UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

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

For the quarterly period ended March 31, 2020
OR

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

For the transition period from to
Commission file number 001-38709

Osmotica Pharmaceuticals plc

(Exact name of registrant as specified in its charter)

Ireland	**Not Applicable**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

400 Crossing Boulevard
Bridgewater, NJ 08807
(Address of principal executive offices)
(Zip Code)

(908) 809-1300
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Ordinary Shares	OSMT	Nasdaq Global Select Market

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15 (d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒.

There were 58,898,708 ordinary shares ($0.01 nominal value per share) outstanding as of May 11, 2020.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report, including the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations," contains forward-looking statements. All statements other than statements of historical facts contained in this report, including statements regarding our future results of operations and financial position, business strategy and plans, including the impact of the COVID-19 pandemic on the sufficiency of our product supply, and our objectives for future operations, are forward-looking statements. The words "believe," "may," "will," "plan," "estimate," "continue," "anticipate," "intend," "expect" and similar expressions are intended to identify forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, short- and long-term business operations and objectives and financial needs. Examples of forward-looking statements include, among others, statements we make regarding: our intentions, beliefs or current expectations concerning, among other things, future operations; future financial performance, trends and events, particularly relating to sales of current products and the development, approval and introduction of new products; FDA and other regulatory applications, approvals and actions; the continuation of historical trends; and the sufficiency of our cash balances and cash generated from operating and financing activities for future liquidity and capital resource needs.

We may not achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place significant 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. Important factors that could cause actual results and events to differ materially from those indicated in the forward-looking statements include the following:

- if we are unable to successfully develop or commercialize new products, or do so on a timely or cost effective basis, our operating results will suffer;
- due to our dependence on a limited number of products, our business could be materially adversely affected if one or more of our key products do not perform as well as expected;
- failures of or delays in clinical trials could result in increased costs to us and could jeopardize or delay our ability to obtain regulatory approval and commence sales of new products;
- we are, and will continue to be in the future, a party to legal proceedings that could result in adverse outcomes;
- as of March 31, 2020, we had total outstanding debt of approximately $268.2 million (net of deferred financing costs), and we had unused commitments of $50.0 million under our senior secured credit facilities. Our substantial debt could adversely affect our liquidity and our ability to raise additional capital to fund operations and could limit our ability to pursue our growth strategy or react to changes in the economy or our industry;
- we face intense competition from both brand and generic companies, which could significantly limit our growth and materially adversely affect our financial results;
- a business interruption at our manufacturing facility, our warehouses or at facilities operated by third parties that we rely on could have a material adverse effect on our business;
- our profitability depends on our major customers, and if our relationships with them do not continue as expected, our business, prospects and results of operations could materially suffer;
- if we are unable to develop or maintain our sales capabilities, we may not be able to effectively market or sell our products;

- our competitors and other third parties may allege that we are infringing their intellectual property, forcing us to expend substantial resources in resulting litigation, and any unfavorable outcome of such litigation could have a material adverse effect on our business;

- our profitability depends on coverage and reimbursement by governmental authorities and other third-party payors and healthcare reform and other future legislation creates uncertainty and may lead to reductions in coverage or reimbursement levels;

- we are subject to extensive governmental regulation and we face significant uncertainties and potentially significant costs associated with our efforts to comply with applicable regulations;

- our products or product candidates may cause adverse side effects that could delay or prevent their regulatory approval, or result in significant negative consequences following regulatory approval;

- manufacturing or quality control problems may damage our reputation, require costly remedial activities or otherwise negatively impact our business;

- our business may be adversely affected by the continuing coronavirus pandemic; and

- other factors that are described in the "Risk Factors" section of our Annual Report on Form 10-K that was filed on March 19, 2020.

The forward-looking statements included in this report are made only as of the date hereof. You should not rely upon forward-looking statements as predictions of future events. We cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Except as required by applicable law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this report to conform these statements to actual results or to changes in our expectations.

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PART I – FINANCIAL INFORMATION

Item 1. Financial Statements.

OSMOTICA PHARMACEUTICALS PLC

CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share data)

	March 31, 2020 (Unaudited)	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	$ 125,830	$ 95,865
Trade accounts receivable, net	32,644	43,914
Inventories, net	20,536	21,305
Prepaid expenses and other current assets	10,654	11,546
Total current assets	189,664	172,630
Property, plant and equipment, net	29,987	30,238
Operating lease assets	4,471	4,983
Intangibles, net	149,624	153,986
Goodwill	100,855	100,855
Other non-current assets	533	563
Total assets	$ 475,134	$ 463,255
Liabilities and Shareholders' Equity		
Current liabilities:		
Trade accounts payable	$ 8,784	$ 8,495
Accrued liabilities	47,256	65,253
Current portion of obligation under finance leases	110	127
Current portion of lease liability	2,004	2,062
Total current liabilities	58,154	75,937
Long-term debt, net of non-current deferred financing costs	268,236	267,950
Long-term portion of obligation under finance leases	29	44
Long-term portion of lease liability	2,646	3,116
Deferred taxes	2,329	1,500
Total liabilities	331,394	348,547
Commitments and contingencies (See Note 11)		
Shareholders' equity:		
Ordinary shares ($0.01 nominal value 400,000,000 shares authorized, 58,898,708 and 51,845,742 shares issued and outstanding at March 31, 2020 and December 31, 2019, respectively)	589	518
Preferred shares ($0.01 nominal value 40,000,000 shares authorized, no shares issued and outstanding)	—	—
Euro deferred shares (€1.00 nominal value 25,000 shares authorized, no shares issued and outstanding)	—	—
Additional paid in capital	521,484	489,440
Accumulated deficit	(376,104)	(373,021)
Accumulated other comprehensive loss	(2,229)	(2,229)
Total shareholders' equity	143,740	114,708
Total liabilities and shareholders' equity	$ 475,134	$ 463,255

See accompanying notes to unaudited condensed consolidated financial statements

OSMOTICA PHARMACEUTICALS PLC

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(Unaudited)
(In thousands, except share and per share data)

	Three Months Ended March 31,	
	2020	**2019**
Net product sales	$ 47,308	$ 56,400
Royalty revenue	869	721
Licensing and contract revenue	472	5
Total revenues	48,649	57,126
Cost of goods sold (inclusive of amortization of intangibles)	20,590	29,203
Gross profit	28,059	27,923
Selling, general and administrative expenses	21,176	21,656
Research and development expenses	5,688	9,764
Total operating expenses	26,864	31,420
Operating income (loss)	1,195	(3,497)
Interest expense and amortization of debt discount	4,064	4,501
Other non-operating gain	(746)	(557)
Total other non-operating expense	3,318	3,944
Loss before income taxes	(2,123)	(7,441)
Income tax benefit (expense)	(960)	754
Net and other comprehensive loss	$ (3,083)	$ (6,687)
Loss per share attributable to shareholders		
Basic and Diluted	$ (0.05)	$ (0.13)
Weighted average shares basic and diluted		
Basic and Diluted	58,257,191	52,518,924

See accompanying notes to unaudited condensed consolidated financial statements

OSMOTICA PHARMACEUTICALS PLC

CONDENSED CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE THREE MONTHS ENDED MARCH 31, 2020 AND MARCH 31, 2019
(Unaudited)
(In thousands, except share data)

	Ordinary shares		Additional paid in capital	Accumulated deficit	Accumulated other comprehensive loss	Total
	Shares	Amount				
Balance at January 1, 2019	52,518,924	$ 525	$ 487,288	$ (102,120)	$ (1,846)	$ 383,847
Net loss	—	—	—	(6,687)	—	(6,687)
Share compensation	—	—	1,169	—	—	1,169
Balance at March 31, 2019	52,518,924	$ 525	$ 488,457	$ (108,807)	$ (1,846)	$ 378,329
Balance at January 1, 2020	51,845,742	$ 518	$ 489,440	$ (373,021)	$ (2,229)	$ 114,708
Net loss	—	—	—	(3,083)	—	(3,083)
Share compensation	181,966	2	1,107	—	—	1,109
Payments for taxes related to the net share settlement of equity awards	—	—	(616)	—	—	(616)
Proceeds from issuance of ordinary shares, net of offering costs	6,900,000	69	31,720	—	—	31,789
Repurchase of ordinary shares	(29,000)	—	(167)	—	—	(167)
Balance at March 31, 2020	58,898,708	$ 589	$ 521,484	$ (376,104)	$ (2,229)	$ 143,740

See accompanying notes to unaudited condensed consolidated financial statements

OSMOTICA PHARMACEUTICALS PLC

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)
(In thousands)

	Three Months Ended March 31,	
	2020	**2019**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (3,083)	$ (6,687)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	5,562	17,993
Share compensation	1,107	1,169
Deferred income tax benefit	829	(1,060)
Loss on sale of fixed and leased assets	(3)	53
Bad debt provision	29	(84)
Amortization of deferred financing and loan origination fees	333	323
Change in operating assets and liabilities:		
Trade accounts receivable, net	11,242	(378)
Inventories, net	769	(3,432)
Prepaid expenses and other current assets	891	4,691
Other non-current assets	(18)	—
Trade accounts payable	289	(4,279)
Accrued and other current liabilities	(18,011)	(14,436)
Net cash used in operating activities	(64)	(6,127)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Proceeds from sale of fixed and leased assets	4	—
Payments on disposal of leased assets	(1)	—
Purchase of property, plant and equipment	(949)	(635)
Net cash used in investing activities	(946)	(635)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Payments on finance lease obligations	(33)	(31)
Proceeds from public offering, net of issuance costs	31,791	—
Repurchases of ordinary shares	(167)	—
Payments for taxes related to net share settlement of equity awards	(616)	—
Repayment of insurance financing loan	—	(979)
Net cash provided by (used in) financing activities	30,975	(1,010)
Net change in cash and cash equivalents	29,965	(7,772)
Cash and cash equivalents, beginning of period	95,865	70,834
Cash and cash equivalents, end of period	$ 125,830	$ 63,062
Supplemental disclosure of cash and non-cash transactions:		
Cash paid for interest	$ 5,375	$ 4,069
Cash paid for taxes	$ 474	$ 215

See accompanying notes to unaudited condensed consolidated financial statements

OSMOTICA PHAMACEUTICALS PLC

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(UNAUDITED)

Note 1. Organization and Nature of Operations

Osmotica Pharmaceuticals plc, together with its subsidiaries, is a fully integrated biopharmaceutical company focused on the development and commercialization of specialty products that target markets with underserved patient populations. The Company generates revenues across an existing portfolio of promoted specialty neurology and women's health products, as well as non-promoted products, many of which are primarily complex formulations of generic drugs.

Osmotica Pharmaceuticals plc (formerly known as Lilydale Limited and Osmotica Pharmaceuticals Limited) is an Irish public limited company. Osmotica Holdings S.C.Sp. acquired Osmotica Pharmaceuticals plc on April 30, 2018 for the purpose of facilitating an offering of ordinary shares in an initial public offering ("IPO"). On October 22, 2018, Osmotica Pharmaceuticals plc completed its IPO, in which it issued and allotted 7,647,500 ordinary shares at a public offering price of $7.00 per share. The number of shares issued in the IPO reflected the exercise in full of the underwriters' option to purchase 997,500 additional ordinary shares. In addition, the Company issued and allotted 2,014,285 ordinary shares at the public offering price in a private placement to investment funds affiliated with Avista Capital Partners, Altchem Limited and an entity controlled by the Company's Chief Financial Officer. The aggregate net proceeds from the IPO and the private placement were approximately $58.1 million after deducting underwriting discounts and commissions and estimated offering expenses.

Immediately prior to the IPO and prior to the commencement of trading of Osmotica Pharmaceuticals plc's ordinary shares on the Nasdaq Global Select Market, Osmotica Holdings S.C.Sp. undertook a series of restructuring transactions that resulted in Osmotica Pharmaceuticals plc being the direct parent of Osmotica Holdings S.C.Sp with each holder of common units of Osmotica Holdings S.C.Sp. receiving approximately 42.84 ordinary shares of Osmotica Pharmaceuticals plc in exchange for each such common unit. In addition, each holder of an option to purchase common units of Osmotica Holdings S.C.Sp. received an option to purchase the number of ordinary shares of Osmotica Pharmaceuticals plc determined by multiplying the number of units underlying such option by approximately 42.84 (rounded down to the nearest whole share) and dividing the exercise price per unit for such option by approximately 42.84 (rounded up to the nearest whole cent). These transactions are referred to as the "Reorganization". Accordingly, all share and share amounts for all periods presented in the accompanying financial statements have been adjusted retroactively, where applicable, to reflect the Reorganization.

Until the Reorganization, Osmotica Pharmaceuticals plc did not conduct any operations (other than activities incidental to its formation, the Reorganization and the pursuit of an IPO). Upon the completion of the Reorganization, the historical consolidated financial statements of Osmotica Holdings S.C.Sp. became the historical financial statements of Osmotica Pharmaceuticals plc. Accordingly, the accompanying unaudited condensed consolidated financial information as of and for the three months ended March 31, 2020 included herein reflect the financial information of Osmotica Holdings S.C.Sp.

Osmotica Holdings S.C.Sp.is a Luxembourg special limited partnership, formed on December 3, 2015 in connection with a business combination (the "Merger"), effective February 3, 2016, pursuant to a definitive agreement among Osmotica Holdings S.C.Sp., Vertical/Trigen Holdings, LLC ("Vertical/Trigen") and its members, and Osmotica Holdings Corp Limited and its shareholders, among others. Osmotica Holdings S.C.Sp. and several other holding companies and partnerships were formed as a result of the Merger. Pursuant to the Merger, Vertical/Trigen was deemed to be the accounting acquirer.

Unless otherwise indicated or required by the context, references throughout to "Osmotica," or the "Company", refer to (i) prior to the completion of the Reorganization, Osmotica Holdings S.C.Sp. and its consolidated subsidiaries, including, from and after April 30, 2018, Osmotica Pharmaceuticals plc, and (ii) following the completion of the Reorganization, Osmotica Pharmaceuticals plc and its consolidated subsidiaries, including Osmotica Holdings S.C.Sp.

OSMOTICA PHAMACEUTICALS PLC

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(UNAUDITED)

Note 2. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation—The accompanying unaudited condensed consolidated financial statements included herein have been prepared by the Company in accordance with accounting principles generally accepted in the United States of America ("GAAP") and under the rules and regulations of the United States Securities and Exchange Commission ("SEC") for interim reporting. In management's opinion, the interim financial data presented includes all adjustments (consisting solely of normal recurring items) necessary for fair presentation. All intercompany accounts and transactions have been eliminated. Certain information required by GAAP has been condensed or omitted in accordance with rules and regulations of the SEC. Operating results for the three months ended March 31, 2020, are not necessarily indicative of the results that may be expected for any future period or for the year ending December 31, 2020 or any period thereafter. The accompanying Condensed Consolidated Balance Sheet data as of December 31, 2019 was derived from the audited consolidated financial statements.

