REPLIGEN CORP
Form 10-Q
November 03, 2016
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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 September 30, 2016

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 000-14656

REPLIGEN CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**04-2729386**
(State or other jurisdiction of	**(I.R.S. Employer**
incorporation or organization)	**Identification No.)**
41 Seyon Street, Bldg. 1, Suite 100	
Waltham, MA	**02453**
(Address of principal executive offices)	**(Zip Code)**

Registrant s telephone number, including area code: (781) 250-0111

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 and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes No

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

Large accelerated filer Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

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

Indicate the number of shares outstanding of each of the issuer s classes of common stock, as of October 28, 2016.

Class	**Number of Shares**
Common Stock, par value $.01 per share	**33,831,867**

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REPLIGEN CORPORATION

CONDENSED CONSOLIDATED BALANCE SHEETS

(Unaudited)

(in thousands, except share data)	September 30, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	$ 157,651	$ 54,092
Marketable securities	21,060	17,682
Accounts receivable, less reserve for doubtful accounts of $19 at September 30, 2016 and $31 at December 31, 2015	15,154	11,300
Other receivables	226	82
Inventories	24,463	17,998
Prepaid expenses and other current assets	1,279	2,098
Total current assets	219,833	103,252
Property, plant and equipment, net	14,935	13,801
Long-term marketable securities		1,633
Intangible assets, net	18,671	12,755
Goodwill	31,161	14,346
Restricted cash	450	450
Total assets	$ 285,050	$ 146,237
Liabilities and stockholders equity		
Current liabilities:		
Accounts payable	$ 5,061	$ 6,724
Accrued liabilities	15,131	12,057
Total current liabilities	20,192	18,781
Convertible senior notes	94,318	
Deferred tax liabilities	2,124	451
Other long-term liabilities	1,894	4,257
Commitments and contingencies (Note 11)		
Stockholders equity:		
Preferred stock, $.01 par value, 5,000,000 shares authorized, no shares issued or outstanding		
Common stock, $.01 par value, 80,000,000 shares authorized, 33,822,962 shares at September 30, 2016 and 32,949,353 shares at December 31, 2015	338	329

issued and outstanding		
Additional paid-in capital	240,571	202,527
Accumulated other comprehensive loss	(9,496)	(8,566)
Accumulated deficit	(64,891)	(71,542)
Total stockholders equity	166,522	122,748
Total liabilities and stockholders equity	$ 285,050	$ 146,237

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

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REPLIGEN CORPORATION

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Unaudited)

(in thousands, except share and per share data)	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Product revenue	$ 24,677	$ 19,814	$ 78,942	$ 62,088
Operating expenses:				
Cost of product revenue	11,242	8,444	34,955	25,103
Research and development	1,886	1,490	5,316	4,309
Selling, general and administrative	7,127	5,959	22,286	18,226
Contingent consideration fair value adjustments	675	233	3,317	2,114
Total operating expenses	20,930	16,126	65,874	49,752
Income from operations	3,747	3,688	13,068	12,336
Investment income	97	37	234	92
Interest expense	(1,555)	(8)	(2,198)	(24)
Other expense	(75)	(38)	(979)	(175)
Income before income taxes	2,214	3,679	10,125	12,229
Income tax provision	1,059	1,141	3,474	3,149
Net income	$ 1,155	$ 2,538	$ 6,651	$ 9,080
Earnings per share:				
Basic	$ 0.03	$ 0.08	$ 0.20	$ 0.28
Diluted	$ 0.03	$ 0.08	$ 0.20	$ 0.27
Weighted average shares outstanding:				
Basic	33,779,141	32,925,004	33,485,448	32,860,382
Diluted	34,312,887	33,689,560	34,011,534	33,617,999
Other comprehensive income:				
Unrealized gain on investments	74	65	89	43
Foreign currency translation loss	(386)	(596)	(1,019)	(2,998)
Comprehensive income	$ 843	$ 2,007	$ 5,721	$ 6,125

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

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REPLIGEN CORPORATION

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(Unaudited)

