Table of Contents

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, 2019

or

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

For the transition period from _____ to _____

Commission File Number: 001-36152

Aerie Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**20-3109565**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**

4301 Emperor Boulevard, Suite 400
Durham, North Carolina 27703
(919) 237-5300
(Address of principal executive offices, zip code and telephone number, including area code)

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes: ☒ No: ☐

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐ (Do not check if a smaller reporting company)	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 ☒

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Shares of common stock, par value $0.001 per share	AERI	Nasdaq Global Market

As of May 1, 2019, there were 45,917,834 shares of the registrant's common stock, par value $0.001, outstanding.

TABLE OF CONTENTS

Unless otherwise indicated or the context requires, the terms "Aerie," "Company," "we," "us" and "our" refer to Aerie Pharmaceuticals, Inc. and its subsidiaries. References to "approved products" means products approved by the U.S. Food and Drug Administration ("FDA") or other regulatory authorities; references to "product candidates" means products that are in development but not yet approved by the FDA or other regulatory authorities; references to "future product candidates" means products that have not yet been developed.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). We may, in some cases, use terms such as "predicts," "believes," "potential," "proposed," "continue," "estimates," "anticipates," "expects," "plans," "intends," "may," "would," "could," "might," "will," "should," "exploring," "pursuing" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements.

Forward-looking statements appear in a number of places throughout this report and include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things:

- the potential future sales of Rhopressa® (netarsudil ophthalmic solution) 0.02% ("Rhopressa®") or of Rocklatan® (netarsudil and latanoprost ophthalmic solution) 0.02%/0.005% ("Rocklatan®") in the United States, and any future product candidates, if approved;
- the potential future sales in jurisdictions outside of the United States of Rhopressa®, named Rhokiinsa® (netarsudil ophthalmic solution) 0.02% ("Rhokiinsa®") in Europe, or Rocklatan®, named Roclanda® (netarsudil and latanoprost ophthalmic solution) 0.02%/0.005% ("Roclanda®") in Europe, or their equivalents, and any future product candidates;
- our commercialization, marketing, manufacturing and supply management capabilities and strategies;
- third-party payer coverage and reimbursement for our approved products, product candidates and any future product candidates, if approved;
- the glaucoma patient market size and the rate and degree of market adoption of our approved products, product candidates and any future product candidates, if approved, by eye care professionals and patients;
- the timing, cost or other aspects of the commercial launch of our approved products, product candidates and any future product candidates, if approved;
- the success, timing and cost of our ongoing and anticipated preclinical studies and clinical trials for our product candidates and any future product candidates, including statements regarding the timing of initiation and completion of the studies and trials;
- our expectations regarding the effectiveness of our approved products, product candidates and any future product candidates and results of our clinical trials and any potential preclinical studies;
- the timing of and our ability to request, obtain and maintain FDA or other regulatory authority approval of, or other action with respect to our approved products, product candidates and any future product candidates in the United States, Europe, Japan and elsewhere, including the expected timing of, and regulatory and/or other review of, filings for such product candidates;
- our expectations related to the use of proceeds from our financing activities and credit facility;
- our estimates regarding anticipated operating expenses and capital requirements and our needs for additional financing;
- our plans to pursue development of additional product candidates and technologies in ophthalmology, including development of our approved products or product candidates for additional indications, our preclinical retinal programs and other therapeutic opportunities, and our plans to explore possible uses of our existing proprietary compounds beyond ophthalmology;

- the potential advantages of our approved products, product candidates and any future product candidates;
- our ability to protect our proprietary technology and enforce our intellectual property rights;
- our expectations regarding collaborations, licensing, acquisitions and strategic operations, including our ability to in-license or acquire additional ophthalmic products, product candidates or technologies; and
- our stated objective of building a major ophthalmic pharmaceutical company.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics, industry change and other factors beyond our control, and depend on regulatory approvals and economic and other environmental circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. We discuss many of these risks in greater detail under the heading "Risk Factors" in Part I, Item 1A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, as filed with the Securities and Exchange Commission ("SEC") on March 1, 2019, and other documents we have filed or furnished with the SEC.

In particular, FDA approval of Rhopressa® and Rocklatan® do not constitute FDA approval of AR-1105, AR-13503 or any future product candidates in the United States, and there can be no assurance that we will receive FDA approval for AR-1105, AR-13503 or any future product candidates. FDA approval of Rhopressa® and Rocklatan® do not constitute regulatory approval of Rhopressa®, or Rhokiinsa® as it will be named in Europe, and Rocklatan®, or Roclanda® as it will be named in Europe, in jurisdictions outside the United States, and there can be no assurance that we will receive regulatory approval for our current or future product candidates in jurisdictions outside the United States. The European Medicines Agency ("EMA") acceptance of our Marketing Authorisation Application ("MAA") for Rhokiinsa® does not constitute EMA approval of Rhokiinsa® and does not provide assurance that the EMA will approve Rhokiinsa®. In addition, the preclinical research discussed in this report is preliminary and the outcome of such preclinical studies may not be predictive of the outcome of later clinical trials. Any future clinical trial results may not demonstrate safety and efficacy sufficient to obtain regulatory approval related to the preclinical research findings discussed in this report, and we may suspend or discontinue research programs at any time for any reason.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that we have a reasonable basis for each forward-looking statement contained in this report, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate, may differ materially from the forward-looking statements contained in this report. In addition, even if our results of operations, financial condition and liquidity, and events in the industry in which we operate, are consistent with the forward-looking statements contained in this report, they may not be predictive of results or developments in future periods.

Any forward-looking statements that we make in this report speak only as of the date of this report. Except as required by law, we are under no duty to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise, after the date of this report.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

AERIE PHARMACEUTICALS, INC.

Condensed Consolidated Balance Sheets
(Unaudited)
(in thousands, except share and per share data)

	MARCH 31, 2019	DECEMBER 31, 2018
Assets		
Current assets		
Cash and cash equivalents	$ 148,868	$ 202,818
Accounts receivable, net	14,758	2,715
Inventory	10,192	10,112
Prepaid expenses and other current assets	6,499	4,530
Total current assets	180,317	220,175
Property, plant and equipment, net	62,982	60,525
Operating lease right-of-use assets	16,394	—
Other assets	3,357	4,344
Total assets	$ 263,050	$ 285,044
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	$ 11,121	$ 12,403
Accrued expenses and other current liabilities	35,810	38,381
Operating lease liabilities	5,032	—
Total current liabilities	51,963	50,784
Long-term operating lease liabilities	12,044	—
Other non-current liabilities	6,893	6,454
Total liabilities	70,900	57,238
Commitments and contingencies (Note 11)		
Stockholders' equity		
Preferred stock, $0.001 par value; 15,000,000 shares authorized as of March 31, 2019 and December 31, 2018; None issued and outstanding	—	—
Common stock, $0.001 par value; 150,000,000 shares authorized as of March 31, 2019 and December 31, 2018; 45,921,976 and 45,478,883 shares issued and outstanding as of March 31, 2019 and December 31, 2018, respectively	46	45
Additional paid-in capital	936,474	924,180
Accumulated deficit	(744,370)	(696,419)
Total stockholders' equity	192,150	227,806
Total liabilities and stockholders' equity	$ 263,050	$ 285,044

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

AERIE PHARMACEUTICALS, INC.

Condensed Consolidated Statements of Operations and Comprehensive Loss
(Unaudited)
(in thousands, except share and per share data)

	THREE MONTHS ENDED MARCH 31,	
	2019	**2018**
Product revenues, net	$ 10,852	$ —
Total revenues, net	10,852	—
Costs and expenses:		
Cost of goods sold	381	—
Selling, general and administrative	36,282	22,930
Pre-approval commercial manufacturing	4,457	4,893
Research and development	17,884	12,972
Total costs and expenses	59,004	40,795
Loss from operations	(48,152)	(40,795)
Other income (expense), net	111	96
Loss before income taxes	(48,041)	(40,699)
Income tax benefit	(90)	—
Net loss	$ (47,951)	$ (40,699)
Net loss per common share—basic and diluted	$ (1.06)	$ (1.05)
Weighted average number of common shares outstanding—basic and diluted	45,270,660	38,598,827
Net loss	$ (47,951)	$ (40,699)
Unrealized gain (loss) on available-for-sale investments	—	(129)
Comprehensive loss	$ (47,951)	$ (40,828)

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

AERIE PHARMACEUTICALS, INC.

Consolidated Statements of Stockholders' Equity
(Unaudited)
(in thousands, except share data)

	COMMON STOCK		ADDITIONAL PAID-IN CAPITAL	ACCUMULATED OTHER COMPREHENSIVE LOSS	ACCUMULATED DEFICIT	TOTAL
	SHARES	AMOUNT				
Balances at December 31, 2017	36,947,637	$ 37	$ 597,318	$ (28)	$ (461,728)	$ 135,599
Cumulative effect adjustment from adoption of ASU 2016-16	—	—	—	—	(2,137)	(2,137)
Issuance of common stock, net of commissions and expenses of $1,345	2,313,824	2	136,373	—	—	136,375
Issuance of common stock upon exercise of stock options and warrants	28,654	—	95	—	—	95
Issuance of common stock for restricted stock awards, net	212,995	1	(1,596)	—	—	(1,595)
Stock-based compensation	—	—	8,762	—	—	8,762
Other comprehensive loss	—	—	—	(129)	—	(129)
Net loss	—	—	—	—	(40,699)	(40,699)
Balances at March 31, 2018	39,503,110	$ 40	$ 740,952	$ (157)	$ (504,564)	$ 236,271

	COMMON STOCK		ADDITIONAL PAID-IN CAPITAL	ACCUMULATED OTHER COMPREHENSIVE LOSS	ACCUMULATED DEFICIT	TOTAL
	SHARES	AMOUNT				
Balances at December 31, 2018	45,478,883	$ 45	$ 924,180	$ —	$ (696,419)	$ 227,806
Issuance of common stock upon exercise of stock options and warrants	141,245	—	1,879	—	—	1,879
Issuance of common stock for restricted stock awards, net	301,848	1	(2,093)	—	—	(2,092)
Stock-based compensation	—	—	12,508	—	—	12,508
Net loss	—	—	—	—	(47,951)	(47,951)
Balances at March 31, 2019	45,921,976	$ 46	$ 936,474	$ —	$ (744,370)	$ 192,150

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

AERIE PHARMACEUTICALS, INC.