These unaudited condensed consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements and the notes thereto for the year ended December 31, 2019.

Basic and Diluted Loss per Share—Basic and diluted net loss per share is determined by dividing net loss by the weighted average ordinary shares outstanding during the period. For all periods presented with a net loss, the shares underlying the ordinary share options and restricted stock units have been excluded from the calculation because their effect would be anti-dilutive. Therefore, the weighted-average shares outstanding used to calculate both basic and diluted loss per share are the same for periods with a net loss.

The following potentially dilutive securities have been excluded from the computation of diluted weighted average shares outstanding as they would be anti-dilutive as of March 31, 2020 and 2019:

	Three Months Ended March 31,	
	2020	2019
Restricted stock units	1,165,364	1,374,335
Options to purchase ordinary shares	3,046,086	3,187,872

Fair Value of Financial Instruments—The Company's financial instruments include cash and cash equivalents, accounts receivable, accounts payable and short and long-term debt. The fair values of cash and cash equivalents, accounts receivable, accounts payable and debt approximate book value because of the short maturity of these financial instruments.

The valuation hierarchy is composed of three levels. The classification within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement. The levels within the valuation hierarchy are described below:

Level 1 — Assets and liabilities with unadjusted, quoted prices listed on active market exchanges. Inputs to the fair value measurement are observable inputs, such as quoted prices in active markets for identical assets or liabilities.

Level 2 — Inputs to the fair value measurement are determined using prices for recently traded assets and liabilities with similar underlying terms, as well as direct or indirect observable inputs, such as interest rates and yield curves that are observable at commonly quoted intervals.

OSMOTICA PHAMACEUTICALS PLC

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(UNAUDITED)

Level 3 — Inputs to the fair value measurement are unobservable inputs, such as estimates, assumptions, and valuation techniques when little or no market data exists for the assets or liabilities.

Segment Reporting—The Company operates in one business segment which focuses on developing and commercializing pharmaceutical products that target markets with underserved patient populations. The Company's business offerings have similar economic and other characteristics, including the nature of products, manufacturing and acquiring processes, types of customers, distribution methods and regulatory environment. The chief operating decision maker ("CODM") reviews profit and loss information on a consolidated basis to assess performance and make overall operating decisions. The condensed consolidated financial statements reflect the financial results of the Company's one reportable operating segment. The Company has no significant revenues or tangible assets outside of the United States.

Correction of Immaterial Errors

In connection with the preparation of the Company's unaudited condensed consolidated financial statements as of and for the period ended September 30, 2019 and 2018 for inclusion in the Company's Quarterly Report on Form 10-Q, the Company determined that a revision was required to correct misstatement associated with the tax treatment of certain intercompany transactions at the time of the business combination between Osmotica Holdings Limited and subsidiaries and Vertical/Trigen Holdings LLC which occurred on February 3, 2016. Additionally, revisions were necessary to correct misstatements related to uncertain tax provisions and prepaid taxes and certain other previously identified immaterial misstatements.

These adjustments and the evaluation of these adjustmens has been previously disclosed in the Company's Quarterly report on Form 10-Q for the period ended September 30, 2019 and the Company has reflected the corrections in the results for the prior period as detailed below (dollars in thousands).

	Three months ended March 31, 2019		
	As reported	Net adjustments	As corrected
Prepaid expenses and other current assets	$ 16,199	$ (270)	$ 15,929
Total assets	776,147	(270)	775,877
Income taxes payable- current portion	496	(496)	-
Deferred taxes	24,837	2,397	27,234
Income taxes payable- long term portion	1,804	737	2,541
Total liabilities	394,909	2,638	397,547
Shareholders' equity	381,237	(2,908)	378,329
Total liabilities and shareholders' equity	776,147	(270)	775,877
Income tax benefit (expense)	1,240	(486)	754
Net loss	(6,201)	(486)	(6,687)
Comprehensive loss	(6,201)	(486)	(6,687)
Loss per share	(0.12)	(0.01)	(0.13)
Weighted average share - basic and diluted	52,518,924	-	52,518,924

OSMOTICA PHAMACEUTICALS PLC

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(UNAUDITED)

Recently Adopted Accounting Standards

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, which introduces a new methodology for accounting for credit losses on financial instruments, including available-for-sale debt securities. The guidance establishes a new "expected loss model" that requires entities to estimate current expected credit losses on financial instruments by using all practical and relevant information. The estimate of credit losses must be based on all relevant information including historical information, current conditions, and reasonable and supportable forecasts that affect the collectability of the amounts. The Company adopted this standard on January 1, 2020, and there was no material impact to the Company's consolidated financial statements. The Company has provided additional disclosure as required by the standard upon adoption. Refer to Note 4 for additional details.

Note 3. Revenues

The Company's performance obligations are to provide its pharmaceutical products based upon purchase orders from distributors. The performance obligation is satisfied at a point in time, typically upon delivery, when the customer obtains control of the pharmaceutical product. The Company invoices its customers after the products have been delivered and invoice payments are generally due within 30 to 60 days of invoice date.

The following table disaggregates revenue from contracts with customers by pharmaceutical products (dollars in thousands):

	Three Months Ended March 31,	
Pharmaceutical Product	**2020**	**2019**
Venlafaxine ER	$ 14,118	$ 21,607
Methylphenidate ER	8,396	20,789
Divigel	7,581	5,497
Nitrofurantoin	4,608	—
Lorzone	2,428	4,269
OB Complete	1,877	1,931
Other	8,300	2,307
Net product sales	47,308	56,400
Royalty revenue	869	721
License and contract revenue	472	5
Total revenues	$ 48,649	$ 57,126

When the Company receives consideration from a customer, or such consideration is unconditionally due from a customer prior to the transfer of products to the customer under the terms of a contract, the Company records a contract liability. The Company classifies contract liabilities as deferred revenue. The Company had no deferred revenue as of March 31, 2020. Upon adoption of ASC Topic 606, the Company did not have any contract assets or liabilities. The Company has elected to apply the exemption under paragraph 606-10-50-14(a) related to remaining performance obligations as all open purchase orders are expected to be satisfied with a period of one year from the date of the purchase order.

Contract assets primarily relate to rights to consideration for goods or services transferred to the customer when the right is conditional on something other than the passage of time. Contract assets are transferred to accounts receivable when

OSMOTICA PHAMACEUTICALS PLC

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(UNAUDITED)

the rights become unconditional. The Company had no contract assets as of March 31, 2020. The Company has no costs to obtain or fulfill contracts meeting the capitalization criteria under ASC Topic 340, *Other Assets and Deferred Costs.*

Note 4. Accounts Receivable, Sales and Allowances

The nature of the Company's business inherently involves, in the ordinary course, significant amounts and substantial volumes of transactions and estimates relating to allowances for product returns, chargebacks, rebates, allowance for credit losses under the new standard and discounts given to customers. This is typical of the pharmaceutical industry and not necessarily specific to the Company. Depending on the product, the end-user customer, the specific terms of national supply contracts and the particular arrangements with the Company's wholesale customers, certain rebates, chargebacks and other credits are deducted from the Company's accounts receivable. The process of claiming these deductions depends on wholesalers reporting to the Company the amount of deductions that were earned under the terms of the respective agreement with the end-user customer (which in turn depends on the specific end-user customer, each having its own pricing arrangement, which entitles it to a particular deduction). This process can lead to partial payments against outstanding invoices as the wholesalers take the claimed deductions at the time of payment.

Accounts receivable result primarily from sales of pharmaceutical products, amounts due under revenue sharing, license and royalty arrangements, which inherently involves, in the ordinary course of business, estimates relating to allowances for product returns, chargebacks, rebates, credit losses and discounts given to customers. Credit is extended based on the customer's financial condition, and, generally, collateral is not required. The Company ages its accounts receivable using the corresponding sale date of the transaction and considers accounts past due based on terms agreed upon in the transaction, which is generally 30 to 60 days for branded and generic sales, depending on the customer and the products purchased.

The Company is exposed to credit losses primarily through sales of its products. Prior to January 1, 2020, accounts receivable were recorded at cost less an allowance for doubtful accounts. Subsequent to January 1, 2020, accounts receivable are recorded at amortized cost less an allowance for expected credit losses that are not expected to be recovered. The Company's expected loss methodology for accounts receivable is developed using historical collection experience, a review of the current status of customer's trade receivables, and current and future market conditions. Due to the short-term nature of such receivables, the estimate of accounts receivable that may not be collected is based on the aging of accounts receivable balances and the financial condition of customers. The Company's monitoring activities include timely account reconciliations, dispute resolution, payment confirmation, consideration of customers' financial condition and macroeconomic conditions. Balances are written-off when determined to be uncollectible. The Company considered the current and expected future economic and market conditions surrounding a novel strain of the coronavirus, referred to as 2019-ncov, COVID-19 coronavirus epidemic, or COVID-19, and determined that the estimate of credit losses was not significantly impacted.

With the exception of the allowance for credit losses, which is reflected as part of selling, general and administrative expense, the provisions for the following customer reserves are reflected as a reduction of revenues in the accompanying Condensed Consolidated Statements of Operations and Comprehensive Loss.

OSMOTICA PHAMACEUTICALS PLC

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(UNAUDITED)

Trade accounts receivable, net consisted of the following (dollars in thousands):

	March 31, 2020	December 31, 2019
Gross trade accounts receivable		
Trade accounts receivable	$ 55,876	$ 70,958
Royalty accounts receivable	686	702
Other receivable	2,141	2,186
Less reserves for:		
Chargebacks	(16,288)	(14,624)
Commercial rebates	(7,917)	(13,579)
Discounts and allowances	(1,687)	(1,591)
Allowance for credit losses	(167)	(138)
Total trade accounts receivable, net	$ 32,644	$ 43,914

The Company recorded the following adjustments to gross product sales (dollars in thousands):

	Three Months Ended March 31,	
	2020	2019
Gross product sales	$ 109,030	$ 231,548
Less provisions for:		
Chargebacks	(50,173)	(101,234)
Government and managed care rebates	(4,846)	(2,523)
Commercial rebates	(3,220)	(64,598)
Product returns	(309)	(1,026)
Discounts and allowances	(2,380)	(4,701)
Advertising and promotions	(794)	(1,066)
Net product sales	$ 47,308	$ 56,400

The activity in the Company's allowance for customer deductions against trade accounts receivable was as follows (dollars in thousands):

	Chargebacks	Commercial Rebates	Discounts and Allowances	Credit Losses	Total
Balance at December 31, 2018	$ 38,861	$ 49,232	$ 3,510	$ 194	$ 91,797
Provision	345,366	147,173	15,719	(190)	508,068
Charges processed	(369,603)	(182,826)	(17,638)	134	(569,933)
Balance at December 31, 2019	$ 14,624	$ 13,579	$ 1,591	$ 138	$ 29,932
Provision	50,173	3,220	2,380	29	55,802
Charges processed	(48,509)	(8,882)	(2,284)	—	(59,675)
Balance at March 31, 2020	$ 16,288	$ 7,917	$ 1,687	$ 167	$ 26,059

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The activity in the Company's accrued liabilities for customer deductions by account was as follows (dollars in thousands):

	Product Returns	Government and Managed Care Rebates	Total
Balance at December 31, 2018	$ 48,464	$ 9,981	$ 58,445
Provision	(3,932)	20,092	16,160
Charges processed	(11,075)	(25,206)	(36,281)
Balance at December 31, 2019	$ 33,457	$ 4,867	$ 38,324
Provision	309	4,846	5,155
Charges processed	(4,566)	(6,131)	(10,697)
Balance at March 31, 2020	$ 29,200	$ 3,582	$ 32,782

Provisions and utilizations of provisions activity in the current period which relate to the prior period revenues are not provided because to do so would be impracticable. The current systems and processes of the Company do not capture the chargeback and rebate settlements by the period in which the original sales transaction was recorded. The Company uses a combination of factors and applications to estimate the dollar amount of reserves for chargebacks and rebates at each month end. Variable consideration is included in the transaction price only to the extent a significant reversal in the amount of cumulative revenue recognized is not probable of occurring when the uncertainty associated with the variable consideration is subsequently resolved. The Company regularly monitors the reserves based on an analysis of the Company's product sales and most recent claims, wholesaler inventory, current pricing, and anticipated future pricing changes. If amounts are different from the estimate due to changes from estimated rates, accrual rate adjustments are considered prospectively when determining provisions in accordance with authoritative GAAP.

Note 5. Inventories

The components of inventories, net of allowances, were as follows (dollars in thousands):

	March 31, 2020	December 31, 2019
Finished goods	$ 14,085	$ 15,319
Work in process	1,128	778
Raw materials and supplies	5,323	5,208
	$ 20,536	$ 21,305

The Company maintains an allowance for excess and obsolete inventory, as well as inventory where its cost is in excess of its net realizable value. The activity in the allowance for excess, obsolete, and net realizable value inventory account was as follows (dollars in thousands):

	March 31, 2020	December 31, 2019
Balance at beginning of period	$ 1,069	$ 1,561
Provision	314	2,322
Charges processed	(29)	(2,814)
Balance at end of period	$ 1,354	$ 1,069

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Note 6. Goodwill and Other Intangible Assets

The Company tests goodwill, definite-lived and indefinite-lived intangible assets for impairment annually as of October 1st, or more frequently whenever events or changes in circumstances indicate that the asset might be impaired. There were no events or circumstances since December 31, 2019 requiring the Company to test for impairment of goodwill.

The carrying value of goodwill was $100.9 million as of March 31, 2020 and December 31, 2019.

The following table sets forth the major categories of the Company's intangible assets and the weighted-average remaining amortization period for those assets that were not already fully amortized (dollars in thousands):

	March 31, 2020				
	Gross Carrying Amount	Accumulated Amortization	Impairment	Net Carrying Amount	Weighted Average Remaining Amortization Period (Years)
Distribution Rights	$ 33,714	$ (22,691)	$ —	$ 11,023	9.8
Product Rights	202,567	(155,615)	—	46,952	2.8
Tradenames	13,485	(3,212)	—	10,273	14.7
Developed Technology	52,466	(35,090)	—	17,376	10.7
IPR&D	64,000	—	—	64,000	Indefinite Lived
	$ 366,232	$ (216,608)	$ —	$ 149,624	

The gross carrying amounts and accumulated amortization in the table above is inclusive of $10.4 million and have been fully impaired in the table above and inclusive as of March 31, 2020.

	December 31, 2019				
	Gross Carrying Amount	Accumulated Amortization	Impairment	Net Carrying Amount	Weighted Average Remaining Amortization Period (Years)
Distribution Rights	$ 98,433	$ (22,291)	$ (64,719)	$ 11,423	10.1
Product Rights	348,600	(152,348)	(146,033)	50,219	3.1
Tradenames	13,485	(3,035)	—	10,450	15.0
Developed Technology	125,461	(34,572)	(72,995)	17,894	10.9
IPR&D	64,000	—	—	64,000	Indefinite Lived
	$ 649,979	$ (212,246)	$ (283,747)	$ 153,986	

The gross carrying amounts and accumulated amortization in the table above is inclusive of $10.4 million and have been fully impaired in the table above and inclusive as of December 31, 2019.