(in thousands)	Nine months ended September 30, 2016	2015
Cash flows from operating activities:		
Net income	$ 6,651	$ 9,080
Adjustments to reconcile net income to net cash used in operating activities:		
Depreciation and amortization	3,844	3,449
Non-cash interest expense	1,320	
Stock-based compensation expense	3,341	2,668
Deferred tax expense	326	218
Loss on revaluation of contingent consideration	3,317	2,114
Gain on sale of fixed assets	(15)	
Loss on disposal of fixed assets	25	1
Changes in assets and liabilities:		
Accounts receivable	(3,270)	(2,756)
Other receivables	20	183
Inventories	(6,457)	(4,051)
Prepaid expenses and other current assets	820	699
Accounts payable	(1,918)	(749)
Accrued liabilities	(2,389)	1,085
Long-term liabilities	(48)	(240)
Net cash provided by operating activities	5,567	11,701
Cash flows from investing activities:		
Acquisition of Atoll GmbH, net of cash received	(8,767)	
Purchases of marketable securities	(21,394)	(14,090)
Redemptions of marketable securities	19,700	18,264
Proceeds from sale of fixed assets	45	
Purchases of property, plant and equipment	(3,462)	(2,055)
Net cash (used in) provided by investing activities	(13,878)	2,119
Cash flows from financing activities:		
Proceeds from issuance of convertible senior notes, net of costs	111,070	
Exercise of stock options	1,630	927
Payment of contingent considerations	(498)	(99)
Net cash provided by financing activities	112,202	828

Effect of exchange rate changes on cash and cash equivalents	(332)	(1,927)
Net increase in cash and cash equivalents	103,559	12,721
Cash and cash equivalents, beginning of period	54,092	35,363
Cash and cash equivalents, end of period	$ 157,651	$ 48,084
Supplemental disclosure of non-cash activities:		
Income taxes paid	$ 2,888	$ 2,671
Payment of contingent consideration in common stock	$ 875	$
Stock tendered for acquisition of Atoll GmbH	$ 14,135	$

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

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REPLIGEN CORPORATION

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(Unaudited)

1. Basis of Presentation

The consolidated financial statements included herein have been prepared by Repligen Corporation (the Company, Repligen or we) in accordance with generally accepted accounting principles in the United States (U.S. GAAP) and pursuant to the rules and regulations of the Securities and Exchange Commission (SEC), for Quarterly Reports on Form 10-Q and Article 10 of Regulation S-X and do not include all of the information and footnote disclosures required by U.S. GAAP. These consolidated financial statements should be read in conjunction with the audited consolidated financial statements and accompanying notes thereto included in the Company s Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

The preparation of 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 financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, Repligen Sweden AB (Repligen Sweden), Repligen GmbH (acquired as Atoll GmbH as of April 1, 2016 and renamed on September 20, 2016) and Repligen Singapore Pte. Ltd. All significant intercompany accounts and transactions have been eliminated in consolidation.

In the opinion of management, the accompanying unaudited consolidated financial statements include all adjustments, consisting of only normal, recurring adjustments necessary for a fair presentation of the financial position, results of operations and cash flows. The results of operations for the interim periods presented are not necessarily indicative of results to be expected for the entire year.

Recently Issued Accounting Pronouncements

In April 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2015-03, Interest Imputation of Interest (Topic 835): Simplifying the Presentation of Debt Issuance Costs. ASU 2015-03 requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability. The ASU became effective for public entities for fiscal years beginning after December 15, 2015. The Company applied the amended presentation requirements in conjunction with its issuance of convertible senior notes in the second quarter of 2016.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), which supersedes the revenue recognition requirements in Accounting Standards Codification Topic 605, *Revenue Recognition*, and creates a new Topic 606, *Revenue from Contracts with Customers*. Two adoption methods are permitted: retrospectively to all prior reporting periods presented, with certain practical expedients permitted; or retrospectively with the cumulative effect of initially adopting the ASU recognized at the date of initial application. The adoption of this ASU will include updates as provided under ASU 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date ; ASU 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net) ; ASU 2016-10, Revenue

from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing ; and ASU 2016-12, Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients. The Company has not yet determined which adoption method it will utilize or the effect that the adoption of this guidance will have on its consolidated financial statements.

