable amount for development services during that period, we recognized only a percentage of the development services incurred as revenue during that period.

At the inception of the collaboration, we determined that the license, the right to future technology, back-up compounds, participation on steering committees and manufacturing services performance obligations comprising the Sanofi agreement represented a single unit of accounting. As we could not reasonably estimate our level of effort over the collaboration, we recognized revenue from the upfront payment, milestone payments and manufacturing services payments using the contingency-adjusted performance model over the expected development period, which was initially estimated to be 12 years from the effective date of the Sanofi agreement.

As a result of the agreement to terminate the Sanofi agreement, the development period was revised to end as of December 17, 2014 and the balance of deferred revenue remaining as of April 1, 2014 was recognized prospectively on a straight-line basis over the remaining development period, ending on December 17, 2014.

We recognized no revenue under the Sanofi agreement during the years ended December 31, 2016 or 2015. During the year ended December 31, 2014, we recognized revenue based on the following components of the Sanofi agreement:

(in thousands)	Year Ended December 31, 2014	
Upfront payment	\$	39,306
Milestone payment		16,377
Development services		18,904
Manufacturing services and other		17,709
Total	\$	92,296

We performed development services for which revenue was recognized under the Sanofi agreement in accordance with the specified budget period. During the year and specified budget periods ended December 31, 2013, we performed \$10.1 million of development services in excess of recognized revenue. Of this amount, approximately \$5.8 million was recognized as increased revenue in the year ended December 31, 2014 related to expenses incurred prior to December 31, 2013 upon receiving budget approval for these overruns.

We maintained no assets or liabilities related to the Sanofi agreement as of either December 31, 2016 or 2015.

Actavis

In November 2013, we entered into a development, license and supply agreement with Watson Laboratories, Inc., or Actavis, which we refer to as the Actavis agreement, pursuant to which we will develop, manufacture and exclusively supply the bulk form of doxorubicin hydrochloride (HCl) liposome injection, or the initial product, to Actavis. The Actavis agreement was subsequently amended in January 2015 to transfer certain responsibilities from us to Actavis in exchange for reducing the aggregate milestone payments that we are eligible to receive by \$0.4 million. We will manufacture and supply the initial product to Actavis in bulk form at an agreed upon unit price, and Actavis is responsible for all costs related to finished product processing and global commercialization. Pursuant to the Actavis agreement, we have also agreed to develop additional products for Actavis in the future, the identities of which will be mutually agreed upon. We are eligible to receive up to \$15.1 million in milestone and development payments, as well as additional reimbursement for specific activities performed by us at the request of Actavis. We will also receive a mid-twenties percentage of net profits on global sales of the initial product and any additional products. In October 2016, the U.S. Food and Drug Administration, or FDA, accepted for review an Abbreviated New Drug Application filed by Actavis for the initial product, which triggered the payment obligation of \$1.1 million of milestones from Actavis to us. As of December 31, 2016, we had received \$4.9 million in total milestone and development payments and reimbursement for specific activities from Actavis.

The Actavis agreement will expire with respect to the initial product and any additional products developed in the future ten years after Actavis' first sale of the applicable product, unless terminated earlier, and will automatically renew for additional two year periods thereafter unless either party provides notice of non-renewal. Either party may terminate the Actavis agreement in the event of an uncured material breach or bankruptcy filing by the other party. Actavis may also terminate the agreement for convenience in specified circumstances upon 90 days' prior written notice.

We applied revenue recognition guidance to determine whether the performance obligations under this collaboration, including the license, participation on steering committees, development services, and manufacturing and supply services, could be accounted for separately or as a single unit of accounting. We determined that these obligations represent a single unit of accounting and will recognize revenue as product is supplied to Actavis. Therefore, we have recorded \$5.1 million and \$4.0 million of total billed and billable milestones and development expenses related to the Actavis agreement as deferred revenue in liabilities of discontinued operations as of December 31, 2016 and 2015, respectively.

On April 3, 2017, in connection with the completion of the asset sale, the Actavis agreement was assigned to Ipsen.

Silver Creek Pharmaceuticals, Inc.

In 2010, we established Silver Creek Pharmaceuticals, Inc., or Silver Creek, as a subsidiary. Silver Creek's mission is to apply our systems biology approach to the research and development of regenerative medicines to repair the heart. On December 31, 2014, \$1.0 million of convertible notes and related accrued interest converted to shares of Silver Creek Series A preferred stock. During the year ended December 31, 2015, Silver Creek issued and sold a total of 1.6 million shares of its Series B preferred stock to investors at a price per share of \$1.35 and received net proceeds of \$2.1 million, after deducting issuance costs. During the year ended December 31, 2016, \$1.2 million of convertible notes and related accrued interest were converted to shares of Silver Creek Series C preferred stock. In addition, Silver Creek sold 1.5 million additional shares of its Series C preferred stock to investors at a price per share of \$1.50 and received net cash proceeds of \$2.1 million, after deducting issuance costs. In conjunction with this sale, Silver Creek also issued warrants to purchase 1.9 million shares of Silver Creek Series C preferred stock to the same new investors.

The warrants to purchase Silver Creek Series C preferred stock were classified as a current liability in accordance with Accounting Standards Codification, or ASC, 480, *Distinguishing Liabilities from Equity*, and initially measured at fair value. The fair value of the warrants was deducted from the total Silver Creek Series C preferred stock proceeds received by Silver Creek, and the remaining proceeds received were allocated to the Silver Creek Series C preferred stock, as outlined more fully in Note 6, "Fair Value of Financial Instruments," and Note 11, "Borrowings," in the accompanying notes to the consolidated financial statements. The fair value of the warrants was determined to be \$1.5 million as of December 31, 2016.

As of December 31, 2016 and 2015, we owned approximately 50% and 56%, respectively, of the outstanding voting stock of Silver Creek. We concluded that Silver Creek is a variable interest entity and that we are the primary beneficiary. We have the ability to direct the activities of Silver Creek through our ownership percentage and through the board of directors seats controlled by us and our de facto agents, and therefore, we consolidate Silver Creek for financial reporting purposes.

In the future, we may consider forming additional businesses or business units to apply our systems biology approach to multiple additional disease areas outside the oncology field. We expect to do so in some cases, as with Silver Creek, through the establishment of separately funded companies.

Financial Obligations Related to the License and Development of ONIVYDE

In September 2005, Hermes BioSciences, Inc., or Hermes, which we acquired in October 2009, entered into a license agreement with PharmaEngine, Inc., or PharmaEngine, under which PharmaEngine received an exclusive license to research, develop, manufacture and commercialize ONIVYDE in Europe and certain countries in Asia. In May 2011, we entered into a new agreement with PharmaEngine, which we refer to as the PharmaEngine agreement, under which we reacquired all previously licensed rights for ONIVYDE, other than rights to commercialize ONIVYDE in Taiwan. As a result, we had the exclusive right to commercialize ONIVYDE in all territories in the world, except for Taiwan, where PharmaEngine has an exclusive commercialization right. Upon entering into the PharmaEngine agreement, we paid PharmaEngine a \$10.0 million upfront license fee. In addition, we made a milestone payment of \$5.0 million to PharmaEngine in connection with dosing the first patient in our Phase 3 clinical trial of ONIVYDE, which occurred and was paid in the first quarter of 2012.

On September 22, 2014, we amended the PharmaEngine agreement to redefine sublicense revenue and reduce the portion of sublicense revenue that we are required to pay to PharmaEngine. As a result of this amendment, we made a \$7.0 million milestone payment to PharmaEngine. Additionally, as a result of this amendment, a previously contingent \$5.0 million milestone payment was paid in the second quarter of 2015. Prior to the amendment of the PharmaEngine agreement, this milestone payment was contingent upon the award of certain specified regulatory designations. These milestone payments were recognized as research and development expense during the year ended December 31, 2014.

Since entering into the PharmaEngine agreement, we have paid PharmaEngine an aggregate of \$73.5 million in upfront license fees and milestone payments. This amount includes an \$11.0 million milestone payment made in July 2015 in connection with the EMA's acceptance for review of an MAA for ONIVYDE, which occurred, and was recognized as research and development expense, in the second quarter of 2015, a \$10.0 million milestone payment made in June 2016 in connection with the MFDS's acceptance for review of a new drug application for ONIVYDE, which occurred, and was recognized as research and development expense, in the second quarter of 2016, and a \$25.5 million milestone payment made in December 2016 in connection with Baxalta's receipt of marketing authorization from the European Commission for ONIVYDE in combination with 5-FU and leucovorin for the treatment of adult patients with metastatic adenocarcinoma of the pancreas who have progressed following gemcitabine-based therapy, which occurred, and was recognized as research and development expense, in the fourth quarter of 2016.

In addition to these amounts, we could also be required to pay PharmaEngine up to an additional \$25.0 million in aggregate regulatory milestones, \$38.0 million in sublicense fees and \$130.0 million in aggregate sales milestones, in each case with respect to Europe and certain countries in Asia. PharmaEngine is also entitled to tiered royalties on net sales of ONIVYDE in Europe and certain countries in Asia. The royalty rates under the PharmaEngine agreement range from high single digits up to the low teens as a percentage of our net sales of ONIVYDE in these territories. Under the PharmaEngine agreement, we are responsible for all future development costs of ONIVYDE except those required specifically for regulatory approval in Taiwan.

During the years ended December 31, 2016, 2015 and 2014, we recognized research and development expenses related to the PharmaEngine agreement within income (loss) from discontinued operations, net of tax of \$35.6 million, \$11.4 million and \$12.6 million, respectively, which included \$35.5 million of expenses related to milestone payments in 2016, \$11.0 million of expenses related to milestone payments in 2015 and \$12.0 million of expenses related to milestone payments in 2014.

Under the PharmaEngine agreement, we are also obligated to pay PharmaEngine royalties on Baxalta's net sales of ONIVYDE in the licensed territory. We record these royalty expenses in the period that the related sales occur, and such royalty expenses are recorded as a component of "Cost of revenues" within our consolidated statements of operations and comprehensive loss. During the year ended December 31, 2016, we recorded \$0.1 million of royalty expenses related to PharmaEngine with income (loss) from discontinued operations, net of tax.

In August 2015, we also entered into a commercial supply agreement with PharmaEngine, or the PharmaEngine supply agreement, pursuant to which we supply ONIVYDE to PharmaEngine.

On April 3, 2017, in connection with the asset sale, the PharmaEngine agreement and all related agreements and any associated obligations, including our agreement related to our commercial supply of ONIVYDE to PharmaEngine, were assigned to Ipsen.

Our financial obligations under other license and development agreement are summarized below under "Liquidity and Capital Resources—Contractual obligations and commitments."

Financial Operations Overview

Revenues

Our revenue through December 31, 2016 has been derived from license fees, milestone payments and research, development, manufacturing and other payments received from collaborations, as well as from sales of ONIVYDE. We did not recognize any revenue related to the Sanofi agreement during the years ended December 31, 2016 or 2015, nor do we anticipate recording any revenues related to the Sanofi agreement in the future, due to the termination of the Sanofi agreement effective December 17, 2014.

As a result of the asset sale, all revenue related to the commercial business has been reclassified under discontinued operations.

In the future, we may generate revenue from a combination of research and development payments, license fees and other upfront payments, milestone payments, product sales and royalties in connection with future collaborations and licenses. We expect that any revenue we generate will fluctuate in future periods as a result of the timing of our or a collaborator's achievement of preclinical, clinical, regulatory and commercialization milestones, if at all, the timing and amount of any payments to us relating to such milestones and the extent to which any of our product candidates are approved and successfully commercialized by us or a collaborator. If we fail, or any future collaborator fails, to develop product candidates in a timely manner or obtain regulatory approval for them, our ability to generate future revenue, and our results of operations and financial position, would be materially adversely affected.

Research and development expenses

Research and development expenses consist of the costs associated with our research and discovery activities, including investment in our systems biology approach, conduct of preclinical studies and clinical trials, manufacturing development efforts and activities related to regulatory filings. Our research and development expenses consist of:

- employee salaries and related expenses, which include stock-based compensation and benefits for the personnel involved in our drug discovery and development activities;
- external research and development expenses incurred under agreements with third-party contract research organizations and investigative sites;
- manufacturing material expense for in-house manufacturing and third-party manufacturing organizations and consultants, including costs associated with manufacturing product prior to product approval;
- license fees for and milestone payments related to in-licensed products and technologies; and
- facilities, depreciation and other allocated expenses, which include direct and allocated expenses for rent and maintenance of facilities, depreciation of leasehold improvements and equipment, and laboratory and other supplies.

We expense research and development costs as incurred. Conducting a significant amount of research and development is central to our business model. Product candidates in late stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of late stage clinical trials. As a result of the further reduction in headcount and re-focusing of our development efforts announced in January 2017, we expect our research and development expenses to decrease in future periods as compared to the year ended December 31, 2016. We will still incur research and development expenses for the foreseeable future as we continue to develop our clinical stage product candidates and further advance our preclinical products and earlier stage research and development projects.

We use our employee and infrastructure resources across multiple research and development programs. We track expenses related to our most advanced product candidates on a per project basis. Accordingly, we allocate internal employee-related and infrastructure costs, as well as third-party costs, to each of these programs. We do not allocate to particular development programs either stock-based compensation expense or expenses related to preclinical programs. Costs that are not directly attributable to specific clinical programs, such as wages related to shared laboratory services, travel and employee training and development, are not allocated and are considered general research and discovery expenses.

The following table summarizes our principal product development programs, including the research and development expenses allocated to each clinical product candidate, for the years ended December 31, 2016, 2015 and 2014:

(in thousands)	Years Ended December 31,		
	2016	2015	2014
MM-121	\$ 17,866	\$ 17,829	\$ 10,707
MM-141	13,317	12,236	14,611
MM-310	6,002	9,141	3,704
MM-302	18,810	17,595	13,982
MM-151	3,917	5,329	9,038
Companion therapeutics program	3,328	2,609	—
Preclinical, general research and discovery	40,242	48,578	44,816
Stock-based compensation	6,083	7,716	6,452
Total research and development expenses	<u>\$ 109,565</u>	<u>\$ 121,033</u>	<u>\$ 103,310</u>

In connection with the asset sale, all expenses related to the commercial business have been reclassified under discontinued operations.

The successful development of our clinical and preclinical product candidates is highly uncertain. At this time, other than as discussed below, we cannot reasonably estimate the nature, timing or costs of the efforts that will be necessary to complete the remainder of the development of any of our preclinical or clinical product candidates or the period, if any, in which material net cash flows from these product candidates may commence. This is due to the numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

- the scope, rate of progress and expense of our ongoing, as well as any additional, clinical trials and other research and development activities;
- the potential benefits of our product candidates over other therapies;
- our ability to market, commercialize and achieve market acceptance for any of our product candidates that we are developing or may develop in the future;
- future clinical trial results;
- the terms and timing of regulatory approvals; and
- the expense of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights.

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

MM-121 (seribantumab)

As described in our most recent Quarterly Report on Form 10-Q, in February 2015, we initiated the Phase 2 randomized SHERLOC clinical trial of MM-121 in patients with heregulin positive non-small cell adenocarcinoma of the lung, and we anticipate top-line results in the second half of 2018. Additionally, we have initiated trial sites for the Phase 2 randomized SHERBOC clinical trial of MM-121 in patients with heregulin positive, hormone receptor positive, ErbB2 (HER2) negative, metastatic breast cancer, and expect to dose the first patient in the SHERBOC clinical trial in the fourth quarter of 2017.

MM-141 (istiratumab)

As described in our most recent Quarterly Report on Form 10-Q, in May 2015, we initiated the Phase 2 randomized CARRIE clinical trial of MM-141 in patients with previously untreated metastatic pancreatic cancer with high levels of free IGF-1 in combination with nab-paclitaxel and gemcitabine. Enrollment in the CARRIE clinical trial is complete, and we anticipate top-line results in the first half of 2018.

MM-310

As described in our most recent Quarterly Report on Form 10-Q, in March 2017, we initiated a Phase 1 clinical trial of MM-310 in solid tumors to assess the safety and preliminary activity of MM-310. We expect safety data and the recommended Phase 2 dose in the second half of 2018.

MM-302

In August 2014, we initiated a global, open-label, randomized Phase 2 clinical trial of MM-302 in combination with trastuzumab (Herceptin®) in patients with ErbB2 (HER2) positive, locally advanced or metastatic breast cancer. Prior to initiating the Phase 2 clinical trial of MM-302, we conducted a Phase 1 clinical trial of MM-302 in patients with advanced ErbB2 (HER2) positive breast cancer. We reported final results from this trial in April 2015.

In December 2016, we determined that we would be stopping the ongoing Phase 2 clinical trial of MM-302. The decision to stop the trial was made following an independent Data and Safety Monitoring Board, or DSMB, opinion that continuing the clinical trial would be unlikely to demonstrate benefit over the comparator treatments. Subsequent to this recommendation, a futility assessment was performed that confirmed the DSMB's opinion. Both the treatment and control arms were found to have shorter than expected median progression free survival. While patients currently enrolled in the clinical trial may choose to continue on their assigned treatment based upon discussion with their study physician, no further development of MM-302 is being contemplated by us at this time. As a result of this determination, we recorded a non-cash impairment charge of \$2.8 million during the fourth quarter of 2016 related to an in-process research and development, or IPR&D, asset associated with MM-302. This impairment charge is a component of the \$18.8 million of total MM-302 expenses incurred during the year ended December 31, 2016.

MM-151

We have completed a Phase 1 clinical trial of MM-151 as a monotherapy and in combination with irinotecan in patients with solid tumors.

Based on the results of our strategic pipeline review that was completed in January 2017, further investment in MM-151 is being deferred at this time.

Companion therapeutics program

We are evaluating combinations of our therapeutic oncology candidates, but further investment in the companion therapeutics program is being deferred at this time.

General and administrative expenses

General and administrative expenses consist primarily of salaries and other related costs for personnel, including stock-based compensation expenses and benefits, in our commercial, legal, intellectual property, business development, finance, information technology, corporate communications, investor relations and human resources departments. Other selling, general and administrative expenses include employee training and development, board of directors costs, depreciation, insurance expenses, facility-related costs not otherwise included in research and development expenses, professional fees for legal services, including patent-related expenses, and accounting and information technology services. As a result of the further reduction in headcount and re-focusing of our development efforts announced in January 2017, we expect our selling, general and administrative expenses to decrease in future periods as compared to the year ended December 31, 2016.

Restructuring expenses

As a result of the October 2016 corporate restructuring activities described above, we recognized total restructuring expenses of \$5.7 million during the year ended December 31, 2016 related to stock-based compensation expense for certain terminated employees, contractual termination benefits for employees with pre-existing severance arrangements and one-time employee termination benefits. These one-time employee termination benefits were comprised of severance, benefits and related costs, all of which resulted in cash expenditures during the third and fourth quarters of 2016.

Interest expense

Interest expense consists primarily of cash and non-cash interest related to our convertible notes and our 2022 notes.

As a result of the conversion agreements entered into on April 13, 2016, we recognized a one-time \$14.6 million non-cash loss on extinguishment during the second quarter of 2016. This loss on extinguishment was recorded as a component of interest expense. Transaction costs incurred with third parties directly related to the conversion were allocated to the liability and equity components, resulting in additional interest expense recognized of \$0.2 million during the second quarter of 2016. We expect that interest expense will decrease in subsequent periods as compared to the year ended December 31, 2016 due to the one-time loss on extinguishment recognized in the second quarter of 2016, as well as an overall reduction in outstanding long-term debt as a result of the conversion.

Other (expense) income, net

Other (expense) income, net consists primarily of income related to tax incentive awards, foreign currency gains and losses and other income or expense-related items.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which we have prepared in accordance with the rules and regulations of the Securities and Exchange Commission, or the SEC, and generally accepted accounting principles in the United States, or GAAP. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenues and expenses during the reporting periods. We evaluate our estimates and judgments on an ongoing basis. Estimates included in continuing and discontinuing operations include revenue recognition, including the estimated percentage of billable expenses in any particular budget period, periods of meaningful use of licensed products, estimated service periods and services to be completed under a collaboration, estimates used in accounting for revenue separability and recognition, estimates of discounts and allowances related to commercial sales of ONIVYDE, estimates utilized in the valuation of inventory, useful lives with respect to long-lived assets and intangible assets, accounting for stock-based compensation, contingencies, intangible assets, goodwill, IPR&D, tax valuation reserves and accrued expenses. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Our actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 1 to our consolidated financial statements appearing at the end of this Exhibit, we believe that the following accounting policies are the most critical to aid you in fully understanding and evaluating our financial condition and results of operations.

Inventory

We value our inventories at the lower of cost or net realizable value. We determine the cost of our inventories, which includes amounts related to materials and manufacturing overhead, on a first-in, first-out basis. We perform an assessment of the recoverability of capitalized inventory during each reporting period, and we write down any excess and obsolete inventories to their realizable value in the period in which the impairment is first identified. Such impairment charges, should they occur, are recorded as a component of "Cost of revenues."

We capitalize inventory costs associated with our products after regulatory approval when, based on our judgment, future commercialization is considered probable and the future economic benefit is expected to be realized. Inventory acquired prior to receipt of marketing approval of a product candidate is expensed as research and development expense as incurred. Inventory that can be used in either the production of clinical or commercial product is expensed as research and development expense when selected for use in a clinical manufacturing campaign.

Shipping and handling costs for product shipments are recorded as incurred as a component of "Cost of revenues" along with amortization expense related to definite-lived intangible assets, costs associated with manufacturing the product and any inventory reserves or write-downs.

As a result of the asset sale, all inventory relates to the commercial business has been reclassified under discontinued operations.

Goodwill and intangible assets

Goodwill and indefinite-lived intangible assets, including IPR&D assets, are evaluated for impairment on an annual basis or more frequently if an indicator of impairment is present. We perform our annual goodwill and IPR&D impairment evaluations on August 31st.

When performing an evaluation of goodwill impairment, we have the option to first assess qualitative factors to determine whether it is necessary to perform the quantitative two-step impairment test. If we elect this option and find, as a result of the qualitative assessment, that it is more likely than not that the fair value of the reporting unit is less than its carrying amount, the quantitative two-step impairment test is required; otherwise, further testing is not required. This requires us to assess the impact of significant events, milestones and changes to expectations and activities that may have occurred since the last impairment evaluation. Significant changes to these estimates, judgments and assumptions could materially change the outcome of the impairment assessment. Alternatively, we may elect to not first assess qualitative factors and immediately perform the quantitative two-step impairment test. If such an election occurs, in the first step, the fair value of our reporting unit is compared to the carrying value. If the carrying value of the net assets assigned to the reporting unit exceeds the fair value of the reporting unit, then the second step of the impairment test is performed in order to determine the implied fair value of the reporting unit's goodwill. If the carrying value of the reporting unit's goodwill exceeds the implied fair value, we would record an impairment loss equal to the difference. We operate in one operating segment, which is considered the only reporting unit.