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Changes in the net carrying amount of intangible assets were as follows (dollars in thousands):

	Distribution Rights	Product Rights	Tradenames	Developed Technology	IPR&D	Total
December 31, 2018	$ 81,204	$ 217,473	$ 11,156	$ 96,857	$ 83,700	$ 490,390
Amortization	(5,062)	(40,921)	(706)	(5,968)	—	(52,657)
Impairments	(64,719)	(146,033)	—	(72,995)	—	(283,747)
Reclassifications(A)	—	19,700	—	—	(19,700)	—
December 31, 2019	$ 11,423	$ 50,219	$ 10,450	$ 17,894	$ 64,000	$ 153,986
Amortization	(400)	(3,267)	(177)	(518)	—	(4,362)
March 31, 2020	$ 11,023	$ 46,952	$ 10,273	$ 17,376	$ 64,000	$ 149,624

(A) IPR&D in the amount of $19.7 million related to Osmolex ER was reclassified to Product Rights in the first quarter of 2019 when the product was launched. Osmolex ER was fully impaired during the second quarter of 2019.

As part of the Company's goodwill and intangible asset impairment assessments, the Company estimates the fair values of the reporting unit and intangible assets using an income approach that utilizes a discounted cash flow model, or, where appropriate, a market approach. The discounted cash flow models are dependent upon the Company's estimates of future cash flows and other factors. These estimates of future cash flows involve assumptions concerning (i) future operating performance, including future sales, long-term growth rates, operating margins, variations in the amounts, allocation and timing of cash flows and the probability of achieving the estimated cash flows and (ii) future economic conditions. These assumptions are based on significant inputs not observable in the market and thus represent Level 3 measurements within the fair value hierarchy. The discount rates applied to estimated cash flows for the Company's October 1, 2019 annual goodwill and indefinite-lived asset impairment test was 16.5%. The Company believes the discount rates and other inputs and assumptions are consistent with those that a market participant would use. Any impairment charges resulting from annual or interim goodwill and intangible asset impairment assessments are recorded to Impairment of intangible assets in the Condensed Consolidated Statements of Operations and Comprehensive Loss.

Amortization expense of $4.4 million and $16.9 million for the three months ended March 31, 2020 and 2019, respectively, was recorded as cost of goods sold. The amortization expense of acquired intangible assets for each of the following periods are expected to be as follows (dollars in thousands):

Years ending December 31	Amortization Expense
Remainder of 2020	$ 13,088
2021	17,161
2022	12,685
2023	11,805
2024	10,682
Thereafter	20,203
Total	$ 85,624

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Note 7. Accrued Liabilities

Accrued liabilities consist of the following (dollars in thousands):

	March 31, 2020	December 31, 2019
Accrued product returns	$ 29,200	$ 33,457
Accrued royalties	3,434	3,649
Accrued compensation	3,292	10,998
Accrued government and managed care rebates	3,582	4,867
Accrued research and development	1,432	3,028
Accrued expenses and other liabilities	5,841	8,477
Customer coupons	475	777
Total	$ 47,256	$ 65,253

In the ordinary course of business, the Company enters into contractual agreements with wholesalers pursuant to which the wholesalers distribute sales of Company products to customers and provide sales data to the Company. In return the wholesalers charge the Company a fee for services and other customary rebates and chargebacks based on distribution sales of Company products through the wholesalers and downstream customers.

Note 8. Financing Arrangements

The composition of the Company's debt and financing obligations is as follows (dollars in thousands):

	March 31, 2020	December 31, 2019
CIT Bank, N.A. Term Loan, net of deferred financing costs of $3.2 million and $3.4 million as of March 31, 2020 and December 31, 2019, respectively	$ 268,236	$ 267,950
Total debt	268,236	267,950
Less: current portion	—	—
Long-term debt	$ 268,236	$ 267,950

Term Loan

As of March 31, 2020, the interest rate was 4.82% for the Company's Term A Loan and 5.32% for the Term B Loan. As of December 31, 2019, the interest rate was 5.79% for the Term A Loan and 6.29% for the Term B Loan. The Company was in compliance with all covenants of the Term Loan Agreement as of March 31, 2020.

Revolving Facility

As of March 31, 2020 there were no amounts drawn under the $50 million Revolving Facility with CIT Bank, N.A.

Note 9. Concentrations and Credit Risk

In the three months ended March 31, 2020 and 2019, a significant portion of the Company's gross product sales reported were through three customers, and a significant portion of the Company's accounts receivable as of March 31, 2020 and

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December 31, 2019 were due from these customers as well. The following table sets forth the percentage of the Company's gross sales and accounts receivable attributable to these customers for the periods indicated:

	Gross Product Sales	
	Three Months Ended March 31,	
	2020	2019
Amerisource Bergen	31 %	7 %
Cardinal Health	22 %	55 %
McKesson	43 %	36 %
Combined Total	96 %	98 %

	Gross Account Receivables	
	March 31, 2020	December 31, 2019
Amerisource Bergen	30 %	21 %
Cardinal Health	24 %	22 %
McKesson	39 %	51 %
Combined Total	93 %	94 %

Purchasing

For the three months ended March 31, 2020 and 2019, one supplier accounted for approximately 65% and 76%, respectively, of the Company's purchases of raw materials for products that are manufactured by the Company.

The Company purchases various Active Pharmaceutical Ingredient, ("API") of finished products at contractual minimum levels through agreements with third parties. Individually, none of these agreements are material to the Company, therefore, the Company does not believe that any of the purchase obligations represent levels above the normal course of business as of March 31, 2020.

Note 10. Incentive Plans

The Company recognized share-based compensation expense of $1.0 million and $1.2 million during the three months ended March 31, 2020 and 2019, respectively. As of March 31, 2020, the total remaining unrecognized compensation cost related to non-vested share-based compensation awards amounted to $8.9 million. During the three months ended on March 31, 2020 and 2019, the Company granted 0 and 1,374,335, respectively, of restricted stock units. During the three months ended March 31, 2020 and 2019, shares vested were 237,163 and 0, respectively. As of March 31, 2020 there were 1,165,364 restricted stock units outstanding and the weighted-average remaining requisite service period of the non-vested stock options was 1.57 years and for non-vested restricted stock units was 2.96 years.

Note 11. Commitments and Contingencies

Contingent Milestone Payments

The Company has entered into strategic business agreements for the development and marketing of finished dosage form pharmaceutical products with various pharmaceutical development companies. Each strategic business agreement includes a future payment schedule for contingent milestone payments and in certain strategic business agreements,

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minimum royalty payments. The Company will be responsible for contingent milestone payments and minimum royalty payments to these strategic business partners based upon the occurrence of future events. Each strategic business agreement defines the triggering event of its future payment schedule, such as meeting product development progress timelines, successful product testing and validation, successful clinical studies, and various U.S. Food and Drug Administration and other regulatory approvals.

Supply Agreement Obligations

The Company is engaged in various supply agreements with third parties which obligate the Company to purchase various API or finished products at contractual minimum levels. None of these agreements are individually or in the aggregate material to the Company. Further, the Company does not believe that any of the purchase obligations represent levels above that of normal business demands as of March 31, 2020.

Legal Proceedings

The Company is a party in legal proceedings and potential claims arising from time to time in the ordinary course of its business. The amount, if any, of ultimate liability with respect to such matters cannot be determined. Despite the inherent uncertainties of litigation, management of the Company believes that the ultimate disposition of such proceedings and exposures will not have a material adverse impact on the financial condition, results of operations, or cash flows of the Company.

On February 16, 2018, the Company received FDA approval for its amantadine extended release tablets under the trade name OSMOLEX ER. On that same date the Company filed in the Federal District Court for the District of Delaware a Complaint for Declaratory Judgment of Noninfringement of certain patents owned by Adamas Pharmaceuticals, Inc. (Osmotica Pharmaceutical US LLC and Vertical Pharmaceuticals, LLC vs. Adamas Pharmaceuticals, Inc. and Adamas Pharma, LLC). Adamas was served with the Complaint on February 21, 2018. Adamas filed an answer on April 13, 2018 denying the allegations in the Complaint and reserving the ability to raise counterclaims as the litigation progresses. On September 20, 2018, Adamas filed an amended answer to the Company's Complaint for Declaratory Judgment of Noninfringement, with counterclaims alleging infringement of certain patents included in the Company's Complaint and requesting that the court grant Adamas damages, injunctive relief and attorneys' fees. The action is ongoing, but was stayed on May 23, 2019 at the parties' joint request.

On April 30, 2019, Osmotica Pharmaceuticals plc was served with a complaint in an action entitled *Leo Shumacher, et al., v. Osmotica Pharmaceuticals plc, et al*., Superior Court of New Jersey, Somerset County No. SOM-L-000540-19. On May 10, 2019, a Complaint entitled *Jeffrey Tello, et al., v. Osmotica Pharmaceuticals plc, et al., Superior Court of New Jersey, Somerset County No. SOM-L-000617-19* was filed in the same court as the Shumacher action. The complaints name Osmotica Pharmaceuticals plc, certain of its directors and officers and the underwriters of its initial public offering as defendants in putative class actions alleging violations of Sections 11 and 15 of the Securities Act of 1933 related to the disclosures contained in the registration statement and prospectus used for the Company's initial public offering of ordinary shares. On July 22, 2019, Plaintiffs filed an Amended Complaint consolidating the two actions, reiterating the previously pled allegations and adding an additional individual defendant. The Company disputes the allegations in the complaint and intends to vigorously defend against the action. However, this litigation matter is still in an early stage and there is no assurance that the Company will be successful in its defense or that insurance will be available or adequate to fund any settlement or judgment or the litigation costs of the action, which could adversely affect the Company's results of operations and financial condition. There is no loss that is probable or reasonably estimatable as of March 31, 2020.

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Note 12. Income Taxes

During the three months ended March 31, 2020, the Company recognized an income tax expense of $1.0 million on $2.1 million of loss before income tax, compared to $0.8 million of income tax benefit on $7.4 million of loss before income tax during the comparable 2019 period. The tax expense resulted from the Company's foreign entities generating a projected tax liability.

Income taxes for the interim periods have been based on an estimated annual worldwide effective tax rate. Income tax (expense) benefit differs from the statutory income tax rate primarily due to the occurrence of orphan drug and research development credits, recording of a valuation allowance and the addition of state and foreign taxes.

The Coronavirus Aid Relief, and Economic Security Act (CARES Act) was enacted on March 27, 2020 in the United States. The CARES Act and related notices include several significant provisions, including delaying certain payroll tax payments, mandatory transition tax payments under the Tax Cuts and Jobs Act, and estimated income tax payments that we expect to defer to future periods. We do not currently expect the CARES Act to have a material impact on our financial results, including on our annual estimated effective tax rate, or on our liquidity. We will continue to monitor and assess the impact the CARES Act and similar legislation in other countries may have on our business and financial results.

The Company provides reserves for potential payments of income tax to various tax authorities or does not recognize income tax benefits related to uncertain tax positions and other issues. Tax benefits for uncertain tax positions are based on a determination of whether a tax benefit taken by the Company in its tax filings or positions is more likely than not to be realized, assuming that the matter in question will be decided based on its technical merits. The Company's policy is to record interest and penalties in the provision for income taxes.

Two of the Company's subsidiaries, Osmotica Pharmaceutical Corp. and Valkyrie Group Holding Inc., are under audit by the Internal Revenue Service for tax years 2016 and 2017. Currently, there are no significant issues to report.

Valuation Allowance

Net deferred tax assets arise due to the recognition of income and expense items for tax purposes, which differ from those used for financial statement purposes. ASC 740, Income Taxes, provides for the recognition of deferred tax assets if the realization of such assets is more likely than not. In assessing the need for a valuation allowance in the first quarter of year ending 2020, the Company considered all available objective and verifiable evidence both positive and negative, including historical levels of pre-tax income (loss) both on a consolidated basis and tax reporting entity basis, legislative developments, expectations and risks associated with estimates of future pre-tax income, and prudent and feasible tax planning strategies.

The Company assesses the realizability of the deferred tax assets at each balance sheet date based on actuals and forecasted operating results in order to determine the proper amount, if any, of a valuation allowance. As a result of this analysis, the Company determined that it is more likely than not that it will not realize the benefits of its net deferred tax assets and therefore has recorded a valuation allowance to reduce the carrying value of its net deferred tax assets. The Company continues to maintain valuation allowances on deferred tax assets applicable to entities in foreign jurisdictions for which separate income tax returns are filed, where realization of the related deferred tax assets from future profitable operations is not reasonably assured.

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Note 13. Related Parties

Prior to the Company's initial public offering, it paid quarterly advisory, monitoring fees and any other related expenses to certain shareholders. The Company had accrued less than $0.1 million and $0.1 million as liabilities, as of March 31, 2020 and December 31, 2019, respectively, and had recognized $0.8 million and less than $0.1 million of related expense for the three months ended March 31, 2020 and 2019, respectively. Further, the Company leases its Argentina office and warehouse space facilities through a related party lease. The term of the operating lease is through December 31, 2020. For the three months ended March 31, 2020 and 2019, the Company incurred rent expense under this lease of less than $0.1 million and $0.1 million, respectively.

On August 22, 2018, the Company entered into a Master Service Agreement with United Biosource, LLC or ("UBC"), an Avista Capital Partners portfolio company, for prescription processing and patient access services. In November 2018, the Company and UBC entered into a Statement of Work for services valued at approximately $2.4 million. The Company had accrued $0.3 million of liabilities related to this agreement as of March 31, 2020 and had recognized $0.4 million of related expense for the three months ended March 31, 2020.

Note 14. Shareholders' Equity

Ordinary Share Repurchase Program

In September 2019, the Company's Board of Directors authorized the repurchase of up to 5,251,892 ordinary shares pursuant to a share repurchase program. Purchases under the ordinary share repurchase program can be made on the open market or in privately negotiated transactions, with the size and timing of these purchases based on a number of factors, including the price and business and market conditions. The Company expects to retire ordinary shares acquired under the repurchase program. In the three months ended March 31, 2020, the Company repurchased 29,000 ordinary shares for an aggregate of $0.2 million.

2019 Employee Share Purchase Plan

In September 2019, the Company's board of directors adopted and approved, the Employee Share Purchase Plan (the "ESPP"). The ESPP allows each eligible employee who is participating in the plan to purchase shares by authorizing payroll deductions of up to $2,000 per payroll period. Unless the participating employee has previously withdrawn from the offering, accumulated payroll deductions will be used to purchase shares on the last business day of the offering period at a price equal to 85 percent of the fair market value of the shares on the first business day or the last business day of the offering period, whichever is lower. Under applicable tax rules, an employee may purchase no more than $25,000 worth of ordinary shares, valued at the start of the purchase period, under the ESPP in any calendar year. There is no minimum holding period associated with shares purchased pursuant to this plan. An employee's purchase rights terminate immediately upon termination of employment.