In July 2015, the FASB issued ASU No. 2015-11, Inventory (Topic 330): Simplifying the Measurement of Inventory (ASU 2015-11). ASU 2015-11 requires inventory be measured at the lower of cost and net realizable value, and options that currently exist for market value be eliminated. ASU 2015-11 defines net realizable value as estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. The guidance is effective prospectively for reporting periods beginning after December 15, 2016 and interim periods within those fiscal years with early adoption permitted. The Company does not expect the adoption of ASU 2015-11 to have a material impact on its consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842) (ASU 2016-02). ASU 2016-02 requires lessees to recognize a right-of-use asset and a lease liability for most leases. Extensive quantitative and qualitative disclosures, including significant judgments made by management, will be required to provide greater insight into the extent of revenue and expense recognized and expected to be recognized from existing contracts. The accounting applied by a lessor is largely unchanged from that applied under the current standard. The standard must be adopted using a modified retrospective transition approach and provides for certain practical expedients. The ASU is effective for public entities for fiscal years beginning after December 15, 2018, with early adoption permitted. The Company has not yet completed its assessment of the impact of the new standard on its consolidated financial statements.

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In March 2016, the FASB issued ASU No. 2016-09, Compensation Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting , which aims to simplify several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, classification of certain items on the statement of cash flows and accounting for forfeitures. The ASU is effective for public entities for fiscal years beginning after December 15, 2016, with early adoption permitted. The Company intends to adopt the provisions of this ASU as of January 1, 2017; the Company does not expect the impact of this new standard to have a material effect on its 2017 consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 203): Classification of Certain Cash Receipts and Cash Payments . ASU No. 2016-15 addresses eight specific cash flow issues and clarifies their presentation and classification in the Statement of Cash Flows. ASU No. 2016-15 is effective for fiscal years beginning after December 15, 2017 and is to be applied retrospectively with early adoption permitted. The Company currently classifies payments up to the amount of its contingent consideration liability recognized at the date of its acquisition of Refine Technology, LLC (Refine) as financing activities, with additional payments classified as operating activities. As a result, the Company does not expect the adoption of ASU 2016-15 to have a material impact on its consolidated financial statements.

2. Acquisition of Atoll GmbH

On April 1, 2016, the Company s subsidiary Repligen Sweden acquired Atoll GmbH (Atoll) from UV-Cap GmbH & Co. KG (the Seller) pursuant to a Share Purchase Agreement (the Share Purchase Agreement), dated as of March 31, 2016 (such acquisition, the Atoll Acquisition), by and among Repligen Sweden, the Seller, and the Company, in its capacity as guarantor of the obligations of Repligen Sweden under the Share Purchase Agreement. The Atoll Acquisition was subject to certain closing conditions that did not occur until April 1, 2016. Payment for the Atoll Acquisition was denominated in Euros but is reflected here in U.S. dollars for presentation purposes.

In connection with the Atoll Acquisition, the Company issued and contributed 538,700 shares of the Company s common stock, par value of $0.01 per share valued at $14.1 million (the Stock Consideration) to Repligen Sweden through a transfer by the Company on behalf of Repligen Sweden to fulfill Repligen Sweden s obligation to deliver the Stock Consideration under the Share Purchase Agreement. The issuance of the Stock Consideration was not registered under the Securities Act of 1933, as amended (the Securities Act), in reliance upon the exemption from registration provided by Section 4(2) of the Securities Act. The Stock Consideration was based on the fair value of the Company s common stock on April 1, 2016.

This acquisition strengthened Repligen s bioprocessing business by adding a complementary extension to an existing product line while expanding its direct sales presence worldwide. On September 20, 2016, Atoll changed its name to Repligen GmbH.

The Atoll Acquisition was accounted for as a purchase of a business under ASC 805, Business Combinations. The total purchase price of the Atoll Acquisition was $25.3 million, consisting of an upfront cash payment of $10.2 million, less $74,000 as a result of the final determination of working capital, issuance of the Stock Consideration, and a future potential milestone payment of $1.1 million if specific revenue growth targets are met for 2016. The $1.1 million potential contingent consideration had an initial probability weighted fair value at the time of the closing of the Atoll Acquisition of approximately $952,000.

Consideration Transferred

The Company accounted for the Atoll Acquisition as the purchase of a business under U.S. GAAP. Under the acquisition method of accounting, the assets of Atoll were recorded as of the acquisition date, at their respective fair values, and consolidated with those of Repligen. The fair value of the net assets acquired was approximately $25.3 million.

The preparation of the valuation required the use of significant assumptions and estimates. Critical estimates included, but were not limited to, future expected cash flows, including projected revenues and expenses, and the applicable discount rates. These estimates were based on assumptions that the Company believes to be reasonable. However, actual results may differ from these estimates.