We commence amortization of indefinite-lived intangible assets, such as IPR&D, once the associated research and development efforts have been completed. We amortize these product-related intangible assets over their estimated useful lives, and amortization expense is recorded as a component of "Cost of revenues." We amortize other definite-lived assets, such as core technology, over their estimated useful lives as a component of "Research and development expenses." Definite-lived intangible assets are evaluated for impairment whenever events or circumstances indicate that the carrying value may not be fully recoverable.

As a result of the asset sale, all goodwill and intangible assets related to the commercial business has been reclassified under discontinued operations.

Accrued expenses

As part of the process of preparing financial statements, we are required to estimate accrued expenses. This process involves identifying services that have been performed on our behalf and estimating the level of services performed and the associated costs incurred for such services where we have not yet been invoiced or otherwise notified of actual cost. We record these estimates in our consolidated financial statements as of each balance sheet date. Examples of estimated accrued expenses include:

- fees due to contract research organizations in connection with preclinical and toxicology studies and clinical trials;
- fees paid to investigative sites in connection with clinical trials; and
- professional service fees.

In accruing service fees, we estimate the time period over which services will be provided and the level of effort in each period. If the actual timing of the provision of services or the level of effort varies from the estimate, we will adjust the accrual accordingly. In the event that we do not identify costs that have been incurred or we under or overestimate the level of services performed or the costs of such services, our actual expenses could differ from such estimates. The date on which some services commence, the level of services performed on or before a given date and the cost of such services are often subjective determinations. We make estimates based on the facts and circumstances known to us at the time and in accordance with GAAP. There have been no material changes in estimates for the periods presented.

Revenue recognition

We recognize revenue when all of the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the price to the customer is fixed or determinable; and collectability is reasonably assured.

Product revenues, net

We sell ONIVYDE to a limited number of specialty pharmaceutical distributors, or distributors, in the United States. Our distributors subsequently resell the products to healthcare providers. We recognize revenue on product sales when title and risk of loss have passed to the distributor, which is typically upon delivery. Product revenues are recorded net of applicable reserves for discounts and allowances. As a result of the asset sale, all product revenue relates to the commercial business and has been reclassified under discontinued operations.

In order to conclude that the price is fixed or determinable, we must be able to reasonably estimate our net product revenues upon delivery to our distributors. As such, we estimate our net product revenues by deducting from our gross product revenues trade allowances, estimated contractual discounts, estimated Medicaid rebates, estimated reserves for product returns and estimated costs of other incentives offered to patients.

These discounts and allowances are based on estimates of the amounts earned or to be claimed on the related sales. Our estimates take into consideration our historical experience, current contractual and statutory requirements, specific known market events and trends, industry data and forecasted distributor buying and payment patterns. Actual amounts may ultimately differ from our estimates. If actual results vary, we will adjust these estimates, which could have an effect on earnings in the period of adjustment.

Product revenue reserves and allowances that reduce gross revenue are categorized as follows:

Trade allowances: We pay fees to our distributors for providing certain data to us as well as for maintaining contractual inventory and service levels. These trade allowances are recorded as a reduction to accounts receivable on the consolidated balance sheet at the time revenue is recognized.

Rebates and chargeback discounts: We are subject to discount obligations under state Medicaid programs and the Public Health Service 340B Drug Pricing Program, contracts with Federal government entities purchasing via the Federal Supply Schedule and various private organizations, such as group purchasing organizations (which we collectively refer to as third-party payors). We estimate the rebates and chargeback discounts we will provide to third-party payors, based upon our expected payor mix, and deduct these estimated amounts from our gross product revenues at the time revenue is recognized. Chargeback discounts are processed when the third-party payor purchases the product at a discount from the distributor, who then in turn charges back to us the difference between the price initially paid by the distributor and the discounted price paid by the third-party payor. These chargeback discounts are recorded as a reduction to accounts receivable on the consolidated balance sheet at the time revenue is recognized. Rebates that are invoiced directly to us are recorded as accrued liabilities on the consolidated balance sheet at the time revenue is recognized.

Product returns: An allowance for product returns is established for returns expected to be made by distributors and is recorded at the time revenue is recognized, resulting in a reduction to product sales. In accordance with contractual terms, distributors have the right to return unopened and undamaged product that is within a permissible number of months before and after the product's expiration date, subject to contractual limitations. We have the ability to monitor inventory levels and the shelf life of product at distributors and can contractually control the amount of inventory that is sold to distributors. Based on inventory levels held by distributors and the structure of our distribution model, we have concluded that we have the ability to reasonably estimate product returns at the time revenue is recognized. Our estimated rate of return is based on historical rates of return for comparable oncology products.

Other incentives: We offer co-pay mitigation support to commercially insured patients. Our co-pay mitigation program is intended to reduce each participating patient's portion of the financial responsibility for a product's purchase price to a specified dollar amount. Based upon the terms of our co-pay mitigation program, we estimate average co-pay mitigation amounts in order to establish a reserve for co-pay mitigation claims and deduct these estimated amounts from our gross product revenues at the later of the date that (i) the revenues are recognized or (ii) the incentive is offered. Claims under our co-pay mitigation program are subject to expiration.

As a result of the asset sale, all product revenue and related reserves on the balance sheet have been reclassified under discontinued operations.

License and collaboration revenues

We enter into biopharmaceutical product development agreements with collaborative partners for the research and development of therapeutic and diagnostic products. The terms of these agreements may include nonrefundable signing and licensing fees, funding for research, development and manufacturing, milestone payments and royalties or profit-sharing on any product sales derived from collaborations. These multiple-element arrangements are analyzed to determine whether the deliverables can be separated or whether they must be accounted for as a single unit of accounting.

The revenue recognition guidance related to multiple-element arrangements requires entities to separate and allocate consideration in a multiple-element arrangement according to the relative selling price of each deliverable. The fair value of deliverables under the arrangement may be derived using a best estimate of selling price if vendor specific objective evidence and third-party evidence are not available. Deliverables under the arrangement will be separate units of accounting provided that a delivered item has value to the customer on a stand-alone basis and if the arrangement does not include a general right of return relative to the delivered item and delivery or performance of the undelivered item is considered probable and substantially in the control of the vendor.

We entered into the Baxalta agreement in September 2014, which was evaluated under the accounting guidance on revenue recognition for multiple-element arrangements. We determined that the obligations under this agreement represent a single unit of accounting and that the agreement represents a services agreement. As a result, we have estimated the level of effort expected to be completed and the consideration expected to be received from Baxalta as a result of providing the identified deliverables and will

recognize revenue related to the agreement based on proportional performance as effort is completed over the expected services period. As a result of the asset sale, all revenue related to the commercial business has been reclassified under discontinued operations.

We entered into the Actavis agreement in November 2013, which was evaluated under the accounting guidance on revenue recognition for multiple-element arrangements. We determined that the obligations represent a single unit of accounting and will recognize revenue as product is supplied to Actavis. Therefore, we have deferred total billed and billable milestones and development expenses related to this agreement. All milestone payments received and development expenses reimbursed until the period of commercialization will be deferred, and upon commercialization will be recognized over the delivery period of the bulk drug product to Actavis.

All operating results recognized related to the Baxalta and Actavis agreements are presented as income (loss) from discontinued operations, net of tax in the condensed consolidated statements of operations for all periods presented. In addition, in the condensed consolidated balance sheet as of December 31, 2016, 2015 and 2014, the assets and liabilities related to the Baxalta and Actavis agreements have been presented separately.

Whenever we determine that an arrangement should be accounted for as a single unit of accounting, we determine the period over which the performance obligations would be performed and revenue would be recognized. If we cannot reasonably estimate the timing and the level of effort to complete our performance obligations under the arrangement, then revenue under the arrangement is recognized on a straight-line basis over the period we expect to complete our performance obligations.

Our collaboration agreements may include additional payments upon the achievement of performance-based milestones. As milestones are achieved, a portion of the milestone payment, equal to the percentage of the total time that we have performed the performance obligations to date divided by the total estimated time to complete the performance obligations, multiplied by the amount of the milestone payment, will be recognized as revenue upon achievement of such milestone. The remaining portion of the milestone will be recognized over the remaining performance period. Milestones that are tied to regulatory approvals are not considered probable of being achieved until such approval is received. Milestones tied to counterparty performance are not included in our revenue model until the performance conditions are met.

As a result of the asset sale, all license and collaboration revenue related to the commercial business has been reclassified under discontinued operations.

Other revenues

We are a party to separate commercial supply agreements with Baxalta and PharmaEngine pursuant to which we supply ONIVYDE to these entities. Revenue is recognized under these commercial supply arrangements when the counterparty takes delivery of the commercial supply product and when the other general revenue recognition criteria outlined above are met.

We are also eligible to receive royalty revenues on Baxalta's net sales of ONIVYDE in the licensed territory. We recognize royalty revenues in the period that the related sales occur.

Stock-based compensation expense

We account for our stock-based compensation awards in accordance with ASC 718, *Compensation – Stock Compensation*. ASC 718 requires all share-based payments to employees, including grants of employee stock options, to be recognized in the consolidated statements of operations and comprehensive loss based on their grant date fair values. For stock options granted to employees and to members of our board of directors for their service on the board of directors, we estimate the grant date fair value of each option award using the Black-Scholes option pricing model. The use of the Black-Scholes option pricing model requires us to make assumptions with respect to the expected term of the option, the expected volatility of our common stock consistent with the expected term of the option, the risk-free interest rate consistent with the expected term of the option and the expected dividend yield of our common stock. Stock-based compensation expense related to employee stock options is measured using the fair value of the award at the grant date, net of estimated forfeitures, and is adjusted annually to reflect actual forfeitures. Stock-based compensation expense is then recognized on a straight-line basis over the vesting period, which is also the requisite service period.

We record stock options issued to non-employees at fair value, remeasure to reflect the current fair value at each reporting period and recognize expense over the related service period. When applicable, these equity instruments are accounted for based on the fair value of the consideration received or the fair value of the equity instrument issued, whichever is more reliably measurable.

Results of Operations

Comparison of the years ended December 31, 2016 and 2015

(in thousands)	Years Ended December 31,	
	2016	2015
Research and development expenses	\$ (109,565)	\$ (121,033)
General and administrative expenses	(32,052)	(24,048)
Restructuring expenses	(5,710)	—
Loss from continuing operations	(147,327)	(145,081)
Interest income	276	99
Interest expense	(22,449)	(18,769)
Other (expense) income, net	(8)	917
Net loss from continuing operations before income tax benefit	(169,508)	(162,834)
Income tax benefit	13,224	11,215
Net loss from continuing operations	<u>\$ (156,284)</u>	<u>\$ (151,619)</u>

Research and development expenses

Research and development expenses were \$109.6 million for the year ended December 31, 2016 compared to \$121.0 million for the year ended December 31, 2015, a decrease of \$11.4 million, or 9%. This decrease was primarily attributable to:

- \$3.1 million of decreased MM-310 expenses primarily due to the timing of preclinical research activities and cost conservation measures implemented during 2016;
- \$1.4 million of decreased MM-151 expenses primarily due to the completion of the Phase 1 clinical trial of MM-151 as a monotherapy and in combination with irinotecan in patients with solid tumors during 2015;
- \$8.3 million of decreased expenses related to preclinical, general research and discovery as a result of our cost management efforts and the timing of manufacturing campaigns for our preclinical programs; and
- \$1.6 million of decreased stock-based compensation expenses primarily due to a reduction in our headcount and a decrease in our stock price over the course of the year ended December 31, 2016.

These decreases were partially offset by:

- \$1.1 million of increased MM-141 expenses related to increased costs associated with our ongoing Phase 2 clinical trial, which was initiated in May 2015; and
- \$1.2 million of increased MM-302 expenses primarily attributable to the non-cash impairment charge of \$2.8 million recognized during the fourth quarter of 2016 related to the MM-302 IPR&D asset, offset by decreased activity in our Phase 2 clinical trial of MM-302 in locally advanced or metastatic breast cancer.

General and administrative expenses

General and administrative expenses were \$32.1 million for the year ended December 31, 2016 compared to \$24.0 million for the year ended December 31, 2015, an increase of \$8.1 million, or 34%. This increase was primarily attributable to increased labor and labor-related expenses and facility-related costs.

Restructuring expenses

We recognized total restructuring expenses of \$5.7 million during the year ended December 31, 2016 related to our October 2016 corporate restructuring activities described above. No restructuring expenses were recognized during the year ended December 31, 2015.

Interest expense

Interest expense was \$22.5 million for the year ended December 31, 2016, compared to \$18.8 million for the year ended December 31, 2015. This increase was primarily attributable to a one-time non-cash charge of \$14.6 million associated with the induced conversion of an aggregate principal amount of \$64.2 million of our convertible notes in April 2016, offset by a decrease in

interest expense related to our previously outstanding loans payable to Hercules Technology Growth Capital, Inc., or Hercules, that were repaid in full during December 2015.

Other (expense) income, net

Other (expense) income, net was less than \$0.1 million for the year ended December 31, 2016. Other (expense) income, net was \$0.9 million for the year ended December 31, 2015, which was primarily related to the amortization of Massachusetts Life Sciences Center, or MLSC, tax incentives.

Income tax benefit (expense)

We recognized an income tax benefit of \$13.2 million in continuing operations and an income tax expense of \$13.2 million in discontinued operations for the year ended December 31, 2016. We recognized an income tax benefit of \$11.2 million in continuing operations and an income tax expense of \$11.2 million in discontinued operations for the year ended December 31, 2015.

Discontinued operations

We recognized income from discontinued operations, net of tax of \$2.8 million for the year ended December 31, 2016, compared to income from discontinued operations, net of tax of \$3.8 million recognized for the year ended December 31, 2015.

Comparison of the years ended December 31, 2015 and 2014

(in thousands)	Years Ended December 31,	
	2015	2014
Collaboration revenues	\$ —	\$ 92,296
Research and development expenses	(121,033)	(103,310)
General and administrative expenses	(24,048)	(18,766)
Loss from continuing operations	(145,081)	(29,780)
Interest income	99	114
Interest expense	(18,769)	(18,230)
Other income, net	917	813
Net loss from continuing operations before income tax benefit	(162,834)	(47,083)
Income tax benefit	11,215	—
Net loss from continuing operations	<u>\$ (151,619)</u>	<u>\$ (47,083)</u>

Collaboration revenues

Collaboration revenues were zero for the year ended December 31, 2015 compared to \$92.3 million for the year ended December 31, 2014, a decrease of \$92.3 million, or 100%. The decrease was primarily attributable to the reassessment of the development period of our collaboration with Sanofi during 2014 based on the decision to terminate the arrangement effective December 17, 2014. As a result, no revenues related to our collaboration with Sanofi were recognized during 2015.

Research and development expenses

Research and development expenses were \$121.0 million for the year ended December 31, 2015 compared to \$103.3 million for the year ended December 31, 2014, an increase of \$17.7 million, or 17%. This increase was primarily attributable to:

- \$7.1 million of increased MM-121 expenses primarily due to manufacturing costs incurred related to the initiation of our Phase 2 clinical trial in metastatic non-small cell adenocarcinoma of the lung;

- \$5.4 million of increased MM-310 expenses primarily related to preclinical studies performed;
- \$3.6 million of increased MM-302 expenses as a result of the initiation of our Phase 2 clinical trial of MM-302 in breast cancer in August 2014;
- \$2.6 million of increased expenses related to our companion therapeutics program that was initiated in 2015;
- \$3.8 million of increased expenses related to preclinical studies, general research and discovery primarily due to an increased number of preclinical programs in our pipeline, increased headcount and increased size and frequency of manufacturing runs; and
- \$1.3 million of increased stock-based compensation expenses primarily due to the annual grant of stock options to employees as well as increased employee headcount.

These increases were partially offset by:

- \$2.4 million of decreased MM-141 expenses primarily due to the completion of our Phase 1 trial and timing of costs associated with our ongoing Phase 2 clinical trial, which was initiated in May 2015; and
- \$3.7 million of decreased MM-151 expenses primarily due to the timing of costs associated with our Phase 1 clinical trial, diagnostic efforts and a manufacturing campaign.

General and administrative expenses

General and administrative expenses were \$24.0 million for the year ended December 31, 2015 compared to \$18.8 million for the year ended December 31, 2014, an increase of \$5.2 million, or 28%. This increase was primarily attributable to an increase in labor and labor-related expenses required to support our overall growth.

Interest expense

Interest expense was \$18.8 million for the year ended December 31, 2015 compared to \$18.2 million for the year ended December 31, 2014. The increase is consistent with the interest expense recognized on the Hercules Loans that was repaid in full in December of 2015.

Other income, net

Other income, net was \$0.9 million and \$0.8 million for the years ended December 31, 2015 and 2014, respectively, which was primarily related to the amortization of MLSC tax incentives.

Income tax benefit (expense)

We recognized an income tax benefit of \$11.2 million in continuing operations and an income tax expense of \$11.2 million in discontinued operations for the year ended December 31, 2015. No income tax expense or benefit was recognized for the year ended December 31, 2014.

Discontinued operations

We recognized income from discontinued operations, net of tax of \$3.8 million for the year ended December 31, 2015, compared to a loss from discontinued operations, net of tax of \$36.5 million recognized for the year ended December 31, 2014. The change in income (loss) from discontinued operations was primary attributable to product revenue recognized in the fourth quarter of 2015 and an increase in collaboration revenue from the Baxalta agreement recognized for the year ended December 31, 2015.

Liquidity and Capital Resources

Sources of liquidity

We have financed our operations through December 31, 2016 primarily through private placements of our convertible preferred stock, collaborations, public offerings of our securities, secured debt financings and sales of ONIVYDE. Through December 31, 2016, we have received \$268.2 million from the sale of convertible preferred stock and warrants, \$126.7 million of net proceeds from the sale of common stock in our initial public offering and a July 2013 follow-on underwritten public offering, \$38.6 million of net proceeds from our 2015 “at the market offering” program, or the ATM offering, \$39.6 million of net proceeds from a secured debt

financing, \$120.6 million of net proceeds from the issuance of the convertible notes in our July 2013 underwritten public offering, \$168.5 million of net proceeds from the issuance of the 2022 notes, \$483.4 million of upfront license fees, milestone payments, reimbursement of research and development costs and manufacturing services and other payments from our collaborations and \$45.1 million of cash receipts related to ONIVYDE sales. We have also entered into an arrangement to use our manufacturing capabilities to manufacture drug product on behalf of Actavis, for which we have received \$4.9 million in upfront fees and reimbursements as of December 31, 2016. As of December 31, 2016, we had unrestricted cash and cash equivalents of \$21.5 million.

In April 2012, we closed our initial public offering pursuant to a registration statement on Form S-1, as amended. We sold an aggregate of 1,504,246 shares of common stock under the registration statement at a public offering price of \$70.00 per share, including 74,246 shares pursuant to the exercise by the underwriters of an over-allotment option. Net proceeds were approximately \$98.1 million, after deducting underwriting discounts and commissions and other offering expenses but prior to the payment of dividends on our Series B convertible preferred stock. At the time of our initial public offering, our convertible preferred stock and warrants to purchase convertible preferred stock automatically converted to common stock and warrants to purchase common stock, respectively.

On November 8, 2012, we entered into a Loan and Security Agreement, or the loan agreement, with Hercules. The loan agreement provided for an initial term loan advance of \$25.0 million, which closed on November 8, 2012, and an additional term loan advance of \$15.0 million, which closed on December 14, 2012 and resulted in aggregate net proceeds of \$39.6 million. During the fourth quarter of 2015, we repaid the loans in full in conjunction with the issuance of the 2022 notes. We also paid an additional fee of \$1.2 million that was due upon full repayment of the loans, as well as interest accrued through the repayment date.

On July 17, 2013, we sold an aggregate of 575,000 shares of our common stock at a price to the public of \$50.00 per share and issued \$125.0 million aggregate principal amount of 4.50% convertible notes in concurrent underwritten public offerings. As a result of the concurrent common stock offering and convertible notes offering, we received aggregate net proceeds of approximately \$147.3 million, after deducting underwriting discounts and commissions and offering expenses payable by us.

On July 13, 2015, we entered into a sales agreement with Cowen to sell, from time to time, shares of our common stock having an aggregate sales price of up to \$40.0 million through the ATM offering under which Cowen acted as sales agent. We concluded sales under the ATM offering in September 2015, having sold approximately 0.4 million shares of common stock and generating approximately \$38.6 million in net proceeds, after deducting commissions and offering expenses.

On December 22, 2015, we closed a private placement of \$175.0 million aggregate principal amount of 11.50% 2022 notes. As a result of the issuance of the 2022 notes, we received net proceeds of approximately \$168.5 million, after deducting private placement and offering expenses payable by us.

As of December 31, 2016, within our unrestricted cash and cash equivalents, \$1.9 million was cash and cash equivalents held by our majority owned subsidiary, Silver Creek, which is consolidated for financial reporting purposes. This \$1.9 million held by Silver Creek is designated for the operations of Silver Creek.

Cash flows

The following table provides information regarding our cash flows for the years ended December 31, 2016, 2015 and 2014:

(in thousands)	Years Ended December 31,		
	2016	2015	2014
Net cash used in operating activities	\$ (170,241)	\$ (105,356)	\$ (34,808)
Net cash provided by (used in) investing activities	(3,257)	75,110	(6,011)
Net cash provided by financing activities	9,416	180,164	11,421
Net increase (decrease) in cash and cash equivalents	<u>\$ (164,082)</u>	<u>\$ 149,918</u>	<u>\$ (29,398)</u>

Operating activities

Cash used in operating activities was \$170.2 million during the year ended December 31, 2016, of which \$122.9 million was used by continuing operations and \$47.3 million was used by discontinued operations. Cash used in operating activities of \$170.2 million during the year ended December 31, 2016 was primarily a result of our \$156.3 million net loss from continuing operations and a net decrease in operating assets and liabilities of \$7.5 million. The net decrease in operating assets and liabilities during the year ended December 31, 2016 was primarily driven by a decrease in accounts payable and accrued expenses. These decreases were offset by \$40.9 million of non-cash items, including a \$2.8 million IPR&D impairment charge related to MM-302, a \$14.6 million non-cash

loss on extinguishment related to the April 2016 conversion of a portion of our convertible notes, \$12.1 million of stock-based compensation expense and \$6.0 million of non-cash interest expense.

Cash used in operating activities was \$105.4 million during the year ended December 31, 2015, of which \$109.9 million was used by continuing operations and \$4.5 million was provided by discontinued operations. Cash used in operating activities of \$105.4 million during the year ended December 31, 2015 was primarily a result of our \$151.6 million net loss from continuing operations. This net loss was offset by a net increase in operating assets and liabilities of \$17.2 million and non-cash items of \$24.6 million, including \$13.2 million of stock-based compensation expense and \$8.2 million of non-cash interest expense. The net increase in operating assets and liabilities during the year ended December 31, 2015 was primarily driven by an increase in accounts payable and accrued expenses.