Condensed Consolidated Statements of Cash Flows
(Unaudited)
(in thousands)

	THREE MONTHS ENDED MARCH 31,	
	2019	**2018**
Cash flows from operating activities		
Net loss	$ (47,951)	$ (40,699)
Adjustments to reconcile net loss to net cash used in operating activities		
Depreciation	564	487
Amortization and accretion	2,105	(22)
Stock-based compensation	12,620	8,719
Other non-cash	(186)	150
Changes in operating assets and liabilities		
Accounts receivable, net	(12,043)	—
Inventory	33	(969)
Prepaid, current and other assets	(1,391)	(1,628)
Accounts payable, accrued expenses and other current liabilities	(1,267)	(6,873)
Operating lease liabilities	(1,123)	—
Net cash used in operating activities	(48,639)	(40,835)
Cash flows from investing activities		
Purchase of available-for-sale investments	—	(56,195)
Proceeds from sales and maturities of investments	—	23,775
Purchase of property, plant and equipment	(4,939)	(9,126)
Net cash used in investing activities	(4,939)	(41,546)
Cash flows from financing activities		
Proceeds from sale of common stock, net	—	135,972
Payments related to issuance of stock for stock-based compensation arrangements, net	(599)	(1,420)
Proceeds from exercise of warrants	375	—
Other financing	(148)	(239)
Net cash (used in) provided by financing activities	(372)	134,313
Net change in cash and cash equivalents	(53,950)	51,932
Cash and cash equivalents, at beginning of period	202,818	197,569
Cash and cash equivalents, at end of period	$ 148,868	$ 249,501
Non-cash investing activities		
Purchases of property, plant and equipment	$ 1,608	$ 11,413

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

AERIE PHARMACEUTICALS, INC.

Notes to the Condensed Consolidated Financial Statements
(Unaudited)

1. The Company

Aerie Pharmaceuticals, Inc. ("Aerie"), with its wholly-owned subsidiaries, Aerie Distribution, Inc., Aerie Pharmaceuticals Limited and Aerie Pharmaceuticals Ireland Limited ("Aerie Distribution," "Aerie Limited" and "Aerie Ireland Limited," respectively, together with Aerie, the "Company"), is an ophthalmic pharmaceutical company focused on the discovery, development and commercialization of first-in-class therapies for the treatment of patients with open-angle glaucoma, retinal diseases and other diseases of the eye. The Company has its principal executive offices in Durham, North Carolina, and operates as one business segment.

The Company has two U.S. Food and Drug Administration ("FDA") approved products, Rhopressa® (netarsudil ophthalmic solution) 0.02% ("Rhopressa®") and Rocklatan® (netarsudil and latanoprost ophthalmic solution) 0.02%/0.005% ("Rocklatan®"), both designed to reduce elevated intraocular pressure ("IOP") in patients with open-angle glaucoma or ocular hypertension. The Company is commercializing Rhopressa® and Rocklatan® on its own in North American markets. Rocklatan® was launched in the United States on May 1, 2019. The Company's strategy also includes pursuing regulatory approval for Rhopressa® and Rocklatan® in Europe and Japan on its own. If approved, Rhopressa® and Rocklatan® will be marketed under the names Rhokiinsa® and Roclanda®, respectively, in Europe.

Rhopressa® is a once-daily eye drop designed to reduce elevated IOP in patients with open-angle glaucoma or ocular hypertension that received FDA approval in December 2017. The Company launched Rhopressa® in the United States at the end of April 2018. In October 2018, the Company announced that the European Medicines Agency ("EMA") accepted for review the marketing authorisation application ("MAA") for Rhokiinsa®. Additionally, the Company has completed a Phase 1 clinical trial and a successful pilot Phase 2 clinical study in the United States on Japanese and Japanese-American subjects, which were designed to support meeting the requirements of Japan's Pharmaceuticals and Medical Devices Agency ("PMDA") for potential regulatory submission of Rhopressa® in Japan. In March 2019, the Company initiated a Phase 2 clinical trial designed in accordance with the requirements of the PMDA on Japanese patients in Japan to support subsequent Phase 3 registration trials that are also expected to be conducted in Japan under the Company's direction.

Rocklatan® is a once-daily eye drop that is a fixed-dose combination of Rhopressa® and latanoprost, the most widely-prescribed prostaglandin analog ("PGA"). Rocklatan® received FDA approval on March 12, 2019 and was launched in the United States on May 1, 2019. In Europe, the Company is currently conducting a Phase 3 registration trial, named Mercury 3, comparing Roclanda® to Ganfort®, a fixed-dose combination product marketed in Europe of bimatoprost (a PGA) and timolol (a beta blocker). If successful, Mercury 3 is expected to improve the commercialization prospects of Roclanda® in Europe. The Company plans to submit an MAA with the EMA in early 2020 for Roclanda® if the EMA has approved Rhokiinsa® by such time.

The Company is also focused on furthering the development of its future product candidates focused on retinal diseases, particularly AR-1105 and AR-13503, described below. Through business development activities, the Company acquired worldwide ophthalmic rights to a bio-erodible polymer technology from DSM, a global science-based company headquartered in the Netherlands, and PRINT® implant manufacturing technology, which is a proprietary technology capable of creating precisely-engineered sustained-release products utilizing fully-scalable manufacturing processes, from Envisia Therapeutics Inc. ("Envisia"). Using these technologies, the Company has created a sustained-release ophthalmology platform and is currently developing two sustained-release implants focused on retinal diseases, AR-1105, an investigational dexamethasone intravitreal implant, and AR-13503, a Rho kinase/Protein kinase C inhibitor. In March 2019, the Company initiated a Phase 2 clinical trial of AR-1105 in patients with macular edema due to retinal vein occlusion. The Company also submitted its investigational new drug ("IND") application for AR-13503 in March 2019, and in April 2019 the Company announced that the FDA had reviewed the IND for AR-13503 and as a result it is now in effect, allowing Aerie to initiate human studies in the treatment of neovascular age-related macular degeneration ("nAMD") and diabetic macular edema ("DME"). The Company expects to initiate a first-in-human clinical study for AR-13503 later in the second quarter of 2019.

The Company commenced generating product revenues related to sales of Rhopressa® in the second quarter of 2018. The Company launched Rocklatan® in the United States in May 2019 following FDA approval in March 2019. The Company has incurred losses and experienced negative operating cash flows since inception. The Company had previously funded its operations primarily through the sale of equity securities and issuance of convertible notes prior to generating product revenues.

If the Company does not successfully commercialize Rhopressa® and Rocklatan® or any future product candidates, if approved, it may be unable to achieve profitability. Accordingly, the Company may be required to draw down on the $100 million senior secured delayed draw term loan facility (the "credit facility") that was entered into in July 2018, or to obtain further funding through public or private debt or equity offerings, or other arrangements. Adequate additional funding may not be available to the Company on acceptable terms, or at all. If the Company is unable to raise capital when needed or on acceptable terms, it may be forced to delay, reduce or eliminate its research and development programs or commercialization and manufacturing efforts. In May 2019, the Company entered into a second $100 million senior secured delayed draw term loan. No funds were drawn at closing. See Note 12 for additional information.

2. Significant Accounting Policies

Basis of Presentation

The Company's interim condensed consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"). In the opinion of management, the Company has made all necessary adjustments, which include normal recurring adjustments necessary for a fair statement of the Company's condensed consolidated financial position and results of operations for the interim periods presented. Certain information and disclosures normally included in the annual consolidated financial statements prepared in accordance with U.S. GAAP have been condensed or omitted. These interim condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and accompanying notes for the year ended December 31, 2018 included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on March 1, 2019 ("2018 Form 10-K"). The results for the three months ended March 31, 2019 are not necessarily indicative of the results to be expected for a full year, any other interim periods or any future year or period.

Principles of Consolidation

The interim condensed consolidated financial statements include the accounts of Aerie and its wholly-owned subsidiaries. All intercompany accounts, transactions and profits have been eliminated in consolidation. Certain reclassifications have been made to prior year amounts to conform to the current year presentation.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements and reported amounts of income and expenses during the reporting periods. Significant items subject to such estimates and assumptions include revenue recognition, inventories, lease accounting, accrued expenses, fair value measurements, acquisitions and stock-based compensation. Actual results could differ from the Company's estimates.

Concentration of Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist of cash, cash equivalents and investments. The Company's cash and cash equivalents, which include short-term highly liquid investments with original maturities of three months or less, are held at several financial institutions and at times may exceed insured limits. The Company has placed these funds in high quality institutions to minimize risk relating to exceeding insured limits. The Company's investment policy permits investments in U.S. federal government and federal agency securities, corporate bonds or commercial paper, money market instruments, and certain qualifying money market mutual funds, and places restrictions on credit ratings, maturities, and concentration by type and issuer. The Company is exposed to credit risk in the event of a default by the financial institutions holding its cash and cash equivalents to the extent recorded on the condensed consolidated balance sheet.

The Company relies on its third-party manufacturers to produce the active pharmaceutical ingredient ("API") and final drug product for Rhopressa® and Rocklatan® and may rely on third-party manufacturers for its current and future product candidates. The Company has added an additional Rhopressa® drug product contract manufacturer in the first quarter of 2019, which is expected to begin to supply commercial materials in the second quarter of 2019. Further, the Company is in the process of adding an additional API contract manufacturer and an additional Rocklatan® drug product contract manufacturer, which are expected to begin to supply commercial materials in the first half of 2019 and in early 2020, respectively. In addition, the Company is in the process of establishing its own manufacturing plant in Athlone, Ireland, for future commercial production of

Rhopressa®, Rocklatan®, and if approved, Rhokiinsa® and Roclanda®. Commercial supply from the plant is expected to be available in early 2020.

Revenue Recognition

The Company accounts for its revenue transactions under Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 606, *Revenue from Contracts with Customers* ("ASC Topic 606"). In accordance with ASC Topic 606, the Company recognizes revenues when its customers obtain control of its product in an amount that reflects the consideration it expects to receive from its customers in exchange for that product. To determine revenue recognition for contracts that are determined to be in scope of ASC Topic 606, the Company performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the Company satisfies the performance obligation. The Company only applies the five-step model to contracts when it is probable that the Company will collect the consideration it is entitled to in exchange for the goods or services it transfers to the customer. Once the contract is determined to be within the scope of ASC Topic 606, the Company assesses the goods or services promised within each contract and determines those that are performance obligations and assesses whether each promised good or service is distinct. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when such performance obligation is satisfied.

Net product revenue is typically recognized when Distributors obtain control of the Company's product, which occurs at a point in time, typically upon delivery of product to the Distributors. The Company evaluates the creditworthiness of each of its Distributors to determine whether it is probable that a significant reversal in the amount of the cumulative revenue recognized will not occur. The Company does not assess whether a contract has a significant financing component if the expectation is such that the period between the transfer of the promised goods to the customer and the receipt of payment will be less than one year. Standard credit terms do not exceed 75 days. The Company expenses incremental costs of obtaining a contract as and when incurred if the expected amortization period of the asset that would have been recognized is one year or less or the amount is immaterial. Shipping and handling costs related to the Company's product sales are included in selling, general and administrative expenses.