The total consideration transferred follows (in thousands):

Cash consideration, less $74 of working capital adjustments	$ 10,176
Value of common stock issued	14,138
Estimated fair value of contingent consideration	952
Total consideration transferred	$ 25,266

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The fair value of contingent consideration was determined based upon a probability weighted analysis of expected future milestone and settlement payments to be made to the Seller. The Company could make a contingent consideration payment of $1.1 million if specific revenue growth targets are met for 2016. The liability for contingent consideration is included in current liabilities on the consolidated balance sheets and will be remeasured at each reporting period until the contingency is resolved. See Note 10 Accrued Liabilities for further details.

Acquisition related costs are not included as a component of consideration transferred, but are expensed in the periods in which the costs are incurred. The Company incurred $1,262,000 in transaction costs related to the Atoll Acquisition. The transaction costs are included in selling, general and administrative expenses in the consolidated statements of operations.

Fair Value of Net Assets Acquired

The allocation of purchase price was based on the fair value of assets acquired and liabilities assumed as of April 1, 2016. The components and allocation of the purchase price consists of the following amounts (in thousands):

Cash and cash equivalents	$ 1,409
Accounts receivable	697
Inventory	155
Other current assets	169
Fixed assets, net	114
Customer relationships	5,318
Developed technology	2,175
Non-competition agreements	57
Trademark and trade name	11
Deferred tax assets	885
Accounts payable and other liabilities assumed	(599)
Deferred tax liabilities	(2,202)
Goodwill	17,077
Net assets acquired	$ 25,266

Of the consideration paid, $5.3 million represents the fair value of customer relationships that will be amortized over the determined useful life of 16 years and $2.2 million represents the fair value of developed technology that will be amortized over a determined useful life of 14 years. $57,000 represents the fair value of non-competition agreements and $11,000 represents the fair value of trademarks and trade names that will be amortized over a determined useful life of 2 years. The aforementioned intangible assets will be amortized on a straight-line basis.

The assessment of fair value is preliminary and is based on information that was available to management at the time the condensed consolidated financial statements were prepared. The Company is finalizing its valuation of fixed assets and deferred tax assets related to net operating losses acquired; accordingly, such amounts may be subject to change.

3. Revenue Recognition

Product Sales

The Company s revenue recognition policy is to recognize revenues from product sales and services in accordance with ASC 605, *Revenue Recognition*. These standards require that revenues are recognized when persuasive evidence of an arrangement exists, product delivery, including customer acceptance when required, has occurred or services have been rendered, the price is fixed or determinable and collectability is reasonably assured. Determination of whether these criteria have been met are based on management s judgments primarily regarding the fixed nature of the fee charged for the product delivered and the collectability of those fees. The Company has a few longstanding customers who comprise the majority of revenue and have excellent payment histories and therefore the Company does not require collateral. The Company has had no significant write-offs of uncollectible invoices in the periods presented. When more than one element such as equipment, consumables, and services are contained in a single arrangement, the Company allocates revenue between the elements based on each element s relative selling price, provided that each element meets the criteria for treatment as a separate unit of accounting. An item is considered a separate unit of accounting if it has value to the customer on a stand-alone basis. The selling price of the undelivered elements is determined by the price charged when the element is sold separately, or in cases when the item is not sold separately, by third-party evidence of selling price or management s best estimate of selling price.

The Company s product revenues are from the sale of bioprocessing products, equipment devices, and related consumables used with these equipment devices to customers in the life science and biopharmaceutical industries. On product sales to end customers, revenue

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is recognized, net of discounts, when both the title and risk of loss have transferred to the customer, as determined by the shipping terms provided there are no uncertainties regarding acceptance, and all obligations have been completed. Generally, our product arrangements for equipment sales are multiple element arrangements, and may include services, such as installation and training, and multiple products, such as consumables and spare parts. In accordance with ASC 605-25, based on terms and conditions of the product arrangements, the Company believes that these services and undelivered products can be accounted for separately from the delivered product element, as the delivered products have value to our customers on a standalone basis. Accordingly, revenue for services not yet performed at the time of product shipment are deferred and recognized as such services are performed. The relative selling price of any undelivered products is also deferred at the time of shipment and recognized as revenue when these products are delivered. For product sales to distributors, the Company recognizes revenue for both equipment and consumables upon delivery to the distributor unless direct shipment to the end user is requested. In this case, revenue is recognized upon delivery to the end user s location. In general, distributors are responsible for shipment to the end customer along with installation, training and acceptance of the equipment by the end customer. Sales to distributors are not contingent upon resale of the product.