Cash used in operating activities was \$34.8 million during the year ended December 31, 2014, of which \$96.3 million was used by continuing operations and \$61.5 million was provided by discontinued operations. Cash used in operating activities of \$34.8 million during the year ended December 31, 2014 was the result of our \$47.1 million net loss from continuing operations, a net decrease in operating assets and liabilities of \$73.0 million and non-cash items of \$22.9 million, including \$12.0 million of stock-based compensation expense and \$8.5 million of non-cash interest expense. The net decrease in operating assets and liabilities during the year ended December 31, 2014 was primarily driven by a decrease in deferred revenues related to the Sanofi agreement.

Investing activities

Cash used in investing activities was \$3.3 million during the year ended December 31, 2016, of which \$2.8 million was used by continuing operations and \$0.5 million was used by discontinued operations. Cash used in investing activities of \$3.3 million for the year ended December 31, 2016 was primarily due to purchases of marketable securities of \$84.3 million in addition to \$2.6 million of property and equipment purchases, offset by proceeds from sales and maturities of marketable securities of \$84.2 million.

Cash provided by investing activities was \$75.1 million during the year ended December 31, 2015, of which \$76.0 million was provided by continuing operations and \$0.9 million was used by discontinued operations. Cash provided by investing activities of \$75.1 million for the year ended December 31, 2015 was primarily due to proceeds from sales and maturities of marketable securities of \$87.9 million, offset by \$11.9 million of property and equipment purchases.

Cash used in investing activities was \$6.0 million during the year ended December 31, 2014, of which \$4.5 million was used by continuing operations and \$1.5 million was used by discontinued operations. Cash used in investing activities of \$6.0 million for the year ended December 31, 2014 was primarily due to \$4.5 million of property and equipment purchases.

Financing activities

Cash provided by financing activities of \$9.4 million for the year ended December 31, 2016 was primarily due to \$6.2 million of proceeds received from the exercise of stock options and \$3.4 million of total proceeds received from the issuance of convertible promissory notes and Series C preferred stock by Silver Creek. Cash provided by financing activities of \$180.2 million for the year ended December 31, 2015 was primarily due to \$38.6 million of net proceeds from our ATM offering, \$10.1 million of proceeds from the exercise of stock options and warrants, \$169.4 million in net proceeds from the issuance of our 2022 notes, after considering the accounting treatment of \$0.9 million of issuance costs that were allocated to the associated debt modification, and \$2.1 million in net proceeds from Series B preferred stock by Silver Creek. These cash proceeds were offset by the repayment of our \$40.0 million in loans payable under the loan agreement with Hercules. Cash provided by financing activities of \$11.4 million for the year ended December 31, 2014 was primarily due to \$10.4 million of proceeds from the exercise of stock options and warrants and \$1.0 million of net proceeds from the convertible notes offered by Silver Creek.

Funding requirements

We have incurred significant expenses and operating losses to date, and we expect to continue to incur significant expenses and operating losses for at least the next several years. We anticipate that we will continue to incur significant expenses as we:

- initiate or continue clinical trials of our most advanced product candidates;
- continue the research and development of our other product candidates;
- seek to discover additional product candidates;
- seek regulatory approvals for our product candidates that successfully complete clinical trials; and

- continue to provide the operational, financial and management information systems and personnel to support our product development.

We believe that at our currently forecasted spending rates, our existing financial resources, together with the net milestone payments we expect to receive under the Baxalta agreement, assuming certain milestones under such agreement are met, will be sufficient to fund our planned operations into the second half of 2019. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, and the extent to which we utilize collaborations with third parties to participate in their development and commercialization, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical trials. Our future capital requirements will depend on many factors, including:

- the progress and results of the clinical trials of our most advanced product candidates;
- our ability to establish and maintain additional collaborations on favorable terms, and the success of any such future collaborations;
- the timing and amount of potential milestone payments related to ONIVYDE that we may receive from Ipsen and Baxalta;
- the scope, progress, results and costs of preclinical development, laboratory testing and clinical trials for our other product candidates;
- the costs, timing and outcome of regulatory review of our current and future product candidates;
- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims; and
- the extent to which we acquire or invest in businesses, products and technologies.

Until such time, if ever, as we can generate sufficient product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, licensing arrangements and other marketing and distribution arrangements. We also could engage in discussions with third parties regarding partnerships, joint ventures, combinations or divestitures of one or more of our businesses as we seek to further the development of our research programs, improve our cash position and maximize stockholder value. There can be no assurance as to the timing, terms or consummation of any financing, collaboration, licensing arrangement or other marketing and distribution arrangement, partnership, joint venture, combination or divestiture. We do not have any committed external sources of funds. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our stockholders. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. For example, if we raise additional funds through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Borrowings

11.50% senior secured notes due 2022

On December 22, 2015, we closed a private placement of \$175.0 million aggregate principal amount of 2022 notes and entered into an indenture with U.S. Bank National Association as trustee and collateral agent. As a result of this placement, we received net proceeds of approximately \$168.5 million, after deducting private placement and offering expenses payable by us. The private placement and offering expenses included \$0.9 million of transaction costs that were expensed in accordance with the debt modification guidance per ASC 470, *Debt*. The 2022 notes bear interest at a rate of 11.50% per year, payable semi-annually on June 15 and December 15 of each year, beginning on June 15, 2016. We will pay semi-annual installments of principal on the 2022 notes of \$21,875,000 each, subject to adjustment as provided in the 2022 notes, on June 15 and December 15 of each year, beginning on June 15, 2019. The 2022 notes will mature on December 15, 2022, unless earlier redeemed or repurchased in accordance with their terms prior to such date.

We may redeem the 2022 notes at our option, in whole or in part from time to time at a price equal to the principal amount plus accrued interest and a specified make-whole premium. If we experience certain change of control events as defined in the indenture,

the holders of the 2022 notes will have the right to require us to purchase all or a portion of the 2022 notes at a purchase price in cash equal to 101% of the principal amount thereof, plus accrued and unpaid interest to the date of purchase. In addition, upon certain asset sale events as defined in the indenture, we may be required to offer to use the net proceeds thereof to purchase all or a portion of the 2022 notes at 100% of the principal amount thereof, plus accrued and unpaid interest to the date of purchase.

The 2022 notes are senior secured obligations of ours and are equal in right of payment to all existing and future pari passu indebtedness of ours (including our outstanding convertible notes), will be senior in right of payment to all existing and future subordinated indebtedness of ours, will have the benefit of a security interest in the 2022 notes collateral and will be junior in lien priority in respect of any asset-based lending collateral that secures any first priority lien obligations from time to time. The 2022 notes contain customary covenants, including covenants that limit or restrict our ability to incur liens; incur indebtedness; pay dividends, repurchase shares and make certain other restricted payments; prepay, redeem or repurchase subordinated debt; and sell, lease or transfer certain property and assets, but do not contain covenants related to future financial performance. The 2022 notes are secured by a first priority lien on substantially all of our assets.

The 2022 notes contain customary events of default. Upon certain events of default occurring, the trustee may declare 100% of the principal of and accrued and unpaid interest, if any, on all the 2022 notes to be due and payable. In the case of certain events of bankruptcy, insolvency or reorganization involving us or a restricted subsidiary, 100% of the principal of, and accrued and unpaid interest, if any, on, the 2022 notes will automatically become due and payable.

In connection with the completion of the asset sale, on April 3, 2017, we irrevocably deposited the aggregate redemption price of the 2022 notes of 111.5% of the principal amount, plus accrued and unpaid interest of \$7.4 million, with the trustee and irrevocably instructed the trustee to apply such amount to the redemption in full of the 2022 notes on the redemption date of April 27, 2017. The indenture was satisfied and discharged on April 3, 2017.

4.50% convertible notes due 2020

In July 2013, we issued \$125.0 million aggregate principal amount of convertible notes. We issued the convertible notes under a base indenture between us and Wells Fargo Bank, National Association, as trustee, as supplemented by a supplemental indenture between us and the trustee. As a result of the convertible notes offering, we received net proceeds of approximately \$120.6 million, after deducting underwriting discounts and commissions and offering expenses payable by us.

The convertible notes bear interest at a rate of 4.50% per year, payable semiannually in arrears on January 15 and July 15 of each year, beginning on January 15, 2014. The convertible notes are general unsecured senior obligations of ours and rank (i) pari passu in seniority with respect to the 2022 notes, (ii) senior in right of payment to any of our indebtedness that is expressly subordinated in right of payment to the convertible notes, (iii) equal in right of payment to any of our unsecured indebtedness that is not so subordinated, (iv) effectively junior in right of payment to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness, and (v) structurally junior to all indebtedness and other liabilities (including trade payables) of our subsidiaries.

On April 13, 2016, we entered into separate, privately-negotiated conversion agreements with certain holders of the convertible notes. Under the conversion agreements, such holders agreed to convert an aggregate principal amount of \$64.2 million of convertible notes held by them. We initially settled each \$1,000 principal amount of convertible notes surrendered for conversion by delivering 14 shares of our common stock on April 18, 2016. In total, we issued an aggregate of 873,215 shares of our common stock on this initial closing date. In addition, pursuant to the conversion agreements, at the additional closings (as defined in the conversion agreements), we issued an aggregate of 363,511 shares of our common stock representing an aggregate of \$27.7 million as additional payments in respect of the conversion of the convertible notes. The number of additional shares was determined based on the daily VWAP (as defined in the conversion agreements) of our common stock for each of the trading days in the 10-day trading period following the date of the conversion agreements.

The outstanding convertible notes will mature on July 15, 2020, or the maturity date, unless earlier repurchased by us or converted at the option of holders. Holders may convert their convertible notes at their option at any time prior to the close of business on the business day immediately preceding April 15, 2020 only under the following circumstances:

- during any calendar quarter commencing after September 30, 2013 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;

- during the five business day period after any five consecutive trading day period, or the measurement period, in which the trading price (as defined in the convertible senior notes) per \$1,000 principal amount of convertible senior notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate on each such trading day; or
- upon the occurrence of specified corporate events set forth in the indenture.

On or after April 15, 2020 until the close of business on the business day immediately preceding the maturity date, holders may convert their convertible notes at any time, regardless of the foregoing circumstances.

Following the repayment and satisfaction in full of our obligations to Hercules under the loan agreement, which occurred in December 2015, upon any conversion of the convertible notes, the convertible notes may be settled, at our election, in cash, shares of our common stock or a combination of cash and shares of our common stock.

The initial conversion rate of the convertible notes upon issuance in July 2013 was 160.0000 shares of our common stock per \$1,000 principal amount of convertible notes, which was equivalent to an initial conversion price of \$6.25 per share of common stock. As a result of the special dividend that was payable on May 26, 2017 to stockholders of record as of the close of business on May 17, 2017, the conversion rate of the convertible notes was adjusted from 160.0000 shares of our common stock per \$1,000 principal amount of convertible notes to 235.2112 shares of our common stock per \$1,000 principal amount of convertible notes. As a result of the one-for-ten reverse stock split of our common stock effected on September 5, 2017, the conversion rate of the convertible notes was further adjusted from 235.2112 shares of our common stock per \$1,000 principal amount of convertible notes to 23.5210 shares of our common stock per \$1,000 principal amount of convertible notes. The conversion rate will be subject to further adjustment in some events, but will not be adjusted for any accrued and unpaid interest. In addition, following certain corporate events that occur prior to the maturity date, we will increase the conversion rate for a holder who elects to convert its convertible notes in connection with such a corporate event in certain circumstances.

Upon the occurrence of a fundamental change (as defined in the indenture) involving us, holders of the convertible notes may require us to repurchase all or a portion of their convertible notes for cash at a price equal to 100% of the principal amount of the convertible notes to be purchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

The indenture contains customary terms and covenants and events of default with respect to the convertible notes. If an event of default (as defined in the indenture) occurs and is continuing, the trustee by written notice to us, or the holders of at least 25% in aggregate principal amount of the convertible notes then outstanding by written notice to us and the trustee, may, and the trustee at the request of such holders will, declare 100% of the principal of and accrued and unpaid interest on the convertible notes to be due and payable. In the case of an event of default arising out of certain events of bankruptcy, insolvency or reorganization involving us or a significant subsidiary (as set forth in the indenture), 100% of the principal of and accrued and unpaid interest on the convertible notes will automatically become due and payable.

Loan agreement

In November 2012, we entered into the loan agreement with Hercules pursuant to which we received loans in the aggregate principal amount of \$40.0 million. As permitted under the loan agreement, we had previously extended the interest-only payment period with the aggregate principal balance of the loans to be repaid in monthly installments starting on June 1, 2014 and continuing through November 1, 2016. On June 25, 2014, we entered into an amendment to the loan agreement whereby the period during which we make interest-only payments was extended until October 1, 2014. On November 6, 2014, we entered into a further amendment to the loan agreement, whereby the period during which we make interest-only payments was extended until February 1, 2015. On February 25, 2015, we entered into a fourth amendment to the loan agreement pursuant to which the maturity date and the period during which we make interest-only payments on our current loans in the aggregate principal amount of \$40.0 million was extended. As a result of this amendment, we were required to repay the outstanding aggregate principal balance of the loan beginning on June 1, 2016 and continuing through November 1, 2018. As a result of the FDA's approval of our new drug application, or NDA, for ONIVYDE, which occurred on October 22, 2015, we elected to extend the interest-only period by an additional six months so that we would repay the outstanding aggregate principal balance of the loans beginning on December 1, 2016 and continuing through November 1, 2018. In addition, as a result of the FDA's approval of our NDA for ONIVYDE, we could elect to draw, at any time until August 1, 2016, an additional term loan advance of up to \$15.0 million. Principal and interest payments on the additional term loan advance would be made in the same manner as our current term loan in the aggregate principal amount of \$40.0 million. We did not borrow against the additional term loan advance. Upon the earlier of full repayment of the loans or November 1, 2016, we were required to pay Hercules a fee of \$1.2 million.

In connection with the loan agreement, we granted Hercules a security interest in all of our personal property now owned or hereafter acquired, excluding intellectual property but including the proceeds from the sale, if any, of intellectual property, and a negative pledge on intellectual property. The loan agreement also contained certain representations, warranties and non-financial covenants.

During the fourth quarter of 2015, we repaid the loans in full in conjunction with the issuance of the 2022 notes. The total repayment amount included the \$40.0 million in outstanding principal, the \$1.2 million fee discussed above and interest accrued up through the repayment date.

Contractual obligations and commitments

The following table summarizes our contractual obligations as of December 31, 2016:

(in thousands)	Payments Due by Period				
	Total	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years
Convertible notes (1)	\$ 71,735	\$ 2,736	\$ 5,472	\$ 63,527	\$ —
Repayment of MLSC tax incentive awards	1,314	1,314	—	—	—
Operating lease obligations	20,292	8,108	12,184	—	—
Antibody and technology licensing costs (2)	1,138	258	440	440	—
Total contractual cash obligations	\$ 94,479	\$ 12,416	\$ 18,096	\$ 63,967	\$ —

(1) Payments are inclusive of interest and principal payments.

(2) Antibody and technology licensing costs include annual license maintenance fee and annual minimum royalty payments. We have not included annual license maintenance fees or annual minimum royalty payments after December 31, 2021, as we cannot estimate if they will occur.

Expenditures to contract research organizations represent a significant cost in clinical development. However, our contracts with these research organizations are cancellable at our option upon short notice and do not have cancellation penalties. Therefore, payments to contract research organizations have not been included in the above table.

In January 2013, the MLSC awarded us an additional \$0.5 million of tax incentives under its Life Science Tax Incentive Program, which allows us to monetize approximately \$0.4 million of state research and development tax credits. We received this payment in the fourth quarter of 2013. In exchange for these incentives, we pledged to hire an incremental 20 employees and to maintain the additional headcount through at least December 31, 2017. Failure to do so could result in us being required to repay some or all of these incentives. This contingent obligation has not been included in the above table as we cannot estimate if or when it will become payable.

In May 2014, the MLSC awarded us an additional \$0.6 million of tax incentives under its Life Science Tax Incentive Program, which allows us to monetize approximately \$0.6 million of state research and development tax credits. In exchange for these incentives, we pledged to hire an incremental 31 employees and to maintain the additional headcount through at least December 31, 2018. Due to our failure to meet this headcount target as of December 31, 2016 as a result of our October 2016 corporate restructuring activities, we will be required to repay approximately \$0.3 million of this award. As such, this repayment obligation has been included in the above table.

In March 2015, the MLSC awarded us an additional \$1.4 million of tax incentives under its Life Science Tax Incentive Program, which allows us to monetize approximately \$1.2 million of state research and development tax credits. In exchange for these incentives, we pledged to hire an incremental 75 employees and to maintain the additional headcount through at least December 31, 2019. Due to our failure to meet this headcount target as of December 31, 2016 as a result of our October 2016 corporate restructuring activities, we will be required to repay approximately \$1.0 million of this award. As such, this repayment obligation has been included in the above table.

Other than the specific payments noted in the table and as described above, milestone and royalty payments associated with antibody licensing, manufacturing technology licensing costs and other in-licensed collaboration payments have not been included in the above table as management cannot reasonably estimate if or when they will occur. These arrangements include the following:

- Under a collaboration agreement with Dyax Corp. related to antibody identification and evaluation, we may be required to make aggregate development and regulatory milestone payments of up to \$16.2 million for therapeutic products and

aggregate regulatory milestone payments of up to \$1.0 million for diagnostic products directed to selected targets associated with MM-121 and MM-141. We also are required to pay mid single digit royalties on net sales of licensed products.

- Under license agreements with The Regents of the University of California, we may be required to make aggregate development and regulatory milestone payments of up to \$0.7 million associated with MM-302 and pay royalties in the low single digits on net sales of licensed products.
- Under an agreement with Adimab LLC, we may be required to make aggregate development and regulatory milestone payments of up to \$52.5 million related to therapeutic antibody licensing costs associated with MM-151 and pay mid single digit royalties on net sales of licensed products.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under SEC rules.

Tax Loss Carryforwards

At December 31, 2016, we had net operating loss carryforwards for federal and state income tax purposes of \$542.7 million and \$367.4 million, respectively. Included in the federal and state net operating loss carryforwards is approximately \$39.2 million and \$25.2 million, respectively, of deduction related to the exercise of stock options. This amount represents an excess tax benefit, which will be realized when it results in reduction of cash taxes in accordance with ASC 718, *Compensation – Stock Compensation*. Our existing federal and state net operating loss carryforwards will expire in years through 2036. We also have available research and development credits for federal and state income tax purposes of approximately \$27.3 million and \$16.3 million, respectively. The federal and state research and development credits will begin to expire in 2022 and 2025, respectively. As of December 31, 2016, we also have available investment tax credits for state income tax purposes of \$0.8 million, which will expire in years through 2019 if not used. In addition, we have federal orphan drug credits of \$106.4 million that begin to expire in 2031. We have evaluated the positive and negative evidence bearing upon the realizability of our deferred tax assets, which are comprised principally of net operating loss carryforwards, deferred revenue and capitalized research and development expenses. Under the applicable accounting standards, we have considered our history of losses and concluded that it is more likely than not that we will not recognize the benefits of federal and state deferred tax assets. Accordingly, we have established a full valuation allowance against the deferred tax assets. We completed the asset sale and recorded the income tax implications of the sale in the second quarter of 2017. The asset sale generated taxable income which has resulted in income tax expense. We released a portion of our valuation allowance in the three months ended June 30, 2017 as we were able to utilize our net operating loss carryforwards to offset the taxable income generated from the asset sale.

Utilization of the net operating loss and research and development credit carryforwards may be subject to a substantial annual limitation under Section 382 of the Internal Revenue Code of 1986, as amended, or the Internal Revenue Code, due to ownership change limitations that have occurred previously or that could occur in the future. These ownership changes may limit the amount of net operating loss and research and development credit carryforwards that can be utilized annually to offset future taxable income and tax. We completed an evaluation of ownership changes through September 30, 2016 to assess whether utilization of our net operating loss or research and development credit carryforwards would be subject to an annual limitation under Section 382 of the Internal Revenue Code. We believe that we may be able to utilize all of our tax attributes as a result of the analysis. To the extent an ownership change occurs in the future, the net operating loss and credit carryforwards may be subject to limitation.

We have not yet conducted a study of our domestic research and development credit carryforwards and orphan drug credits. This study may result in an increase or decrease to our credit carryforwards; however, until a study is completed and any adjustment is known, no amounts are being presented as an uncertain tax position. A full valuation allowance has been provided against the credits, and if an adjustment is required, this adjustment would be offset by an adjustment to the valuation allowance. As a result, there would be no impact to the statement of comprehensive loss or cash flows if an adjustment were required.

Recent Accounting Pronouncements

See Note 1, “Nature of the Business and Summary of Significant Accounting Policies,” in the accompanying notes to the consolidated financial statements for a description of recent accounting pronouncements applicable to our business.

Item 8. Financial Statements and Supplementary Data

Our consolidated financial statements, together with the report of our independent registered public accounting firm, appear on pages F-1 through F-36 of this Exhibit.

MERRIMACK PHARMACEUTICALS, INC.
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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
Merrimack Pharmaceuticals, Inc.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations and comprehensive loss, of non-controlling interest and stockholders' deficit, and of cash flows present fairly, in all material respects, the financial position of Merrimack Pharmaceuticals, Inc. and its subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control Over Financial Reporting (not presented herein) appearing under Item 9A of the Company's 2016 Annual Report on Form 10-K. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Management and we previously concluded there was substantial doubt about the Company's ability to continue as a going concern. As discussed in Note 1, management has subsequently taken certain actions, which management and we have concluded remove that substantial doubt.

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts

March 1, 2017, except for the effects of the reverse stock split discussed in Note 1, the disclosure regarding the Company's ability to continue as a going concern discussed in Note 1 and the discontinued operations discussed in Note 2, as to which the date is December 15, 2017

Merrimack Pharmaceuticals, Inc.