The Company's net product revenues through March 31, 2019 were generated through sales of Rhopressa®, which was approved by the FDA in December 2017 and was commercially launched in the United States on April 30, 2018. Product revenue is recorded net of trade discounts, allowances, rebates, chargebacks, estimated returns and other incentives. These reserves are classified as either reductions of accounts receivable or as current liabilities. The estimates of reserves established for variable consideration reflect current contractual and statutory requirements, known market events and trends, industry data and forecasted customer mix. The transaction price, which includes variable consideration reflecting the impact of discounts and allowances, may be subject to constraint and is included in the net product revenues only to the extent that it is probable that a significant reversal of the amount of the cumulative revenues recognized will not occur in a future period. Actual amounts may ultimately differ from these estimates. If actual results vary, estimates may be adjusted in the period such change in estimate becomes known, which could have an impact on earnings in the period of adjustment. See Note 3 for additional information.

Inventories

Prior to the date the Company obtains regulatory approval for its product candidates, manufacturing costs related to commercial production are expensed as pre-approval commercial manufacturing expense. Once regulatory approval is obtained, the Company capitalizes such costs as inventory. Inventories are stated at the lower of cost or net realizable value. The Company determines the cost of inventory using the first-in, first-out ("FIFO") method. The Company analyzes its inventory levels at least quarterly and writes down inventory that is expected to expire prior to being sold, inventory in excess of expected sales requirements and inventory that fails to meet commercial sale specifications, with a corresponding charge to cost of goods sold. The determination of whether inventory costs will be realizable requires estimates by management of future expected inventory requirements based on sales forecasts. If actual net realizable value is less than the estimated amount or if actual market conditions are less favorable than the Company's projections, additional inventory write-downs may be required. Charges for inventory write-downs are not reversed if it is later determined that the product is saleable.

Property, Plant and Equipment, Net

Property, plant and equipment is recorded at historical cost. Depreciation is calculated using the straight-line method over the estimated useful lives of the related assets. Construction-in-progress reflects amounts incurred for property, plant or equipment construction or improvements that have not yet been placed in service and are not depreciated or amortized, which primarily relates to the build-out of the Company's manufacturing plant in Ireland (see Note 5). Repairs and maintenance are expensed

when incurred. Upon retirement or sale, the cost of the assets disposed of and the related accumulated depreciation are removed from the accounts, and any resulting gain or loss is included in the determination of net loss.

Estimated useful lives by major asset category are as follows:

Manufacturing equipment	10 years
Laboratory equipment	7 years
Furniture and fixtures	5 years
Software, computer and other equipment	3 years
Leasehold improvements	Lower of estimated useful life or term of lease

Leases

The Company determines if an arrangement is a lease at inception. For each lease, the lease term is determined at the commencement date and includes renewal options and termination options when it is reasonably certain that the Company will exercise that option. Operating leases with lease terms greater than one year are included in operating lease right-of-use ("ROU") assets and current and long-term operating lease liabilities in the Company's condensed consolidated balance sheets.

Operating lease ROU assets represent the right to use an underlying asset for the lease term and lease liabilities represent the obligation to make lease payments arising from the lease. Operating lease liabilities are recognized at commencement date based on the present value of lease payments over the lease term using an estimated rate of interest the Company would have to pay to borrow equivalent funds on a collateralized basis at the lease commencement date. The operating lease ROU assets are based on the liability adjusted for any prepaid or deferred rent and lease incentives. The incremental borrowing rate was utilized to discount lease payments over the expected term given our operating leases do not provide an implicit rate. The Company estimates the incremental borrowing rate to reflect the profile of secured borrowing over the expected term of the leases based on the information available at the later of the date of adoption or the lease commencement date. Rent expense for the operating lease is recognized on a straight-line basis over the lease term.

The Company's lease agreements have lease and non-lease components, which are generally accounted for as a single lease component. Non-lease components include lease operating expenses, which are variable costs under the Company's current leases. For vehicle leases, the Company accounts for the lease and non-lease components as a single lease component and applies a portfolio approach to effectively account for the operating lease ROU assets and liabilities.

Investments

Available-for-sale investments in debt securities are recorded at fair value, with unrealized gains or losses included in comprehensive loss on the condensed consolidated statements of operations and comprehensive loss and in accumulated other comprehensive loss on the condensed consolidated balance sheets. Realized gains and losses, interest income earned on the Company's cash, cash equivalents and investments, and amortization or accretion of discounts and premiums on investments are included within other income (expense), net. Interest income was $0.8 million and $0.8 million for the three months ended March 31, 2019 and 2018, respectively. There were no realized gains or losses recognized during the three months ended March 31, 2019 or 2018.

Fair Value Measurements

The Company records certain financial assets and liabilities at fair value in accordance with the provisions of ASC Topic 820, *Fair Value Measurements and Disclosures*. As defined in the guidance, fair value, defined as an exit price, represents the amount that would be received to sell an asset or pay to transfer a liability in an orderly transaction between market participants. As a result, fair value is a market-based approach that should be determined based on assumptions that market participants would use in pricing an asset or a liability. As a basis for considering these assumptions, the guidance defines a three-tier value hierarchy that prioritizes the inputs used in the valuation methodologies in measuring fair value.

- Level 1—Unadjusted quoted prices in active, accessible markets for identical assets or liabilities.
- Level 2—Other inputs that are directly or indirectly observable in the marketplace.
- Level 3—Unobservable inputs that are supported by little or no market activity.

The fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

The Company's cash equivalents are valued utilizing Level 1 inputs in the fair value hierarchy as of March 31, 2019 and December 31, 2018. There were no transfers between the different levels of the fair value hierarchy during the three months ended March 31, 2019.

Stock-Based Compensation

The estimated fair value of options to purchase common stock is determined on the date of grant using the Black-Scholes option pricing model. The fair value of restricted stock awards ("RSAs") granted is based on the market value of Aerie's common stock on the date of grant. Compensation expense related to time-based RSAs is expensed on a straight-line basis over the vesting period. For RSAs with non-market performance conditions, the Company evaluates the criteria for each grant to determine the probability that the performance condition will be achieved. Compensation expense for RSAs with non-market performance conditions is recognized over the respective service period when it is deemed probable that the performance condition will be satisfied. Upon issuance and at each reporting period, the fair value of each stock appreciation rights ("SARs") award is estimated using the Black-Scholes option pricing model and is marked to market through stock-based compensation expense. SARs are liability-based awards as they may only be settled in cash.

Adoption of New Accounting Standards

In June 2018, the FASB issued ASU 2018-07, *Compensation—Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting* ("ASU 2018-07"), which expands the scope of ASC Topic 718, *Compensation—Stock Compensation* to include share-based payments issued to non-employees for goods or services. Consequently, the accounting for share-based payments to non-employees and employees will be substantially aligned. This ASU was effective for the Company beginning January 1, 2019. The adoption of ASU 2018-07 did not have a material impact on the Company's consolidated financial statements and disclosures.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)* ("ASC Topic 842"). ASC Topic 842 is intended to improve financial reporting of leasing transactions by requiring organizations that lease assets to recognize assets and liabilities for the rights and obligations created by leases that extend more than twelve months on the balance sheet. This accounting update also requires additional disclosures surrounding the amount, timing, and uncertainty of cash flows arising from leases. ASC Topic 842 is effective for financial statements issued for annual and interim periods beginning on January 1, 2019. The Company has elected the optional transition method that provided the option to use the effective date of ASC 842 as the date of initial application on transition. Accordingly, the Company did not adjust comparative periods or make the new required lease disclosures for periods before the effective date of January 1, 2019. There was no cumulative effect adjustment recognized to accumulated deficit upon adoption. As of the date of adoption of the new leasing standards, the Company recognized an operating lease ROU asset of approximately $17.3 million and a corresponding operating lease liability of approximately $17.9 million, which are included in the condensed consolidated balance sheet. The adoption of the new leasing standards did not have a material impact on the condensed consolidated statements of operations and comprehensive loss.

The Company has elected to utilize the package of practical expedients permitted in ASC Topic 842. Accordingly, the Company accounted for its existing operating leases as operating leases under the new guidance (i) without reassessing the classification of the operating leases in accordance with ASC Topic 842, (ii) without reassessing whether an existing contract contained a lease and (iii) without reassessing initial direct costs. In addition, the Company has elected not to allocate the consideration between lease and non-lease components for its operating leases. The Company was also required to reassess its lease conclusions for its manufacturing plant in Athlone, Ireland, under ASC Topic 842 since construction was still in progress as of the date of adoption. Upon the reassessment, the Company concluded it is the owner of the leased space for accounting purposes under ASC Topic 842 and therefore, maintained its previous build-to-suit lease accounting under the transition guidance of ASC Topic 842.

Recent Accounting Pronouncements

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820-10): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU 2018-13"), which changes the fair value measurement disclosure requirements of ASC Topic 820. Under this ASU, certain disclosure requirements for fair value measurements are eliminated, amended or added. These changes aim to improve the overall usefulness of disclosures to financial statement users and reduce unnecessary costs to companies when preparing the disclosures. The guidance is effective for the Company beginning on January 1, 2020 and prescribes different transition methods for the various provisions. The Company does not expect the adoption of ASU 2018-13 to have a material impact on its consolidated financial statements and disclosures.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13"), which requires that financial assets measured at amortized cost be

presented at the net amount expected to be collected. Currently, U.S. GAAP delays recognition of the full amount of credit losses until the likelihood of the loss occurring is probable. Under this ASU, the income statement will reflect an entity's current estimate of all expected credit losses. The measurement of expected credit losses will be based upon historical experience, current conditions, and reasonable and supportable forecasts that affect the collectibility of the reported amount. Credit losses relating to available-for-sale debt securities will be recorded through an allowance for credit losses rather than as a direct write-down of the security. In November 2018, the FASB issued ASU No. 2018-19, *Codification Improvements to Topic 326, Financial Instruments-Credit Losses* ("ASU 2018-19"), which clarifies that receivables from operating leases are accounted for using the lease guidance and not as financial instruments. The guidance is effective for the Company beginning on January 1, 2020, with early adoption permitted beginning on January 1, 2019. The new guidance prescribes different transition methods for the various provisions. The Company does not expect the adoption of ASU 2016-13 or ASU 2018-19 to have a material impact on its consolidated financial statements and disclosures.