At the time of sale, the Company also evaluates the need to accrue for warranty and sales returns. The supply agreements the Company has with its customers and the related purchase orders identify the terms and conditions of each sale and the price of the goods ordered. Due to the nature of the sales arrangements, inventory produced for sale is tested for quality specifications prior to shipment. Since the product is manufactured to order and in compliance with required specifications prior to shipment, the likelihood of sales return, warranty or other issues is largely diminished. Furthermore, there is no customer right of return in our sales agreements. Sales returns and warranty issues are infrequent and have not had a material impact on the Company s financial statements historically.

Shipping and handling fees are recorded as a component of product revenue, with the associated costs recorded as a component of cost of product revenue.

Therapeutics Licensing Agreements

Activities under licensing agreements are evaluated in accordance with ASC 605-25 to determine if they represent a multiple element revenue arrangement. The Company identifies the deliverables included within the agreement and evaluates which deliverables represent separate units of accounting. The Company accounts for those components as separate units of accounting if the following two criteria are met:

The delivered item or items have value to the customer on a stand-alone basis; and

If there is a general right of return relative to the delivered items, delivery or performance of the undelivered items is considered probable and within the Company s control.

Factors considered in this determination include, among other things, whether any other vendors sell the items separately and if the licensee could use the delivered item for its intended purpose without the receipt of the remaining deliverables. If multiple deliverables included in an arrangement are separable into different units of accounting, the Company allocates the arrangement consideration to those units of accounting. The amount of allocable arrangement consideration is limited to amounts that are fixed or determinable. Arrangement consideration is allocated at the inception of the arrangement to the identified units of accounting based on their relative selling price. Revenue is recognized for each unit of accounting when the appropriate revenue recognition criteria are met.

Future milestone payments, if any, under a license agreement will be recognized under the provisions of ASC 605-28, which the Company adopted on January 1, 2011. The Company has elected to recognize a payment that is contingent upon the achievement of a substantive milestone in its entirety in the period in which the milestone is achieved. A milestone is substantive if:

It can only be achieved based in whole or in part on either the Company s performance or the occurrence of a specific outcome resulting from the Company s performance;

There is substantive uncertainty at the date an arrangement is entered into that the event will be achieved; and

It would result in additional payments being due to the entity.

The commercial milestone payments and royalty payments received under license agreements, if any, will be recognized as revenue when they are earned.

Sale of Intellectual Property to BioMarin

In January 2014, the Company entered into an asset purchase agreement (the BioMarin Asset Purchase Agreement) with BioMarin Pharmaceutical Inc. (BioMarin) to sell Repligen s histone deacetylase inhibitor (HDACi) portfolio. Pursuant to the terms of the BioMarin Asset Purchase Agreement, the Company received $2.0 million from BioMarin as an upfront payment on January 30, 2014 and a $125,675 payment on September 3, 2014 upon completion of the Technology Transfer. The Company is entitled to receive up to

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$160 million in potential future milestone payments for the development, regulatory approval and commercial sale of portfolio compounds included in the agreement. These potential milestone payments are approximately 37% related to clinical development and 63% related to initial commercial sales in specific geographies. In addition, Repligen is eligible to receive royalties on sales of therapeutic products originating from the HDACi portfolio. The royalty rates are tiered and begin in the mid-single-digits for the first HDACi portfolio product and for the first non-HDACi portfolio product with lesser amounts for any backup products developed under the BioMarin Asset Purchase Agreement. The Company s receipt of these royalties is subject to customary offsets and deductions. There are no refund provisions in this agreement. Any milestones earned upon specified clinical development or commercial sales events or future royalty payments, under the BioMarin Asset Purchase Agreement will be recognized as revenue when they are earned.

Activities under this agreement were evaluated in accordance with ASC 605-25 to determine if they represented a multiple element revenue arrangement. The Company identified the following deliverables in the BioMarin Asset Purchase Agreement:

- The assignment by the Company to BioMarin of its intellectual property rights in the HDACi portfolio and the Scripps Agreement (the Transferred Assets); and

- The transfer of certain notebooks, data, documents, biological materials (if any) and other such documents in our possession that might be useful to further development of the program (the Technology Transfer).