Consolidated Balance Sheets

(in thousands, except per share amounts)	December 31,	
	2016	2015
Assets		
Current assets:		
Cash and cash equivalents	\$ 21,524	\$ 185,606
Restricted cash	102	101
Accounts receivable, net	275	11
Prepaid expenses and other current assets	2,239	4,214
Assets held for sale	33,295	11,462
Total current assets	57,435	201,394
Restricted cash	674	584
Property and equipment, net	14,212	20,101
Other assets	27	27
Intangible assets, net	—	2,800
Long-term assets held for sale	9,135	9,974
Total assets	<u>\$ 81,483</u>	<u>\$ 234,880</u>
Liabilities, non-controlling interest and stockholders' deficit		
Current liabilities:		
Accounts payable, accrued expenses and other	\$ 28,670	\$ 36,739
Deferred rent	2,014	1,527
Liabilities held for sale	57,538	65,480
Total current liabilities	88,222	103,746
Deferred rent, net of current portion	3,386	4,926
Deferred tax incentives, net of current portion	—	1,045
Long-term debt, net of current portion	216,861	257,655
Long-term liabilities held for sale	25,673	51,197
Total liabilities	334,142	418,569
Commitments and contingencies		
Non-controlling interest	(1,539)	239
Stockholders' deficit:		
Preferred stock, \$0.01 par value: 10,000 shares authorized at December 31, 2016 and 2015; no shares issued or outstanding at December 31, 2016 or 2015	—	—
Common stock, \$0.01 par value: 20,000 shares authorized at December 31, 2016 and 2015, 13,020 and 11,587 issued and outstanding at December 31, 2016 and 2015, respectively	1,302	1,159
Additional paid-in capital	702,377	617,145
Accumulated deficit	(954,799)	(802,232)
Total stockholders' deficit	(251,120)	(183,928)
Total liabilities, non-controlling interest and stockholders' deficit	<u>\$ 81,483</u>	<u>\$ 234,880</u>

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

Merrimack Pharmaceuticals, Inc.

Consolidated Statements of Operations and Comprehensive Loss

(in thousands, except per share amounts)	Years Ended December 31,		
	2016	2015	2014
Collaboration revenues	\$ —	\$ —	\$ 92,296
Costs and expenses:			
Research and development expenses	109,565	121,033	103,310
General and administrative expenses	32,052	24,048	18,766
Restructuring expenses	5,710	—	—
Total costs and expenses	147,327	145,081	122,076
Loss from continuing operations	(147,327)	(145,081)	(29,780)
Other income and expenses:			
Interest income	276	99	114
Interest expense	(22,449)	(18,769)	(18,230)
Other (expense) income, net	(8)	917	813
Net loss from continuing operations before income tax benefit	(169,508)	(162,834)	(47,083)
Income tax benefit	13,224	11,215	—
Net loss from continuing operations	(156,284)	(151,619)	(47,083)
Discontinued operations:			
Income (loss) from discontinued operations, net of tax	2,766	3,832	(36,476)
Net loss	(153,518)	(147,787)	(83,559)
Net income (loss) attributable to non-controlling interest	(1,778)	170	(268)
Net loss attributable to Merrimack Pharmaceuticals, Inc.	<u>\$ (151,740)</u>	<u>\$ (147,957)</u>	<u>\$ (83,291)</u>
Other comprehensive income (loss):			
Unrealized gain (loss) on available-for-sale securities	—	74	(50)
Other comprehensive income (loss)	—	74	(50)
Comprehensive loss	<u>\$ (151,740)</u>	<u>\$ (147,883)</u>	<u>\$ (83,341)</u>
Amounts attributable to Merrimack Pharmaceuticals, Inc.:			
Net loss from continuing operations	\$ (154,506)	\$ (151,789)	\$ (46,815)
Income (loss) from discontinued operations, net of tax	2,766	3,832	(36,476)
Net loss attributable to Merrimack Pharmaceuticals, Inc.	<u>\$ (151,740)</u>	<u>\$ (147,957)</u>	<u>\$ (83,291)</u>
Basic and dilutive net income (loss) per common share			
Net loss from continuing operations	\$ (12.33)	\$ (13.63)	\$ (4.49)
Net income (loss) from discontinued operations, net of tax	0.22	0.34	(3.49)
Net loss per share	<u>\$ (12.11)</u>	<u>\$ (13.29)</u>	<u>\$ (7.98)</u>
Weighted-average common shares used per share calculations—basic and diluted	12,533	11,136	10,441

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

Merrimack Pharmaceuticals, Inc.
Consolidated Statements of Non-Controlling Interest
and Stockholders' Deficit

(in thousands)	Non-Controlling Interest	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
		Shares	Amount				
Balance at December 31, 2013	\$ 337	10,252	\$ 1,025	\$ 527,779	\$ (24)	\$ (572,245)	\$ (43,465)
Exercise of stock options and common stock warrants	—	418	42	10,383	—	—	10,425
Conversion of Silver Creek Pharmaceuticals, Inc. convertible notes payable	366	—	—	678	—	—	678
Stock-based compensation	—	—	—	13,197	—	—	13,197
Other comprehensive loss	—	—	—	—	(50)	—	(50)
Loss attributable to non-controlling interest	(634)	—	—	—	—	634	634
Net loss	—	—	—	—	—	(83,559)	(83,559)
Balance at December 31, 2014	\$ 69	10,670	\$ 1,067	\$ 552,037	\$ (74)	\$ (655,170)	\$ (102,140)
Exercise of stock options and common stock warrants	—	536	54	10,047	—	—	10,101
Issuance of common stock in at the market offering, net of issuance costs	—	381	38	38,522	—	—	38,560
Issuance of Series B preferred stock by Silver Creek Pharmaceuticals, Inc.	895	—	—	1,188	—	—	1,188
Stock-based compensation	—	—	—	15,351	—	—	15,351
Other comprehensive income	—	—	—	—	74	—	74
Loss attributable to non-controlling interest	(725)	—	—	—	—	725	725
Net loss	—	—	—	—	—	(147,787)	(147,787)
Balance at December 31, 2015	\$ 239	11,587	\$ 1,159	\$ 617,145	\$ —	\$ (802,232)	\$ (183,928)
Exercise of stock options	—	196	20	6,422	—	—	6,442
Issuance of common stock due to conversion of convertible notes due 2020	—	1,237	123	100,838	—	—	100,961
Consideration allocated to reacquisition of conversion feature of convertible notes due 2020	—	—	—	(39,923)	—	—	(39,923)
Issuance of Series C preferred stock by Silver Creek Pharmaceuticals, Inc.	(827)	—	—	2,689	—	—	2,689
Stock-based compensation	—	—	—	15,206	—	—	15,206
Loss attributable to non-controlling interest	(951)	—	—	—	—	951	951
Net loss	—	—	—	—	—	(153,518)	(153,518)
Balance at December 31, 2016	\$ (1,539)	13,020	\$ 1,302	\$ 702,377	\$ —	\$ (954,799)	\$ (251,120)

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

Merrimack Pharmaceuticals, Inc.
Consolidated Statements of Cash Flows

(in thousands)	Years Ended December 31,		
	2016	2015	2014
Cash flows from operating activities			
Net loss	\$ (153,518)	\$ (147,787)	\$ (83,559)
Less:			
Income (loss) from discontinued operations	2,766	3,832	(36,476)
Loss from continuing operations	(156,284)	(151,619)	(47,083)
Adjustments to reconcile net loss to net cash used in operating activities			
Non-cash interest expense	6,004	8,217	8,511
Non-cash loss on extinguishment of convertible notes due 2020	14,566	—	—
Non-cash activity related to discontinued operations	13,224	11,215	—
Benefit from intra period tax allocation	(13,224)	(11,215)	—
Loss on disposal of property and equipment	493	4	—
Gain on sale of property and equipment	(40)	—	—
Impairment of in-process research and development intangible asset	2,800	—	—
Depreciation and amortization expense	4,895	3,250	2,438
Stock-based compensation expense	12,140	13,161	11,978
Purchased premiums and interest on marketable securities	—	—	858
Changes in operating assets and liabilities:			
Accounts receivable	(264)	1,654	4,235
Prepaid expenses and other current assets	2,184	(32)	1,093
Inventory	—	—	—
Accounts payable, accrued expenses and other	(9,837)	13,163	(5,641)
Deferred revenues	—	—	(73,392)
Deferred rent and tax incentives	408	2,374	712
Net cash used in continuing operations for operating activities	(122,935)	(109,828)	(96,291)
Net cash provided by (used in) discontinuing operations for operating activities	(47,306)	4,472	61,483
Net cash used in operating activities	(170,241)	(105,356)	(34,808)
Cash flows from investing activities			
Purchase of marketable securities	(84,262)	—	(111,832)
Proceeds from sales and maturities of marketable securities	84,160	87,899	111,858
Purchase of property and equipment	(2,640)	(11,902)	(4,538)
Other investing activities, net	—	—	(2)
Net cash provided by (used in) continuing operations for investing activities	(2,742)	75,997	(4,514)
Net cash used in discontinuing operations for investing activities	(515)	(887)	(1,497)
Net cash provided by (used in) investing activities	(3,257)	75,110	(6,011)
Cash flows from financing activities			
Proceeds from exercise of options and warrants to purchase common stock	6,224	10,087	10,384
Proceeds from issuance of convertible promissory notes by Silver Creek Pharmaceuticals, Inc.	—	—	1,044
Proceeds from at the market offering, net of issuance costs	—	38,560	—
Proceeds from issuance of senior secured notes due 2022, net of issuance costs	—	169,434	—
Proceeds from issuance of preferred stock by Silver Creek Pharmaceuticals, Inc.	3,361	2,083	—
Repayment of loans payable to Hercules Technology Growth Capital, Inc.	—	(40,000)	—
Other financing activities, net	(169)	—	(7)
Net cash provided by financing activities	9,416	180,164	11,421
Net increase (decrease) in cash and cash equivalents	(164,082)	149,918	(29,398)
Cash and cash equivalents, beginning of period	185,606	35,688	65,086
Cash and cash equivalents, end of period	\$ 21,524	\$ 185,606	\$ 35,688
Non-cash investing and financing activities			
Purchases of property and equipment in accounts payable, accrued expenses and other	\$ 130	\$ 816	\$ 704
Receivables related to stock option exercises in prepaid expenses and other current assets	232	14	—
Receivables related to the sale of property and equipment in prepaid expenses and other current assets	40	—	—
Conversion of Silver Creek Pharmaceuticals, Inc. convertible notes into Silver Creek Series A preferred stock	—	—	1,044
Principal amount of convertible notes due 2020 converted into shares of common stock	64,209	—	—
Supplemental disclosure of cash flows			
Cash paid for interest	\$ 23,914	\$ 10,087	\$ 9,510

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

Merrimack Pharmaceuticals, Inc.
Notes to Consolidated Financial Statements

1. Nature of the Business and Summary of Significant Accounting Policies

Nature of the Business

Merrimack Pharmaceuticals, Inc. (the “Company”) is a biopharmaceutical company based in Cambridge, Massachusetts that is outthinking cancer to ensure that patients and their families live fulfilling lives. The Company’s mission is to transform cancer care through the smart design and development of targeted solutions based on a deep understanding of cancer pathways and biological markers. All of the Company’s development programs, including four clinical studies in distinct indications and six candidates in preclinical development, fit into the Company’s strategy of (1) understanding the biological problems the Company is trying to solve, (2) designing specific solutions and (3) developing those solutions for biomarker-selected patients. This three-pronged strategy seeks to ensure optimal patient outcomes.

On April 3, 2017, the Company completed the previously announced transaction (the “Asset Sale”) with Ipsen S.A. (“Ipsen”). Pursuant to the Asset Purchase and Sale Agreement, dated as of January 7, 2017 (the “Asset Sale Agreement”), between the Company and Ipsen, the Company sold to Ipsen its right, title and interest in the non-cash assets, equipment, inventory, contracts and intellectual property primarily related to or used in the Company’s business operations and activities involving or relating to developing, manufacturing and commercializing ONIVYDE, the Company’s first commercial product, and MM-436 (the “Commercial Business”). The Company received \$575.0 million in cash, subject to a working capital adjustment, and is eligible to receive up to \$450.0 million in additional regulatory approval-based milestone payments. The Company reached a settlement on certain working capital adjustments with Ipsen in the amount of \$0.8 million, which was received in September 2017. The final working capital adjustment of \$4.9 million was received in the fourth quarter of 2017. The Company also retained the right to receive net milestone payments of up to \$33.0 million that may become payable pursuant to the license and collaboration agreement with Baxalta Incorporated, Baxalta US Inc. and Baxalta GmbH (collectively, “Baxalta”) for the ex-U.S. development and commercialization of ONIVYDE.

The Company’s non-commercial assets, including its clinical and preclinical development programs, were not included in the Asset Sale and remain assets of the Company. The Company’s most advanced assets and a description of the status of each as of the date of the Company’s most recent Quarterly Report on Form 10-Q are as follows:

- MM-121 (seribantumab), a fully human monoclonal antibody that binds to the ErbB3 (HER3) receptor and targets heregulin positive cancers. There are two active development programs for MM-121, each in a Phase 2 clinical trial. The Company is currently conducting the Phase 2 randomized SHERLOC clinical trial, evaluating MM-121 in patients with heregulin positive non-small cell adenocarcinoma of the lung in combination with docetaxel. The Company has also initiated trial sites for the Phase 2 randomized SHERBOC clinical trial in patients with heregulin positive, hormone receptor positive, ErbB2 (HER2) negative, metastatic breast cancer in combination with fulvestrant, and expects to dose the first patient in the SHERBOC clinical trial in the fourth quarter of 2017;
- MM-141 (istiratumab), a fully human bispecific tetravalent monoclonal antibody designed to block tumor survival signals by targeting receptor complexes containing the insulin-like growth factor 1 (“IGF-1”) receptor and ErbB3 (HER3) cell surface receptors. The Company is currently conducting and has completed enrollment of the Phase 2 randomized CARRIE clinical trial evaluating MM-141 in previously untreated metastatic pancreatic cancer patients with high levels of free IGF-1 in combination with nab-paclitaxel and gemcitabine; and
- MM-310, an antibody-directed nanotherapeutic (“ADN”) that contains a novel prodrug of the highly potent chemotherapy docetaxel and targets the ephrin receptor A2 (“EphA2”) receptor, which is highly expressed in most solid tumor types. MM-310 was designed to improve the therapeutic window of docetaxel in major oncology indications, such as prostate, ovarian, bladder, gastric, pancreatic and lung cancers. The Company initiated a Phase 1 clinical trial to evaluate safety and preliminary activity of MM-310 in the first quarter of 2017.

The Company is subject to risks and uncertainties common to companies in the biopharmaceutical industry, including, among other things, its ability to secure additional capital to fund operations, success of clinical trials, development by competitors of new technological innovations, dependence on collaborative arrangements, protection of proprietary technology, compliance with government regulations and dependence on key personnel. Product candidates currently under development will require significant additional research and development efforts, including extensive preclinical and clinical testing and regulatory approval prior to commercialization. These efforts require significant amounts of capital, adequate personnel, infrastructure and extensive compliance reporting capabilities.

The Company has incurred significant expenses and operating losses to date, and it expects to continue to incur significant expenses and operating losses for at least the next several years. In accordance with Accounting Standards Codification (“ASC”) 205-40, *Going Concern*, the Company has evaluated whether there are conditions and events, considered in the aggregate, that raise substantial doubt about the Company’s ability to continue as a going concern within one year after the date that the consolidated financial statements are issued.

As of December 31, 2016, the Company had \$21.5 million in unrestricted cash and cash equivalents, had suffered recurring losses from operations and had negative working capital and cash outflows from operating activities. Based on the evaluation completed in connection with the filing of the Company’s Annual Report on Form 10-K for the year ended December 31, 2016, including consideration of management’s plans, the Company previously concluded that there was substantial doubt as to its ability to continue as a going concern within one year after March 1, 2017, the date that the consolidated financial statements were issued.

On April 3, 2017, the Company closed the Asset Sale with Ipsen and received a \$575.0 million upfront cash payment (subject to a working capital adjustment). The Company used a portion of the cash payment to redeem the \$175.0 million outstanding aggregate principal amount of 11.50% senior secured notes due 2022 (the “2022 Notes”), which also required an additional make-whole premium payment of approximately \$20.1 million, and deposited \$60.0 million into an escrow account in response to a lawsuit filed by the trustee and certain holders of its 4.50% convertible notes due 2020 (the “Convertible Notes”). The Company also distributed \$140.0 million of the upfront cash payment in the form of a special cash dividend to stockholders. After consideration of the Company’s cash and cash equivalents balance at December 31, 2016 and the net proceeds from the Asset Sale, the Company has concluded that the previous conditions and events that raised substantial doubt about its ability to continue as a going concern have been alleviated.

As of December 15, 2017, the re-issuance date of the consolidated financial statements for the year ended December 31, 2016, the Company expects that its cash and cash equivalents will be sufficient to fund its operating expenses and capital expenditure requirements through the second quarter of 2019. The future viability of the Company beyond that point is dependent on its ability to raise additional capital to finance its operations.

The Company may seek additional funding through public or private debt or equity financings, through existing or new collaboration arrangements, or through divestitures of its assets. The Company may not be able to obtain financing on acceptable terms, or at all, and the Company may not be able to enter into additional collaborative arrangements or divest its assets. The terms of any financing may adversely affect the holdings or the rights of the Company’s stockholders. Arrangements with collaborators or others may require the Company to relinquish rights to certain of its technologies or product candidates. If the Company is unable to obtain funding, the Company could be forced to delay, reduce or eliminate its research and development programs or commercialization efforts, which could adversely affect its business prospects.

Summary of Significant Accounting Policies

The significant accounting policies include policies related to both continuing and discontinuing operations.

Segment Information

Operating segments are defined as components of an enterprise engaging in business activities for which discrete financial information is available and regularly reviewed by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The Company views its operations and manages its business as one operating segment and the Company operates in only one geographic region.

Basis of Presentation and Consolidation

The accompanying consolidated financial statements have been prepared under U.S. generally accepted accounting principles (“GAAP”) and include the accounts of the Company and its wholly owned subsidiary, Merrimack Pharmaceuticals (Bermuda) Ltd., which was merged with and into the Company during the third quarter of 2014. The Company also consolidates its majority owned subsidiary, Silver Creek Pharmaceuticals, Inc. (“Silver Creek”). All intercompany transactions and balances have been eliminated in consolidation.

As of March 31, 2017, the Commercial Business met all the conditions to be classified as held-for-sale and represents a discontinued operation since the disposal of the Commercial Business is a strategic shift that will have a major effect on the Company’s operations and financial results. The Company will not have further significant involvement in the operations of the discontinued Commercial Business. The operating results of the Commercial Business are reported as a loss from discontinued

operations, net of tax in the condensed consolidated statements of operations for all periods presented. In addition, in the condensed consolidated balance sheet as of December 31, 2016, 2015 and 2014, the assets and liabilities held for sale have been presented separately. For additional information, see Note 2, “Discontinued Operations.”

On August 11, 2017, the Company’s stockholders approved an amendment to the Company’s certificate of incorporation to effect a one-for-ten reverse stock split of its issued and outstanding common stock (the “Reverse Split”). On September 5, 2017, the Company filed the amendment to its certificate of incorporation to effect the Reverse Split, and on September 6, 2017, the Reverse Split was effective for trading purposes. As a result of the Reverse Split, every ten shares of common stock issued and outstanding was converted into one share of common stock, reducing the number of issued and outstanding shares of common stock from approximately 132.8 million shares to approximately 13.28 million shares. No fractional shares were issued in connection with the Reverse Split. The amendment to the certificate of incorporation also proportionately reduced the number of authorized shares of common stock from 200 million to 20 million. The Reverse Split did not change the par value of the common stock. The Reverse Split did not change the number of authorized shares or par value of the Company’s preferred stock, of which there are no shares issued or outstanding. All outstanding stock options and convertible notes entitling their holders to purchase shares of common stock or acquire shares of common stock upon conversion, as the case may be, were adjusted as a result of the Reverse Split, as required by the terms of these securities. This change is reflected throughout the financial statements as appropriate. As a result, all share and per share amounts have been adjusted retroactively to reflect the Reverse Split for all periods. For additional information, see Note 15, “Stock-Based Compensation.”

Use of Estimates

GAAP requires the Company’s management to make estimates and judgments that may affect the reported amounts of assets, liabilities, revenues, expenses and related disclosures. The Company bases estimates and judgments on historical experience and on various other factors that it believes to be reasonable under the circumstances. The most significant estimates in these consolidated financial statements include, but may not be limited to, revenue recognition, including the estimated percentage of billable expenses in any particular budget period, periods of meaningful use of licensed products, estimated service periods and services to be completed under a collaboration, estimates used in accounting for revenue separability and recognition, estimates of discounts and allowances related to commercial sales of ONIVYDE, estimates utilized in the valuation of inventory, useful lives with respect to long-lived assets and intangible assets, accounting for stock-based compensation, contingencies, intangible assets, goodwill, in-process research and development (“IPR&D”), tax valuation reserves and accrued expenses. The Company’s actual results may differ from these estimates under different assumptions or conditions. The Company evaluates its estimates on an ongoing basis. Changes in estimates are reflected in reported results in the period in which they become known by the Company’s management.

Cash, Cash Equivalents and Restricted Cash

Cash and cash equivalents are short-term, highly liquid investments with original maturities of three months or less at the date of purchase. Investments qualifying as cash equivalents primarily consist of money market funds, commercial paper, corporate notes and bonds and certificates of deposit.

Cash accounts with any type of restriction are classified as restricted cash. If restrictions are expected to be lifted in the next twelve months, the restricted cash account is classified as current. As of December 31, 2016 and 2015, the Company recorded restricted cash of \$0.8 million and \$0.7 million, respectively, which was primarily related to the Company’s facility lease.

Marketable Securities

The Company classifies marketable securities with a remaining maturity when purchased of greater than three months as available-for-sale. Available-for-sale securities may consist of U.S. government agencies securities, commercial paper, corporate notes and bonds and certificates of deposit, which are maintained by an investment manager. Available-for-sale securities are carried at fair value, with the unrealized gains and losses included in other comprehensive income (loss) as a component of stockholders’ deficit until realized. To determine whether an other-than-temporary impairment exists, the Company performs an analysis to assess whether it intends to sell, or whether it would more likely than not be required to sell, the security before the expected recovery of the amortized cost basis. Where the Company intends to sell a security, or may be required to do so, the security’s decline in fair value is deemed to be other-than-temporary and the full amount of the unrealized loss is recognized on the statement of operations and comprehensive loss as an other-than-temporary impairment charge. When this is not the case, the Company performs additional analysis on all securities with unrealized losses to evaluate losses associated with the creditworthiness of the security. Credit losses are identified where the Company does not expect to receive cash flows, based on using a single best estimate, sufficient to recover the amortized cost basis of a security and amount of the loss recognized in other income (expense). Realized gains and losses are recognized in interest income. Any premium or discount arising at purchase is amortized and/or accreted to interest income.

Inventory

The Company values its inventories at the lower of cost or net realizable value. The Company determines the cost of its inventories, which includes amounts related to materials and manufacturing overhead, on a first-in, first-out basis. The Company performs an assessment of the recoverability of capitalized inventory during each reporting period, and it writes down any excess and obsolete inventories to their realizable value in the period in which the impairment is first identified. Such impairment charges, should they occur, are recorded as a component of “Cost of revenues.”