Net Loss per Common Share

Basic net loss per common share ("Basic EPS") is calculated by dividing the net loss by the weighted average number of shares of common stock outstanding for the period, without consideration for potentially dilutive securities with the exception of warrants for common stock with a $0.05 exercise price, which are exercisable for nominal consideration and are therefore included in the calculation of the weighted average number of shares of common stock as common stock equivalents. Diluted net loss per share ("Diluted EPS") gives effect to all dilutive potential shares of common stock outstanding during this period. For Diluted EPS, net loss used in calculating Basic EPS may be adjusted for certain items related to the dilutive securities.

For all periods presented, Aerie's potential common stock equivalents have been excluded from the computation of Diluted EPS as their inclusion would have had an anti-dilutive effect.

The potential common stock equivalents that have been excluded from the computation of Diluted EPS consist of the following:

	THREE MONTHS ENDED MARCH 31,	
	2019	**2018**
2014 Convertible Notes[1]	—	5,040,323
Outstanding stock options	7,444,736	7,125,947
Stock purchase warrants	79,500	157,500
Nonvested restricted stock awards	781,903	605,163
Total	8,306,139	12,928,933

(1) In July 2018, the entire outstanding principal amount of senior secured convertible notes (the "2014 Convertible Notes") was converted into shares of Aerie common stock.

3. Revenue Recognition

Net product revenues for the three months ended March 31, 2019 were derived from sales of Rhopressa® in the United States to customers, which include a limited number of national and select regional wholesalers (the "Distributors"). These Distributors subsequently resell the product, primarily to retail pharmacies that dispense the product to patients. For the three months ended March 31, 2019, three Distributors accounted for 36%, 34% and 27% of total revenues, respectively. The product that is ultimately used by patients is generally covered by third-party payers, such as government or private healthcare insurers and pharmacy benefit managers ("Third-party Payers") and may be subject to rebates and discounts payable directly to those Third-party Payers.

The Company has already obtained formulary coverage for approximately 90% of lives covered under commercial plans and approximately 75% of lives covered under Medicare Part D plans. Rocklatan® was approved by the FDA on March 12, 2019 and was commercially launched in the United States in May 2019. The Company expects to recognize product revenue for sales of Rocklatan® commencing in the second quarter of 2019.

The Company calculates its net product revenue based on the wholesale acquisition cost that the Company charges its Distributors for Rhopressa® less provisions for (i) trade discounts and allowances, such as discounts for prompt payment and

Distributor fees, (ii) estimated rebates to Third-party Payers, estimated payments for Medicare Part D prescription drug program coverage gap (commonly called the "donut hole"), patient co-pay program coupon utilization, chargebacks and other discount programs and (iii) reserves for expected product returns. Provisions for revenue reserves reduced product revenues by $16.2 million for the three months ended March 31, 2019.

Trade Discounts and Allowances: The Company generally provides discounts on sales of Rhopressa® to its Distributors for prompt payment and pays fees for distribution services and for certain data that Distributors provide to the Company. The Company expects its Distributors to earn these discounts and fees, and accordingly deducts the full amount of these discounts and fees from its gross product revenues at the time such revenues are recognized.

Rebates, Chargebacks and Other Discounts: The Company contracts with Third-party Payers for coverage and reimbursement of Rhopressa®. The Company estimates the rebates and chargebacks it expects to be obligated to provide to Third-party Payers and deducts these estimated amounts from its gross product revenue at the time the revenue is recognized. The Company estimates the rebates and chargebacks that it expects to be obligated to provide to Third-party Payers based upon (i) the Company's contracts and negotiations with these Third-party Payers, (ii) estimates regarding the payer mix for Rhopressa® and (iii) historical industry information regarding the payer mix for comparable pharmaceutical products and product portfolios. Other discounts include the Company's co-pay assistance coupon programs for commercially-insured patients meeting certain eligibility requirements. The calculation of the accrual for co-pay assistance is based on an estimate of claims and the cost per claim that the Company expects to pay associated with product that has been recognized as revenue.

Product Returns: The Company estimates the amount of Rhopressa® that will be returned and deducts these estimated amounts from its gross revenue at the time the revenue is recognized. The Company currently estimates product returns based on historical industry information regarding rates for comparable pharmaceutical products and product portfolios, the estimated remaining shelf life of Rhopressa® shipped to Distributors, and contractual agreements with the Company's Distributors intended to limit the amount of inventory they maintain. Reporting from the Distributors includes Distributor sales and inventory held by Distributors, which provides the Company with visibility into the distribution channel to determine when product would be eligible to be returned.

The Company did not have any contract assets (unbilled receivables) at March 31, 2019 or December 31, 2018, as customer invoicing generally occurs before or at the time of revenue recognition. The Company did not have any contract liabilities at March 31, 2019 or December 31, 2018, as the Company did not receive payments in advance of fulfilling its performance obligations to its customers. Amounts billed or invoiced are included in accounts receivable, net on the condensed consolidated balance sheets.

4. Inventory

Inventory consists of the following:

(in thousands)	MARCH 31, 2019	DECEMBER 31, 2018
Raw materials	$ 766	$ 836
Work-in-process	7,377	6,885
Finished goods	2,049	2,391
Total inventory	$ 10,192	$ 10,112

5. Property, Plant and Equipment, Net

Property, plant and equipment, net consists of the following:

(in thousands)	MARCH 31, 2019	DECEMBER 31, 2018
Manufacturing equipment	$ 2,374	$ 2,366
Laboratory equipment	6,013	6,038
Furniture and fixtures	1,651	1,815
Software, computer and other equipment	2,786	2,702
Leasehold improvements	4,174	4,072
Construction-in-progress	51,832	49,057
Property, plant and equipment	68,830	66,050
Less: Accumulated depreciation	(5,848)	(5,525)
Property, plant and equipment, net	$ 62,982	$ 60,525

Manufacturing Plant Build-Out

The Company is in process of building its own manufacturing plant in Athlone, Ireland, and is leasing approximately 30,000 square feet of interior floor space for build-out. The lease expires in 2037, but the Company is permitted to terminate the lease beginning in September 2027. The Company is not the legal owner of the leased space. However, in accordance with ASC Topic 842, *Leases*, the Company is deemed to be the owner of the leased space.

The Company capitalized approximately $4.2 million as a build-to-suit asset within property, plant and equipment, net related to the value of the building shell at the commencement of the lease. The build-to-suit facility lease obligation was approximately $4.4 million as of March 31, 2019, of which $0.2 million was classified as other current liabilities. The build-to-suit facility lease obligation was approximately $4.5 million as of December 31, 2018, of which $0.2 million was classified as other current liabilities. Additionally, equipment and construction costs incurred as part of the build-out are capitalized within property, plant and equipment, net. Capital expenditures related to the manufacturing plant totaled approximately $2.8 million during the three months ended March 31, 2019.

The Company has not yet commenced amortization of the build-to-suit asset, included in property, plant and equipment, net on the condensed consolidated balance sheets, as construction of the facility was still in progress as of March 31, 2019. Rental payments made under the lease will be allocated to interest expense and the financing liability based on the implicit rate of the build-to-suit facility lease obligation. Interest expense related to the financing liability is immaterial. The lease obligation is denominated in Euros and is remeasured to U.S. dollars at the balance sheet date with any foreign exchange gain or loss recognized within other income (expense), net on the condensed consolidated statements of operations and comprehensive loss. Unrealized foreign currency gain related to the remeasurement of the lease obligation was $0.1 million for the three months ended March 31, 2019. For the three months ended March 31, 2018, the unrealized foreign currency loss was $0.1 million.

6. Leases

The Company has operating leases for corporate offices, research and development facilities, and a fleet of vehicles. The properties primarily relate to the Company's principal executive office and research facility located in Durham, North Carolina, regulatory, commercial support and other administrative activities located in Irvine, California and clinical, finance and legal operations located in Bedminster, New Jersey. The Durham, North Carolina, facility consists of approximately 61,000 square feet of laboratory and office space under leases that expire between June 2020 and June 2024 and the Irvine, California, location consists of approximately 37,300 square feet of office space under a lease that expires in January 2022. The Company terminated its previous lease and entered into a lease for its new Bedminster, New Jersey, location, which consists of approximately 34,000 square feet of office space under a lease that expires in October 2029. There are also small offices in Malta, Ireland, the United Kingdom and Japan. These leases have remaining lease terms of approximately 1 year to 11 years, some of which include options to extend the leases.

Balance sheet information related to leases was as follows:

(in thousands)	MARCH 31, 2019
Operating Leases	
Operating lease right-of-use assets	$ 16,394
Operating lease liabilities	$ 5,032
Long-term operating lease liabilities	12,044
Total operating lease liabilities	$ 17,076

	MARCH 31, 2019
Operating Leases	
Weighted-Average Remaining Lease Term	6 years
Weighted-Average Discount Rate	7.7%

Maturities of lease liabilities as of March 31, 2019 were as follows[1]:

(in thousands)	
Year Ending December 31,	**Operating leases**
Remainder of 2019	$ 3,634
2020	5,302
2021	3,744
2022	1,478
2023	1,440
Thereafter	6,576
Total undiscounted lease payments	22,174
Less: present value adjustment	(5,098)
Total lease liabilities	$ 17,076

(1) Uses foreign exchange rates in effect at March 31, 2019.

Under prior lease guidance, minimum lease payments under operating leases were as follows at December 31, 2018:

(in thousands)	
Year Ending December 31,	**Operating leases**
2019	$ 4,283
2020	4,855
2021	4,278
2022	1,643
2023	1,438
Thereafter	6,698
Total minimum lease payments	$ 23,195

Lease expense for the Company's operating leases was $1.2 million, including variable lease payments of $0.2 million, for the three months ended March 31, 2019. Rent expense for the Company's operating leases was $0.6 million for the three months ended March 31, 2018.

7. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following:

(in thousands)	MARCH 31, 2019	DECEMBER 31, 2018
Accrued compensation and benefits	$ 6,822	$ 10,438
Accrued consulting and professional fees	4,130	3,927
Accrued research and development expenses (1)	6,692	7,503
Accrued revenue reserves	16,500	10,155
Accrued other (2)	1,666	6,358
Total accrued expenses and other current liabilities	$ 35,810	$ 38,381

(1) Comprised of accruals related to fees for investigative sites, contract research organizations, contract manufacturing organizations and other service providers that assist in conducting preclinical research studies and clinical trials.

(2) Comprised of accruals related to commercial manufacturing activities for the Company's product candidates prior to receipt of regulatory approval, as well as other business-related expenses.