Two criteria must be met in order for a deliverable to be considered a separate unit of accounting. The first criterion requires that the delivered item or items have value to the customer on a stand-alone basis. The second criterion, which relates to evaluating a general right of return, is not applicable because such a provision does not exist in the BioMarin Asset Purchase Agreement. The deliverables outlined above were deemed to have stand-alone value and to meet the criteria to be accounted for as separate units of accounting. Factors considered in this determination included, among other things, BioMarin s right under the agreement to assign the Transferred Assets, whether any other vendors sell the items separately and if BioMarin could use the delivered item for its intended purpose without the receipt of the remaining deliverables. If multiple deliverables included in an arrangement are separable into different units of accounting, the multiple-element arrangements guidance addresses how to allocate the arrangement consideration to those units of accounting. The amount of allocable arrangement consideration is limited to amounts that are fixed or determinable. Arrangement consideration is allocated at the inception of the arrangement to the identified units of accounting based on their relative selling price.

The Company identified the arrangement consideration to allocate among the units of accounting as the $2.0 million non-refundable up-front payment and the $125,675 payment to be received upon completion of the Technology Transfer. The Company excluded the potential milestone payments provided for in the BioMarin Asset Purchase Agreement from the arrangement consideration as they were not considered fixed or determinable at the time the BioMarin Asset Purchase Agreement was signed. Because Repligen had not sold these items on a standalone basis previously, the Company had no vendor-specific objective evidence of selling price. Furthermore, the Company did not have detailed third-party evidence of selling price, and as a result the Company used its best estimate of selling price for each item. In determining these prices, the Company considered what it would be willing to sell the items for on a standalone basis, what the market would bear for such items and what another party might charge for these items.

The up-front arrangement consideration allocated to the Transferred Assets was recognized upon execution of the BioMarin Asset Purchase Agreement as the risks and rewards associated with the Transferred Assets transferred at

that time. The Company used a discounted cash flow analysis to determine the value of the Transferred Assets. Key assumptions in the analysis included: the estimated market size for a compound targeted at Friedreich s Ataxia, the estimated remaining costs of development and time to commercialization, and the probability of successfully developing and commercializing the program. Based on this analysis, the Company allocated $2,115,000 to the value of the Transferred Assets. However, as the recognized revenue is limited to the non-contingent consideration received, the Company recognized $2 million, the amount of the up-front payment, as revenue in the three months ended March 31, 2014.

In addition to the $2.1 million up-front payment, the Company is also eligible to receive up to $160 million in potential milestone payments from BioMarin comprised of:

- Up to $60 million related to the achievement of specified clinical and regulatory milestone events; and

- Up to $100 million related to the achievement of specified commercial sales events, specifically the first commercial sale in specific territories.

The Company evaluated the potential milestones in accordance with ASC 605-28, which allows an entity to make an accounting policy election to recognize a payment that is contingent upon the achievement of a substantive milestone in its entirety in the period in which the milestone is achieved. This evaluation included an assessment of the risks that must be overcome to achieve the respective milestone as well as whether the achievement of the milestone was due in part to our initial clinical work, the level of effort and investment required to achieve the respective milestone and whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement. There is considerable judgment involved in determining whether a milestone satisfies all of the criteria required to conclude that a milestone is substantive. Milestones that are not considered substantive are recognized as earned if there are no remaining performance obligations or over the remaining period of performance, assuming all other revenue recognition criteria are met.

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The Company believes that the $60 million of specified clinical and regulatory milestone payments are substantive. Therefore, any such milestones achieved will be recognized as revenue when earned.

Any milestones achieved upon specified commercial sales events or future royalty payments are considered contingent revenue under the BioMarin Asset Purchase Agreement, and will be recognized as revenue when they are earned as there are no undelivered elements remaining and no continuing performance obligations under the arrangement.