The Company accounts for employee stock purchases made under its ESPP using the estimate grant date fair value of accounting in accordance with ASC 718, Stock Compensation. The purchase price discount and the look-back feature cause the ESPP to be compensatory and the Company to recognize compensation expense. The compensation cost is recognized on a straight-line basis over the requisite service period. The Company recognized less than $0.1 million of compensation expense for the three months ended March 31, 2020. The Company values ESPP shares using the Black-Scholes model.

As of March 31, 2020, there was less than $0.1 million of unrecognized ordinary share compensation expense related to the ESPP, which is expected to be recognized over a weighted-average period of 0.50 years. On January 2, 2020, the Company issued 29,351 ordinary shares to the employees who participated in the ESPP during the offering period ended December 31, 2019.

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

The statements in the discussion and analysis regarding industry outlook, our expectations regarding the performance of our business and the forward-looking statements are subject to numerous risks and uncertainties, including, but not limited to, the risks and uncertainties described in "Cautionary Note Regarding Forward-Looking Statements." Our actual results may differ materially from those contained in or implied by any forward-looking statements. This discussion and analysis is based upon the historical financial statements of Osmotica Pharmaceuticals plc and Osmotica Holdings S.C.Sp. Prior to the Reorganization (as defined in Note 1, Organization and Nature of Operations, to our consolidated financial statements included in this report), Osmotica Pharmaceuticals plc had no material assets and conducted no operations other than activities incidental to its formation, the Reorganization and our initial public offering. All references to years, unless otherwise noted, refer to our fiscal years, which end on December 31.

Overview

We are a fully integrated biopharmaceutical company focused on the development and commercialization of specialty products that target markets with underserved patient populations. In the three months ended March 31, 2020, we generated total revenues across our existing portfolio of promoted specialty neurology and women's health products, as well as our non-promoted products, which are primarily complex formulations of generic drugs. In 2017, we received regulatory approval from the U.S. Food and Drug Administration, or the FDA, for M-72 (methylphenidate hydrochloride extended-release tablets, 72 mg) for the treatment of attention deficit hyperactivity disorder, or ADHD in patients aged 13 to 65, and, in 2018, we received regulatory approval from the FDA for Osmolex ER (amantadine extended-release tablets) for the treatment of Parkinson's disease and drug-induced extrapyramidal reactions, which are involuntary muscle movements caused by certain medications, in adults. We launched M-72 in the second quarter of 2018 and completed the launch of Osmolex ER in January 2019. In addition, we have a late-stage development pipeline highlighted by two new drug application or NDAs, candidates, both of which have completed Phase III clinical trials: arbaclofen extended-release tablets for spasticity in multiple sclerosis patients and RVL-1201 (oxymetazoline hydrochloride ophthalmic solution, 0.1%) for the treatment of acquired blepharoptosis, or droopy eyelid. In November 2019, an NDA for RVL-1201 was accepted for filing by the FDA with a user fee goal date for FDA decision on the application of July 16, 2020. Many of our products use our proprietary osmotic-release drug delivery system, Osmodex, which we believe offers advantages over alternative extended-release, or ER, technologies.

Our core competencies span drug development, manufacturing and commercialization. Our team of sales representatives support the ongoing commercialization of our existing promoted product portfolio as well as the launch of new products. As of March 31, 2020, we actively promoted four products: Osmolex ER, and M-72 in specialty neurology; and OB Complete, our family of prescription prenatal dietary supplements, and Divigel (estradiol gel, 0.1%) in women's health. As of March 31, 2020, we sold a portfolio consisting of approximately 30 non-promoted products. The cash flow from these non-promoted products has contributed to our investments in research and development and business development activities. Certain of our key products, particularly those that incorporate our proprietary Osmodex drug delivery system, are or are expected to be manufactured in our Marietta, Georgia facility. Some of our existing products benefit from several potential barriers to entry, including intellectual property protection, formulation and manufacturing complexities, data exclusivity, as well as U.S. Drug Enforcement Administration, or DEA, regulation and quotas for API.

Our non-promoted products compete in generic markets where barriers to entry are lower than markets in which certain of our promoted products compete. Generic products generally contribute most significantly to revenues and gross margins at the time of launch or in periods where no other or a limited number of competing products have been approved and launched. In the U.S. the consolidation of buyers in recent years has increased competitive pressures on the industry as a whole. As such, the timing of new product launches can have a significant impact on a company's financial results. The entrance into the market of additional competition can have a negative impact on the pricing and volume of the affected products which are outside the company's control. In particular, both methylphenidate ER tablets and venlafaxine ER tablets, or VERT, have experienced, and are expected to continue to experience, significant pricing erosion due to additional competition from other generic pharmaceutical companies. This generic pricing erosion has resulted in, and is expected to continue to result in lower net sales, revenue and profitability from methylphenidate ER tablets and VERT in the remainder of 2020 and this erosion is expected to continue in subsequent years. Additionally, an

AB-rated generic of Lorzone was approved on November 27, 2019, which has resulted in pricing and market share declines.

We are focused on continuing the transition of our business to a specialty pharmaceutical company that develops and commercializes proprietary products. The Company's research and development pipeline highlighted by RVL-1201 and arbaclofen extended release tablets, is the primary driver of this strategy. In 2017, we acquired the worldwide rights to RVL-1201 and have completed two Phase III clinical trials of RVL-1201 in the United States for the treatment of acquired blepharoptosis.

Results from RVL-1201's initial Phase III clinical trial showed that the formulation met its primary efficacy endpoint and was well-tolerated. The 2:1 randomized, double-masked, placebo-controlled study comprised 140 patients with blepharoptosis in two treatment groups for 42 days. Patients treated with RVL-1201 received one drop in each eye each morning while patients treated with the placebo also received one drop in each eye each morning. The primary efficacy endpoints were change in baseline visual field using the Leicester Peripheral Field Test or LPFT, on Hour 6 Day 1 ($p=0.0003$) and Hour 2 on Day 14 ($p< 0.0001$). Patients who received RVL-1201 once-daily experienced a statistically significant improvement in visual field when compared to the placebo group.

RVL-1201 was generally well tolerated by patients in this clinical trial when administered once daily over a 6-week period. There were no serious adverse events identified from treatment with RVL-1201 in this Phase III clinical trial.

The second Phase III trial was a six-week randomized, multicenter, double-masked, placebo-controlled study to evaluate the safety and efficacy of once-daily treatment of RVL-1201 compared with placebo for the treatment of acquired blepharoptosis. The primary endpoint was a measurement of the mean change from baseline of the number of points seen out of a total of 35 in the top four rows of the LPFT as measured in two timepoints: hour 6 on day 1 and hour two on day 14. The secondary endpoint was a measurement of the distance between the center of the pupillary light reflex and the upper eyelid margin, or MRD-1. Topline results from the second Phase III trial showed that the trial met both the primary and secondary endpoints. The mean change from baseline on the LPFT on hour 6, day 1 was 6.3 for RVL-1201 versus 2.1 for vehicle ($p < 0.0001$) and on hour two, day 14 was 7.7 for RVL-1201 versus 2.4 for vehicle ($p < 0.0001$). The results also showed a statistically significant improvement in MRD-1 at 5 and 15 minutes, and 2 and 6 hours post dose on days 1 and 14. We also completed a 12-week randomized, multicenter, double-masked, placebo controlled safety study to evaluate the safety of RVL-1201 compared with vehicle for the treatment of acquired blepharoptosis. Results of the safety study showed RVL-1201 was well tolerated when administered once daily over a 12-week period where the majority of adverse events were mild and did not require treatment. In November 2019, the FDA accepted for filing our NDA and issued a user fee goal date of July 16, 2020. If approved, we believe RVL-1201 would become the first non-surgical treatment option approved by the FDA for droopy eyelid.

Our second late stage product candidate that has completed Phase III clinical trials is arbaclofen extended release tablets.

In 2014, we completed our initial Phase III clinical trial exploring the efficacy, safety and tolerability of arbaclofen in the treatment of spasticity associated with multiple sclerosis. The multicenter, randomized (1:1:1), double-blind, active and placebo-controlled, 16-week study included 341 patients across three groups: Arbaclofen tablets 40 mg/day, baclofen 80 mg/day and placebo. This study compared the efficacy and safety of arbaclofen doses (20 mg/day for 14 days, 30 mg/day for 14 days, and 40 mg/day for 12 weeks) with baclofen tablets (40 mg/day for 14 days, 60 mg/day for 14 days, and 80 mg/day for 12 weeks) against a placebo. The trial's co-primary efficacy endpoints were Clinician Global Impression of Change, or CGIC, and Total Numeric-transformed Ashworth Scale in the most affected limb, or TNmAS-MAL. In this Phase III clinical trial, arbaclofen demonstrated a statistically significant improvement in CGIC when compared to the placebo while baclofen failed to demonstrate a statistically significant improvement in CGIC when compared to the placebo.

Arbaclofen also demonstrated a statistically significant improvement in the TNmAS-MAL in most affected limb when compared to the placebo.

Adverse events reported in this study were consistent with the expected adverse events for baclofen, and there did not appear to be any new or unexpected safety issues relative to treatment with arbaclofen extended-release tablets. The

overall incidence of treatment emergent adverse events, or TEAEs, and the number of TEAEs leading to discontinuation from the study were lower in the arbaclofen group compared to the baclofen group.

On June 10, 2015, Osmotica Holdings Corp Limited submitted an NDA containing data from this initial Phase III clinical trial, which was conducted and completed prior to the Merger. During the NDA review process, the FDA requested an independent audit of five of the 35 study sites, which were located in Russia and Ukraine. The audit found numerous irregularities and deviations from good clinical practices, which led to a complete response letter on July 9, 2016. The audit observations were thoroughly investigated, and data were corrected where appropriate. In December 2016, we met with the FDA to discuss the path forward for the application. The FDA indicated that, based on the initial audit findings, it considered the data from the Phase III clinical trial to be insufficient to support approval of a marketing application. Following the meeting, we decided to complete a single additional Phase III clinical trial.

In the first quarter of 2019, we received topline data from our second Phase III clinical trial of arbaclofen in multiple sclerosis patients with spasticity, or the 3004 study. The 3004 study was a multicenter, randomized, double-blind placebo controlled study in which treatment groups received either placebo, 40 mg arbaclofen per day or 80 mg arbaclofen per day. The co-primary endpoints were change from baseline in TNmAS-MAL on day 84, and CGIC scores on day 84. Arbaclofen did not meet the co-primary endpoint of showing greater improvement than placebo as measured by CGIC scores; however, the study did meet the co-primary endpoint of showing a statistically significant improvement in spasticity relative to placebo as measured by the TNmAS-MAL for both doses of arbaclofen ($p=0.0482$ and $p=0.0118$ for 40 mg and 80 mg per day, respectively).

However, positive mean CGIC values indicated all three treatment groups improved from baseline. Further, it appears that there was a dose-response relationship between the two strengths as the 80 mg per day dose exhibited a greater improvement in spasticity as assessed by the TNmAS-MAL values than the 40 mg per day dose. Though arbaclofen 80 mg per day had a higher discontinuation rate in the study, the safety and tolerability data were in line with previously reported results, most notably a somnolence incidence of 10.1% and 14.5% for the 40-mg and 80-mg treatment arms, respectively, compared to 10.1% for the placebo treatment arm. Somnolence is one of the most frequently reported dose-limiting adverse events associated with baclofen treatment today. The Company’s analysis of the integrated 40 mg data from both the 3002 and 3004 studies exhibited a statistically significant benefit for subjects in both TNmAS-MAL and CGIC endpoints. Based on these results, we requested a Type C meeting with the FDA to address questions regarding our plans for resubmission of our NDA and in lieu of a face-to-face meeting we received written responses from the FDA in the fourth quarter of 2019. Based on the advice received from the FDA, we intend to resubmit our NDA during the second quarter of 2020. We expect that this resubmission will include results from the 3004 study and results from Study 3005, a one-year safety study evaluating the 80 mg daily dose. However, if we are required to conduct any additional clinical trials, our development costs may increase, our regulatory approval process could be delayed or denied and we may not be able to commercialize and commence sales of arbaclofen in the timeframe currently contemplated, if at all. We plan to invest selectively in expanding our product portfolio by leveraging both our proprietary Osmodex drug delivery system as well as our management team’s operating experience to pursue external business development opportunities.

Business Update Regarding COVID-19

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

To date, we have been able to continue to supply our products to our patients without significant disruptions. We do not currently anticipate significant interruptions in supply in the near term. However, we are continuing to monitor the potential impact of the COVID-19 pandemic on our business and operations, including our sales, expenses, manufacturing and clinical trials.

We and our third-party contract manfucturing partners have been able to operate our manufacturing facilities at or near normal levels. While we currently do not anticipate significant interruptions in our manufacturing supply chain, the COVID-19 pandemic and related mitigation efforts may have a negative impact in the future on our third party suppliers' and contract manufacturing partners' ability to manufacture our products or to have our products reach all markets.

We are monitoring the demand for our products, including the duration and degree to which we may see declines in customer orders or new prescriptions for our products, as health care providers are dedicating more resources for the treatment of COVID-19 patients. During the three months ended March 31, 2020, we took action to reduce the size of our field sales force with the remaining sales personnel, in many cases, engaging with physicians remotely as we seek to continue to support healthcare professionals and patient care. We have benefited, and may continue to benefit in the near term, from precautionary measures taken by our wholesale and retail customers due to the COVID-19 pandemic, such as increasing their levels of stock in anticipation of any further interruptions from the pandemic, but over the longer term we may see an impact from advance sales or fewer patients visiting their healthcare provider to initiate, change or receive therapy.

While we have completed clinical trials for RVL-1201 and arbaclofen ER, we have suspended a clinical trial for a generic product in development due to pandemic restrictions in the country in which that trial is taking place.

In the U.S. and in most other key markets, our office-based employees have been working from home since mid-March 2020. During this time, we are ensuring essential staffing levels in our operations remain in place, including maintaining key personnel in our laboratories and manufacturing facilities.

For additional information on the various risks posed by the COVID-19 pandemic, please read Item 1A. Risk Factors included herein and in our annual report on Form 10-K.

Financial Operations Overview

Segment Information

We currently operate in one business segment focused on the development and commercialization of pharmaceutical products that target markets with underserved patient populations. We are not organized by market and are managed and operated as one business. We also do not operate any separate lines of business or separate business entities with respect to our products. A single management team reports to our chief operating decision maker who comprehensively manages our entire business. Accordingly, we do not accumulate discrete financial information with respect to separate service lines and do not have separately reportable segments. See Note 2, *Basis of Presentation and Summary of Significant Accounting Policies* to our consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

Components of Results of Operations

Revenues

Our revenues consist of product sales, royalty revenues and licensing and contract revenue.