8. Credit Facility

On July 23, 2018, Aerie entered into a credit agreement (as amended on August 7, 2018) with certain entities affiliated with Deerfield Management Company L.P. ("Deerfield") providing for a $100 million credit facility. The credit facility includes fees upon drawdown of 1.75% of amounts drawn, an 8.625% annual interest rate on drawn amounts, and annual fees on undrawn amounts of 1.5%. There is also an exit fee of $1.5 million payable upon termination of the credit facility (whether at maturity or otherwise). The allowable draw period ends two years from the effective date of the credit facility. Fees on undrawn amounts are not payable until July 2020, and no principal payments will be due on drawn amounts, if any, until July 2020. The credit facility matures in July 2024 in respect of any drawn amounts. The credit facility includes affirmative and negative covenants and prepayment terms. No funds have been drawn. In May 2019, the Company entered into an amendment of its existing credit facility providing for an additional $100 million senior secured delayed draw term loan with Deerfield. No funds were drawn at closing. See Note 12 for additional information.

Interest expense was $0.8 million and $0.5 million for the three months ended March 31, 2019 and 2018, respectively, and included amortization of debt discount and issuance costs related to the 2014 Convertible Notes through the date of conversion as well as issuance costs and fees related to the credit facility commencing in July 2018.

9. Stockholders' Equity

Warrants

As of March 31, 2019, the following equity-classified warrants to purchase common stock were outstanding:

NUMBER OF UNDERLYING SHARES	EXERCISE PRICE PER SHARE	WARRANT EXPIRATION DATE
75,000	$5.00	November 2019
4,500	$5.00	August 2020
223,482	$0.05	December 2019

The warrants outstanding as of March 31, 2019 are all currently exercisable.

10. Stock-Based Compensation

Stock-based compensation expense for options granted, RSAs, performance stock awards ("PSAs"), SARs and stock purchase rights is reflected in the condensed consolidated statements of operations and comprehensive loss as follows:

	THREE MONTHS ENDED MARCH 31,	
(in thousands)	**2019**	**2018**
Selling, general and administrative	$ 9,121	$ 6,214
Pre-approval commercial manufacturing	849	470
Research and development	2,650	2,035
Total	$ 12,620	$ 8,719

Equity Plans

The Company maintains three equity compensation plans, the 2005 Aerie Pharmaceutical Stock Plan (the "2005 Plan"), the 2013 Omnibus Incentive Plan (the "2013 Equity Plan"), which was amended and restated as the Aerie Pharmaceuticals, Inc. Second Amended and Restated Omnibus Incentive Plan (the "Second Amended and Restated Equity Plan"), as described below, and the Aerie Pharmaceuticals, Inc. Inducement Award Plan (the "Inducement Award Plan"), as described below. The 2005 Plan, the Second Amended and Restated Equity Plan and the Inducement Award Plan are referred to collectively as the "Plans." The 2005 Plan was frozen in 2013 and no additional awards have been or will be made under the 2005 Plan.

On June 7, 2018, Aerie's stockholders approved the adoption of the Second Amended and Restated Equity Plan to increase the number of shares issuable under the plan by 4,500,000. The Second Amended and Restated Equity Plan provides for the granting of up to 10,229,068 equity awards in respect of Aerie common stock.

On December 7, 2016, Aerie's Board of Directors approved the Inducement Award Plan which provides for the granting of up to 418,000 equity awards in respect of common stock of Aerie and was subsequently amended during 2017 to increase the equity awards that may be issued by an additional 874,500 shares. Awards granted under the Inducement Award Plan are intended to qualify as employment inducement awards under NASDAQ Listing Rule 5635(c)(4).

Options to Purchase Common Stock

The following table summarizes the stock option activity under the Plans:

	NUMBER OF SHARES	WEIGHTED AVERAGE EXERCISE PRICE	WEIGHTED AVERAGE REMAINING CONTRACTUAL LIFE (YEARS)	AGGREGATE INTRINSIC VALUE (000's)
Options outstanding at December 31, 2018	6,935,119	$ 28.97		
Granted	753,010	43.94		
Exercised	(111,242)	32.96		
Canceled	(132,151)	52.08		
Options outstanding at March 31, 2019	7,444,736	$ 30.01	6.8	$ 145,052
Options exercisable at March 31, 2019	4,908,673	$ 20.97	5.7	$ 134,432

As of March 31, 2019, the Company had $79.2 million of unrecognized compensation expense related to options granted under its equity plans. This expense is expected to be recognized over a weighted average period of 2.9 years as of March 31, 2019.

Restricted Stock Awards

The following table summarizes the RSAs, including PSAs, activity under the Plans:

	NUMBER OF SHARES	WEIGHTED AVERAGE FAIR VALUE PER SHARE
Nonvested RSAs at December 31, 2018	572,706	$ 48.18
Granted	369,648	45.70
Vested	(140,291)	41.67
Canceled	(20,160)	52.35
Nonvested RSAs at March 31, 2019	781,903	$ 48.07

As of March 31, 2019, the Company had $31.6 million of unrecognized compensation expense related to unvested RSAs, including PSAs. This expense is expected to be recognized over the weighted average period of 3.2 years as of March 31, 2019.

The vesting of the RSAs is time and service based with terms of one to four years. During the year ended December 31, 2017, the Company granted 98,817 PSAs with non-market performance conditions that vest upon the satisfaction of certain performance conditions and service conditions. During the three months ended March 31, 2019, the vesting for the remaining PSAs was deemed probable to occur. As of March 31, 2019, 19,764 PSAs were vested.

Stock Appreciation Rights

During the three months ended March 31, 2019, the Company granted 43,851 SARs awards at a weighted average exercise price of $44.93. As of March 31, 2019, 123,002 SARs awards were outstanding and had a weighted average remaining contractual life of 4.3 years.

Holders of the SARs are entitled under the terms of the Plans to receive cash payments calculated based on the excess of the Company's common stock price over the target price in their award; consequently, these awards are accounted for as liability-classified awards and the Company measures compensation cost based on their estimated fair value at each reporting date, net of actual forfeitures, if any.

11. Commitments and Contingencies

The Company may periodically become subject to legal proceedings and claims arising in connection with its business. The Company is not a party to any known litigation, is not aware of any material unasserted claims and does not have contingency reserves established for any litigation liabilities.

12. Subsequent Events

On May 2, 2019, the Company announced that it entered into an amendment of its existing credit agreement with certain affiliates of Deerfield providing for an additional $100 million senior secured delayed draw term loan facility (the "additional credit facility"), pursuant to which Aerie may borrow up to $100 million in aggregate in one or more borrowings at any time on or prior to July 23, 2020. Amounts drawn under the additional credit facility will mature on July 23, 2024. With this additional credit facility, Aerie has a total of $200 million available through the Deerfield credit facility arrangements.

The additional credit facility includes fees upon drawdown of 2.0% of amounts drawn, an annual interest rate of LIBOR (subject to a floor of 2%) plus 7.2%, up to a maximum of 13.0% on drawn amounts and annual fees on undrawn amounts of 2.0%. The allowable draw period ends July 23, 2020. Fees on undrawn amounts are not payable until July 23, 2020, and no principal payments will be due on drawn amounts, if any, until July 23, 2020. The additional credit facility includes certain prepayment premiums if drawn. The terms of the original $100 million credit facility remain unchanged.

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

The following management's discussion and analysis should be read in conjunction with our unaudited condensed consolidated financial statements and related notes that appear elsewhere in this report and with our audited financial statements and related notes and management's discussion and analysis of financial condition and results of operations included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, as filed with the SEC on March 1, 2019 ("2018 Form 10-K"). This discussion and analysis contains forward-looking statements that involve risks and uncertainties. Please see "Special Note Regarding Forward-Looking Statements" for additional factors relating to such statements, and see "Risk Factors" in our 2018 Form 10-K and other documents we have filed or furnished with the SEC for a discussion of certain risk factors applicable to our business, financial condition and results of operations. Past operating results are not necessarily indicative of operating results in any future periods.

Overview

We are an ophthalmic pharmaceutical company focused on the discovery, development and commercialization of first-in-class therapies for the treatment of patients with open-angle glaucoma, retinal diseases and other diseases of the eye. Our strategy is to successfully commercialize our U.S. Food and Drug Administration ("FDA") approved products, Rhopressa® (netarsudil ophthalmic solution) 0.02% ("Rhopressa®") and Rocklatan® (netarsudil and latanoprost ophthalmic solution) 0.02%/0.005% ("Rocklatan®"). We have a commercial team that includes approximately 100 sales representatives targeting approximately 14,000 high prescribing eye-care professionals throughout the United States. This sales force is responsible for sales of Rhopressa® and now Rocklatan®, which launched in the United States on May 1, 2019.

Our strategy also includes developing our business outside of the United States, including obtaining regulatory approval in Europe and Japan on our own for Rhopressa® and Rocklatan®. If we obtain regulatory approval, we currently expect to commercialize Rhopressa® and Rocklatan® in Europe on our own, and likely partner for commercialization of their equivalents in Japan. If approved, we expect that Rhopressa® and Rocklatan® will be marketed under the names Rhokiinsa® and Roclanda®, respectively, in Europe. To optimize the commercial opportunity, we expect to launch Roclanda® before Rhokiinsa® in Europe, if approved, as the European market is oriented more toward fixed-dose combination products. We are continuing to expand our presence in Europe and have over 60 employees in Europe that manage the build-out and operation of our manufacturing plant in Ireland, discussed below, as well our Phase 3 clinical trial for Roclanda®, which is ongoing in several European countries. We have hired key personnel, including the Chief Commercial Officer of Europe, and are building our clinical, medical affairs and commercial teams in Europe. In Japan, we opened an office in Tokyo and hired personnel to fill key leadership positions to help execute our strategy in that market. We commenced Phase 2 clinical trials for Rhopressa® in Japan in March 2019, as discussed in "*—Marketed Products"* below.

We seek to enhance our longer-term commercial potential by identifying and advancing additional product candidates through our internal discovery efforts, our entry into potential research collaborations or in-licensing arrangements or our acquisition of additional ophthalmic products or technologies or product candidates that complement our current product portfolio, such as our collaboration with DSM, a global science-based company headquartered in the Netherlands, whereby we have access to their bio-erodible polymer technology, and our acquisition of assets from Envisia, designed to advance our progress in developing potential future sustained-release product candidates to treat retinal diseases, as discussed in "*—Product Candidates"* below.