4. Accumulated Other Comprehensive Income

The following table summarizes the changes in accumulated other comprehensive income by component (in thousands):

(In thousands)	Unrealized gain (loss) on investments	Foreign currency translation gain (loss)	Total
Balance at December 31, 2015	$ (11)	$ (8,555)	$ (8,566)
Other comprehensive income	89	(1,019)	(930)
Balance at September 30, 2016	$ 78	$ (9,574)	$ (9,496)

5. Earnings Per Share

The Company reports earnings per share in accordance with ASC Topic 260, Earnings Per Share, which establishes standards for computing and presenting earnings per share. Basic earnings per share is computed by dividing net income available to common shareholders by the weighted-average number of common shares outstanding during the period. Diluted earnings per share is computed by dividing net income available to common shareholders by the weighted-average number of common shares and dilutive common share equivalents then outstanding. Potential common share equivalents consist of restricted stock awards and the incremental common shares issuable upon the exercise of stock options. Under the treasury stock method, unexercised in-the-money stock options and warrants are assumed to be exercised at the beginning of the period or at issuance, if later. The assumed proceeds are then used to purchase common shares at the average market price during the period. Share-based payment awards that entitle their holders to receive non-forfeitable dividends before vesting are considered participating securities and are considered in the calculation of basic and diluted earnings per share. There were no such participating securities outstanding during the three- and nine-month periods ended September 30, 2016 and 2015.

Basic and diluted weighted average shares outstanding were as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Weighted average common shares	33,779,141	32,925,004	33,485,448	32,860,382
Dilutive common stock options	533,746	764,556	526,086	757,617

Weighted average common shares, assuming dilution	34,312,887	33,689,560	34,011,534	33,617,999

At September 30, 2016, there were outstanding options to purchase 1,198,673 shares of the Company s common stock at a weighted average exercise price of $12.03 per share. For the three- and nine-month periods ended September 30, 2016, 253,754 and 348,608 options to purchase shares of the Company s common stock, respectively, were excluded from the calculation of diluted earnings per share because the exercise prices of the stock options were greater than or equal to the average price of the common shares, and were therefore anti-dilutive. The Company has excluded the effects of its convertible senior notes issued in May 2016 on earnings per share, as it is the Company s intent to settle these notes in cash.

At September 30, 2015, there were outstanding options to purchase 1,252,356 shares of the Company s common stock at a weighted average exercise price of $10.47 per share. For the three- and nine-month periods ended September 30, 2015, 163,459 and 170,891 shares of the Company s common stock, respectively, were excluded from the calculation of diluted earnings per share because the exercise prices of the stock options were greater than or equal to the average price of the common shares, and were therefore anti-dilutive.

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6. Cash, Cash Equivalents and Marketable Securities

At September 30, 2016, the Company s investments included money market funds and short-term marketable securities. At December 31, 2015, the Company s investments included money market funds, short-term and long-term marketable securities. These marketable securities are classified as available-for-sale. Marketable securities are investments with original maturities of greater than 90 days. Long-term marketable securities are securities with maturities of greater than one year. The average remaining contractual maturity of marketable securities at September 30, 2016 was approximately 6.1 months.

Management reviewed the Company s investments as of September 30, 2016 and December 31, 2015 and concluded that there are no securities with other than temporary impairments in the investment portfolio. The Company does not intend to sell any investments in an unrealized loss position, and it is not more likely than not that the Company will be required to sell the investments before recovery of their amortized cost bases.

Investments in marketable securities consisted of the following at September 30, 2016 (in thousands):

	September 30, 2016			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
Marketable securities:				
U.S. Government and agency securities	$ 2,016	$ 1	$	$ 2,017
Corporate and other debt securities	18,966	78	(1)	19,043
Total	$ 20,982	$ 79	$ (1)	$ 21,060

There were no long-term marketable securities as of September 30, 2016.

At September 30, 2016, the Company s investments included three securities in unrealized loss positions with a total unrealized loss of approximately $1,000 and a total fair market value of approximately $1,415,000. All investments with gross unrealized losses have been in unrealized loss positions for less than 12 months. The unrealized losses were caused primarily by current economic and market conditions. There was no change in the credit risk of the securities. There were no realized gains or losses on the investments for the nine months ended September 30, 2016 and 2015.

Investments in marketable securities consisted of the following at December 31, 2015 (in thousands):

	December 31, 2015			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
Marketable securities:				
U.S. Government and agency securities	$ 7,029	$	$ (6)	$ 7,023
Corporate and other debt securities	10,659	7	(7)	10,659

	17,688	7	(13)	17,682
Long-term marketable securities:				
U.S. Government and agency securities	838		(2)	836
Corporate and other debt securities	800		(3)	797
	1,638		(5)	1,633
Total	$ 19,326	$ 7	$ (18)	$ 19,315

The contractual maturities of all money market funds and marketable securities are less than one year as of September 30, 2016.