The Company capitalizes inventory costs associated with the Company’s products after regulatory approval when, based on management’s judgment, future commercialization is considered probable and the future economic benefit is expected to be realized. Inventory acquired prior to receipt of marketing approval of a product candidate is expensed as research and development expense as incurred. Inventory that can be used in either the production of clinical or commercial product is expensed as research and development expense when selected for use in a clinical manufacturing campaign.

Shipping and handling costs for product shipments are recorded as incurred as a component of “Cost of revenues” along with amortization expense related to definite-lived intangible assets, costs associated with manufacturing the product and any inventory reserves or write-downs.

As a result of the Asset Sale, all inventory relates to the Commercial Business and has been reclassified under discontinued operations.

Property and Equipment

Property and equipment, including leasehold improvements, are recorded at cost and depreciated when placed into service using the straight-line method, based on their estimated useful lives as follows:

Asset Classification	Estimated Useful Life (in years)
Lab equipment	3 - 7
IT equipment	3 - 7
Leaseholds improvements	Lesser of useful life or lease term
Furniture and fixtures	3 - 7

Costs for capital assets not yet placed into service have been capitalized as construction-in-progress and will be depreciated in accordance with the above guidelines once placed into service. Costs for repairs and maintenance are expensed as incurred, while major betterments are capitalized. The Company capitalizes interest cost incurred on funds used to construct property and equipment. The capitalized interest is recorded as part of the asset to which it relates and is depreciated over the asset’s estimated useful life. Upon retirement or sale, the cost of assets disposed of and the related accumulated depreciation are removed from the accounts and any resulting gain or loss is reflected in earnings.

The Company reviews its long-lived assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of assets may not be fully recoverable or that the useful lives of these assets are no longer appropriate. Each impairment test is based on a comparison of the undiscounted cash flow to the recorded value of the asset. If impairment is indicated, the asset will be written down to its estimated fair value on a discounted cash flow basis.

Goodwill and Intangible Assets

Goodwill and indefinite-lived intangible assets, including IPR&D assets, are evaluated for impairment on an annual basis or more frequently if an indicator of impairment is present. The Company performs its annual goodwill and IPR&D impairment evaluations on August 31st.

When performing an evaluation of goodwill impairment, the Company has the option to first assess qualitative factors to determine whether it is necessary to perform the quantitative two-step impairment test. If the Company elects this option and finds, as a result of the qualitative assessment, that it is more likely than not that the fair value of the reporting unit is less than its carrying amount, the quantitative two-step impairment test is required; otherwise, further testing is not required. This requires the Company to assess the impact of significant events, milestones and changes to expectations and activities that may have occurred since the last impairment evaluation. Significant changes to these estimates, judgments and assumptions could materially change the outcome of the impairment assessment. Alternatively, the Company may elect to not first assess qualitative factors and immediately perform the quantitative two-step impairment test. If such an election occurs, in the first step, the fair value of the Company’s reporting unit is

compared to the carrying value. If the carrying value of the net assets assigned to the reporting unit exceeds the fair value of the reporting unit, then the second step of the impairment test is performed in order to determine the implied fair value of the reporting unit's goodwill. If the carrying value of the reporting unit's goodwill exceeds the implied fair value, then the Company would record an impairment loss equal to the difference. As described above, the Company operates in one operating segment, which is considered the only reporting unit.

The Company commences amortization of indefinite-lived intangible assets, such as IPR&D, once the associated research and development efforts have been completed. The Company amortizes these product-related intangible assets over their estimated useful lives, and amortization expense is recorded as a component of "Cost of revenues." The Company amortizes other definite-lived assets, such as core technology, over their estimated useful lives as a component of "Research and development expenses." Definite-lived intangible assets are evaluated for impairment whenever events or circumstances indicate that the carrying value may not be fully recoverable.

As a result of the Asset Sale, all goodwill and intangible assets relate to the Commercial Business and have been reclassified under discontinued operations.

Accrued Expenses

As part of the process of preparing financial statements, the Company is required to estimate accrued expenses. This process involves identifying services that have been performed on the Company's behalf and estimating the level of services performed and the associated costs incurred for such services where the Company has not yet been invoiced or otherwise notified of actual cost. The Company records these estimates in its consolidated financial statements as of each balance sheet date. Examples of estimated accrued expenses include:

- fees due to contract research organizations in connection with preclinical and toxicology studies and clinical trials;
- fees paid to investigative sites in connection with clinical trials; and
- professional service fees.

In accruing service fees, the Company estimates the time period over which services will be provided and the level of effort in each period. If the actual timing of the provision of services or the level of effort varies from the estimate, the Company adjusts the accrual accordingly. In the event that the Company does not identify costs that have been incurred or it under or overestimates the level of services performed or the costs of such services, its actual expenses could differ from such estimates. The date on which some services commence, the level of services performed on or before a given date and the cost of such services are often subjective determinations. The Company prepares its estimates based on the facts and circumstances known to it at the time and in accordance with GAAP. There have been no material changes in estimates for the periods presented.

Non-Controlling Interest

Non-controlling interest represents the non-controlling stockholders' proportionate share of preferred stock and net loss of the Company's majority owned consolidated subsidiary, Silver Creek. The non-controlling stockholders' proportionate share of the preferred stock in Silver Creek is reflected as non-controlling interest in the Company's consolidated balance sheets as a component of mezzanine equity.

Revenue Recognition

The Company recognizes revenue when all of the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the price to the customer is fixed or determinable; and collectability is reasonably assured.

Product Revenues, Net

The Company sells ONIVYDE to a limited number of specialty pharmaceutical distributors in the United States (collectively, its "Distributors"). The Company's Distributors subsequently resell the products to healthcare providers. The Company recognizes revenue on product sales when title and risk of loss have passed to the Distributor, which is typically upon delivery. Product revenues are recorded net of applicable reserves for discounts and allowances. As a result of the Asset Sale, all product revenue relates to the Commercial Business and has been reclassified under discontinued operations.

In order to conclude that the price is fixed or determinable, the Company must be able to reasonably estimate its net product revenues upon delivery to its Distributors. As such, the Company estimates its net product revenues by deducting from its gross product revenues trade allowances, estimated contractual discounts, estimated Medicaid rebates, estimated reserves for product returns and estimated costs of other incentives offered to patients.

These discounts and allowances are based on estimates of the amounts earned or to be claimed on the related sales. The Company's estimates take into consideration its historical experience, current contractual and statutory requirements, specific known market events and trends, industry data and forecasted Distributor buying and payment patterns. Actual amounts may ultimately differ from the Company's estimates. If actual results vary, the Company will adjust these estimates, which could have an effect on earnings in the period of adjustment.

Product revenue reserves and allowances that reduce gross revenue are categorized as follows:

Trade Allowances: The Company pays fees to its Distributors for providing certain data to the Company as well as for maintaining contractual inventory and service levels. These trade allowances are recorded as a reduction to accounts receivable on the consolidated balance sheet at the time revenue is recognized.

Rebates and Chargeback Discounts: The Company is subject to discount obligations under state Medicaid programs and the Public Health Service 340B Drug Pricing Program, contracts with Federal government entities purchasing via the Federal Supply Schedule and various private organizations, such as group purchasing organizations (collectively, its "Third-party Payors"). The Company estimates the rebates and chargeback discounts it will provide to Third-party Payors, based upon its estimated payor mix, and deducts these estimated amounts from its gross product revenues at the time revenue is recognized. Chargeback discounts are processed when the Third-party Payor purchases the product at a discount from the Distributor, who then in turn charges back to the Company the difference between the price initially paid by the Distributor and the discounted price paid by the Third-party Payor. These chargeback discounts are recorded as a reduction to accounts receivable on the consolidated balance sheet at the time revenue is recognized. Rebates that are invoiced directly to the Company are recorded as accrued liabilities on the consolidated balance sheet at the time revenue is recognized.

Product Returns: An allowance for product returns is established for returns expected to be made by Distributors and is recorded at the time revenue is recognized, resulting in a reduction to product sales. In accordance with contractual terms, Distributors have the right to return unopened and undamaged product that is within a permissible number of months before and after the product's expiration date, subject to contractual limitations. The Company has the ability to monitor inventory levels and the shelf life of product at Distributors and can contractually control the amount of inventory that is sold to Distributors. Based on inventory levels held by Distributors and the structure of the Company's distribution model, the Company has concluded that it has the ability to reasonably estimate product returns at the time revenue is recognized. The Company's estimated rate of return is based on historical rates of return for comparable oncology products.

Other Incentives: The Company offers co-pay mitigation support to commercially insured patients. The Company's co-pay mitigation program is intended to reduce each participating patient's portion of the financial responsibility for a product's purchase price to a specified dollar amount. Based upon the terms of the Company's co-pay mitigation program, the Company estimates average co-pay mitigation amounts in order to establish a reserve for co-pay mitigation claims and deducts these estimated amounts from its gross product revenues at the later of the date that (i) the revenues are recognized or (ii) the incentive is offered. Claims under the Company's co-pay mitigation program are subject to expiration.

All product revenue recognized relates to the Commercial Business and is presented as income (loss) from discontinued operations, net of tax in the condensed consolidated statements of operations for all periods presented. All balance sheet accounts described above are included in the assets or liabilities for discontinued operation for all periods presented.

License and Collaboration Revenues

The Company enters into biopharmaceutical product development agreements with collaborative partners for the research and development of therapeutic and diagnostic products. The terms of the agreements may include nonrefundable signing and licensing fees, funding for research, development and manufacturing, milestone payments and royalties or profit-sharing on any product sales derived from collaborations. These multiple-element arrangements are analyzed to determine whether the deliverables can be separated or whether they must be accounted for as a single unit of accounting.

The revenue recognition guidance related to multiple-element arrangements requires entities to separate and allocate consideration in a multiple-element arrangement according to the relative selling price of each deliverable. The fair value of

deliverables under the arrangement may be derived using a best estimate of selling price if vendor specific objective evidence and third-party evidence are not available. Deliverables under the arrangement will be separate units of accounting provided that a delivered item has value to the customer on a stand-alone basis and if the arrangement does not include a general right of return relative to the delivered item and delivery or performance of the undelivered item is considered probable and substantially in the control of the vendor.

In September 2014, the Company entered into a license and collaboration agreement (the “Baxalta Agreement”) with Baxter International Inc., Baxter Healthcare Corporation and Baxter Healthcare SA (collectively, “Baxter”) for the development and commercialization of ONIVYDE outside of the United States and Taiwan (the “Licensed Territory”). In connection with Baxter International Inc.’s separation of the Baxalta business, the Baxalta Agreement was assigned to Baxalta Incorporated, Baxalta US Inc. and Baxalta GmbH (collectively, “Baxalta”) during the second quarter of 2015. The Baxalta Agreement was evaluated under the accounting guidance on revenue recognition for multiple-element arrangements. The Company determined that the obligations under this agreement represent a single unit of accounting and that the agreement represents a services agreement. As a result, the Company has estimated the level of effort expected to be completed as a result of providing the identified deliverables and will recognize revenue related to the agreement based on proportional performance as effort is completed over the expected services period.

The Company also entered into a collaboration agreement with Watson Laboratories, Inc. (“Actavis”) in November 2013, which was evaluated under the accounting guidance on revenue recognition for multiple-element arrangements.

All operating results recognized related to the Baxalta Agreement and Actavis Agreement are presented as income (loss) from discontinued operations, net of tax in the condensed consolidated statements of operations for all periods presented. In addition, in the condensed consolidated balance sheet as of December 31, 2016, 2015 and 2014, the assets and liabilities related to the Baxalta Agreement and Actavis Agreement have been presented separately.

Whenever the Company determines that an arrangement should be accounted for as a single unit of accounting, it determines the period over which the performance obligations would be performed and revenue would be recognized. If the Company cannot reasonably estimate the timing and the level of effort to complete its performance obligations under the arrangement, then revenue under the arrangement is recognized on a straight-line basis over the period the Company expects to complete its performance obligations.

The Company’s collaboration agreements may include additional payments upon the achievement of performance-based milestones. As milestones are achieved, a portion of the milestone payment, equal to the percentage of the total time that the Company has performed the performance obligations to date divided by the total estimated time to complete the performance obligations, multiplied by the amount of the milestone payment, will be recognized as revenue upon achievement of such milestone. The remaining portion of the milestone will be recognized over the remaining performance period. Milestones that are tied to regulatory approvals are not considered probable of being achieved until such approval is received. Milestones tied to counterparty performance are not included in the Company’s revenue model until the performance conditions are met.

Other Revenues

The Company is a party to separate commercial supply agreements with Baxalta and PharmaEngine, Inc. (“PharmaEngine”) pursuant to which the Company supplies ONIVYDE to these entities. Revenue is recognized under these commercial supply arrangements when the counterparty takes delivery of the commercial supply product and when the other general revenue recognition criteria outlined above are met.

The Company is also eligible to receive royalty revenues on Baxalta’s net sales of ONIVYDE in the Licensed Territory. The Company recognizes royalty revenues in the period that the related sales occur.

All other revenue recognized relates to the Commercial Business and is presented as income (loss) from discontinued operations, net of tax in the condensed consolidated statements of operations for all periods presented.

Research and Development Expenses

Research and development expenses are charged to expense as incurred. Research and development expenses are comprised of costs incurred in performing research and development activities, including personnel-related costs, stock-based compensation, facilities, research-related overhead, clinical trial costs, contracted services, research-related manufacturing, license fees and other external costs. The Company accounts for nonrefundable advance payments for goods and services that will be used in future research

and development activities as expenses when the services have been performed or when the goods have been received rather than when the payment is made.

General and Administrative Expenses

General and administrative expenses are comprised of salaries and other related costs for personnel, including stock-based compensation expenses and benefits, in the Company's commercial, legal, intellectual property, business development, finance, information technology, corporate communications, investor relations and human resources departments. General and administrative expenses include costs for employee training and development, board of directors costs, depreciation, insurance expenses, facility-related costs not otherwise included in research and development expenses, professional fees for legal services, including patent-related expenses, and accounting and information technology services.

Stock-Based Compensation Expense

The Company accounts for its stock-based compensation awards in accordance with ASC 718, *Compensation – Stock Compensation*. ASC 718 requires all share-based payments to employees, including grants of employee stock options, to be recognized in the consolidated statements of operations and comprehensive loss based on their grant date fair values. For stock options granted to employees and to members of the Company's Board of Directors for their service on the Board of Directors, the Company estimates the grant date fair value of each option award using the Black-Scholes option pricing model. The use of the Black-Scholes option pricing model requires the Company to make assumptions with respect to the expected term of the option, the expected volatility of the Company's common stock consistent with the expected term of the option, the risk-free interest rate consistent with the expected term of the option and the expected dividend yield of the Company's common stock. Stock-based compensation expense related to employee stock options is measured using the fair value of the award at the grant date, net of estimated forfeitures, and is adjusted annually to reflect actual forfeitures. Stock-based compensation expense is then recognized on a straight-line basis over the vesting period, which is also the requisite service period.

The Company records stock options issued to non-employees at fair value, remeasures to reflect the current fair value at each reporting period and recognizes expense over the related service period. When applicable, these equity instruments are accounted for based on the fair value of the consideration received or the fair value of the equity instrument issued, whichever is more reliably measurable.

Comprehensive Loss

Comprehensive loss consists of net loss and unrealized gains and losses on available-for-sale marketable securities.

Other (Expense) Income, Net

The Company records income related to tax incentive awards, foreign currency gains and losses and other income or expense-related items as components of "Other (expense) income, net" within the consolidated statements of operations and comprehensive loss.

The Company has been awarded tax incentives by the Massachusetts Life Sciences Center ("MLSC"), an independent agency of the Commonwealth of Massachusetts. These tax incentives require that the Company achieve certain hiring targets. Failure to maintain the additional headcount in subsequent periods could require the Company to repay some or all of the incentives. The Company recognizes the benefit of these incentives on a straight-line basis over the five-year performance period of each award, beginning when the Company achieves the hiring goal target, with a cumulative catch-up recognized in the period that the hiring goal target is achieved. The Company received MLSC tax incentives in 2011, 2013, 2014 and 2015 totaling \$3.8 million in the aggregate, allowing the Company to monetize approximately \$3.4 million of state research and development tax credits. As a result of the October 2016 corporate restructuring described more fully in Note 12, "Restructuring Activities," the Company determined that it would be required to repay a portion of the 2014 and 2015 tax incentives received from the MLSC in the aggregate amount of \$1.3 million. Such amounts have been classified as current liabilities as of December 31, 2016.

The Company recognized \$0.1 million, \$0.7 million and \$0.4 million in income related to these MLSC tax incentives during the years ended December 31, 2016, 2015 and 2014, respectively.

Income Taxes

The Company accounts for income taxes under the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted rates in effect for the year in which these temporary differences are expected to be recovered or settled. Valuation allowances are provided if based on the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company provides reserves for potential payments of tax to various tax authorities related to uncertain tax positions and other issues. Reserves are based on a determination of whether and how much of a tax benefit taken by the Company in its tax filing is more likely than not to be realized following resolution of any potential contingencies present related to the tax benefit. Potential interest and penalties associated with such uncertain tax positions are recorded as components of income tax expense. To date, the Company has not taken any uncertain tax positions or recorded any reserves, interest or penalties.

Concentration of Credit Risk

Financial instruments that subject the Company to credit risk consist primarily of cash, cash equivalents and marketable securities. The Company places its cash deposits in accredited financial institutions and, therefore, the Company's management believes these funds are subject to minimal credit risk. The Company invests cash equivalents and marketable securities in money market funds, U.S. government agencies securities and various corporate debt securities. Credit risk in these securities is reduced as a result of the Company's investment policy to limit the amount invested in any one issue or any single issuer and to only invest in high credit quality securities. The Company has no significant off-balance sheet concentrations of credit risk such as foreign currency exchange contracts, option contracts or other hedging arrangements. The Company also is subject to credit risk from its accounts receivable related to its product sales and collaborators. The Company evaluates the creditworthiness of each of its customers and has determined that all of its customers are creditworthy. To date, the Company has not experienced significant losses with respect to the collection of its accounts receivable.

Gross revenues from each of the Company's customers who individually accounted for 10% or more of total gross revenues for the years ended December 31, 2016, 2015 and 2014 consisted of the following:

	Years Ended December 31,		
	2016	2015	2014
Sanofi	—	—	90%

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, "Revenue from Contracts with Customers (Topic 606)," which supersedes all existing revenue recognition requirements, including most industry-specific guidance. The new standard requires a company to recognize revenue when it transfers goods or services to customers in an amount that reflects the consideration that the company expects to receive for those goods or services. This guidance was originally effective for interim and annual periods beginning after December 15, 2016 and allows for adoption using a full retrospective method, or a modified retrospective method. Early adoption was originally not permitted. Subsequent to the issuance of ASU 2014-09, the FASB also issued the following updates related to ASC 606, *Revenue from Contracts with Customers*:

- In August 2015, the FASB issued ASU 2015-14, "Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date," whereby the effective date for the new revenue standard was deferred by one year. As a result of ASU 2015-14, the new revenue standard is now effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2017, and early adoption is now permitted for annual periods beginning after December 15, 2016, including interim periods within that annual period.
- In March 2016, the FASB issued ASU 2016-08, "Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," to clarify the implementation guidance on principal versus agent considerations.
- In April 2016, the FASB issued ASU 2016-10, "Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing," to clarify the principle for determining whether a good or service is "separately identifiable" from other promises in the contract and to clarify the categorization of licenses of intellectual property.

- In May 2016, the FASB issued ASU 2016-12, “Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Technical Expedients,” to clarify guidance on transition, determining collectibility, non-cash consideration and the presentation of sales and other similar taxes.
- In December 2016, the FASB issued ASU 2016-20, “Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers,” that allows entities not to make qualitative disclosures about remaining performance obligations in certain cases, adds disclosure requirements for entities that elect certain optional exemptions and adds twelve additional technical corrections and improvements to the new revenue standard.

The Company is currently evaluating the potential impact that the adoption of this guidance and the related transition guidance may have on the consolidated financial statements, including the adoption method to be utilized.

In August 2014, the FASB issued ASU 2014-15, “Presentation of Financial Statements – Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity’s Ability to Continue as a Going Concern,” outlining management’s responsibility to perform interim and annual assessments of an entity’s ability to continue as a going concern within one year of the date the financial statements are issued and providing guidance on determining when and how to disclose going concern uncertainties in the financial statements. This guidance is effective for annual and interim reporting periods ending after December 15, 2016, and the Company adopted this guidance for the year ended December 31, 2016, as described more fully in Note 21, “Going Concern.”

In January 2016, the FASB issued ASU 2016-01, “Financial Statements – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Liabilities,” which contains a number of provisions related to the measurement, presentation and disclosure of financial instruments. This guidance will be effective for annual reporting periods beginning after December 15, 2017, including interim periods within those annual periods. Early adoption of this guidance is not permitted with the exception of certain specific presentation requirements that are not currently applicable to the Company. The Company does not anticipate a material impact to the consolidated financial statements as a result of the adoption of this guidance.

In February 2016, the FASB issued ASU 2016-02, “Leases (Topic 842),” which supersedes all existing lease accounting guidance within ASC 840, *Leases*. The new standard requires that lease assets and lease liabilities be recognized by lessees for those leases previously classified as operating leases under ASC 840, with limited exceptions. This update also creates a new definition of a lease and provides guidance as to whether a contract is or contains a lease. This guidance will be effective for annual reporting periods beginning after December 15, 2018, including interim periods within those annual reporting periods, and early adoption is permitted. The Company is currently evaluating the potential impact that the adoption of this guidance may have on the consolidated financial statements.

In March 2016, the FASB issued ASU 2016-06, “Derivatives and Hedging (Topic 815): Contingent Put and Call Options in Debt Instruments,” which clarifies the requirements for assessing whether contingent call or put options that can accelerate the repayment of principal on debt instruments are clearly and closely related to their debt hosts. This guidance will be effective for annual reporting periods beginning after December 15, 2016, including interim periods within those annual reporting periods, and early adoption is permitted. The Company does not anticipate a material impact to the consolidated financial statements as a result of the adoption of this guidance.

In March 2016, the FASB issued ASU 2016-09, “Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting,” which simplifies several areas of accounting for share-based payment transactions, including the income tax consequences, classification of awards as either liabilities or equity and classification of excess tax benefits on the statement of cash flows. This guidance also permits a new entity-wide accounting policy election to either estimate the number of awards that are expected to vest or account for forfeitures when they occur. This guidance will be effective for annual reporting periods beginning after December 15, 2016, including interim periods within those annual reporting periods, and early adoption is permitted. An entity that elects early adoption must adopt all of the amendments in the same period. The Company is currently evaluating the potential impact that the adoption of this guidance may have on the consolidated financial statements.