In January 2017, we commenced establishment of our own manufacturing plant in Athlone, Ireland, which is expected to produce commercial supplies of Rhopressa®, Rocklatan®, and if approved, Rhokiinsa® and Roclanda®. Commercial supply from the plant is expected to be available in early 2020. Our current contract manufacturer produces commercial supply of Rhopressa® and started to manufacture Rocklatan® in 2018 in anticipation of FDA approval and commercial launch in 2019. We have added an additional Rhopressa® drug product contract manufacturer in the first quarter of 2019, which is expected to begin to supply commercial materials in the second quarter of 2019. We are also in the process of adding an additional API contract manufacturer and an additional Rocklatan® drug product contract manufacturer, which are expected to begin to supply commercial materials in the first half of 2019 and in early 2020, respectively. We expect to continue to use product sourced from our contract manufacturers when the Ireland plant is operational.

We own the worldwide rights to all indications for Rhopressa® and Rocklatan®. We have patent protection for Rhopressa® and Rocklatan® in the United States through early 2034 and internationally, through dates ranging from 2030 to 2037. Our intellectual property portfolio contains patents and pending patent applications related to composition of matter, pharmaceutical compositions, methods of use, and synthetic methods.

Product and Product Candidate Overview

Marketed Products

Rhopressa®, our first FDA-approved product, has demonstrated that it reduces IOP through Rho kinase ("ROCK") inhibition, its mechanism of action ("MOA"), by which Rhopressa® increases the outflow of aqueous humor through the trabecular meshwork ("TM"), which accounts for approximately 80% of fluid drainage from the healthy eye. Our recently FDA-approved product, once-daily Rocklatan®, is a fixed-dose combination of Rhopressa® and latanoprost, which reduces IOP through the same MOA as Rhopressa® and through a second MOA utilizing the ability of latanoprost to increase the outflow of aqueous humor through the uveoscleral pathway, the eye's secondary drain. Both are taken once-daily in the evening and have shown in preclinical and clinical trials to be effective in reducing IOP, with a favorable safety profile.

Rhopressa®

Rhopressa® is a once-daily eye drop designed to reduce elevated IOP in patients with open-angle glaucoma or ocular hypertension. The active ingredient in Rhopressa®, netarsudil, is an Aerie-owned ROCK inhibitor. We believe that Rhopressa® represents the first of a new drug class for reducing IOP in patients with glaucoma in over 20 years. Initial indications point to healthcare professionals prescribing Rhopressa® as a concomitant therapy to prostaglandins or non-PGA (prostaglandin analog) medications when additional IOP reduction is desired. We believe Rhopressa® is primarily competing with other non-PGA products, due to its targeting of the diseased TM, its demonstrated ability to reduce IOP at consistent levels across tested baselines, its preferred once-daily dosing relative to other currently marketed non-PGA products and its safety profile. Adjunctive therapies currently represent nearly one-half of the glaucoma prescription market in the United States, according to IQVIA. We believe that Rhopressa® may also become a preferred therapy where PGAs are contraindicated, for patients who do not respond to PGAs and for patients who choose to avoid the cosmetic issues associated with PGA products.

Rhopressa® received FDA approval in December 2017 and we launched Rhopressa® in the United States at the end of April 2018. Rhopressa® is being sold to national and regional U.S. pharmaceutical distributors, and patients have access to Rhopressa® through pharmacies across the United States. We have obtained formulary coverage for Rhopressa® for approximately 90% of lives covered under commercial plans and approximately 75% of lives covered under Medicare Part D plans.

In October 2018, we announced that the European Medicines Agency ("EMA") accepted our marketing authorisation application ("MAA") for review for Rhokiinsa®. Additionally, we completed a Phase 1 clinical trial and a successful pilot Phase 2 clinical study in the United States on Japanese and Japanese-American subjects, which were designed to support meeting the requirements of Japan's Pharmaceuticals and Medical Devices Agency ("PMDA") for potential regulatory submission of Rhopressa® in Japan. Topline results of the pilot Phase 2 study were announced in January 2019. In that study, both netarsudil arms produced significantly greater IOP reduction than the placebo arm at the specified timepoint and the safety findings were consistent with previous netarsudil trials. In March 2019, we initiated a Phase 2 clinical trial designed in accordance with the requirements of PMDA on Japanese patients in Japan to support subsequent Phase 3 registration trials that are also expected to be conducted in Japan under our direction.

Rocklatan®

Our recently FDA-approved product, Rocklatan®, is a once-daily fixed-dose combination of Rhopressa® and latanoprost, the most widely-prescribed drug for the treatment of patients with open-angle glaucoma. We believe, based on our clinical data, that Rocklatan® has the potential to provide a greater IOP-reducing effect than any currently marketed glaucoma medication. Therefore, we believe that Rocklatan®, once formulary coverage is obtained, could compete with both PGA and non-PGA therapies and become the product of choice for patients requiring maximal IOP reduction, including those with higher IOPs and those who present with significant disease progression despite using currently available therapies.

We submitted a New Drug Application ("NDA") for Rocklatan® to the FDA in May 2018 under Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, which provides for an abbreviated approval pathway, since Rocklatan® is a fixed-dose combination of two FDA-approved drugs in the United States. In July 2018, we announced that the NDA was accepted for review by the FDA and the PDUFA goal date was set for March 14, 2019. Rocklatan® received FDA approval on March 12, 2019, and we launched Rocklatan® in the United States on May 1, 2019. Upon launch, Rocklatan® had 60% of commercial lives covered in non-preferred brand Tier 3.

With respect to Rocklatan® in jurisdictions outside the United States, we initiated a Phase 3 registration trial for Roclanda®, named Mercury 3, in Europe during the third quarter of 2017. Mercury 3, a six-month efficacy and safety trial, is designed to compare Roclanda® to Ganfort®, a fixed-dose combination product marketed in Europe of bimatoprost (a PGA) and timolol (a

beta blocker). If successful, Mercury 3 is expected to improve the commercialization prospects of Roclanda® in Europe. We currently expect to read out topline 90-day efficacy data for the trial in 2020. Since Roclanda® is a fixed-dose combination product that includes Rhokiinsa®, we plan to submit an MAA with the EMA for Roclanda® in early 2020, if the EMA has approved Rhokiinsa® by such time.

Product Candidates

Our stated objective is to build a major ophthalmic pharmaceutical company. Through business development activities, we acquired worldwide ophthalmic rights to a bio-erodible polymer technology from DSM and PRINT® (Particle Replication in Non-wetting Templates) implant manufacturing technology, which is a proprietary technology capable of creating precisely-engineered sustained-release products utilizing fully-scalable manufacturing processes, from Envisia. Using these technologies, we have created a sustained-release ophthalmology platform and are currently developing two sustained-release implants focused on retinal diseases, AR-1105 and AR-13503.

AR-1105 (dexamethasone steroid implant)

In 2017, we acquired Envisia's intellectual property rights relating to a preclinical dexamethasone steroid implant using a biodegradable polymer-based drug delivery system that comprised of a blend of different poly D, L-lactic-*co*-glycolic acid ("PLGA") polymers and PRINT® technology for the potential treatment of macular edema due to retinal vein occlusion ("RVO") and diabetic macular edema ("DME") via intravitreal injection, which we refer to as AR-1105. We submitted the Investigational New Drug application ("IND") for this sustained-release implant in December 2018. We initiated a Phase 2 clinical trial of AR-1105 in patients with macular edema due to RVO during March 2019.

AR-13503 (ROCK and Protein kinase inhibitor)

Our owned preclinical small molecule, AR-13503, is a ROCK and Protein kinase C inhibitor sustained-release implant with potential in the treatment of DME, wet age-related macular degeneration ("AMD") and other diseases of the retina. AR-13503, which has the same active metabolite as Rhopressa®, has shown lesion size decreases in an in vivo preclinical model of wet AMD at levels similar to the current market-leading wet AMD anti-vascular endothelial growth factor (vascular endothelial growth factor, "VEGF") product. When used in combination preclinically with the market-leading anti-VEGF product, AR-13503 produced greater lesion size reduction than the anti-VEGF product alone in a model of proliferative diabetic retinopathy. Pending additional studies, AR-13503 may have the potential to provide an entirely new mechanism and pathway to treat DME, wet AMD and related diseases of the retina.

The technology from DSM uses polyesteramide polymers to produce an injectable, thin fiber that is minute in size. Preclinical experiments have demonstrated early success in conjunction with AR-13503, including demonstration of linear, sustained elution rates over several months and achievement of target retinal drug concentrations. We submitted an IND application for AR-13503 in March 2019 and in April 2019, we announced that the FDA has reviewed the IND for AR-13503 and it is now in effect, allowing Aerie to initiate human studies in the treatment of neovascular age-related macular degeneration ("nAMD") and DME. We expect to initiate a first-in-human clinical study for AR-13503 later in the second quarter of 2019.

Pipeline Opportunities

We are also evaluating the PRINT® technology platform for sustained release of therapies to the front of the eye, including to treat glaucoma or ocular hypertension, as examples. We commenced operation of our good manufacturing practices-validated manufacturing facility for production of ophthalmic implants using PRINT® technology in our Durham, North Carolina, facility in October 2018.

We may continue to enter into research collaboration arrangements, license, acquire or develop additional product candidates and technologies to broaden our presence in ophthalmology, and we continually explore and discuss potential additional opportunities for new ophthalmic products, delivery alternatives and new therapeutic areas with potential partners.

We are also currently screening our owned library of ROCK inhibitors for indications within and beyond ophthalmology considering that third-party studies and trials have demonstrated potential for ROCK inhibition in treating certain disease categories. We are initially focused on exploring potential opportunities for our molecules in pulmonary health, dermatology and cancers.

Financial Overview

Our cash and cash equivalents totaled $148.9 million as of March 31, 2019. We believe that our cash and cash equivalents and projected cash flows from revenues will provide sufficient resources for our current ongoing needs, though there may be need for additional financing activity as we continue to grow, including the potential use of the currently undrawn credit facilities with a total availability of $200 million. See "—Liquidity and Capital Resources" below and Notes 8 and 12 to our condensed consolidated financial statements included in this report for further discussion.

We have incurred net losses since our inception in June 2005. Until 2018, when we commenced commercial operations, our business activities were primarily limited to research and development and raising capital. As of March 31, 2019, we had an accumulated deficit of $744.4 million. We recorded net losses of $48.0 million and $40.7 million for the three months ended March 31, 2019 and 2018, respectively. Our capital resources and business efforts are largely focused on activities relating to the commercialization of Rhopressa®, the launch and commercialization of Rocklatan®, advancing our product pipeline, international expansion and completion of our manufacturing facility in Athlone, Ireland. We expect to continue to incur operating losses until our products generate adequate commercial revenue to render Aerie profitable. If we do not successfully commercialize Rhopressa® and Rocklatan® or any future product candidates, if approved, we may be unable to generate adequate product revenues to achieve such profitability. We may be required to draw down on our credit facility, or to obtain further funding through public or private debt or equity offerings or other arrangements. Adequate additional funding may not be available to us on acceptable terms, or at all. If we are unable to raise capital when needed or on acceptable terms, we may be forced to delay, reduce or eliminate our research and development programs or commercialization or manufacturing efforts.