Net product sales—Our revenues consist primarily of product sales of our promoted products, principally M-72, Conzip, Divigel and the OB Complete family of prescription prenatal dietary supplements, and our non-promoted products, principally methylphenidate ER and VERT. We ship product to a customer pursuant to a purchase order, which in certain cases is pursuant to a master agreement with that customer, and we invoice the customer upon shipment. For these sales we recognize revenue when control has transferred to the customer, which is typically on delivery to the customer. The amount of revenue we recognize is equal to the selling price, adjusted for any variable consideration, which includes estimated chargebacks, commercial rebates, discounts and allowances at the time revenues are recognized.

Royalty revenue—For arrangements that include sales-based royalties, including milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties relate, the Company recognizes revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all the royalty has been allocated has been satisfied (or partially satisfied).

Licensing and contract revenue—The Company has arrangements with commercial partners that allow for the purchase of product from the Company by the commercial partners for the purpose of sub-distribution. Licensing revenue is recognized when the performance obligation identified in the arrangement is completed. Variable considerations, such as returns on product sales, government program rebates, price adjustments and prompt pay discounts associated with licensing revenue, are generally the responsibility of our commercial partners.

Selling, General and Administrative Expenses

Selling, general and administrative expenses consist primarily of personnel expenses, including salaries and benefits for employees in executive, finance, accounting, business development, legal and human resource functions. General and administrative expenses also include corporate facility costs, including rent, utilities, legal fees related to corporate matters, share based compensation and fees for accounting and other consulting services. We expect to incur additional general and administrative expenses as a public company, including costs associated with the preparation of our SEC filings, increased legal and accounting costs, investor relations costs and, incremental director and officer liability insurance costs, as well as costs related to compliance with the Sarbanes-Oxley Act of 2002 and the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Research and Development

Costs for research and development are charged as incurred and include employee-related expenses (including salaries and benefits, share based compensation, travel and expenses incurred under agreements with contract research organizations, or CROs, contract manufacturing organizations and service providers that assist in conducting clinical and preclinical studies), costs associated with preclinical activities and development activities and costs associated with regulatory operations.

Costs for certain development activities, such as clinical studies, are recognized based on an evaluation of the progress to completion of specific tasks using data such as patient enrollment, clinical site activations or information provided to us by our vendors on their actual costs incurred. Payments for these activities are based on the terms of the individual arrangements, which may differ from the patterns of costs incurred, and are reflected in our condensed consolidated financial statements as prepaid expenses or accrued expenses as applicable.

Results of Operations

Comparison of Three Months Ended March 31, 2020 and 2019

Financial Operations Overview

The following table presents revenues and expenses for the three months ended March 31, 2020 and 2019 (dollars in thousands):

	Three Months Ended March 31,		
	2020	2019	% Change
Net product sales	$ 47,308	$ 56,400	(16)%
Royalty revenue	869	721	21 %
Licensing and contract revenue	472	5	9,340 %
Total revenues	48,649	57,126	(15)%
Cost of goods sold (inclusive of amortization of intangibles)	20,590	29,203	(29)%
Gross profit	28,059	27,923	- %
Gross profit percentage	58 %	49 %	
Selling, general and administrative expenses	21,176	21,656	(2)%
Research and development expenses	5,688	9,764	(42)%
Total operating expenses	26,864	31,420	(15)%
Interest expense and amortization of debt discount	4,064	4,501	(10)%
Other non-operating expense (gain)	(746)	(557)	34 %
Total other non-operating expense	3,318	3,944	(16)%
Income (loss) before income taxes	(2,123)	(7,441)	(71)%
Income tax benefit (expense)	(960)	754	(227)%
Net loss	$ (3,083)	(6,687)	(54)%

Revenue

The following table presents total revenues for the three months ended March 31, 2020 and 2019 (dollars in thousands):

	Three Months Ended March 31,		
	2020	2019	% Change
Venlafaxine ER (VERT)	$ 14,118	$ 21,607	(35)%
Methylphenidate ER	8,396	20,789	(60)%
Divigel	7,581	5,497	38 %
Nitrofurantoin	4,608	—	-
Lorzone	2,428	4,269	(43)%
OB Complete	1,877	1,931	(3)%
Other	8,300	2,307	260 %
Net product sales	47,308	56,400	(16)%
Royalty revenue	869	721	21 %
Licensing and contract revenue	472	5	9,340 %
Total revenues	$ 48,649	$ 57,126	(15)%

Total Revenues - Total revenues decreased by $8.5 million to $48.6 million for the three months ended March 31, 2020, as compared to $57.1 million for the three months ended March 31, 2019 primarily due to a decrease in net product sales.

Net Product Sales - Net product sales decreased by $9.1 million to $47.3 million for the three months ended March 31, 2020, as compared to $56.4 million for the three months ended March 31, 2019. Net sales of methylphenidate ER

(including M-72) decreased 60% during the quarter due to existing competitors in the market resulting in significantly lower net selling prices and volumes. Net sales of VERT decreased 35% reflecting lower volumes and realized net pricing due to the launch of two additional generic forms of VERT which had been approved in 2019, but not launched. We expect that additional competition for both methylphenidate ER and VERT from current competitors, as well as additional generic product approvals and launches in the future, if any, will continue to negatively affect our sales of these products during the remainder of 2020 and in future years. VERT sales were favorably impacted by $6.5 million in the aggregate related to product returns and other adjustments during the three months ended March 31, 2020 based on actual experience. There can be no assurance that actual product returns experience and other adjustments will continue to favorably impact net sales in 2020 and in future periods.

Product sales of Lorzone decreased by $1.8 million to $2.4 million for the three months ended March 31, 2020 compared to $4.3 million for the three months ended March 31, 2019, reflecting the transition of sales to the Company's authorized generic product during the quarter. Sales of Divigel increased approximately 38% driven primarily by the launch of a new dosage strength together with targeted promotional activities and strong patient access. Nitrofurantoin was launched during 2019. Product sales of OB Complete were relatively flat during the quarter. Other sales increased $6.0 million, or 260%, largely due to growth of other non-promoted products.

Royalty Revenue - Royalty revenue increased by $0.1 million for the three months ended March 31, 2020, relative to the comparable period in 2019 when price protection adjustments were incurred by one of our license partners, thereby reducing royalty revenue in that comparative period.

Licensing and Contract Revenue - Licensing and contract revenue increased $0.5 million in three months ended March 31, 2020 due to sales of a product to a private label distributor which commenced during the quarter.

Cost of Goods Sold and Gross Profit Percentage

The following table presents a breakdown of total cost of goods sold for the three months ended March 31, 2020 and 2019 (dollars in thousands):

	Three Months Ended March 31,		
	2020	2019	% Change
Amortization of intangible assets	$ 4,363	$ 16,868	(74)%
Depreciation expense	634	632	- %
Royalty expense	3,042	1,827	67 %
Other cost of goods sold	12,551	9,876	27 %
Total cost of goods sold	$ 20,590	$ 29,203	(29)%

Total cost of goods sold decreased $8.6 million in the three months ended March 31, 2020 to $20.6 million as compared to $29.2 million for the three months ended March 31, 2019. The decrease was primarily driven by a decrease in amortization of intangible assets largely due to lower amortization of VERT and methylphenidate ER, partially offset by higher royalty expenses due to the launch of an in-licensed product during the second half of 2019, higher unit costs and product mix.

Gross profit percentage increased to 58% for the three months ended March 31, 2020 compared to 49% in the same period in 2019. Excluding amortization and depreciation, our gross profit percentage was 68% and 80% for each of the three months ended March 31, 2020 and 2019, respectively.

Selling, General and Administrative Expenses

Selling, general and administrative expenses decreased $0.5 million during the three months ended March 31, 2020 to $21.2 million as compared to $21.7 million in the three months ended March 31, 2019. The decrease in our selling, general and administrative expenses reflects expense reductions associated with a salesforce realignment in the third

quarter of 2019, which was partially offset by increases in marketing costs associated with the expected launch of RVL-1201, and severance costs associated with the salesforce reduction during the first quarter of 2020.

Research and Development

Research and development expenses decreased by $4.1 million in the three months ended March 31, 2020 to $5.7 million as compared to $9.8 million in the three months ended March 31, 2019. The decrease reflects the completion of the second Phase III clinical trial of arbaclofen ER during the first quarter of 2019, lower clinical trial costs related to RVL-1201 during the fourth quarter of 2019 and the cost of manufacturing development batches of Osmolex in the three month period ended March 31, 2019, which costs were not present in 2020.

The following table summarizes our research and development expenses incurred for the periods indicated (dollars in thousands):

	Three Months Ended March 31,		
	2020	2019	% Change
Arbaclofen ER	$ 1,083	$ 4,069	(73)%
RVL-1201	1,093	1,377	(21)%
Other	3,512	4,318	(19)%
Total	$ 5,688	$ 9,764	(42)%

Interest Expense and Amortization of Debt Discount

Interest expense and amortization of debt discount decreased by $0.4 million in the three months ended March 31, 2020 to $4.1 million as compared to $4.5 million in the three months ended March 31, 2019. The decrease reflects lower interest rates generally.

Income Tax Benefit (Expense)

During the three months ended March 31, 2020, the Company recognized income tax expense of $1.0 million on $2.1 million of loss before income tax, compared to $0.8 million of income tax benefit on $7.4 million of loss before income tax during the comparable 2019 period. The tax benefit resulted from an impairment charge on certain assets which required the Company to record a valuation allowance against its deferred tax assets.

Income taxes for the interim periods have been based on an estimated annualized worldwide effective tax rate. Income tax (expense) benefit differs from the statutory income tax rate primarily due to the occurrence of orphan drug and research development credits, recording of a valuation allowance and the addition to state and foreign taxes.

The income tax expense was based on the applicable federal, state and foreign tax rates for those periods. For periods with income before provision for income taxes, favorable tax items result in a decrease in the effective tax rate, while unfavorable tax items result in an increase in the effective tax rate. For periods with a loss before benefit from income taxes, favorable tax items result in an increase in the effective tax rate, while unfavorable tax items result in a decrease in the effective tax rate.

Liquidity and Capital Resources

Our principal sources of liquidity are cash generated from operations and amounts available to be drawn under our Revolving Credit Facility, or Revolver. Our primary uses of cash are to fund operating expenses, product development costs, capital expenditures, debt service payments, as well as strategic business and product acquisitions.

As of March 31, 2020, we had cash and cash equivalents of $125.8 million and borrowing availability under the Revolver of $50.0 million. We also had $271.4 million aggregate principal amount borrowed under our term loans.

In January 2020 we completed a follow-on equity offering, generating $31.8 million of net proceeds, after giving effect to underwriting discounts and commissions and offering expenses. During the three months ended March 31, 2020 we used $0.1 million of cash in operations, and during the three months ended March 31, 2019, we used cash $6.1 million of cash in operations. We expect to generate positive cash flow from operations in the future through sales of our existing products, launches of products currently in our development pipeline and sales derived from in-licenses or acquisitions of other products; however, we expect our levels of cash flow generated to be lower or negative in the near term due to price erosion on methylphenidate ER and VERT and new product launch expenses.

As of March 31, 2020, the interest rate was 4.82% and 5.32% for our Term A Loan and Term B Loan, respectively. As of March 31, 2019, the interest rate was 5.75% and 6.75% for our Term A Loan and Term B Loan, respectively.

At March 31, 2020, there were no outstanding borrowings or outstanding letters of credit under the Revolver.

On October 22, 2018, we completed our IPO, in which we issued and allotted 7,647,500 ordinary shares at a public offering price of $7.00 per share. The number of shares issued in the IPO reflected the exercise in full of the underwriters' option to purchase 997,500 additional ordinary shares. In addition, we issued and allotted 2,014,285 ordinary shares at the public offering price in a private placement to certain existing shareholders. The aggregate net proceeds of the IPO and the private placement were approximately $58.1 million after deducting underwriting discounts and commissions and offering expenses. Shortly after the IPO, we prepaid $50 million of our Term A Loan and Term B Loan.

On January 13, 2020 we completed a follow-on equity offering and allotted 6.9 million ordinary shares at a public offering price of $5.00 per share. The number of shares issued in this offering reflected the exercise in full of the underwriters option to purchase 900,000 ordinary shares. The aggregate proceeds from the follow-on offering were approximately $31.8 million after deducting underwriter discounts and commissions and offering expenses. Proceeds from the offering were used for working capital and general corporate purposes.

Our non-promoted products, including methylphenidate ER and VERT compete in generic markets for which competition has eroded, and will continue to erode, profitability over time. During 2019 several companies launched competing versions of methylphenidate ER. Additionally, there were three approvals and one launch of competing dosage strengths of VERT during 2019. During the first quarter of 2020, there were two launches of generic VERT. As a result, we have experienced, and anticipate that we will continue to experience, price erosion negatively affecting profitability of both methylphenidate ER and VERT in 2020 and future years.

We believe that our existing cash balances, cash we expect to generate from operations from our existing product portfolio, as well as funds available under the Revolver, will be sufficient to fund our operations and to meet our existing obligations for at least the next 12 months.

The adequacy of our cash resources depends on many assumptions, including primarily our assumptions with respect to product sales and expenses, drug development and commercialization costs, as well as other factors, such as successful development and launching of new products and strategic product or business acquisitions. Our assumptions may prove to be wrong or other factors may adversely affect our business. We expect our near term levels of cash flow to be negatively affected by price competition on methylphenidate ER and VERT, and increased expenses associated with new product launches. As a result, we could exhaust or significantly decrease our available cash resources, and we may not be able to generate sufficient cash to service our debt obligations. This could, among other things, force us to raise additional funds or force us to reduce our expenses through cost cutting measures either of which could have a material adverse effect on our business. During the third quarter of 2019, the Company realigned its operating infrastructure to prepare for the launch of RVL-1201. During 2019 and continuing through the first quarter of 2020, the company implemented additional cost savings measures to reduce expenses. Additionally, the Company is exploring options to raise additional capital by, for example, out-licensing or partnering rights to RVL-1201, or arbaclofen ER, divesting non-strategic assets, strategic business development, and/or conducting one or more public or private debt or equity financings, which could be dilutive to our shareholders. Such actions may not be on favorable terms and the proceeds from such actions may not be sufficient to meet our obligations.