In June 2016, the FASB issued ASU 2016-13, “Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments,” which represents a new credit loss standard that will change the impairment model for most financial assets and certain other financial instruments. Specifically, this guidance will require entities to utilize a new “expected loss” model as it relates to trade and other receivables. In addition, entities will be required to recognize an allowance for estimated credit losses on available-for-sale debt securities, regardless of the length of time that a security has been in an unrealized loss position. This guidance will be effective for annual reporting periods beginning after December 15, 2019, including interim periods within those annual reporting periods, and early adoption is permitted. The Company is currently evaluating the potential impact that the adoption of this guidance may have on the consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, “Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments,” which is intended to reduce diversity in practice in how entities present certain types of cash transactions in the statement of cash flows. This guidance also clarifies how the predominance principle should be applied when classifying cash receipts and cash payments that have attributes of more than one class of cash flows. This guidance will be effective for annual reporting periods beginning after December 15, 2017, including interim periods within those annual reporting periods, and early adoption is permitted. An entity that elects early adoption must adopt all of the amendments in the same period. The Company does not anticipate a material impact to the consolidated financial statements as a result of the adoption of this guidance.

In November 2016, the FASB issued ASU 2016-18, “Statement of Cash Flows (Topic 230): Restricted Cash,” which will require entities to show the change in the total of cash, cash equivalents, restricted cash and restricted cash equivalents within the statement of cash flows. As a result, entities will no longer separately present transfers between unrestricted cash and restricted cash. This guidance will be effective for annual reporting periods beginning after December 15, 2017, including interim periods within those annual reporting periods, and early adoption is permitted. The Company does not anticipate a material impact to the consolidated financial statements as a result of the adoption of this guidance.

In January 2017, the FASB issued ASU 2017-04, “Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment,” which will eliminate the requirement to calculate the implied fair value of goodwill, commonly referred to as “Step 2” in the current goodwill impairment test. An entity will still have the option to perform the qualitative assessment for a reporting unit to determine if the quantitative impairment test is necessary. This guidance will be effective for annual and interim impairment tests performed in annual reporting periods beginning after December 15, 2020, and early adoption is permitted for annual or interim impairment tests performed after January 1, 2017. The Company is currently evaluating the potential impact that the adoption of this guidance may have on the consolidated financial statements.

Other accounting standards that have been issued by the FASB or other standards-setting bodies that do not require adoption until a future date are not expected to have a material impact on the Company’s consolidated financial statements upon adoption.

2. Discontinued Operations - Sale of Commercial Business

Ipsen

As of March 31, 2017, the Commercial Business met all the conditions to be classified as held-for-sale and represents a discontinued operation since the disposal of the Commercial Business is a strategic shift that will have a major effect on the Company’s operations and financial results. The Company will not have further significant involvement in the operations of the discontinued Commercial Business. The operating results of the Commercial Business are reported as a loss from discontinued operations, net of tax in the condensed consolidated statements of operations for all periods presented. In addition, in the condensed consolidated balance sheet as of December 31, 2016, 2015 and 2014, the assets and liabilities held for sale have been presented separately. This change is reflected throughout the financial statements as appropriate.

As discussed in Note 1, “Nature of the Business and Summary of Significant Accounting Policies,” on April 3, 2017, the Company completed the sale of the Commercial Business to Ipsen. Pursuant to the Asset Sale Agreement, the Company may be entitled to up to \$450.0 million in additional payments based on the achievement by or on behalf of Ipsen of certain milestone events if the U.S. Food and Drug Administration (the “FDA”) approves ONIVYDE for certain indications as follows: (i) \$225.0 million upon the regulatory approval by the FDA of ONIVYDE for the first-line treatment of metastatic adenocarcinoma of the pancreas (a) in combination with fluorouracil and leucovorin (with or without oxaliplatin), (b) in combination with gemcitabine and abraxane or (c) following submission and filing of regulatory approval by Ipsen for purposes of commercialization by Ipsen; (ii) \$150.0 million upon the regulatory approval by the FDA of ONIVYDE for the treatment of small cell lung cancer after failure of first-line chemotherapy; and (iii) \$75.0 million upon the regulatory approval by the FDA of ONIVYDE for an additional indication unrelated to those described above.

Discontinued Operations and Assets Held for Sale

The consolidated financial statements for the years ended December 31, 2016, 2015 and 2014 reflect the operations of the Commercial Business as a discontinued operation. Discontinued operations for the years ended December 31, 2016, 2015 and 2014 includes the following:

(in thousands)	Years Ended December 31,		
	2016	2015	2014
Revenues:			
Product revenues, net	\$ 53,064	\$ 4,328	\$ —
License and collaboration revenues	87,119	84,930	10,460
Other revenues	4,090	—	—
Total revenues	144,273	89,258	10,460
Costs and expenses:			
Cost of revenues	6,912	46	—
Research and development expenses	51,352	39,955	35,185
Selling, general and administrative expenses	48,677	33,747	11,751
Restructuring expenses	146	—	—
Total costs and expenses	107,087	73,748	46,936
Other income and expenses:			
Interest expense	(21,196)	(463)	—
Income (loss) from discontinued operations	\$ 15,990	\$ 15,047	\$ (36,476)
Income tax expense	(13,224)	(11,215)	—
Total income (loss) from discontinued operations	\$ 2,766	\$ 3,832	\$ (36,476)

The carrying value of the assets and liabilities of the Commercial Business classified as “Assets held for sale” in the condensed consolidated balance sheets are as follows:

(in thousands)	December 31, 2016	December 31, 2015
Assets		
Current assets:		
Accounts receivable, net	\$ 17,194	\$ 6,472
Inventory	14,554	3,717
Prepaid expenses and other current assets	1,547	1,273
Total current assets held for sale	33,295	11,462
Property and equipment, net	1,553	1,814
Intangible assets, net	3,977	4,555
Goodwill	3,605	3,605
Total long-term assets held for sale	9,135	9,974
Liabilities		
Current liabilities:		
Accounts payable, accrued expenses and other	21,312	15,343
Deferred revenues	36,226	50,137
Total current liabilities held for sale	57,538	65,480
Deferred revenues, net of current portion	25,673	51,197
Total long-term liabilities held for sale	25,673	51,197

The Company has reclassified approximately \$0.6 million of accounts payable, accrued expenses and other from continuing operations to discontinuing operations for the year ended December 31, 2016.

3. Consolidated Subsidiaries

Silver Creek Pharmaceuticals, Inc.

On August 20, 2010, the Company acquired a controlling interest in Silver Creek. The Company has concluded that Silver Creek is a variable interest entity and that the Company is the primary beneficiary. The Company has the ability to direct the activities

of Silver Creek through its ownership percentage and through the board of director seats controlled by the Company and its de facto agents. As such, Silver Creek is consolidated by the Company.

During the year ended December 31, 2014, Silver Creek issued convertible notes to various lenders in the aggregate principal amount of \$1.0 million. As of December 31, 2014, these outstanding borrowings and related accrued interest converted into shares of Silver Creek Series A preferred stock at the Series A preferred stock value of \$1.00 per share. As a result of changes to the ownership composition of Silver Creek as of December 31, 2014, the non-controlling interest in Silver Creek increased by approximately \$0.4 million.

During the year ended December 31, 2015, Silver Creek issued and sold a total of 1.6 million shares of Silver Creek Series B preferred stock at a price of \$1.35 per share to investors and received net cash proceeds of \$2.1 million, after deducting issuance costs. As a result of changes to the ownership composition of Silver Creek as of December 31, 2015, the non-controlling interest in Silver Creek increased by approximately \$0.9 million.

As described more fully in Note 11, "Borrowings," Silver Creek issued \$1.0 million of convertible promissory notes (the "Silver Creek Notes") in May 2016. In August 2016, Silver Creek issued \$0.2 million of additional Silver Creek Notes under the same terms as the May 2016 issuance. In December 2016, these outstanding borrowings and related accrued interest were converted into shares of Silver Creek Series C preferred stock at the Series C preferred stock value of \$1.50 per share. In addition, Silver Creek sold 1.5 million additional shares of its Series C preferred stock to new investors at a price of \$1.50 per share and received net cash proceeds of \$2.1 million, after deducting issuance costs. In conjunction with this sale, Silver Creek also issued warrants to purchase 1.9 million shares of Silver Creek Series C preferred stock to the same new investors. As a result of changes to the ownership composition of Silver Creek as of December 31, 2016, the non-controlling interest in Silver Creek decreased by approximately \$0.8 million.

As of December 31, 2016 and 2015, the Company owned approximately 50% and 56% of the outstanding voting stock of Silver Creek, respectively, and recorded a non-controlling interest of approximately \$(1.5) million and \$0.2 million, respectively, as a component of mezzanine equity on the Company's consolidated balance sheets based on the terms of the Silver Creek Series A, Series B and Series C preferred stock.

As of December 31, 2016, the Company consolidated Silver Creek's total assets and total liabilities of \$2.0 million and \$2.0 million, respectively. As of December 31, 2015, the Company consolidated Silver Creek's total assets and total liabilities of \$0.8 million and \$0.2 million, respectively. As of December 31, 2016 and 2015, the Company's unrestricted cash and cash equivalents balance included \$1.9 million and \$0.7 million, respectively, of cash and cash equivalents held by Silver Creek that is designated for the operations of Silver Creek.

Merrimack Pharmaceuticals (Bermuda) Ltd.

Merrimack Pharmaceuticals (Bermuda) Ltd. was incorporated in Bermuda during 2011 and merged with and into the Company during the third quarter of 2014.

4. Net Loss Per Common Share

Basic net income (loss) per share is calculated by dividing the net income (loss) attributable to Merrimack Pharmaceuticals, Inc. by the weighted-average number of common shares outstanding during the period.

Diluted net income (loss) per share is computed by dividing the net income (loss) attributable to Merrimack Pharmaceuticals, Inc. by the weighted-average number of dilutive common shares outstanding during the period. Dilutive shares outstanding is calculated by adding to the weighted shares outstanding any potential (unissued) shares of common stock from outstanding stock options based on the treasury stock method. In a period when a net loss is reported, all common stock equivalents are excluded from the calculation because they would have an anti-dilutive effect, meaning the loss per share would be reduced. Therefore, in periods where a loss is reported, there is no difference in basic and dilutive loss per share.

The Company follows the two-class method when computing net income (loss) per share, when it has issued shares that meet the definition participating securities. The two-class method determines net income (loss) per share for each class of common and participating securities according to dividends declared or accumulated and participating rights in undistributed earnings. The two-class method requires income available to common stockholders for the period to be allocated between common and participating securities based on their respective rights to receive dividends, as if all income for the period has been distributed or losses to be allocated if they are contractually required to fund losses. There were no amounts allocated to participating securities for the years

ended December 31, 2016, 2015 and 2014, as the Company was in a loss position and had no shares that met the definition of participating securities outstanding as of December 31, 2016, 2015 and 2014.

As discussed in Note 11, “Borrowings,” in July 2013, the Company issued \$125.0 million aggregate principal amount of 4.50% convertible notes due 2020 (the “Convertible Notes”) in an underwritten public offering. Following the repayment and satisfaction in full of the Company’s obligations to Hercules Technology Growth Capital, Inc. (“Hercules”) under its Loan and Security Agreement with Hercules (the “Loan Agreement”), which occurred in December 2015, upon any conversion of the Convertible Notes, the Convertible Notes may be settled, at the Company’s election, in cash, shares of the Company’s common stock or a combination of cash and shares of the Company’s common stock. For purposes of calculating the maximum dilutive impact, it is presumed that the conversion premium will be settled in common stock, inclusive of a contractual make-whole provision resulting from a fundamental change, and the resulting potential common shares included in diluted earnings per share if the effect is more dilutive. As of December 31, 2016, \$60.8 million aggregate principal amount of the Convertible Notes remain outstanding.

The stock options, warrants and conversion premium on the Convertible Notes are excluded from the calculation of diluted loss per share because the net loss for the years ended December 31, 2016, 2015 and 2014 causes such securities to be anti-dilutive. Securities excluded from the calculation of diluted loss per share are shown in the chart below:

(in thousands)	Years Ended December 31,		
	2016	2015	2014
Common stock warrants	—	—	238
Outstanding options to purchase common stock	1,903	1,921	1,957
Conversion of the Convertible Notes	1,216	2,500	2,500

5. License and Collaboration Agreements

Baxalta

On April 3, 2017, the Baxalta Agreement was assigned to Ipsen in connection with the completion of the sale of the Commercial Business, as discussed in Note 1, “Nature of the Business and Summary of Significant Accounting Policies.” The Company retained the rights to receive net milestone payments that may become payable pursuant to the Baxalta Agreement for the ex-U.S. development and commercialization of ONIVYDE for up to \$33.0 million, which is comprised of potential payments of \$18.0 million from the sale of ONIVYDE in two additional major European countries, \$5.0 million related to the sale of ONIVYDE in the first major non-European, non-Asian country and \$10.0 million for the first patient dosed in a pivotal clinical trial in an indication other than pancreatic cancer.

Sanofi

On September 30, 2009, the Company and Sanofi entered into a license and collaboration agreement (the “Sanofi Agreement”) for the development and commercialization of MM-121. The Sanofi Agreement became effective on November 10, 2009, and Sanofi paid the Company a nonrefundable, noncreditable upfront license fee of \$60.0 million. On June 17, 2014, the Company and Sanofi agreed to terminate the Sanofi Agreement effective December 17, 2014. In connection with the agreement to terminate the Sanofi Agreement, among other things, Sanofi transferred ownership of the investigational new drug application for MM-121 back to the Company in July 2014, and the Company waived Sanofi’s obligation to reimburse the Company for MM-121 development costs incurred after the effective termination date. Following the termination of the Sanofi Agreement, the Company is not entitled to receive any additional fees, milestone payments or reimbursements from the collaboration.

The Company received total milestone payments of \$25.0 million pursuant to the Sanofi Agreement. Under the Sanofi Agreement, Sanofi was responsible for all MM-121 development and manufacturing costs. Sanofi reimbursed the Company for direct costs incurred in both development and manufacturing and compensated the Company for its internal development efforts based on a full time equivalent rate.

The Company recognized cost reimbursements for MM-121 development services within the period they were incurred and billable. Billable expenses were identified during each specified budget period. In the event that total development services expense incurred and expected to be incurred during the same period exceeded the total contractually allowed billable amount for development services during that period, the Company recognized only a percentage of the development services incurred as revenue during that period.

At the inception of the collaboration, the Company determined that the license, the right to future technology, back-up compounds, participation on steering committees and manufacturing services performance obligations comprising the Sanofi

Agreement represented a single unit of accounting. As the Company could not reasonably estimate its level of effort over the collaboration, the Company recognized revenue from the upfront payment, milestone payments and manufacturing services payments using the contingency-adjusted performance model over the expected development period, which was initially estimated at 12 years from the effective date of the Sanofi Agreement.

As a result of the Company and Sanofi agreeing to terminate the Sanofi Agreement, the development period was revised to end as of December 17, 2014. Accordingly, the balance of the deferred revenue remaining on April 1, 2014 was recognized prospectively on a straight-line basis over the remaining development period, ending on December 17, 2014, in accordance with current generally accepted principles on revenue recognition.

The Company recognized no revenue under the Sanofi agreement during the years ended December 31, 2016 or 2015. During the year ended December 31, 2014, the Company recognized revenue based on the following components of the Sanofi agreement:

(in thousands)	Year Ended December 31, 2014	
Upfront payment	\$	39,306
Milestone payment		16,377
Development services		18,904
Manufacturing services and other		17,709
Total	\$	92,296

The Company performed development services for which revenue was recognized under the Sanofi Agreement in accordance with the specified budget period. During the year and specified budget periods ended December 31, 2013, the Company performed \$10.1 million of development services in excess of recognized revenue. Of this amount, approximately \$5.8 million was recognized as increased revenue in the year ended December 31, 2014 related to expenses incurred prior to December 31, 2013 upon the Company receiving budget approval for these overruns.

The Company maintained no assets or liabilities related to the Sanofi Agreement as of either December 31, 2016 or 2015.

6. Fair Value of Financial Instruments

Fair value is an exit price, representing the amount that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants. Fair value is determined based on observable and unobservable inputs. Observable inputs reflect readily obtainable data from independent sources, while unobservable inputs reflect certain market assumptions. As a basis for considering such assumptions, GAAP establishes a three-tier value hierarchy, which prioritizes the inputs used to develop the assumptions and for measuring fair value as follows: (Level 1) observable inputs such as quoted prices in active markets for identical assets; (Level 2) inputs other than the quoted prices in active markets that are observable either directly or indirectly; and (Level 3) unobservable inputs in which there is little or no market data, which requires the Company to develop its own assumptions. This hierarchy requires the Company to use observable market data, when available, and to minimize the use of unobservable inputs when determining fair value.

Recurring Fair Value Measurements

The carrying values of cash, restricted cash, prepaid expenses, accounts receivable, accounts payable and accrued expenses, and other short-term assets and liabilities approximate their respective fair values due to the short-term maturities of these assets and liabilities.

The following tables summarize assets and liabilities measured at fair value on a recurring basis as of December 31, 2016 and 2015 and the input categories associated with those assets and liabilities:

(in thousands)	December 31, 2016		
	Level 1	Level 2	Level 3
Assets:			
Money market funds	\$ 12,373	\$ —	\$ —
Totals	<u>\$ 12,373</u>	<u>\$ —</u>	<u>\$ —</u>
Liabilities:			
Silver Creek warrant liability	\$ —	\$ —	\$ 1,499
Totals	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 1,499</u>

(in thousands)	December 31, 2015		
	Level 1	Level 2	Level 3
Assets:			
Money market funds	\$ 704	\$ —	\$ —
Totals	<u>\$ 704</u>	<u>\$ —</u>	<u>\$ —</u>

In December 2016, Silver Creek issued warrants to purchase an aggregate of 1.9 million shares of Silver Creek Series C preferred stock (the “Silver Creek warrants”). The issuance of the Silver Creek warrants is described more fully in Note 11, “Borrowings.” The Silver Creek warrants were valued at \$1.5 million as of December 31, 2016 using a Black-Scholes option pricing model, probability-weighted for different exercise scenarios. The key assumptions utilized in the Black-Scholes option pricing model as of December 31, 2016 were a risk-free interest rate of 2.3%, expected dividend yield of 0.0%, expected volatility of 61.7% and expected term of 6.9 years. Changes in the fair value of the Silver Creek warrants in subsequent periods will be recognized as a component of “Other income, net” in the consolidated statements of operations and comprehensive loss.

There were no changes in valuation techniques or transfers between the fair value measurement levels during the years ended December 31, 2016 or 2015. There were no liabilities measured at fair value on a recurring basis as of December 31, 2015.

Non-Recurring Fair Value Measurements

Certain assets, including IPR&D intangible assets, may be measured at fair value on a non-recurring basis in periods subsequent to initial recognition. As described more fully in Note 8, “Intangible Assets, Net,” the Company performed an interim impairment assessment during the fourth quarter of 2016 on the Company’s IPR&D asset related to the antibody-targeted nanotherapeutic that contains a chemotherapy drug. The Company utilized a probability-weighted discounted cash flow analysis under the income approach in performing this assessment. As a result of this interim impairment assessment, the fair value of this IPR&D asset was determined to be zero as of December 31, 2016. No non-recurring fair value measurements were required during the year ended December 31, 2015.

Other Fair Value Measurements

The estimated fair value of the Convertible Notes was \$57.5 million as of December 31, 2016. The Company estimated the fair value of the Convertible Notes by using a quoted market rate in an inactive market, which is classified as a Level 2 input. The carrying value of the Convertible Notes was \$47.0 million as of December 31, 2016 due to the bifurcation of the conversion feature of the Convertible Notes as described more fully in Note 11, “Borrowings.”

As discussed in Note 11, “Borrowings,” in December 2015, the Company closed a private placement of \$175.0 million aggregate principal amount of 11.50% senior secured notes due 2022 (the “2022 Notes”). The Company estimated the fair value of the 2022 Notes by using publicly-available information related to one of the 2022 Notes borrower’s portfolio of debt investments based on unobservable inputs, which is classified as a Level 3 input. The estimated fair value of the 2022 Notes was \$167.0 million as of December 31, 2016. The carrying value of the 2022 Notes was \$169.9 million as of December 31, 2016.

7. Marketable Securities

As of both December 31, 2016 and 2015, the Company maintained only cash equivalents comprised of money market funds. As of December 31, 2016, the Company did not hold any securities that were in an unrealized loss position.

There were no realized gains or losses on available-for-sale securities during the years ended December 31, 2016, 2015 or 2014.

8. Intangible Assets, Net

As part of the acquisition of Hermes BioSciences, Inc. (“Hermes”) on October 6, 2009, the Company acquired IPR&D assets of \$2.8 million related to MM-302, an antibody-targeted nanotherapeutic that contains a chemotherapy drug.

In December 2016, the Company determined that it would be stopping the ongoing Phase 2 clinical trial of MM-302, which utilized the antibody-targeted nanotherapeutic that contains a chemotherapy drug. The decision to stop the trial was made following an independent Data and Safety Monitoring Board (the “DSMB”) opinion that continuing the clinical trial would be unlikely to demonstrate benefit over the comparator treatments. Subsequent to this recommendation, a futility assessment was performed that confirmed the DSMB’s opinion. Both the treatment and control arms were found to have shorter than expected median progression free survival. While patients currently enrolled in the clinical trial may choose to continue on their assigned treatment based upon discussion with their study physician, no further development of MM-302 is being contemplated by the Company at this time. As a result of this determination, the Company recorded an impairment charge of \$2.8 million during the fourth quarter of 2016. This impairment charge was recorded as a component of “Research and development expenses” within the consolidated statements of operations and comprehensive loss.

The Company did not have any intangible assets as of December 31, 2016, and the intangible assets as of December 31, 2015 consisted of the following:

(in thousands)	December 31, 2015		
	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
IPR&D	2,800	—	2,800

9. Property and Equipment, Net

Property and equipment, net as of December 31, 2016 and 2015 consisted of the following:

(in thousands)	December 31,	
	2016	2015
Lab equipment	\$ 17,537	\$ 16,325
IT equipment	8,509	7,733
Leasehold improvements	20,633	20,507
Furniture and fixtures	626	635
Construction in process	378	2,243
Total property and equipment, gross	47,683	47,443
Less: Accumulated depreciation	(33,471)	(27,342)
Total property and equipment, net	\$ 14,212	\$ 20,101

Depreciation expense was \$6.5 million, \$4.8 million and \$3.7 million for the years ended December 31, 2016, 2015 and 2014, respectively. Capitalized interest costs were insignificant for the years ended December 31, 2016, 2015 and 2014.

During the year ended December 31, 2016, the Company recognized a \$0.5 million charge related to the disposal of property and equipment. There were no significant losses recognized related to the disposal of property and equipment during the years ended December 31, 2015 or 2014.