Product Revenues, Net

We launched Rhopressa® in the United States in late April 2018 and commenced generating product revenues from sales of Rhopressa® during the second quarter of 2018. Our product revenues are recorded net of provisions relating to estimates for (i) trade discounts and allowances, such as discounts for prompt payment and distributor fees, (ii) estimated rebates to Third-party Payers, estimated payments for Medicare Part D prescription drug program coverage gap (commonly called the "donut hole"), patient co-pay program coupon utilization, chargebacks and other discount programs and (iii) reserves for expected product returns. These estimates reflect current contractual and statutory requirements, known market events and trends, industry data and forecasted customer mix. Actual amounts may ultimately differ from these estimates. If actual results vary, estimates may be adjusted in the period such change in estimate becomes known, which may have an impact on earnings in the period of adjustment.

Rocklatan® received FDA approval on March 12, 2019. We launched Rocklatan® in the United States on May 1, 2019 and expect to commence generating product revenues from sales of Rocklatan® in the second quarter of 2019.

Cost of Goods Sold

Cost of goods sold consists of direct and indirect costs to procure and manufacture Rhopressa® product sold, including third-party manufacturing costs. We began capitalizing inventory costs for Rhopressa® and Rocklatan® after FDA approval. Prior to receiving FDA approval, such costs were expensed as pre-approval commercial manufacturing expenses. Cost of goods sold in 2019 will continue to be favorably impacted by sales of Rhopressa® and Rocklatan® inventory that was expensed prior to FDA approval; however, we do not expect the impact to be material.

Selling, General and Administrative Expenses

Selling, general and administrative expenses consist primarily of employee-related expenses, including salaries, benefits and stock-based compensation for all officers and employees in general management, sales and marketing, finance and administration. Other significant expenses include selling and marketing expenses, facilities expenses, shipping and handling costs and professional fees for audit, tax, legal and other services.

Pre-approval Commercial Manufacturing Expenses

Pre-approval commercial manufacturing expenses consist of costs incurred for commercial-related manufacturing activities for Rhopressa® and Rocklatan® prior to FDA approval. These costs include expenses associated with the manufacturing of inventory in anticipation of commercial launch; expenses associated with the establishment of both our manufacturing plant in Athlone, Ireland, and our additional API and drug product contract manufacturers; and employee-related expenses, which include salaries, benefits and stock-based compensation for commercial-related manufacturing personnel prior to regulatory approval.

Research and Development Expenses

We expense research and development costs to operations as incurred. Research and development expenses consist primarily of costs incurred for the research and development of our preclinical and clinical candidates, including employee-related expenses for research and development personnel.

Other Income (Expense), Net

Other income (expense) primarily includes interest income, interest expense, foreign exchange gains and losses, and other income and expense. Interest income primarily consists of interest earned on our cash, cash equivalents and investments, and amortization or accretion of discounts and premiums on our investments. Interest expense consists of interest expense under the 2014 Convertible Notes, including the amortization of debt discounts and issuance costs incurred prior to conversion of the 2014 Convertible Notes in July 2018. Interest expense also includes the amortization of issuance costs and commitment fees incurred on the credit facility entered into in July 2018. Foreign exchange gains and losses are primarily due to the remeasurement of our Euro-denominated liability related to our build-to-suit lease obligation, which is held by a subsidiary with a U.S. dollar functional currency.

Critical Accounting Policies and Use of Estimates

Our management's discussion and analysis of financial condition and results of operations is based on our condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP"). The preparation of consolidated financial statements also requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, net revenue, costs and expenses and related disclosures. We evaluate our estimates and judgments on an ongoing basis. Significant estimates include assumptions used in the determination of revenue recognition, inventories, lease accounting, accrued expenses, fair value measurements, acquisitions and stock-based compensation. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Other than the application of lease accounting policies and estimates as described below, our critical accounting policies and significant estimates have not materially changed since the date we filed our 2018 Form 10-K. For more information on our critical accounting policies and estimates, refer to our 2018 Form 10-K.

Leases

We adopted Accounting Standards Update ("ASU") 2016-02, *Leases* ("ASC Topic 842") effective January 1, 2019. Under this new lease standard, practically all leases with lease terms in excess of one year are required to be recognized on the balance sheet as right-of-use assets and corresponding lease liabilities. Significant assumptions utilized in recognizing the right-of-use asset and corresponding liability included the expected lease term and the incremental borrowing rate. The expected lease term includes both contractual lease periods and, as applicable, extensions of the lease term when we have determined the exercise of the option to extend is reasonably certain to occur. The incremental borrowing rate was utilized to discount lease payments over the expected term given our operating leases do not provide an implicit rate. We estimated the incremental borrowing rate to reflect the profile of secured borrowing over the expected term of the leases. In addition, significant judgment was utilized in determining the impact of our build-to-suit lease for our manufacturing plant in Athlone, Ireland, upon adoption of ASC Topic 842, for which we concluded we are the owner of the leased space for accounting purposes. As a result, we maintained our previous accounting for our build-to-suit asset and liability upon adoption of ASC Topic 842, which was discounted at the implicit rate of the facility obligation.

The standard has been implemented using the optional transitional method and we elected to utilize certain practical expedients. In electing the optional transition method, we were required to recognize and measure operating leases existing at, or entered into after, the adoption date. We utilized an incremental borrowing rate on the adoption date to determine the present value of the remaining operating lease assets and liabilities. Prior period results have not been restated.

Results of Operations

Comparison of the Three Months Ended March 31, 2019 and 2018

The following table summarizes the results of our operations for the three months ended March 31, 2019 and 2018:

	THREE MONTHS ENDED MARCH 31,			
	2019	2018	CHANGE	% CHANGE
	(in thousands, except percentages)			
Product revenues, net	$ 10,852	$ —	$ 10,852	*
Total revenues, net	10,852	—	10,852	*
Costs and expenses:				
Cost of goods sold	381	—	381	*
Selling, general and administrative expenses	36,282	22,930	13,352	58 %
Pre-approval commercial manufacturing	4,457	4,893	(436)	(9)%
Research and development expenses	17,884	12,972	4,912	38 %
Total costs and expenses	59,004	40,795	18,209	45 %
Loss from operations	(48,152)	(40,795)	(7,357)	18 %
Other income (expense), net	111	96	15	16 %
Loss before income taxes	$ (48,041)	$ (40,699)	$ (7,342)	18 %

**Percentage not meaningful*

Product revenues, net

Product revenues, net amounted to $10.9 million for the three months ended March 31, 2019 and relate to sales of Rhopressa®, which we launched in the United States at the end of April 2018. Rhopressa® is our first product to receive regulatory approval, and we did not generate any revenues prior to the second quarter of 2018.

Cost of goods sold

Cost of goods sold was $0.4 million for the three months ended March 31, 2019. Our gross margin percentage of 96.5% was favorably impacted during the three months ended March 31, 2019 by sales of Rhopressa® with certain materials produced prior to FDA approval and therefore expensed in prior periods. If inventory sold during the three months ended March 31, 2019 was valued at cost, our gross margin for the period then ended would have been 95.5%.

Selling, general and administrative expenses

Selling, general and administrative expenses increased by $13.4 million for the three months ended March 31, 2019 as compared to the three months ended March 31, 2018. This increase was primarily associated with the expansion of our employee base to support the growth of our operations, as well as sales and marketing expenses incurred in connection with our commercial launch of Rhopressa®.

Employee-related expenses increased by $8.2 million for the three months ended March 31, 2019 as compared to the three months ended March 31, 2018 primarily due to increased headcount, including the addition of our sales force during 2018. Employee-related expenses also included an increase in stock-based compensation expense of $2.9 million. Selling and marketing expenses increased by $3.7 million for the three months ended March 31, 2019 as compared to the three months ended March 31, 2018 related to our commercial launch of Rhopressa® in the United States and the preparation for our commercial launch of Rocklatan®, which launched on May 1, 2019 in the United States.

Pre-approval commercial manufacturing expenses

Pre-approval commercial manufacturing expenses was relatively consistent for the three months ended March 31, 2019 as compared to the three months ended March 31, 2018.

Research and development expenses

Research and development expenses increased by $4.9 million for the three months ended March 31, 2019 as compared to the three months ended March 31, 2018. This increase is primarily comprised of an increase of $1.9 million of employee-related expenses, including stock-based compensation, an increase of $1.1 million related to early-stage pipeline activities, including $0.8 million related to our collaboration agreement with DSM, an increase of $0.5 million related to Rhopressa® and an increase of $0.4 million related to Rocklatan®.

Research and development expenses for Rhopressa® totaled $1.5 million and $1.0 million for the three months ended March 31, 2019 and 2018, respectively. Expenses for Rhopressa® during the three months ended March 31, 2019 primarily relate to costs incurred for our clinical trials to support regulatory submission of Rhopressa® in Japan. Research and development expenses for Rocklatan® totaled $1.3 million and $0.9 million for the three months ended March 31, 2019 and 2018, respectively. Expenses for Rocklatan® during the three months ended March 31, 2019 primarily include costs related to the Mercury 3 registration trial in Europe.

Other income (expense), net

Other income (expense), net consists of the following:

	THREE MONTHS ENDED MARCH 31,		
	2019	2018	CHANGE
	(in thousands)		
Interest income	$ 812	$ 810	$ 2
Interest expense	(798)	(507)	(291)
Other income (expense)	97	(207)	304
Other income (expense), net	$ 111	$ 96	$ 15

Liquidity and Capital Resources

Since our inception, we have funded operations primarily through the sale of equity securities and the issuance of convertible notes. We have incurred losses and experienced negative operating cash flows since our inception and anticipate that we will continue to incur losses until such a time when one or more of our products is commercially successful, if at all.

Sources of Liquidity

As of March 31, 2019, product revenues, net amounted to $10.9 million and relate to sales of Rhopressa®. Accounts receivable, net amounted to $14.8 million as of March 31, 2019. We expect to generate product revenues from Rocklatan® during the second quarter of 2019.

As of March 31, 2019, our principal sources of liquidity were our cash and cash equivalents, which totaled approximately $148.9 million. In July 2018, we entered into a $100 million senior secured delayed draw term loan facility (the "credit facility") that matures in July 2024. No funds have been drawn on the credit facility. See Note 8 to our condensed consolidated financial statements included in this report for additional information. We believe that our cash and cash equivalents and projected cash flows from revenues will provide sufficient resources for our current ongoing needs. See "*—Operating Capital Requirements*."