To continue to grow our business over the longer term, we plan to commit resources to internal product development, which may include clinical trials of product candidates, and expansion of our commercial, manufacturing and other operations. In addition, we have evaluated and expect to continue to evaluate a wide array of strategic transactions as part of our plan to acquire or in-license and develop additional products and product candidates to augment our internal development pipeline. Strategic transaction opportunities that we pursue could materially affect our liquidity and capital resources and may require us to incur additional indebtedness, seek equity capital or both. In addition, we may pursue development, acquisition or in-licensing of approved or development products in new or existing therapeutic areas or continue the expansion of our existing operations. Accordingly, we expect to continue to opportunistically seek access to additional capital to license or acquire additional products, product candidates or companies to expand our operations, or for general corporate purposes. Strategic transactions may require us to raise additional capital through one or more public or private debt or equity financings or could be structured as a collaboration or partnering arrangement. Any equity financing would be dilutive to our shareholders, and the consent of the lenders under our senior secured facilities could be required for certain financings.

To the extent that we raise additional capital through the sale of equity or convertible debt securities, our shareholders' ownership interests will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our shareholders. Additionally, certain financings may require the consent of the lenders under our senior secured credit facilities. 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. If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our intellectual property, technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us.

Cash Flows

The following table provides information regarding our cash flows for the periods indicated (dollars in thousands):

	Three Months Ended March 31,		
	2020	2019	Change
Net cash used in operating activities	$ (64)	$ (6,127)	$ 6,063
Net cash used in investing activities	(946)	(635)	(311)
Net cash provided by (used in) financing activities	30,975	(1,010)	31,985
Net increase (decrease) in cash and cash equivalents	$ 29,965	$ (7,772)	$ 37,737

Net cash used in operating activities

Cash flows from operating activities are primarily driven by earnings from operations (excluding the impact of non-cash items), the timing of cash receipts and disbursements related to accounts receivable and accounts payable and the timing of inventory transactions and changes in other working capital amounts. Net cash used in operating activities was $0.1 million for the three months ended March 31, 2020, and net cash used in operating activities was $6.1 million for the three months ended March 31, 2019.

The decrease in cash used in operating activities for the three months ended March 31, 2020, was primarily as a result of lower levels of net accounts receivable, inventories and prepaid expenses, which were offset by lower levels of accrued expenses. The decrease in accounts receivable reflects improved cash collections resulting from lower chargeback and rebate deductions and accruals. Accrued expenses decreased due to lower reserves for product returns, government rebates and accruals related to clinical trial activity.

Net cash used in investing activities

Our uses of cash in investing activities during the three months ended March 31, 2020 and 2019 reflected purchases of property, plant and equipment of $0.9 million and $0.6 million, respectively.

Net cash provided by (used in) financing activities

Net cash provided by financing activities of $31.0 million during the three months ended March 31, 2020 primarily related to the proceeds of the follow-on stock offering completed in January 2020.

Net cash used in financing activities of $1.0 million during the three months ended March 31, 2019 primarily related to payments to an insurance premium financing loan.

Contractual Obligations

There have been no material changes outside the ordinary course of our business in our contractual obligations during the three months ended March 31, 2020 from those as of December 31, 2019 as set forth in our filed Annual Report on Form 10-K.

Critical Accounting Estimates

The significant accounting policies and bases of presentation are described in Note 2, *Basis of Presentation and Summary of Significant Accounting Policies* to our condensed consolidated financial statements included elsewhere in this report.

Summary of Significant Accounting Policies. The preparation of our condensed consolidated financial statements in accordance with GAAP requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses and the related disclosures in the notes thereto. Some of these estimates can be subjective and complex. Although we believe that our estimates and assumptions are reasonable, there may be other reasonable estimates or assumptions that differ significantly from ours. Further, our estimates and assumptions are based upon information available at the time they were made. The full extent to which the COVID-19 pandemic will directly or indirectly impact our business, results of operations and financial condition, including sales, expenses, reserves and allowances, manufacturing, clinical trials, research and development costs and employee-related amounts, will depend on future developments that are highly uncertain, including as a result of new information that may emerge concerning COVID-19 and the actions taken to contain it or treat COVID-19, as well as the economic impact on local, regional, national and international customers and markets. We have considered the impact of COVID-19 in the estimates within our financial statements and there may be changes to those estimates in future periods. Actual results could differ from those estimates.

In order to understand our condensed consolidated financial statements, it is important to understand our critical accounting estimates. We consider an accounting estimate to be critical if: (i) the accounting estimate requires us to make assumptions about matters that were highly uncertain at the time the accounting estimate was made and (ii) changes in the estimate that are reasonably likely to occur from period to period, or use of different estimates that we reasonably could have used in the current period, would have a material impact on our financial condition, results of operations or cash flows. We believe the following accounting policies and estimates to be critical:

Revenue Recognition

Product Sales—Revenue is recognized at the point in time when our performance obligations with our customers have been satisfied. At contract inception, we determine if the contract is within the scope of ASC Topic 606 and then evaluates the contract using the following five steps: (1) identify the contract with the customer; (2) identify the performance obligations; (3) determine the transaction price; (4) allocate the transaction price to the performance obligations; and (5) recognize revenue at the point in time when the entity satisfies a performance obligation.

Revenue is recorded at the transaction price, which is the amount of consideration we expect to receive in exchange for transferring products to a customer. We considered the unit of account for each purchase order that contains more than one product. Because all products in a given purchase order are generally delivered at the same time and the method of revenue recognition is the same for each, there is no need to separate an individual order into separate performance obligations. In the event that we fulfilled an order only partially because a requested item is on backorder, the portion of

the purchase order covering the item is generally cancelled, and the customer has the option to submit a new one for the backordered item. We determine the transaction price based on fixed consideration in our contractual agreements, which includes estimates of variable consideration, and the transaction price is allocated entirely to the performance obligation to provide pharmaceutical products. In determining the transaction price, a significant financing component does not exist since the timing from when we deliver product to when the customers pay for the product is less than one year and the customers do not pay for product in advance of the transfer of the product.

We record product sales net of any variable consideration, which includes estimated chargebacks, commercial rebates, discounts and allowances and credit losses. We utilize the expected value method to estimate all elements of variable consideration included in the transaction. The variable consideration is recorded as a reduction of revenue at the time revenues are recognized. We will only recognize revenue to the extent that it is probable that a significant revenue reversal will not occur in a future period. These estimates may differ from actual consideration amount received and we will re-assess these estimates each reporting period to reflect known changes in factors.

Royalty Revenue—For arrangements that include sales-based royalties, including milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties relate, we recognize revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all the royalty has been allocated has been satisfied (or partially satisfied).

Licensing and Contract Revenue— We have arrangements with commercial partners that allow for the purchase of product from us by the commercial partner for purposes of sub-distribution. We recognize revenue from an arrangement when control of such product is transferred to the commercial partner, which is typically upon delivery. In these situations the performance obligation is satisfied when product is delivered to our commercial partner. Licensing revenue is recognized in the period in which the product subject to the sublicensing arrangement is sold. Sales deductions, such as returns on product sales, government program rebates, price adjustments, and prompt pay discounts in regard to licensing revenue is generally the responsibility of our commercial partners and not recorded by us.

Freight—We record amounts billed to customers for shipping and handling as revenue, and record shipping and handling expenses related to product sales as selling, general and administrative expenses. We account for shipping and handling activities related to contracts with customers as costs to fulfill the promise to transfer the associated products. When shipping and handling costs are incurred after a customer obtains control of the products, we also have elected to account for these as costs to fulfill the promise and not as a separate performance obligation.

Sales Deductions

Product sales are recorded net of estimated chargebacks, commercial and governmental rebates, discounts, allowances, copay discounts, advertising and promotions and estimated product returns, or collectively, “sales deductions.”

Provision for estimated chargebacks, commercial rebates, discounts and allowances and credit losses settled in sales credits at the time of sales are analyzed and adjusted, if necessary, monthly and recorded against gross trade accounts receivable. Estimated product returns, commercial and governmental rebates and customer coupons settled in cash are analyzed and adjusted, if necessary, monthly and recorded as a component of accrued expenses.

Calculating certain of these items involves estimates and judgments based on sales or invoice data, contractual terms, historical utilization rates, new information regarding changes in applicable regulations and guidelines that would impact the amount of the actual rebates, our expectations regarding future utilization rates and estimated customer inventory levels. Amounts accrued for sales deductions are adjusted when trends or significant events indicate that adjustment is appropriate and to reflect actual experience. The most significant items deducted from gross product sales where we exercise judgment are chargebacks, commercial and governmental rebates, product returns, discounts and allowances and advertising and promotions.

Where available, we have relied on information received from our wholesaler customers about the quantities of inventory held, including the information received pursuant to days of sales outstanding, which we have not independently verified. For other customers, we have estimated inventory held based on buying patterns. In addition, we

have evaluated market conditions for products primarily through the analysis of wholesaler and other third party sell-through, as well as internally-generated information, to assess factors that could impact expected product demand at March 31, 2020. We believe that the estimated level of inventory held by our customers is within a reasonable range as compared to both: (i) historical amounts and (ii) expected demand for each respective product at March 31, 2020.

If the assumptions we use to calculate our allowances for sales deductions do not appropriately reflect future activity, our financial position, results of operations and cash flows could be materially impacted.

The following table presents the activity and ending balances for our product sales provisions for the three months ended March 31, 2020 (in thousands):

	Chargebacks	Commercial Rebates	Government and Managed Care Rebates	Product Returns	Discounts and Allowances	Total
Balance at December 31, 2018	$ 38,861	$ 49,232	$ 9,981	$ 48,464	$ 3,510	$ 150,048
Provision	345,366	147,173	20,092	(3,932)	15,719	524,418
Charges processed	(369,603)	(182,826)	(25,206)	(11,075)	(17,638)	(606,348)
Balance at December 31, 2019	$ 14,624	$ 13,579	$ 4,867	$ 33,457	$ 1,591	$ 68,118
Provision	50,173	3,220	4,846	309	2,380	60,928
Charges processed	(48,509)	(8,882)	(6,131)	(4,566)	(2,284)	(70,372)
Balance March 31, 2020	$ 16,288	$ 7,917	$ 3,582	$ 29,200	$ 1,687	$ 58,674

Total items deducted from gross product sales were $60.9 million (excluding $0.8 million in provisions for advertising and promotion), or 55.9% as a percentage of gross product sales during the three months ended March 31, 2020. As gross product sales have declined due to recent decreases in selling prices, sales deductions as a percentage of gross product sales are correspondingly less.

Chargebacks—We enter into contractual agreements with certain third parties such as retailers, hospitals and group-purchasing organizations, or GPOs, to sell certain products at predetermined prices. Most of the parties have elected to have these contracts administered through wholesalers that buy the product from us and subsequently sell it to these third parties. When a wholesaler sells products to one of these third parties that are subject to a contractual price agreement, the difference between the price paid to us by the wholesaler and the price under the specific contract is charged back to us by the wholesaler. Utilizing this information, we estimate a chargeback percentage for each product and record an allowance for chargebacks as a reduction to gross sales when we record our sale of the products. We reduce the chargeback allowance when a chargeback request from a wholesaler is processed. Our provision for chargebacks is fully reserved for at the time when sales revenues are recognized.

We obtain product inventory reports from major wholesalers to aid in analyzing the reasonableness of the chargeback allowance and to monitor whether wholesaler inventory levels do not significantly exceed customer demand. We assess the reasonableness of our chargeback allowance by applying a product chargeback percentage that is based on a combination of historical activity and current price and mix expectations to the quantities of inventory on hand at the wholesalers according to wholesaler inventory reports. In addition, we estimate the percentage of gross sales that were generated through direct and indirect sales channels and the percentage of contract compared to non-contract revenue in the period, as these each affect the estimated reserve calculation. In accordance with our accounting policy, we estimate the percentage amount of wholesaler inventory that will ultimately be sold to third parties that are subject to contractual price agreements based on a trend of such sales through wholesalers. We use this percentage estimate until historical trends indicate that a revision should be made. On an ongoing basis, we evaluate our actual chargeback rate experience, and new trends are factored into our estimates each quarter as market conditions change.

Events that could materially alter chargebacks include: changes in product pricing as a result of competitive market dynamics or negotiations with customers changes in demand for specific products due to external factors such as

competitor supply position or consumer preferences, and customer shifts in buying patterns from direct to indirect through wholesalers, which could either individually or in aggregate increase or decrease the chargebacks depending on the direction and trend of the change(s).

Chargebacks were $50.2 million, or 46.0% as a percentage of gross product sales for the three months ended March 31, 2020. We expect that chargebacks will continue to significantly impact our reported net product sales.

Commercial Rebates—We maintain an allowance for commercial rebates that we have in place with certain customers. Commercial rebates vary by product and by volume purchased by each eligible customer. We track sales by product number for each eligible customer and then apply the applicable commercial rebate percentage, using both historical trends and actual experience to estimate our commercial rebates. We reduce gross sales and increase the commercial rebates allowance by the estimated rebate amount when we sell our products to eligible customers. We reduce the commercial rebate allowance when we process a customer request for a rebate. At each month end, we analyze the allowance for commercial rebates against actual rebates processed and make necessary adjustments as appropriate. Our provision for commercial rebates is fully reserved for at the time sales revenues are recognized.

The allowance for commercial rebates takes into consideration price adjustments which are credits issued to reflect increases or decreases in the invoice or contract prices of our products. In the case of a price decrease, a shelf-stock adjustment credit is given for product remaining in customer's inventories at the time of the price reduction. Contractual price protection results in a similar credit when the invoice or contract prices of our products increase, effectively allowing customers to purchase products at previous prices for a specified period of time. Amounts recorded for estimated shelf-stock adjustments and price protections are based upon specified terms with direct customers, estimated changes in market prices, and estimates of inventory held by customers. We regularly monitor these and other factors and evaluate the reserve as additional information becomes available.

We ensure that commercial rebates are reasonable through review of contractual obligations, review of historical trends and evaluation of recent activity. Furthermore, other events that could materially alter commercial rebates include: changes in product pricing as a result of competitive market dynamics or negotiations with customers changes in demand for specific products due to external factors, such as competitor supply position or consumer preferences, and customer shifts in buying patterns from direct to indirect through wholesalers, which could either individually or in aggregate increase or decrease the commercial rebates depending on the direction and velocity of the change(s).

Commercial rebates were $3.2 million, or 3.0% as a percentage of gross product sales for the three months ended March 31, 2020. We expect that commercial rebates will continue to significantly impact our reported net sales.

Government Program Rebates—Federal law requires that a pharmaceutical distributor, as a condition of having federal funds being made available to the states for the manufacturer's drugs under Medicaid and Medicare Part B, must enter into a rebate agreement to pay rebates to state Medicaid programs for the distributor's covered outpatient drugs that are dispensed to Medicaid beneficiaries and paid for by a state Medicaid program under a fee-for-service arrangement. CMS is responsible for administering the Medicaid rebate agreements between the federal government and pharmaceutical manufacturers. Rebates are also due on the utilization of Medicaid managed care organizations, or MMCOs. We also pay rebates to MCOs for the reimbursement of a portion of the sales price of prescriptions filled that are covered by the respective plans. The liability for Medicaid, Medicare and other government program rebates is settled in cash and is estimated based on historical and current rebate redemption and utilization rates contractually submitted by each state's program administrator and assumptions regarding future government program utilization for each product sold, and accordingly recorded as a reduction of product sales. Medicaid rebates are typically billed up to 180 days after the product is shipped, but can be as much as 270 days after the quarter in which the product is dispensed to the Medicaid participant. In addition to the estimates mentioned above, our calculation also requires other estimates, such as estimates of sales mix, to determine which sales are subject to rebates and the amount of such rebates. Periodically, we adjust the Medicaid rebate provision based on actual claims paid. Due to the delay in billing, adjustments to actual claims paid may incorporate revisions of this provision for several periods. Because Medicaid pricing programs involve particularly difficult interpretations of complex statutes and regulatory guidance, our estimates could differ from actual experience.