10. Accounts Payable, Accrued Expenses and Other

Accounts payable, accrued expenses and other as of December 31, 2016 and 2015 consisted of the following:

(in thousands)	December 31,	
	2016	2015
Accounts payable	\$ 2,692	\$ 3,848
Accrued goods and services	7,534	8,283
Accrued clinical trial costs	8,776	9,170
Accrued drug purchase costs	480	6,620
Accrued payroll and related benefits	3,394	5,313
Accrued restructuring expenses	774	—
Accrued interest	2,100	3,041
Accrued dividends payable	19	19
Silver Creek warrant liability	1,499	—
Deferred tax incentives	1,402	445
Total accounts payable, accrued expenses and other	<u>\$ 28,670</u>	<u>\$ 36,739</u>

11. Borrowings

2022 Notes

On December 22, 2015, the Company closed a private placement of \$175.0 million aggregate principal amount of 11.50% 2022 Notes and entered into an indenture (the “U.S. Bank Indenture”) with U.S. Bank National Association as trustee and collateral agent (the “2020 Notes Trustee”). As a result of this placement, the Company received net proceeds of approximately \$168.5 million, after deducting private placement and offering expenses payable by the Company. The private placement and offering expenses included \$0.9 million of transaction costs that were expensed in accordance with the debt modification guidance per ASC 470, *Debt*, as further discussed below. The 2022 Notes bear interest at a rate of 11.50% per year, payable semi-annually on June 15 and December 15 of each year, beginning on June 15, 2016. The Company will pay semi-annual installments of principal on the 2022 Notes of \$21,875,000 each, subject to adjustment as provided in the 2022 Notes, on June 15 and December 15 of each year, beginning on June 15, 2019. The 2022 Notes will mature on December 15, 2022, unless earlier redeemed or repurchased in accordance with their terms prior to such date.

The Company may redeem the 2022 Notes at its option, in whole or in part from time to time at a price equal to the principal amount plus accrued interest and a specified make-whole premium. If the Company experiences certain change of control events as defined in the U.S. Bank Indenture, the holders of the 2022 Notes will have the right to require the Company to purchase all or a portion of the 2022 Notes at a purchase price in cash equal to 101% of the principal amount thereof, plus accrued and unpaid interest to the date of purchase. In addition, upon certain asset sale events as defined in the U.S. Bank Indenture, the Company may be required to offer to use the net proceeds thereof to purchase all or a portion of the 2022 Notes at 100% of the principal amount thereof, plus accrued and unpaid interest to the date of purchase.

The 2022 Notes are senior secured obligations of the Company and will be equal in right of payment to all existing and future pari passu indebtedness of the Company (including the Company’s outstanding Convertible Notes), will be senior in right of payment to all existing and future subordinated indebtedness of the Company, will have the benefit of a security interest in the 2022 Notes collateral and will be junior in lien priority in respect of any asset-based lending collateral that secures any first priority lien obligations from time to time. The 2022 Notes contain customary covenants, including covenants that limit or restrict the Company’s ability to incur liens, incur indebtedness, and make certain restricted payments, but do not contain covenants related to future financial performance. The 2022 Notes are secured by a first priority lien on substantially all of the Company’s assets.

The 2022 Notes contain customary events of default. Upon certain events of default occurring, the 2022 Notes Trustee may declare 100% of the principal of and accrued and unpaid interest, if any, on all the 2022 Notes to be due and payable. In the case of certain events of bankruptcy, insolvency or reorganization involving the Company or a restricted subsidiary, 100% of the principal of, and accrued and unpaid interest on, the 2022 Notes will automatically become due and payable. There have been no events of default as of or during the year ended December 31, 2016.

The Company assessed the 2022 Notes pursuant to ASC 815, *Derivatives and Hedging*, to determine if any features necessitated bifurcation from the host instrument. The Company concluded that none of the embedded redemption features within the 2022 Notes require bifurcation, as these features are clear and closely related to the host instrument.

Debt issuance costs incurred by the Company, excluding costs allocated to the debt modification as discussed below, are accounted for as a direct deduction to the carrying value of the 2022 Notes and are amortized to interest expense using the effective interest method over the life of the 2022 Notes. The effective interest rate associated with the 2022 Notes is 12.32%. For the years ended December 31, 2016 and 2015, interest expense related to the 2022 Notes was approximately \$20.9 million and \$0.5 million, respectively, income (loss) from discontinued operations, net of tax on the consolidated statement of loss and comprehensive loss.

In connection with the completion of the Asset Sale on April 3, 2017, the liability under the 2022 Notes was satisfied.

Convertible Notes

In July 2013, the Company issued \$125.0 million aggregate principal amount of Convertible Notes in an underwritten public offering. The Company issued the Convertible Notes under an indenture, dated as of July 17, 2013 (the “Base Indenture”) between the Company and Wells Fargo Bank, National Association, as trustee (the “Convertible Notes Trustee”), as supplemented by a supplemental indenture, dated as of July 17, 2013, between the Company and the Convertible Notes Trustee (together with the Base Indenture, the “Wells Fargo Indenture”). As a result of the Convertible Notes offering, the Company received net proceeds of approximately \$120.6 million, after deducting underwriting discounts and commissions and offering expenses payable by the Company.

The Convertible Notes bear interest at a rate of 4.50% per year, payable semiannually in arrears on January 15 and July 15 of each year, beginning on January 15, 2014. The Convertible Notes are general unsecured senior obligations of the Company and rank (i) *pari passu* in seniority with respect to the 2022 Notes, (ii) senior in right of payment to any of the Company’s indebtedness that is expressly subordinated in right of payment to the Convertible Notes, (iii) equal in right of payment to any of the Company’s unsecured indebtedness that is not so subordinated, (iv) effectively junior in right of payment to any of the Company’s secured indebtedness to the extent of the value of the assets securing such indebtedness and (v) structurally junior to all indebtedness and other liabilities (including trade payables) of the Company’s subsidiaries.

The Company separately accounted for the liability and equity components of the Convertible Notes by bifurcating gross proceeds between the indebtedness, or liability component, and the embedded conversion option, or equity component. This bifurcation was done by estimating an effective interest rate as of the date of issuance for similar notes which do not contain an embedded conversion option. The gross proceeds received from the issuance of the Convertible Notes less the initial amount allocated to the indebtedness resulted in a \$53.8 million allocation to the embedded conversion option. The embedded conversion option was recorded in stockholders’ deficit and as debt discount, to be subsequently amortized as interest expense over the term of the Convertible Notes. Underwriting discounts and commissions and offering expenses totaled \$4.4 million and were allocated to the indebtedness and the embedded conversion option based on their relative values.

On April 13, 2016, the Company entered into separate, privately-negotiated conversion agreements (the “Conversion Agreements”) with certain holders of the Convertible Notes. Under the Conversion Agreements, such holders agreed to convert an aggregate principal amount of \$64.2 million of Convertible Notes held by them. The Company initially settled each \$1,000 principal amount of Convertible Notes surrendered for conversion by delivering 136 shares of the Company’s common stock on April 18, 2016. In total, the Company issued an aggregate of 873,215 shares of its common stock on this initial closing date. In addition, pursuant to the Conversion Agreements, at the additional closings (as defined in the Conversion Agreements), the Company issued an aggregate of 363,551 shares of the Company’s common stock representing an aggregate of \$27.7 million as additional payments in respect of the conversion of the Convertible Notes. The number of additional shares was determined based on the daily VWAP (as defined in the Conversion Agreements) of the Company’s common stock for each of the trading days in the 10-day trading period following the date of the Conversion Agreements. The issuance of 1,236,766 total shares of the Company’s common stock pursuant to the Conversion Agreements resulted in an increase to common stock and additional paid-in capital of \$101.0 million.

As a result of the conversion, the Company recognized an overall loss on extinguishment of \$14.6 million representing the difference between the total settlement consideration transferred to the holders that was attributed to the liability component of the Convertible Notes, based on the fair value of that component at the time of conversion, and the net carrying value of the liability. The loss on extinguishment was recorded as interest expense during the second quarter of 2016. The remaining settlement consideration transferred was allocated to the reacquisition of the embedded conversion option and recognized as a \$39.8 million reduction of additional paid-in capital. Transaction costs incurred with third parties related to the conversion were allocated to the liability and equity components and resulted in an additional \$0.2 million of interest expense and a \$0.2 million reduction of additional paid-in capital.

The outstanding Convertible Notes will mature on July 15, 2020 (the “Maturity Date”), unless earlier repurchased by the Company or converted at the option of holders. Holders may convert their Convertible Notes at their option at any time prior to the close of business on the business day immediately preceding April 15, 2020 only under the following circumstances:

- during any calendar quarter commencing after September 30, 2013 (and only during such calendar quarter), if the last reported sale price of the Company’s common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;
- during the five business day period after any five consecutive trading day period (the “measurement period”) in which the trading price (as defined in the Convertible Notes) per \$1,000 principal amount of Convertible Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company’s common stock and the conversion rate on each such trading day; or
- upon the occurrence of specified corporate events set forth in the Wells Fargo Indenture.

On or after April 15, 2020 until the close of business on the business day immediately preceding the Maturity Date, holders may convert their Convertible Notes at any time, regardless of the foregoing circumstances.

Following the repayment and satisfaction in full of the Company’s obligations to Hercules under the Loan Agreement, which occurred in December 2015, upon any conversion of the Convertible Notes, the Convertible Notes may be settled, at the Company’s election, in cash, shares of the Company’s common stock or a combination of cash and shares of the Company’s common stock.

The initial conversion rate of the Convertible Notes upon issuance in July 2013 was 160 shares of the Company’s common stock per \$1,000 principal amount of Convertible Notes, which was equivalent to an initial conversion price of \$6.25 per share of common stock. As a result of the special dividend that was payable on May 26, 2017 to stockholders of record as of the close of business on May 17, 2017, the conversion rate of the Convertible Notes was adjusted from 160.0000 shares of the Company’s common stock per \$1,000 principal amount of Convertible Notes to 235.2112 shares of the Company’s common stock per \$1,000 principal amount of Convertible Notes. As a result of the one-for-ten reverse stock split of the Company’s common stock effected on September 5, 2017, the conversion rate of the Convertible Notes was further adjusted from 235.2112 shares of the Company’s common stock per \$1,000 principal amount of Convertible Notes to 23.5210 shares of the Company’s common stock per \$1,000 principal amount of Convertible Notes. The conversion rate will be subject to further adjustment in some events, but will not be adjusted for any accrued and unpaid interest. In addition, following certain corporate events that occur prior to the Maturity Date, the Company will increase the conversion rate for a holder who elects to convert its Convertible Notes in connection with such a corporate event in certain circumstances.

Upon the occurrence of a fundamental change (as defined in the Wells Fargo Indenture) involving the Company, holders of the Convertible Notes may require the Company to repurchase all or a portion of their Convertible Notes for cash at a price equal to 100% of the principal amount of the Convertible Notes to be purchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

The Wells Fargo Indenture contains customary terms and covenants and events of default with respect to the Convertible Notes. If an event of default (as defined in the Wells Fargo Indenture) occurs and is continuing, the Convertible Notes Trustee by written notice to the Company, or the holders of at least 25% in aggregate principal amount of the Convertible Notes then outstanding by written notice to the Company and the Convertible Notes Trustee, may, and the Convertible Notes Trustee at the request of such holders will, declare 100% of the principal of and accrued and unpaid interest on the Convertible Notes to be due and payable. In the case of an event of default arising out of certain events of bankruptcy, insolvency or reorganization involving the Company or a significant subsidiary (as set forth in the Indenture), 100% of the principal of and accrued and unpaid interest on the Convertible Notes will automatically become due and payable. There have been no events of default as of or during the year ended December 31, 2016.

For the years ended December 31, 2016, 2015 and 2014, interest expense related to the Convertible Notes was \$22.7 million, \$13.7 million and \$13.7 million, respectively. As discussed above, interest expense for the year ended December 31, 2016 includes the loss on extinguishment of \$14.6 million associated with the April 2016 conversion of the Convertible Notes as well as \$0.2 million of related transaction costs.

Loan Agreement

In November 2012, the Company entered into the Loan Agreement with Hercules pursuant to which the Company received loans in the aggregate principal amount of \$40.0 million. The Company, as permitted under the Loan Agreement, had previously extended the interest-only payment period with the aggregate principal balance of the loans to be repaid in monthly installments

starting on June 1, 2014 and continuing through November 1, 2016. On June 25, 2014, the Company entered into an amendment to the Loan Agreement, whereby the Company and Hercules agreed to extend until October 1, 2014 the period during which the Company makes interest-only payments. On November 6, 2014, the Company entered into a further amendment to the Loan Agreement, whereby the Company and Hercules agreed to extend by four additional months the period during which the Company makes interest-only payments. On February 25, 2015, the Company entered into a fourth amendment to the Loan Agreement pursuant to which the Company and Hercules agreed to extend the maturity date and the period during which the Company makes interest-only payments on its current loans in the aggregate principal amount of \$40.0 million. As a result of this amendment, the Company was required to repay the outstanding aggregate principal balance of the loan beginning on June 1, 2016 and continuing through November 1, 2018. As a result of the FDA's approval of the Company's NDA for ONIVYDE, which occurred on October 22, 2015, the Company elected to extend the interest-only period by an additional six months such that the Company would repay the outstanding aggregate principal balance of the loans beginning on December 1, 2016 and continuing through November 1, 2018. This amendment was treated as a debt modification for accounting purposes.

Upon the earlier of full repayment of the loans or November 1, 2016, the Company was required to pay Hercules a fee of \$1.2 million, which had been recorded as a discount to the loans and as a long-term liability on the Company's consolidated balance sheets. Additionally, the Company reimbursed Hercules for costs incurred related to the loans, which was reflected as a discount to the carrying value of the loans. The Company amortized these loan discounts totaling \$1.6 million to interest expense over the term of the loans using the effective interest method.

In connection with the Loan Agreement, the Company granted Hercules a security interest in all of the Company's personal property now owned or hereafter acquired, excluding intellectual property but including the proceeds from the sale, if any, of intellectual property, and a negative pledge on intellectual property. The Loan Agreement also contained certain representations, warranties and non-financial covenants of the Company.

During the fourth quarter of 2015, the Company repaid the loans in full in conjunction with the issuance of the 2022 Notes. The total repayment amount included the \$40.0 million in outstanding principal, the \$1.2 million fee discussed above and interest accrued up through the repayment date. The Company assessed the repayment of the Loan Agreement with Hercules in conjunction with the issuance of the 2022 Notes, of which Hercules holds a portion, in accordance with the debt extinguishment and modification guidance per ASC 470, *Debt*. Based upon this assessment, the Company concluded that this transaction represented a debt modification, and accordingly, \$0.3 million of unamortized debt issuance costs related to the Loan Agreement are being amortized as an adjustment of interest expense over the life of the 2022 Notes using the effective interest method. In addition, \$0.9 million of debt issuance costs associated with the 2022 Notes were allocated to the modified Loan Agreement and expensed as a component of "Interest expense" on the consolidated statement of operations and comprehensive loss for the year ended December 31, 2015.

For the years ended December 31, 2015 and 2014, interest expense related to the Hercules loans was \$5.4 million and \$4.7 million, respectively. No interest expense related to the Hercules loans was recognized during the year ended December 31, 2016.

Credit Facility

On November 8, 2016, the Company entered into a Loan and Security Agreement (the "Credit Agreement") with BioPharma Credit Investments IV Sub, LP ("Pharmakon") pursuant to which a credit facility of an aggregate principal amount of at least \$15.0 million and up to \$25.0 million is available. If the Company borrows under the Credit Agreement, the credit facility will bear interest at an annual rate of 11.50%.

The Company had not borrowed any amounts under the Credit Agreement as of December 31, 2016 and on April 27, 2017, the credit agreement expired.

Silver Creek Convertible Notes

In December 2012, the Company's majority owned subsidiary, Silver Creek, entered into a Note Purchase Agreement pursuant to which it issued convertible notes to various lenders in aggregate principal amounts of \$1.6 million in December 2012, \$0.9 million during the year ended December 31, 2013 and \$1.0 million during the year ended December 31, 2014. The notes issued pursuant to the Note Purchase Agreement bore interest at 6% per annum. Upon issuance, these convertible notes contained a feature wherein if at any time prior to maturity Silver Creek enters into a qualifying equity financing, defined as a sale or series of related sales of equity securities prior to the maturity date and resulting in at least \$4.0 million of gross proceeds, the notes would automatically convert into the next qualifying equity financing at a 25% discount. The Company determined that this convertible feature met the definition of a derivative and required separate accounting treatment. The derivative was estimated to be valued at \$0.2 million using a probability-weighted model and was recorded as derivative liability on the consolidated balance sheets. For the year ended December 31, 2014,

the derivative was remeasured upon conversion of the notes with the gain in remeasurement recognized in other income. The specific notes that were outstanding as of December 31, 2014 matured and converted, along with an immaterial amount of accrued interest into shares of Silver Creek Series A preferred stock on December 31, 2014.

In May 2016, Silver Creek issued an aggregate of \$1.0 million of Silver Creek Notes. In August 2016, Silver Creek issued \$0.2 million of additional Silver Creek Notes under the same terms as the May 2016 issuance. The Silver Creek Notes were automatically convertible into shares of Silver Creek equity under a variety of conversion scenarios. The Silver Creek Notes bore interest at 6% per annum and were set to mature and convert, along with accrued interest, into Silver Creek Series B preferred stock at a conversion price of \$1.35 per share on December 31, 2016. If, prior to maturity, Silver Creek entered into a sale or series of related sales of equity securities resulting in at least \$4.0 million of gross proceeds, the Silver Creek Notes would convert into the equity securities sold at the lesser of the price paid per share for the equity securities or \$1.60 per share. Principal and accrued interest related to the Silver Creek Notes were not permitted to be paid in cash by Silver Creek without the consent of a majority of the noteholders.

In December 2016, Silver Creek executed a Series C Preferred Stock and Warrant Purchase Agreement (the “Silver Creek Series C Agreement”) whereby it agreed to sell 1.5 million shares of Silver Creek Series C preferred stock to new investors at a purchase price of \$1.50 per share. In connection with this financing, holders of the Silver Creek Notes agreed to convert all principal and accrued interest associated with the Silver Creek Notes into 0.8 million shares of Silver Creek Series C preferred stock at a conversion price of \$1.50 per share.

New purchasers of the Silver Creek Series C preferred stock also received warrants to purchase an aggregate of 1.9 million shares of Silver Creek Series C preferred stock at a future date. The exercise price of the warrants varies based upon the achievement of certain milestone events defined in the related warrant agreements. Milestone Event 1 is defined as the date that is seven business days following the acceptance by the FDA of Silver Creek’s filing of an Investigational New Drug application (“IND”), or 30 business days after the IND is filed without FDA rejection of the application. Milestone Event 2 is defined as the date that is seven business days following the date when Silver Creek completes a Phase 1 clinical trial provided, that if Silver Creek receives proceeds of less than \$4.0 million pursuant to the sale of Series C preferred stock, Milestone Event 2 shall mean the date that is seven business days following the first dose in humans in a clinical trial.

Of the warrants to purchase 1.9 million shares of Silver Creek Series C preferred stock that were issued, warrants to purchase 1.2 million shares of Silver Creek Series C preferred stock are exercisable at an exercise price of \$1.75 per share if the warrant is exercised prior to the date that is 30 business days after the date that the holder receives notice from Silver Creek of the achievement of Milestone Event 1, or \$2.25 per share if the warrant is exercised on or after the date that is 30 business days after the holder receives notice from Silver Creek of the achievement of Milestone Event 1. The remaining warrants to purchase 0.7 million shares of Silver Creek Series C preferred stock are exercisable at an exercise price of \$2.25 per share if the warrant is exercised prior to the date that is 30 business days after the date that the holder receives notice from Silver Creek of the achievement of Milestone Event 2, or \$2.75 per share if the warrant is exercised on or after the date that is 30 business days after Milestone Event 2. All warrants to purchase Silver Creek Series C preferred stock are exercisable until the earliest of (i) the consummation of a Silver Creek liquidation event, (ii) the consummation of an initial public offering of Silver Creek common stock, (iii) four months after the achievement of Milestone Event 2 or (iv) seven years from the date of issuance.

The warrants to purchase Silver Creek Series C preferred stock were classified as a current liability in accordance with ASC 480, *Distinguishing Liabilities from Equity*, and initially measured at fair value, as described more fully in Note 6, “Fair Value of Financial Instruments.” The fair value of the warrants was deducted from the total Silver Creek Series C preferred stock proceeds received by Silver Creek, and the remaining proceeds received were allocated to the Silver Creek Series C preferred stock.

Future Minimum Payments under Outstanding Borrowings

Future minimum payments under outstanding borrowings as of December 31, 2016 are as follows:

(in thousands)	Convertible Notes
2017	\$ 2,736
2018	2,736
2019	2,736
2020	63,527
2021 and thereafter	—
Total	71,735
Less interest	(10,943)
Less unamortized discount	(13,842)
Less current portion	—
Long-term debt	<u>\$ 46,950</u>

12. Restructuring Activities

On October 3, 2016, the Company announced a 22% reduction in headcount as part of a major corporate restructuring with the objective of prioritizing its research and development on a focused set of systems biology-derived oncology products and strengthening its financial runway. On this same date, the Company also announced the resignation of Robert Mulroy, the Company's former President and Chief Executive Officer ("CEO").

Under this corporate restructuring, the Company recognized total restructuring expenses of \$5.7 million during the year ended December 31, 2016 related to stock-based compensation expense for certain terminated employees, contractual termination benefits for employees with pre-existing severance arrangements and one-time employee termination benefits. These one-time employee termination benefits were comprised of severance, benefits and related costs, all of which resulted in cash expenditures during the third and fourth quarters of 2016.

The following table summarizes the charges related to the restructuring activities as of December 31, 2016:

(in thousands)	Expenses	Less: Payments	Less: Non-Cash Expenses	Accrued Restructuring Expenses at December 31, 2016
Severance, benefits and related costs due to workforce reduction	\$ 5,710	\$ (3,565)	\$ (1,371)	\$ 774
Totals	<u>\$ 5,710</u>	<u>\$ (3,565)</u>	<u>\$ (1,371)</u>	<u>\$ 774</u>

13. Common Stock Warrants

The following is a description of the common stock warrant activity of the Company:

(in thousands, except per share amounts)	Warrants for the Purchase of Common Stock	Weighted Average Exercise Price
Balance at December 31, 2013	278	\$ 30.50
Exercised	(40)	\$ 33.80
Balance at December 31, 2014	238	\$ 30.00
Exercised	(235)	\$ 30.00
Cancelled	(3)	\$ 30.00
Balance at December 31, 2015	<u>—</u>	<u>\$ —</u>

During the year ended December 31, 2014, warrants to purchase approximately 7,500 shares of common stock were cashless exercised and 3,800 shares of common stock were issued. During the year ended December 31, 2015, warrants to purchase approximately 229,500 shares of common stock were cashless exercised and 169,500 shares of common stock were issued. As of December 31, 2015, all remaining unexercised warrants for the purchase of common stock had expired and were cancelled.