Cash Flows

The following table summarizes our sources and uses of cash:

	THREE MONTHS ENDED MARCH 31,	
	2019	2018
	(in thousands)	
Net cash (used in) provided by:		
Operating activities	$ (48,639)	$ (40,835)
Investing activities	(4,939)	(41,546)
Financing activities	(372)	134,313
Net change in cash and cash equivalents	$ (53,950)	$ 51,932

Operating Activities

During the three months ended March 31, 2019 and 2018, net cash used in operating activities was $48.6 million and $40.8 million, respectively. The increase in cash used in operating activities during the three months ended March 31, 2019 as compared to the three months ended March 31, 2018 was primarily due to the expansion of our employee base, as well as an increase in cash used for development activities related to our product pipeline.

Investing Activities

During the three months ended March 31, 2019, our investing activities used net cash of $4.9 million related to purchases of property, plant and equipment of $4.9 million primarily related to the build-out of our manufacturing plant in Ireland. During the three months ended March 31, 2018, our investing activities used net cash of approximately $41.5 million primarily related to purchases of available-for-sale investments of $56.2 million and purchases of property, plant and equipment of $9.1 million, partially offset by sales and maturities of available-for-sale investments of $23.8 million.

Financing Activities

During the three months ended March 31, 2019 and 2018, our financing activities used net cash of $0.4 million and provided net cash of $134.3 million, respectively. The net cash used in financing activities for three months ended March 31, 2019 was primarily related to net payments of $0.6 million from stock-based compensation arrangements, primarily from employee exercises of stock options and stock purchase rights under our employee stock purchase plan, partially offset by taxes paid on employees' behalf through withholding of shares on restricted stock awards and option exercises. The net cash provided by financing activities for the three months ended March 31, 2018 was primarily related to the issuance and sale of common stock pursuant to our prior "at-the-market" sales agreement and underwriting agreement related to a registered public offering, from which we received total net proceeds of approximately $136.0 million, net of expenses paid during the period. The net proceeds were partially offset by $1.4 million net cash used for stock-based compensation arrangements, primarily related to taxes paid on employees' behalf through withholding of shares on restricted stock awards.

Operating Capital Requirements

We expect to incur ongoing operating losses until such a time when Rhopressa® and Rocklatan® or any other product, if approved in the future, generate adequate revenues to render Aerie profitable.

Our principal liquidity requirements are for: working capital; operating expenses, including for commercialization and manufacturing activities; expenses associated with developing our pipeline opportunities, including pursuing strategic growth opportunities; costs associated with executing our international expansion strategy, including clinical and potential commercialization activities in Europe and Japan; contractual obligations; and capital expenditures, including completing our manufacturing plant in Ireland.

We believe that our cash and cash equivalents and projected cash flows from revenues will provide sufficient resources to support our operations through at least the next twelve months. Additionally, we have the borrowing capacity of up to $100 million under a delayed draw term loan facility. The first two years of payments on any drawn amounts will be on an interest-only basis. In May 2019, we entered into an amendment of our existing credit agreement providing for an additional $100 million senior secured delayed draw term loan with Deerfield. No funds were drawn at closing. See Note 12 to our condensed

consolidated financial statements included in this report for additional information. We do not currently intend to draw down on the credit facility but may do so if and as needed.

Our future funding requirements will depend on many factors, including, but not limited to the following:

- commercial performance of Rhopressa® and Rocklatan® or any future product candidates, if approved;
- costs of commercialization activities for Rhopressa® and Rocklatan® or any future product candidates, if approved;
- costs of building inventory to support sales growth and other associated working capital needs;
- costs, timing and outcome of seeking regulatory approval;
- timing and costs of our ongoing and future clinical trials and preclinical studies including those related to our international expansion;
- costs of any follow-on development or products, including the exploration and/or development of any additional indications or additional opportunities for new ophthalmic product candidates, delivery alternatives and new therapeutic areas;
- terms and timing of any acquisitions, collaborations, or other arrangements;
- costs related to the credit facility; and
- costs related to filing and prosecuting patent applications, maintaining and protecting our intellectual property rights and defending against intellectual property related claims.

We based our projections on assumptions that may prove to be incorrect or unreliable or may change due to circumstances beyond our control, and as a result, we may consume our available capital resources earlier than we originally projected. Accordingly, we may be required to draw down on the credit facility or obtain further funding through public or private debt offerings, or other sources, or we may decide, based on various factors, that additional financings are desirable. If such funding is required, we cannot guarantee that it will be available to us on favorable terms, if at all.

Outstanding Indebtedness

In July 2018, our $125.0 million aggregate principal amount of 2014 Convertible Notes was converted into shares of Aerie common stock. Also, in July 2018, we entered into a $100 million senior secured delayed draw term loan facility, pursuant to which we may borrow up to $100 million in aggregate in one or more borrowings at any time prior to July 23, 2020. The credit facility includes fees upon drawdown of 1.75% of amounts drawn, an 8.625% annual interest rate on drawn amounts, and annual fees on undrawn amounts of 1.5%. There is also an exit fee of $1.5 million payable upon termination of the credit facility (whether at maturity or otherwise). Fees on undrawn amounts are not payable until July 2020, and no principal payments will be due on drawn amounts, if any, until July 23, 2020. The credit facility matures in July 2024 in respect of drawn amounts. The credit facility includes affirmative and negative covenants and prepayment terms. No amounts were drawn at closing or as of March 31, 2019. See Note 8 to our condensed consolidated financial statements included in this report for additional information.

Contractual Obligations and Commitments

There have been no material changes to our contractual obligations and commitments as included in our 2018 Form 10-K.

Off-Balance Sheet Arrangements

None.

Recent Accounting Pronouncements

For a discussion of recently issued accounting standards, see Note 2 to our condensed consolidated financial statements included in this report.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

We have market risk exposure to interest income sensitivity, which is affected by changes in the general level of U.S. interest rates. Our cash and cash equivalents totaled $148.9 million and $202.8 million as of March 31, 2019 and December 31, 2018, respectively. Given the short-term nature of our cash and cash equivalents, we do not believe that a change in market interest rates would have a material impact on our financial condition or results of operations. Any amounts drawn under the credit facility, if any, will carry a fixed interest rate and, as such, will not be subject to interest rate risk. We do not currently engage in any hedging activities against changes in interest rates.

We face market risks attributable to fluctuations in foreign currency exchange rates and exposure on the remeasurement of foreign currency-denominated monetary assets or liabilities into U.S. dollars. In particular, our operations and subsidiary in Ireland may enter into certain obligations or transactions in Euros or other foreign currencies but has a U.S. dollar functional currency. We do not currently have any derivative instruments or a foreign currency hedging program. To date and during the three months ended March 31, 2019, foreign currency exposure and foreign currency financial instruments have not been material.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15(d)-15(e)), as of the end of the period covered by this report. Based upon the evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of March 31, 2019, the disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the reports we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Changes in Internal Control Over Financial Reporting

As a result of our implementation of a new Enterprise Resource Planning ("ERP") system during the quarter ended March 31, 2019, we implemented new processes and internal controls that we believe were material. Our new ERP system replaced our legacy system for financial processes and is intended to provide us with enhanced transactional processing compared to our legacy system. There were no other changes in our internal controls over financial reporting 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

We may periodically become subject to legal proceedings and claims arising in connection with our business. We are not a party to any known litigation, are not aware of any material unasserted claims and do not have contingency reserves established for any litigation liabilities.

Item 1A. Risk Factors

You should consider carefully the risks set forth under "Risk Factors" in our 2018 Form 10-K, and other documents that we have filed or furnished with the SEC. There have been no material changes to these risk factors.

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

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

None.

Item 5. Other Information

None.

Item 6. Exhibits

31.1*	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended.
31.2*	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended.
32.1**	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS***	XBRL Instance Document.
101.SCH***	XBRL Taxonomy Extension Schema Document.
101.CAL***	XBRL Taxonomy Extension Calculation Linkbase Document.
101.LAB***	XBRL Taxonomy Extension Label Linkbase Database.
101.PRE***	XBRL Taxonomy Extension Presentation Linkbase Document.
101.DEF***	XBRL Taxonomy Extension Definition Linkbase Document.

* Filed herewith.

** Furnished herewith.

*** Attached as Exhibit 101 to this report are the following formatted in XBRL (Extensible Business Reporting Language):

(i) Condensed Consolidated Balance Sheets at March 31, 2019 and December 31, 2018 (unaudited), (ii) Condensed Consolidated Statements of Operations and Comprehensive Loss for the three months ended March 31, 2019 and 2018 (unaudited), (iii) Condensed Consolidated Statements of Stockholders' Equity for the three months ended March 31, 2019 and 2018 (unaudited), (iv) Condensed Consolidated Statements of Cash Flows for the three months ended March 31, 2019 and 2018 (unaudited) and (v) Notes to Condensed Consolidated Financial Statements (unaudited).

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.

AERIE PHARMACEUTICALS, INC.

Date: May 8, 2019

/s/ RICHARD J. RUBINO

Richard J. Rubino
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 31.1

CERTIFICATION

I, Vicente Anido, Jr., Ph.D., certify that:

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

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

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

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

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

    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

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

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

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

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

Date: May 8, 2019

/s/ VICENTE ANIDO, JR., PH.D.

Vicente Anido, Jr., Ph.D.
Chief Executive Officer, Chairman of the Board
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION

I, Richard J. Rubino, certify that:

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

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

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

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

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

    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

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

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

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

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

Date: May 8, 2019

/s/ RICHARD J. RUBINO

Richard J. Rubino

Chief Financial Officer

(Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION 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 filing of the Quarterly Report on Form 10-Q of Aerie Pharmaceuticals, Inc., a Delaware corporation (the "Company"), for the period ended March 31, 2019 (the "Report"), the undersigned, Vicente Anido, Jr., Ph.D., Chief Executive Officer and Chairman of the Board of the Company, hereby certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 8, 2019

/s/ VICENTE ANIDO, JR., PH.D.
Vicente Anido, Jr., Ph.D.
Chief Executive Officer, Chairman of the Board
(Principal Executive Officer)

Exhibit 32.2

CERTIFICATION 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 filing of the Quarterly Report on Form 10-Q of Aerie Pharmaceuticals, Inc., a Delaware corporation (the "Company"), for the period ended March 31, 2019 (the "Report"), the undersigned, Richard J. Rubino, Chief Financial Officer of the Company, hereby certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 8, 2019

/s/ RICHARD J. RUBINO
Richard J. Rubino
Chief Financial Officer
(Principal Financial and Accounting Officer)