Government and managed care rebates were $4.8 million, or 4.4% as a percentage of gross product sales for the three months ended March 31, 2020.

Product Returns—Certain of our products are sold with the customer having the right to return the product within specified periods. Estimated return accruals are made at the time of sale based upon historical experience. Our return policy generally allows customers to receive credit for expired products within three months prior to expiration and within one year after expiration. Our provision for returns consists of our estimates for future product returns.

Historical factors such as one-time recall events as well as pending new developments such as comparable product approvals or significant pricing movement that may impact the expected level of returns are taken into account monthly to determine the appropriate accrued expense. As part of the evaluation of the liability required, we consider actual returns to date that are in process, the expected impact of any product recalls and the amount of wholesaler's inventory to assess the magnitude of unconsumed product that may result in product returns to us in the future. The product returns level can be impacted by factors such as overall market demand and market competition and availability for substitute products which can increase or decrease the pull through for sales of our products and ultimately impact the level of product returns. In determining our estimates for returns and allowances, we are required to make certain assumptions regarding the timing of the introduction of new products. In addition, we make certain assumptions with respect to the extent and pattern of decline associated with generic competition. To make these assessments, we utilize market data for similar products as analogs for our estimations. We use our best judgment to formulate these assumptions based on past experience and information available to us at the time. We continually reassess and make the appropriate changes to our estimates and assumptions as new information becomes available to us. Product returns are fully reserved for at the time when sales revenues are recognized.

Our estimate for returns may be impacted by a number of factors, but the principal factor relates to the level of inventory in the distribution channel. When we are aware of an increase in the level of inventory of our products in the distribution channel, we consider the reasons for the increase to determine whether we believe the increase is temporary or other-than-temporary. Increases in inventory levels assessed as temporary will not result in an adjustment to our provision for returns. Some of the factors that may be an indication that an increase in inventory levels will be temporary include:

- recently implemented or announced price increases for our products; and
- new product launches or expanded indications for our existing products.

Conversely, other-than-temporary increases in inventory levels may be an indication that future product returns could be higher than originally anticipated and, accordingly, we may need to adjust our provision for returns. Some of the factors that may be an indication that an increase in inventory levels will be other-than-temporary include:

- declining sales trends based on prescription demand;
- recent regulatory approvals to shorten the shelf life of our products, which could result in a period of higher returns;
- slow moving or obsolete product still in the distribution channel;
- introduction of new product(s) or generic competition;
- increasing price competition from generic competitors; and
- changes to the National Drug Codes, or NDCs, of our products, which could result in a period of higher returns related to product with the old NDC, as our customers generally permit only one NDC per product for identification and tracking within their inventory systems.

We ensure that product returns are reasonable through inspection of historical trends and evaluation of recent activity. Furthermore, other events that could materially alter product returns include: acquisitions and integration activities that consolidate dissimilar contract terms and could impact the return rate as typically we purchase smaller entities with less contracting power and integrate those product sales to our contracts; and consumer demand shifts by products, which could either increase or decrease the product returns depending on the product or products specifically demanded and ultimately returned.

Product returns were a benefit of $0.3 million, or 0.3% as a percentage of gross product sales for the three months ended March 31, 2020.

Promotions and Co-Pay Discount Cards—From time to time we authorize various retailers to run in-store promotional sales of our products. We accrue an estimate of the dollar amount expected to be owed back to the retailer. Additionally, we provide consumer co-pay discount cards, administered through outside agents to provide discounted products when redeemed. Upon release of the cards into the market, we record an estimate of the dollar value of co-pay discounts expected to be utilized taking into consideration historical experience.

Advertising and promotions were $0.8 million, or 0.7% as a percentage of gross product sales for the three months ended March 31, 2020. Advertising and promotions as a percentage of gross product sales did not change materially during the periods presented.

Discounts and allowances were $2.4 million, or 2.2% as a percentage of gross product sales for the three months ended March 31, 2020. Discounts and allowances as a percentage of gross product sales did not change materially during the periods presented.

Valuation of long-lived assets

As of March 31, 2020, our combined long-lived assets balance, including property, plant and equipment and finite-lived intangible assets, is $115.6 million.

Long-lived assets, other than goodwill and other indefinite-lived intangibles, are evaluated for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable through the estimated undiscounted future cash flows derived from such assets. Factors that we consider in deciding when to perform an impairment review include significant changes in our forecasted projections for the asset or asset group for reasons including, but not limited to, significant under-performance of a product in relation to expectations, significant changes or planned changes in our use of the assets, significant negative industry or economic trends, and new or competing products that enter the marketplace. The impairment test is based on a comparison of the undiscounted cash flows expected to be generated from the use of the asset group.

Our long-lived intangible assets, which consist of distribution rights, product rights, tradenames and developed technology, are initially recorded at fair value upon acquisition. To the extent they are deemed to have finite lives, they are then amortized over their estimated useful lives using either the straight-line method or based on the expected pattern of cash flows. Factors giving rise to our initial estimate of useful lives are subject to change. Significant changes to any of these factors may result in a reduction in the useful life of the asset and an acceleration of related amortization expense, which could cause our operating income, net income and net income per share to decrease.

Recoverability of an asset that will continue to be used in our operations is measured by comparing the carrying amount of the asset to the forecasted undiscounted future cash flows related to the asset. In the event the carrying amount of the asset exceeds its undiscounted future cash flows and the carrying amount is not considered recoverable, impairment may exist. If impairment is indicated, the asset is written down by the amount by which the carrying value of the asset exceeds the related fair value of the asset with the related impairment charge recognized within the statements of operations.

Goodwill and indefinite-lived intangible assets

Goodwill and indefinite-lived intangible assets are assessed for impairment on an annual basis as of October 1st of each year or more frequently if events or changes in circumstances indicate that the asset might be impaired.

Goodwill Impairment Assessment—We are organized in one reporting unit and evaluate goodwill for our company as a whole. Under the authoritative guidance issued by the Financial Accounting Standards Board, or FASB, we have the option to first assess the qualitative factors to determine whether it is more likely than not that the fair value of the reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform a quantitative goodwill impairment test. If we determine that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then the goodwill impairment test is performed. We perform our goodwill impairment tests by comparing the fair value and carrying amount of our reporting unit. Any goodwill impairment charges we recognize for our reporting unit are equal to the lesser of (i) the total goodwill allocated to that reporting unit and (ii) the amount by which that reporting unit's carrying amount exceeds its fair value.

The goodwill impairment test requires us to estimate the fair value of the reporting unit and to compare the fair value of the reporting unit with its carrying amount. If the carrying value exceeds its fair value, an impairment charge is recorded for the difference. If the carrying value recorded is less than the fair value calculated then no impairment loss is recognized. The fair value of our reporting unit is determined using an income approach that utilizes a discounted cash flow model or, where appropriate, the market approach, or a combination thereof. The discounted cash flow models are dependent upon our estimates of future cash flows and other factors. Our estimates of future cash flows are based on a comprehensive product by product forecast over a five-year period and involve assumptions concerning (i) future operating performance, including future sales, long-term growth rates, operating margins, variations in the amounts, allocation and timing of cash flows and the probability of achieving the estimated cash flows and (ii) future economic conditions, all which may differ from actual future cash flows.

During the three months ended March 31, 2020 we assessed goodwill for indications of impairment and based on this assessment of indications performed, we determined that no additional evaluation was necessary and we did not recognize an impairment charge. During the first quarter of 2020, the Company's market capitalization decreased significantly. Additional or a sustained decline in our market capitalization, even if due to macroeconomic or industry-wide factors, could put pressure on the carrying value of our goodwill and cause the Company to conduct additional impairment tests. A determination that all or a portion of our goodwill is impaired, although a non-cash charge to operations, could have a material adverse effect on our business, consolidated financial condition and results of operations.

Assumptions related to future operating performance are based on management's annual and ongoing budgeting, forecasting and planning processes and represent our best estimate of the future results of our operations as of a point in time. These estimates are subject to many assumptions, such as the economic environments in which we operate, demand for the products and competitor actions. Estimated future cash flows are discounted to present value using a market participant, weighted average cost of capital. The financial and credit market volatility directly impacts certain inputs and assumptions used to develop the weighted average cost of capital such as the risk-free interest rate, industry beta, debt interest rate and our market capital structure. These assumptions are based on significant inputs not observable in the market and thus represent Level 3 measurements within the fair value hierarchy. The use of different inputs and assumptions could increase or decrease our estimated discounted future cash flows, the resulting estimated fair values and the amounts of related goodwill impairments, if any.

IPR&D Intangible Asset Impairment Assessment—IPR&D, which are indefinite-lived intangible assets representing the value assigned to acquired Research and Development, or R&D, projects that principally represent rights to develop and sell a product that we have acquired which has not yet been completed or approved. These assets are subject to impairment testing until completion or abandonment of each project. The fair value of our indefinite-lived intangible assets is determined using an income approach that utilizes a discounted cash flow model and requires the development of significant estimates and assumptions involving the determination of estimated net cash flows for each year for each project or product (including net revenues, cost of sales, R&D costs, selling and marketing costs and other costs which may be allocated), the appropriate discount rate to select in order to measure the risk inherent in each future cash flow

stream, the assessment of each asset's life cycle, the potential regulatory and commercial success risks, and competitive trends impacting each asset and related cash flow stream as well as other factors. The major risks and uncertainties associated with the timely and successful completion of the IPR&D projects include legal risk, market risk and regulatory risk. If applicable, upon abandonment of the IPR&D product, the assets are reduced to zero. Upon approval of the products in development for sale and placement into service, the associated IPR&D intangible assets are transferred to Product Rights amortizing intangible assets. The useful life of an amortizing asset generally is determined by identifying the period in which substantially all of the cash flows are expected to be generated.

If the fair value of the IPR&D is less than its carrying amount, an impairment loss is recognized for the difference. Beginning in 2018, we have been assessing for indications of impairment of IPR&D assets quarterly. Based on results of the assessment of impairment indications performed, we determined that no additional evaluation was required and we did not recognize impairment charges to IPR&D as of March 31, 2020.

Income Taxes

Income taxes are recorded under the asset and liability method of accounting. Under this method, deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled.

Deferred income tax assets are reduced, as is necessary, by a valuation allowance when we determine it is more-likely-than-not that some or all of the tax benefits will not be realizable in the future. Realization of the deferred tax assets is dependent on a variety of factors, some of which are subjective in nature, including the generation of future taxable income, the amount and timing of which are uncertain. In evaluating the ability to recover the deferred tax assets, we consider all available positive and negative evidence, including cumulative income in recent fiscal years, the forecast of future taxable income exclusive of certain reversing temporary differences and significant risks and uncertainties related to our business. In determining future taxable income, management is responsible for assumptions utilized including, but not limited to, the amount of U.S. federal, state and international pre-tax operating income, the reversal of certain temporary differences, carryforward periods available to us for tax reporting purposes, the implementation of feasible and prudent tax planning strategies and other relevant factors. These assumptions require significant judgment about the forecasts of future taxable income and are consistent with the plans and estimates that we are using to manage the underlying business. We assess the need for a valuation allowance each reporting period, and would record any material changes that may result from such assessment to income tax expense in that period.

We account for uncertain tax positions in accordance with ASC 740-10, *Accounting for Uncertainty in Income Taxes.* We assess all material positions taken in any income tax return, including all significant uncertain positions, in all tax years that are still subject to assessment or challenge by relevant taxing authorities. Assessing an uncertain tax position begins with the initial determination of the position's sustainability and is measured at the largest amount of benefit that has a greater than fifty percent likelihood of being realized upon ultimate resolution. The evaluation of unrecognized tax benefits is based on factors that include, but are not limited to, changes in tax law, the measurement of tax positions taken or expected to be taken in tax returns, the effective settlement of matters subject to audit, new audit activity and changes in facts or circumstances related to a tax position. We evaluate unrecognized tax benefits and adjust the level of the liability to reflect any subsequent changes in the relevant facts surrounding the uncertain positions. The liabilities for unrecognized tax benefits can be relieved only if the contingency becomes legally extinguished through either payment to the taxing authority or the expiration of the statute of limitations, the recognition of the benefits associated with the position meet the more-likely-than-not threshold or the liability becomes effectively settled through the examination process. We consider matters to be effectively settled once the taxing authority has completed all of its required or expected examination procedures, including all appeals and administrative reviews. We also accrue for potential interest and penalties related to unrecognized tax benefits in income tax provision (benefit).

The most significant tax jurisdictions are Ireland, the United States, Argentina and Hungary. Significant estimates are required in determining the provision for income taxes. Some of these estimates are based on management's interpretations of jurisdiction-specific tax laws or regulations and the likelihood of settlement related to tax audit issues.

Various internal and external factors may have favorable or unfavorable effects on the future effective income tax rate. These factors include, but are not limited to, changes in tax laws, regulations and/or rates, changing interpretations of existing tax laws or regulations, changes in estimates of prior years' items, changes in the international organization, likelihood of settlement, and changes in overall levels of income before taxes.

As of March 31, 2020, the Company had a federal net operating loss carryover of $3.3 million and net operating loss carryovers in certain foreign tax jurisdictions of approximately $33.7 million which will begin to expire in 2022. At March 31, 2020, the Company had total tax credit carryovers of approximately $4.5 million, primarily consisting of Federal Orphan Drug Tax Credit carryovers. These credit carryovers are expected to be fully realized prior to their expiration, beginning in 2036.

We make an evaluation at the end of each reporting period as to whether or not some or all of the undistributed earnings of our subsidiaries are indefinitely reinvested. While we have concluded in the past that some of such undistributed earnings are indefinitely reinvested, facts and circumstances may change in the future. Changes in facts and circumstances may include a change in the estimated capital needs of our subsidiaries, or a change in our corporate liquidity requirements. Such changes could result in our management determining that some or all of such undistributed earnings are no longer indefinitely reinvested. In that event, we would be required to adjust our income tax provision in the period we determined that the earnings will no longer be indefinitely reinvested outside the relevant tax jurisdiction.