14. Common Stock

In July 2015, the Company entered into a Sales Agreement with Cowen and Company, LLC (“Cowen”) to sell shares of the Company’s common stock having an aggregate sales price of up to \$40.0 million through an “at the market offering” program under which Cowen acted as the sales agent. The Company concluded sales under this program in September 2015, having sold approximately 0.4 million shares of common stock and generating approximately \$38.6 million in net proceeds, after deducting commissions and offering expenses.

As of December 31, 2016 and 2015, the Company had 20.0 million shares of \$0.01 par value common stock authorized. There were approximately 13.0 million and 11.6 million shares of common stock issued and outstanding as of December 31, 2016 and 2015, respectively.

15. Stock-Based Compensation

In 2008, the Company adopted the 2008 Stock Incentive Plan (as amended, the “2008 Plan”) for employees, officers, directors, consultants and advisors. The 2011 Stock Incentive Plan (the “2011 Plan”) became effective upon closing of the Company’s initial public offering in April 2012. Upon effectiveness of the 2011 Plan, no further awards were available to be issued under the 2008 Plan. The 2011 Plan is administered by the Board of Directors of the Company and permits the Company to grant incentive and non-qualified stock options, stock appreciation rights, restricted stock, restricted stock units and other stock-based awards. Additional shares also become available for grant by reason of the forfeiture, cancellation, expiration or termination of existing awards. The Company registered 0.4 million, 0.4 million and 0.4 million of additional shares of common stock related to the 2011 Plan in February 2016, February 2015 and March 2014, respectively. As of December 31, 2016, there were 0.5 million shares remaining available for grant under the 2011 Plan.

On August 11, 2017, the Company’s stockholders approved an amendment to the Company’s certificate of incorporation to effect the Reverse Split. On September 5, 2017, the Company filed the amendment to its certificate of incorporation to effect the Reverse Split, and on September 6, 2017, the Reverse Split was effective for trading purposes. As a result of the Reverse Split, every ten shares of common stock issued and outstanding was converted into one share of common stock, reducing the number of issued and outstanding shares of common stock from approximately 132.8 million shares to approximately 13.28 million shares. No fractional shares were issued in connection with the Reverse Split. The amendment to the certificate of incorporation also proportionately reduced the number of authorized shares of common stock from 200 million to 20 million. The Reverse Split did not change the par value of the common stock. The Reverse Split did not change the number of authorized shares or par value of the Company’s preferred stock, of which there are no shares issued or outstanding. All outstanding stock options and convertible notes entitling their holders to purchase shares of common stock or acquire shares of common stock upon conversion, as the case may be, were adjusted as a result of the Reverse Split, as required by the terms of these securities.

During the years ended December 31, 2016, 2015 and 2014, the Company issued options to purchase 0.4 million, 0.4 million and 0.4 million shares of common stock, respectively. These options generally vest over a three-year period for employees. Options granted to directors vest immediately.

The fair value of stock options granted to employees during the years ended December 31, 2016, 2015 and 2014 was estimated at the date of grant using the following assumptions:

	Years Ended December 31,		
	2016	2015	2014
Risk-free interest rate	1.1 – 2.0%	1.5 – 1.8%	1.6 – 2.0%
Expected dividend yield	0%	0%	0%
Expected term	5.0 – 5.8 years	5.0 – 5.9 years	5.0 – 5.9 years
Expected volatility	67 – 69%	66 – 67%	64 – 72%

The Company uses the simplified method to calculate the expected term as it does not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term of its stock options. Under this approach, the expected term is calculated to be the average of the ten-year contractual term of the option and the weighted-average vesting term of the option, taking into consideration multiple vesting tranches. The computation of expected volatility is based on the historical volatility of comparable companies from a representative peer group selected based on industry and market capitalization. The risk-free interest rate is based on a treasury instrument whose term is consistent with the expected life of the stock options. Management estimates expected forfeitures based on historical experience and recognizes compensation costs only for those equity awards expected to vest.

The Company recognized stock-based compensation expense during the years ended December 31, 2016, 2015 and 2014 as follows:

(in thousands)	Years Ended December 31,		
	2016	2015	2014
Employee awards:			
Research and development expense	\$ 6,083	\$ 7,711	\$ 6,434
General and administrative expense	4,685	5,392	5,276
Restructuring expense	1,371	—	—
Stock-based compensation expense for employee awards	12,139	13,103	11,710
Stock-based compensation expense for non-employee awards	1	58	268
Total stock-based compensation expense	<u>\$ 12,140</u>	<u>\$ 13,161</u>	<u>\$ 11,978</u>

The following table summarizes stock option activity during the year ended December 31, 2016:

(in thousands, except per share amounts)	Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding at December 31, 2015	1,921	\$ 57.20	6.24	\$ 47,963
Granted	426	\$ 55.70		
Exercised	(196)	\$ 32.90		
Forfeited	(249)	\$ 70.40		
Outstanding at December 31, 2016	<u>1,902</u>	\$ 57.70	5.97	\$ 7,564
Vested and expected to vest at December 31, 2016	1,879	\$ 57.60	5.93	\$ 7,564
Exercisable at December 31, 2016	1,497	\$ 54.90	5.24	\$ 7,564

The weighted-average grant date fair value of stock options granted during the years ended December 31, 2016, 2015 and 2014 was \$33.20, \$58.00 and \$34.10, respectively.

The aggregate intrinsic value was calculated as the difference between the exercise price of the stock options and the fair value of the underlying common stock. The aggregate intrinsic value of options exercised during the years ended December 31, 2016, 2015 and 2014 was \$5.6 million, \$30.9 million and \$19.8 million, respectively.

As of December 31, 2016, there was \$12.7 million of total unrecognized stock-based compensation expense related to unvested employee stock options. The Company expects to recognize this expense over a weighted-average period of approximately 1.7 years.

16. Income Taxes

Intraperiod tax allocation rules require the Company to allocate the provision for income taxes between continuing operations and other categories of earnings, such as discontinued operations. In periods in which there is pre-tax loss from continuing operations and pre-tax income in other categories of earnings, such as discontinued operations, the Company must allocate to continuing operations an income tax benefit for the loss in continuing operations with an offsetting income tax expense to discontinued operations.

For the years ended December 31, 2016 and 2015, the Company recognized an income tax benefit of \$13.2 million and \$11.2 million, respectively, in continuing operations and income tax expense in discontinued operations of \$13.2 million and \$11.2 million, respectively. The Company did not record income taxes for the year ended December 31, 2014 because there is a pre-tax loss from both continuing operations and discontinued operations.

A reconciliation of the Company's effective tax rate to the statutory federal income tax rate is as follows:

	Years Ended December 31,		
	2016	2015	2014
Federal income tax at statutory federal rate	35.0%	35.0%	35.0%
State taxes	0.6	1.2	3.7
Permanent differences	(6.3)	(2.4)	(6.5)
Stock-based compensation	(1.5)	(1.0)	(2.7)
Tax credits	12.6	9.0	24.1
Change in deferred state tax rate	(0.3)	(1.9)	—
Other	3.7	(0.5)	1.8
Change in valuation allowance	(36.0)	(32.5)	(55.4)
Total	7.8%	6.9%	—%

During the year ended December 31, 2014, the Company recorded a deferred tax liability related to the embedded conversion option of the Convertible Notes through equity. This deferred tax liability is reflected in the deferred tax table below, but is appropriately excluded from the effective tax rate.

Temporary differences that give rise to significant net deferred tax assets as of December 31, 2016 and 2015 are as follows:

(in thousands)	December 31,	
	2016	2015
Deferred tax assets		
Net operating losses	\$ 194,027	\$ 182,992
Capitalized research and development expenses	15,854	21,444
Credit carryforwards	144,823	93,113
Depreciation	2,557	2,128
Deferred compensation	12,463	11,664
Accrued expenses	3,601	1,807
Deferred revenue	21,935	10,999
Other temporary differences	25,276	17,235
Total gross deferred tax assets	420,536	341,382
Valuation allowance	(414,558)	(326,577)
Net deferred tax assets	5,978	14,805
Deferred tax liabilities		
Intangible assets	(1,428)	(2,667)
Debt discount	(4,550)	(12,138)
Net deferred taxes	\$ —	\$ —

The Company has included temporary differences for continuing and discontinuing operations in the table above because Ipsen did not acquire any of the Company's temporary differences. The temporary differences related to the Commercial Business will reverse upon the sale to Ipsen and will be recorded in the second quarter of 2017 when the sale occurred.

The Company concluded that there are no significant uncertain tax positions requiring recognition in the consolidated financial statements. The Company's evaluation was performed for the tax years ended December 31, 2013 through 2016, the tax years which

remain subject to examination by major tax jurisdictions as of December 31, 2016. However, to the extent the Company utilizes net operating losses from years prior to 2012, the statute remains open to the extent of the net operating losses utilized. The Company's policy is to recognize interest and penalties for uncertain tax positions as a component of income tax expense. The Company has not recognized any interest and penalties historically through December 31, 2016.

At December 31, 2016, the Company had net operating loss carryforwards for federal and state income tax purposes of \$542.7 million and \$367.4 million, respectively. Included in the federal and state net operating loss carryforwards is approximately \$39.2 million and \$25.2 million, respectively, of deduction related to the exercise of stock options. This amount represents an excess tax benefit, which will be realized when it results in reduction of cash taxes in accordance with ASC 718, *Compensation – Stock Compensation*. The Company's existing federal and state net operating loss carryforwards will expire in years through 2036. The Company also has available research and development credits for federal and state income tax purposes of approximately \$27.3 million and \$16.3 million, respectively. The federal and state research and development credits will begin to expire in 2022 and 2025, respectively. As of December 31, 2016, the Company also had available investment tax credits for state income tax purposes of \$0.8 million, which will expire in years through 2019 if unused. In addition, the Company has federal orphan drug credits of \$106.4 million which begin to expire in 2031. The Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets, which are comprised principally of net operating loss carryforwards, deferred revenue and capitalized research and development expenses. Under the applicable accounting standards, the Company has considered its history of losses and concluded that it is more likely than not that the Company will not recognize the benefits of federal and state deferred tax assets. Accordingly, the Company has established a full valuation allowance against the deferred tax assets. In the second quarter of 2017, when the Asset Sale with Ipsen was consummated, the Company utilized deferred tax assets. The valuation allowance was released during the year ended December 31, 2017 when the Company determined it is more likely than not that the deferred tax assets will be realizable in that period.

Utilization of the net operating loss and research and development credit carryforwards may be subject to a substantial annual limitation under Section 382 of the Internal Revenue Code of 1986, as amended (the "Internal Revenue Code"), due to ownership change limitations that have occurred previously or that could occur in the future. These ownership changes may limit the amount of net operating loss and research and development credit carryforwards that can be utilized annually to offset future taxable income and tax. The Company completed an evaluation of ownership changes through September 30, 2016 to assess whether utilization of the Company's net operating loss or research and development credit carryforwards would be subject to an annual limitation under Section 382 of the Internal Revenue Code. The Company believes that it may be able to utilize all of its tax attributes as a result of the analysis. To the extent an ownership change occurs in the future, the net operating loss and credit carryforwards may be subject to limitation.

The Company has not yet conducted a study of its domestic research and development credit carryforwards and orphan drug credits. This study may result in an increase or decrease to the Company's credit carryforwards; however, until a study is completed and any adjustment is known, no amounts are being presented as an uncertain tax position. A full valuation allowance has been provided against the Company's credits, and if an adjustment is required, this adjustment would be offset by an adjustment to the valuation allowance. As a result, there would be no impact to the consolidated statements of operations and comprehensive loss or consolidated statements of cash flows if an adjustment were required.

The change in the valuation allowance against the deferred tax assets in the years ended December 31, 2016, 2015 and 2014 was as follows:

(in thousands)	Balance at Beginning of Period	Additions	Deductions	Balance at End of Period
December 31, 2014	\$ 207,304	\$ 50,185	\$ —	\$ 257,489
December 31, 2015	257,489	69,088	—	326,577
December 31, 2016	326,577	87,981	—	414,558

17. Commitments and Contingencies

Operating Leases

The Company leases its office, laboratory and manufacturing space under non-cancelable operating leases. During August 2012, the Company entered into an Indenture of Lease (the "Amended Lease"), which amended and restated its facility lease. The Amended Lease will terminate on June 30, 2019, but the Company retains an option to renew the Amended Lease with respect to all of the leased space for an additional period of five years. In March 2013, September 2013, February 2015 and July 2015, the Company

entered into further facility lease amendments for additional space that are co-terminus with the Amended Lease. In total, the Company leases approximately 167,000 square feet at its corporate headquarters in Cambridge, Massachusetts.

As part of the Amended Lease and subsequent amendments, the landlord agreed to reimburse the Company for a portion of tenant improvements made to the facility. As of December 31, 2016, the Company had received \$9.5 million of tenant improvement reimbursements. Tenant improvement reimbursements are recorded within deferred rent and are amortized over the term of the lease as reductions to rent expense.

In May 2016, the Company entered into a sublease agreement (the "Sublease") whereby a subtenant agreed to lease 8,143 square feet of office and lab space from the Company. The Sublease terminates on December 31, 2017, but may be extended through June 30, 2019 if mutually agreed upon by the Company and the subtenant. Rental income received from the subtenant has been classified by the Company as reduction of rent expense. Total future minimum rental payments to be received by the Company from the subtenant as of December 31, 2016 are \$0.6 million.

Total rent expense was \$5.0 million, \$4.3 million and \$3.4 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Future minimum lease payments to be made by the Company under non-cancelable operating leases as of December 31, 2016 are as follows:

Years ended December 31,	(in thousands)
2017	\$ 8,108
2018	8,102
2019	4,082
Total future minimum lease payments	<u>\$ 20,292</u>

18. Related Party Transactions

Related parties of the Company held approximately 7% of the outstanding shares of Silver Creek Series A and Series B preferred stock as of both December 31, 2016 and 2015. No shares of Silver Creek Series C preferred stock issued during December 2016 were held by related parties of the Company as of December 31, 2016.

19. Retirement Plan

On May 31, 2002, the Company established a 401(k) defined contribution savings plan (the "401(k) Plan") for its employees who meet certain service period and age requirements. Contributions are permitted up to the maximum allowed under the Internal Revenue Code of each covered employee's salary. The 401(k) Plan permits the Company to contribute at its discretion. For the years ended December 31, 2016, 2015 and 2014, the Company made contributions of \$1.3 million, \$1.1 million and \$0.8 million, respectively, to the 401(k) Plan.

20. Selected Quarterly Financial Data (Unaudited)

The following table contains quarterly financial information for 2016 and 2015. The Company believes that the following information reflects all normal recurring adjustments necessary for a fair statement of the information for the periods presented. The operating results for any quarter are not necessarily indicative of results for any future period.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
(in thousands, except per share data)				
2016				
Research and development expenses	28,002	27,695	28,247	25,621
General and administrative expenses	6,452	8,138	6,448	11,014
Restructuring expenses	—	—	809	4,901
Net loss from continuing operations	(37,715)	(51,633)	(26,845)	(40,091)
Income from discontinued operations, net of tax	(943)	675	(3,430)	6,464
Net loss	(38,658)	(50,958)	(30,275)	(33,627)
Net loss attributable to Merrimack Pharmaceuticals, Inc.	(38,473)	(50,750)	(30,068)	(32,449)
Basic and dilutive net income (loss) per common share				
Net loss from continuing operations	(3.23)	(4.07)	(2.06)	(2.93)
Net income (loss) from discontinued operations, net of tax	(0.08)	0.05	(0.27)	0.43
Net loss per share	(3.31)	(4.02)	(2.33)	(2.50)
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
(in thousands, except per share data)				
2015				
Research and development expenses	26,435	26,479	29,944	38,175
General and administrative expenses	4,712	5,824	5,989	7,523
Net loss from continuing operations	(35,553)	(25,426)	(40,040)	(50,600)
Income from discontinued operations, net of tax	1,121	2,525	(2,346)	2,532
Net loss	(34,432)	(22,901)	(42,386)	(48,068)
Net loss attributable to Merrimack Pharmaceuticals, Inc.	(34,759)	(22,778)	(42,594)	(47,826)
Basic and dilutive net income (loss) per common share				
Net loss from continuing operations	(3.35)	(2.30)	(3.58)	(4.38)
Net income (loss) from discontinued operations, net of tax	0.10	0.23	(0.21)	0.22
Net loss per share	(3.24)	(2.07)	(3.79)	(4.16)

21. Subsequent Events

Asset Sale

On January 7, 2017, the Company entered into the Asset Sale Agreement with Ipsen. Pursuant to the Asset Sale Agreement, Ipsen will acquire the Company's right, title and interest in the non-cash assets, equipment, inventory, contracts and intellectual property primarily related to or used in the Commercial Business. Ipsen will not acquire the Company's rights to \$33.0 million in net milestone payments that may become payable pursuant to the Baxalta Agreement, among other excluded assets. Pursuant to the Asset Sale Agreement, Ipsen will pay the Company \$575.0 million in cash (subject to a working capital adjustment as provided in the Asset Sale Agreement) and will assume certain related liabilities. Following the closing of the asset sale, the Company may be entitled to up to \$450.0 million of additional payments based on achievement by or on behalf of Ipsen of certain milestone events related to FDA approval of ONIVYDE for certain indications.

The consummation of the transaction is subject to customary closing conditions, including, among others: (i) the receipt of the approval of the Company's stockholders; (ii) the expiration or termination of the required waiting periods under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, which waiting periods expired on February 22, 2017; (iii) the absence of a breach of the Company's representations and warranties that would cause a material adverse effect on the Commercial Business; (iv) the absence of a business material adverse effect; and (v) the performance of certain covenants in all material respects.

The Asset Sale Agreement contains certain termination rights for the Company and Ipsen. Upon termination of the Asset Sale Agreement under specified circumstances, the Company would be required to pay Ipsen a termination fee of \$25.0 million, including if the Asset Sale Agreement is terminated in connection with the Company accepting a superior proposal or because the Company's

Board of Directors has changed its recommendation of the sale to its stockholders. The termination fee will also be payable if the Asset Sale Agreement is terminated because the Company's stockholders did not vote to adopt the Asset Sale Agreement and, prior to such termination, a proposal to acquire at least 50% of the consolidated assets of the Company with respect to the Commercial Business or at least 50% of the Company's voting securities has been publicly disclosed and the Company enters into a definitive agreement with respect to such proposal within 12 months after such termination, which is subsequently consummated. In addition, the Company would be required to reimburse Ipsen for up to \$3.0 million of its out-of-pocket expenses incurred in connection with the transaction and the Asset Sale Agreement if the Asset Sale Agreement is terminated because the Company's stockholders do not vote to approve it.

In addition to the foregoing termination rights, and subject to certain limitations, the Company or Ipsen may terminate the Asset Sale Agreement if the asset sale is not consummated by June 30, 2017.

Ipsen has also agreed to sublease 68,409 square feet of the Company's manufacturing facility at the closing of the asset sale. In addition, at the closing of the asset sale, the Company and Ipsen will enter into an intellectual property license agreement pursuant to which Ipsen will grant the Company an exclusive license with respect to the portion of the transferred patents relating to certain liposomal technology and a non-exclusive license to the remainder of the transferred patents, in both cases for use outside of the field in which the Commercial Business will operate. In turn, the Company will grant Ipsen a non-exclusive license with respect to the remaining patents owned by the Company at the closing for use in the field in which the Commercial Business will operate.

January 2017 Corporate Restructuring

On January 9, 2017, the Company announced that it will further reduce headcount in connection with the asset sale and the completion of its strategic pipeline review. Upon the closing of the asset sale, the Company will focus its development efforts on its MM-121, MM-141 and MM-310 programs. After the headcount reduction, the Company expects to have approximately 80 employees.

The Company's Board of Directors committed to this course of action on January 6, 2017, subject to the closing of the asset sale, which is contingent upon the closing conditions described above. The reduction in personnel is expected to be complete upon the later of the closing of the asset sale and March 10, 2017. The Company estimates that, if the asset sale closes, it will incur approximately \$7.5 million to \$8.5 million of restructuring expenses related to one-time employee termination benefits. These one-time employee termination benefits are comprised of severance, benefits and related costs, all of which are expected to result in cash expenditures. The specific timing of the incurrence and payment of these restructuring expenses is dependent upon the timing of the closing of the asset sale.

Hiring of Chief Executive Officer

On January 16, 2017, the Company announced the hiring of Richard Peters, M.D., Ph.D., as the Company's new CEO, effective as of February 6, 2017. Dr. Peters was also elected as a member of the Company's Board of Directors.

The Company and Dr. Peters entered into an employment agreement commencing on February 6, 2017 whereby Dr. Peters will receive an annual base salary of \$700,000 and is eligible for an annual bonus of up to 65% of his base salary. Dr. Peters also received a one-time signing bonus of \$900,000. Subject to the further approval of the Company's Board of Directors, the Company will also grant Dr. Peters an option to purchase a number of shares of the Company's common stock equal to the lesser of (i) such number of shares that has a target grant date fair value of \$3.5 million and (ii) 2.0 million shares, with an exercise price per share equal to the fair market value of the Company's common stock on the date of grant. The option will vest over four years at the rate of 25% on February 6, 2018 and the remainder in equal quarterly installments over the following three years.

Extension of Credit Facility Availability

On February 23, 2017, the Company entered into an amendment to the Credit Agreement with Pharmakon whereby the availability of the credit facility was extended through April 27, 2017. The Company had not borrowed any amounts under the Credit Agreement as of March 1, 2017.

Events Subsequent to Filing of the 2017 Third Quarter Form 10-Q (Unaudited)

Convertible Notes Tender Offer

On October 13, 2017, the Company commenced a cash tender offer (the "Tender Offer") to purchase any and all of its remaining \$25.0 million aggregate principal amount of outstanding Convertible Notes. Upon the terms and subject to the conditions

set forth in the Company's Offer to Purchase, dated October 13, 2017, and the related Letter of Transmittal, the Company offered to pay, in cash, an amount equal to \$900 per \$1,000 principal amount of Convertible Notes purchased, plus accrued and unpaid interest to, but not including, the date of purchase. On November 10, 2017, the Tender Offer expired, at which time the Company accepted for purchase the \$24,975,000 aggregate principal amount of the Convertible Notes, representing approximately 99.78% of the outstanding Convertible Notes, that were validly tendered and not validly withdrawn pursuant to the Tender Offer. Following settlement of the Tender Offer, which occurred on November 14, 2017, \$56,000 aggregate principal amount of the Convertible Notes remains outstanding.