The Coronavirus Aid, Relief, and Economic Security Act (CARES Act) was enacted on March 27, 2020 in the United States. The CARES Act and related notices include several significant provisions, including delaying certain payroll tax payments, mandatory transition tax payments under the TCJ Act, and estimated income tax payments that we expect to defer to future periods. We do not currently expect the CARES Act to have a material impact on our financial results, including on our annual estimated effective tax rate, or on our liquidity. We will continue to monitor and assess the impact the CARES Act and similar legislation in other countries may have on our business and financial results.

Share-based Compensation

Prior to the consummation of our initial public offering, or IPO our employees were eligible to receive awards from the Osmotica Holdings S.C.Sp. 2016 Equity Incentive Plan. Prior to the completion of our IPO, the board of directors approved a new equity-based incentive compensation plan, which took effect prior to the completion of our initial public offering. Therefore, employees are now eligible to receive awards under our 2018 Equity Incentive Plan.

Our share-based compensation cost will be measured at the grant date based on the fair value of the award and will be recognized as expense over the requisite service period, which will generally represent the vesting period. We will use the Black Scholes valuation model for estimating the fair value on the date of grant of stock options. The fair value of stock option awards will be affected by our valuation assumptions, the volatility of equity comparables, the expected term of the options, the risk-free interest rate, expected dividends and other objective and subjective variables.

Recently Issued Accounting Standards

For a discussion of recent accounting pronouncements, please see Note 2, *Basis of Presentation and Summary of Significant Accounting Policies* to our condensed consolidated financial statements included elsewhere in this report.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to various market risks, which may result in potential losses arising from adverse changes in market rates, such as interest rates and foreign exchange rates. We do not enter into derivatives or other financial instruments for trading or speculative purposes and do not believe we are exposed to material market risk with respect to our cash and cash equivalents.

Through the operation of our subsidiaries based in Argentina and Hungary, we are exposed to foreign exchange rate risks. In addition to the operations of our foreign subsidiaries, we also contract with vendors that are located outside the

United States, and in some cases make payments denominated in foreign currencies. We are subject to fluctuations in foreign currency rates in connection with these arrangements. We do not currently hedge our foreign currency exchange rate risk. As of March 31, 2020, our liabilities denominated in foreign currencies were not material.

We are exposed to fluctuations in interest rates on our senior secured credit facilities. An increase in interest rates could have a material impact on our cash flow. As of March 31, 2020, a 100 basis point increase in assumed interest rates for our variable interest credit facilities would have an annual impact of approximately $2.7 million on interest expense.

As of March 31, 2020, we had cash and cash equivalents of $125.8 million. We do not engage in any hedging activities against changes in interest rates. Because of the short-term maturities of our cash and cash equivalents, we do not believe that an immediate 10% increase in interest rates would have a significant impact on the realized value of our investments.

Inflation generally affects us by increasing our cost of labor, API and clinical trials. We do not believe that inflation had a material effect on our business, financial condition or results of operations during the three months ended March 31, 2020.

Item 4. Controls and Procedures

Our principal executive officer and our principal financial officer evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2020. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of March 31, 2020, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective.

Changes in internal control over financial reporting

There were no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) during the quarter ended March 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings.

From time to time, we are a party to various legal proceedings. In addition, we have in the past been, and may in the future be, subject to investigations by governmental and regulatory authorities, which exposes us to greater risks associated with litigation, regulatory or other proceedings, including significant fines or penalties. The outcome of litigation, regulatory or other proceedings cannot be predicted with certainty, and some lawsuits, claims, actions or proceedings may be disposed of unfavorably to us. In addition, intellectual property disputes often have a risk of injunctive relief which, if imposed against us, could materially and adversely affect our business, financial condition or results of operations.

On February 16, 2018, upon receipt of approval for Osmolex ER from the FDA, we filed suit against Adamas in the U.S. District Court for the District of Delaware seeking a declaratory judgment that Osmolex ER does not infringe, directly or indirectly, any valid and enforceable claim of any of the 11 patents enumerated in our complaint. On September 20, 2018, Adamas filed an amended answer with counterclaims alleging infringement of certain patents included in our complaint and requesting that the court grant Adamas damages, injunctive relief and attorneys' fees. The action is ongoing, but was stayed on May 23, 2019 at the parties' joint request. Adamas commercializes a different amantadine product, an extended-release capsule marketed and sold as Gocovri ®. We intend to vigorously defend our rights to commercialize Osmolex ER free and clear of any of these patents. However, this litigation is at a very early stage. If we do not prevail in this litigation, we could be exposed to injunctive relief, or damages, either of which could materially and adversely affect our business, financial condition and results of operations.

On April 30, 2019, Osmotica Pharmaceuticals plc was served with a complaint in an action entitled *Leo Shumacher, et al., v. Osmotica Pharmaceuticals plc, et al., Superior Court of New Jersey, Somerset County No. SOM-L-000540-19*. On May 10, 2019, a Complaint entitled *Jeffrey Tello, et al., v. Osmotica Pharmaceuticals plc, et al., Superior Court of New Jersey, Somerset County No. SOM-L-000617-19* was filed in the same court as the Shumacher action. The complaints name Osmotica Pharmaceuticals plc, certain of its directors and officers and the underwriters of its initial public offering as defendants in putative class actions alleging violations of Sections 11 and 15 of the Securities Act of 1933 related to the disclosures contained in the registration statement and prospectus used for the Company's initial public offering of ordinary shares. On July 22, 2019, Plaintiffs filed an Amended Complaint consolidating the two actions, reiterating the previously pled allegations and adding an additional individual defendant. The Company disputes the allegations in the complaints and intends to vigorously defend against the action. However, this litigation matter is still in an early stage and there is no assurance that we will be successful in our defense or that insurance will be available or adequate to fund any settlement or judgment or the litigation costs of the action, which could adversely affect the Company's results of operations and financial condition. At this time there is no loss that is probable or reasonably estimatable.

In general, we intend to continue to vigorously prosecute and defend these proceedings, as appropriate; however, from time to time, we may settle or otherwise resolve these matters on terms and conditions that we believe are in our best interests. Resolution of any or all claims, investigations and legal proceedings, individually or in the aggregate, could have a material adverse effect on our business, results of operations and cash flows in any given accounting period or on our overall financial condition.

Item 1A. Risk Factors.

Except as set forth below there have been no material changes from the risk factors described in our Annual Report on Form 10-K.

Our business may be adversely affected by the ongoing coronavirus outbreak.

In December 2019, a novel strain of coronavirus, COVID-19, was reported to have surfaced in Wuhan, China. COVID-19 has since spread to other regions in China and other countries, including the United States, where we have our executive offices and principal operations. Infections and deaths related to COVID-19 may disrupt the United States' healthcare and healthcare regulatory systems. Such disruptions could divert healthcare resources away from, or materially delay the FDA approval with respect to, our clinical trials and product candidates, including the FDA's decision on our NDAs for RVL-1201 and arbaclofen. It is unknown how long these disruptions could continue. Other known and unknown factors caused by COVID-19 could also materially delay our clinical trials that may be required for these or other product candidates, including our ability to recruit and retain patients and principal investigators and site staff who, as healthcare providers, may have heightened exposure to COVID-19 if an outbreak occurs in their geography. For example, we have suspended a clinical trial for a generic product in development due to pandemic restrictions in the country in which that trial is taking place. It is unknown when or if this trial will resume. Any elongation or de-prioritization of our clinical trials or delay in regulatory review resulting from such disruptions could materially affect the development and/or approval of our product candidates.

The economic impact of COVID-19's spread, which has caused a broad impact globally, such as restrictions on travel and quarantine policies put into place by businesses and governments, may adversely affect us. In particular, we expect that the COVID-19 outbreak will negatively affect demand for our products by limiting the ability of our sales representatives to meet with physicians and patients to visit their doctors and pharmacists to receive prescriptions for our products. We have experienced increased demand for certain of our products as customers increase stock as a precautionary measure during the pandemic. We expect that this stockpiling of our product will result in decreased demand for our products in the future as customers use their higher inventory as opposed to placing new customer orders or filing new prescriptions.

Additionally, while the potential economic impact brought by, and the duration of, COVID-19 may be difficult to assess or predict, the pandemic has resulted and could continue to result in significant disruption of global financial markets, reducing our ability to access capital, which could in the future negatively affect our liquidity and our ability to execute on our strategic plans.

The extent to which the COVID-19 pandemic impacts our results will depend on future developments that are highly uncertain and cannot be predicted. We cannot reasonably estimate the length or severity of the COVID-19 pandemic or the related mitigation efforts, including the length of time it may take for normal economic and operating conditions to resume or the extent to which the disruption may materially impact our business, financial position, results of operations or cash flows. The COVID-19 pandemic may also have the effect of heightening other risks disclosed in the Risk Factors section included in our Form 10-K filed on March 19, 2020, such as, but not limited to, those related to:

- The risk that the testing required for the regulatory approval of our products that is conducted primarily by independent third parties could be stopped or delayed, which may have an adverse effect upon our ability to obtain regulatory approvals. For example, we have paused a clinical trial for a generic product in development due to pandemic restrictions in the country in which that trial is taking place;

- Due to our dependence on a limited number of products, our business could be materially adversely affected if one or more of our key products do not perform as well as expected due to the current pandemic;

- Inability to meet our customers' needs and achieve cost targets due to disruptions in our manufacturing and supply arrangements caused by the loss or disruption of essential manufacturing and supply elements, such as raw materials or other finished product components, transportation, workforce or other manufacturing and distribution capability;

- Failure of third parties on which we rely, including our suppliers, distributors, and contractors, to meet their obligations to the Company, or significant disruptions in their ability to do so, which may be caused by their own financial or operational difficulties and may adversely impact our operations;

- Significant reductions in demand or significant volatility in demand and a global economic recession that could further reduce demand for our products, resulting from actions taken by governments, businesses, and/or the general public in an effort to limit exposure to and spreading of such infectious diseases, such as travel restrictions, quarantines, and business shutdowns or slowdowns; and

- Deterioration of worldwide credit and financial markets that could limit our ability to obtain external financing to fund our operations and capital expenditures.

A business interruption at our manufacturing facility in Marietta, Georgia, our warehouses in Sayreville, New Jersey and Tampa, Florida or at facilities operated by third parties that we rely on to supply or transport our products could have a material adverse effect on our business, financial condition and results of operations.

We produce all of the products that we manufacture at our manufacturing facility in Marietta, Georgia, and our inventory passes through our warehouses in Sayreville, New Jersey and Tampa, Florida. These facilities, or the facilities of third parties that we rely on for the development, supply, marketing, distribution or transportation of raw materials or finished

products, could be subject to earthquakes, power shortages, telecommunications failures, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or man-made disasters or business interruptions. For example, the ongoing COVID-19 pandemic has resulted in travel restrictions, may result in extended shutdowns of our facilities and has resulted in shutdowns of certain of our suppliers' businesses, which has and is expected to continue to negatively affect our suppliers' operations. For example, in March 2020, we received notification from Galephar P.R. Inc., the manufacturer of ConZip and tramadol hydrochloride, that due to COVID-19, they will temporarily cease operations. These or any further political or governmental developments or health concerns in China, the United States or other countries in which we or our suppliers operate could result in social, economic and labor instability, which could have a material adverse effect on the continuity of our business, including with respect to the availability and transportation of raw materials for production. A significant disruption at any of these facilities, even on a short-term basis, could impair our ability or significantly increase our costs to produce and ship products to the market on a timely basis, which could have a material adverse effect on our business, financial condition and results of operations.

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

(c) Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The following table contains information regarding purchases of our ordinary shares made during the quarter ended March 31, 2020 by or on behalf of Osmotica Pharmaceuticals plc or any "affiliated purchaser," as defined by Rule 10b-18(a)(3) of the Securities Exchange Act of 1934:

	Issuer Purchases of Equity Securities			
Period	**Total number of shares purchased**	**Average price paid per share**	**Total number of shares purchased as part of publicly announced plans or programs**	**Maximum number of shares that may yet be purchased under the plans or programs(1)**
01/1/20 - 01/31/20	20,000	5.67	20,000	4,558,710
02/1/20 - 02/29/20	9,000	5.92	9,000	4,549,710
03/1/20 - 03/31/20	-	-	-	4,549,710
Total	29,000	$ 5.75	29,000	

(1) On September 3, 2019, the Company's Board of Directors authorized the repurchase of up to 5,251,892 ordinary shares pursuant to a share repurchase program. Purchases under the ordinary share repurchase program can be made on the open market or in privately negotiated transactions, with the size and timing of these purchases based on a number of factors, including the price and business and market conditions. The Company expects to retire ordinary shares acquired under the repurchase program. The repurchase program expires November 28, 2020.

Item 6. Exhibits.

EXHIBIT 31.1	-	Principal Executive Officer Certification Pursuant to Securities Exchange Act Rules 13a—14 and 15d—14 as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
EXHIBIT 31.2	-	Principal Financial Officer Certification Pursuant to Securities Exchange Act Rules 13a—14 and 15d—14 as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
EXHIBIT 32.1	-	Principal Executive Officer Certification Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
EXHIBIT 32.2	-	Principal Financial Officer Certification Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
EXHIBIT 101.INS	-	XBRL Instance Document.
EXHIBIT 101.SCH	-	XBRL Taxonomy Extension Schema Document.
EXHIBIT 101.CAL	-	XBRL Taxonomy Extension Calculation Linkbase Document.
EXHIBIT 101.DEF	-	XBRL Taxonomy Extension Definition Linkbase Document.
EXHIBIT 101.LAB	-	XBRL Taxonomy Extension Label Linkbase Document.
EXHIBIT 101.PRE	-	XBRL Taxonomy Extension Presentation Linkbase Document.

SIGNATURES

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

Osmotica Pharmaceuticals plc

Dated: May 12, 2020

By: /s/ Brian Markison
Brian Markison
Chief Executive Officer

Dated: May 12, 2020

By: /s/ Andrew Einhorn
Andrew Einhorn
Chief Financial Officer

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Brian Markison, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Osmotica Pharmaceuticals plc;

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

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

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

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 12, 2020

/s/ Brian Markison
Name: Brian Markison
Title: Chief Executive Officer and Chairman
of the Board of Directors
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Andrew Einhorn, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Osmotica Pharmaceuticals plc;

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

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

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

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 12, 2020

/s/ Andrew Einhorn
Name: Andrew Einhorn
Title: Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the quarterly report of Osmotica Pharmaceuticals plc (the "Company") on Form 10-Q for the quarterly period ended March 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Brian Markison, Chief Executive Officer and Chairman of the Board of Directors of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

Date: May 12, 2020

/s/ Brian Markison
Brian Markison
Chief Executive Officer and Chairman of the Board of Directors
(Principal Executive Officer)

Exhibit 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the quarterly report of Osmotica Pharmaceuticals plc (the “Company”) on Form 10-Q for the quarterly period ended March 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Andrew Einhorn, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

Date: May 12, 2020

/s/ Andrew Einhorn
Andrew Einhorn
Chief Financial Officer
(Principal Financial Officer)