7. Inventories

Inventories relate to the Company s bioprocessing business. The Company values inventory at cost or, if lower, market value, using the first-in, first-out method. The Company reviews its inventories at least quarterly and records a provision for excess and obsolete inventory based on its estimates of expected sales volume, production capacity and expiration dates of raw materials, work-in-process and finished products. Expected sales volumes are determined based on supply forecasts provided by key customers for the next 3 to

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12 months. The Company writes down inventory that has become obsolete, inventory that has a cost basis in excess of its expected net realizable value, and inventory in excess of expected requirements to cost of product revenue. Manufacturing of bioprocessing finished goods is done to order and tested for quality specifications prior to shipment. Reserves for excess and obsolete inventory were approximately $476,000 at September 30, 2016 and $343,000 at December 31, 2015.

A change in the estimated timing or amount of demand for the Company s products could result in additional provisions for excess inventory quantities on hand. Any significant unanticipated changes in demand or unexpected quality failures could have a significant impact on the value of inventory and reported operating results. During all periods presented in the accompanying financial statements, there have been no material adjustments related to a revised estimate of inventory valuations.

Work-in-process and finished products inventories consist of material, labor, outside processing costs and manufacturing overhead. Inventories consist of the following (in thousands):

	September 30, 2016	December 31, 2015
Raw Materials	$ 15,569	$ 10,671
Work-in-process	2,126	1,586
Finished products	6,768	5,741
Total	$ 24,463	$ 17,998

8. Property, Plant and Equipment

Property, plant and equipment consist of the following (in thousands):

	September 30, 2016	December 31, 2015
Leasehold improvements	$ 14,444	$ 13,306
Equipment	14,750	13,758
Furniture and fixtures	3,353	2,808
Construction in progress	1,382	425
Total property, plant and equipment	33,929	30,297
Less: accumulated depreciation	(18,994)	(16,496)
Property, plant and equipment, net	$ 14,935	$ 13,801

Depreciation expense totaled approximately $2,360,000 and $2,251,000 for the nine-month periods ended September 30, 2016 and 2015, respectively.

9. Intangible Assets

Intangible assets are amortized over their useful lives using the straight-line method, as applicable, and the amortization expense is recorded within selling, general and administrative expense in the Company s statements of comprehensive income (loss).

During the third quarter of 2016, the Company launched its XCell ATF single-use product line. The Company performed an assessment of the in-process research and development assets and their estimated useful lives to determine if any circumstances exist that would result in an impairment. The Company has determined that the fair value of these intangible assets exceeds their carrying values and are therefore not impaired; accordingly, the Company reclassified in-process research and development intangible assets to developed technology and began to amortize these intangible assets in the third quarter of 2016.

The Company reviews its indefinite-lived intangible assets not subject to amortization to determine if adverse conditions exist or a change in circumstances exists that would indicate an impairment. Intangible assets and their related useful lives are reviewed at least annually to determine if any adverse conditions exist that would indicate the carrying value of these assets may not be recoverable. More frequent impairment assessments are conducted if certain conditions exist, including a change in the competitive landscape, any internal decisions to pursue new or different technology strategies, a loss of a significant customer, or a significant change in the marketplace, including changes in the prices paid for our products or changes in the size of the market for our products. An impairment results if the carrying value of the asset exceeds the estimated fair value of the asset. If the estimate of an intangible asset s remaining useful life is changed, the remaining carrying amount of the intangible asset is amortized prospectively over the revised remaining useful life. The Company continues to believe that its intangible assets are recoverable at September 30, 2016.

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Intangible assets consisted of the following at September 30, 2016 (in thousands):

	Gross Carrying Amount	Accumulated Amortization	Weighted Average Useful Life (in years)
Technology developed	$ 7,026	$ (1,342)	13
Patents	240	(200)	8
Customer relationships	16,946	(4,750)	11
Trademark	700		
Other intangibles	68	(17)	2
Total intangible assets	$ 24,980	$ (6,309)	12

Intangible assets consisted of the following at December 31, 2015 (in thousands):

	Gross Carrying Amount	Accumulated Amortization	Weighted Average Useful Life (in years)
Technology developed	$ 3,295	$ (782)	12
In process research and development	1,600		
Patents	240	(177)	8
Customer relationships	11,805	(3,926)	9
Trademark	700		
Total intangible assets	$ 17,640	$ (4,885)	10

Amortization expense for amortized intangible assets was approximately $1,484,000 and $1,201,000 for the nine months ended September 30, 2016 and 2015, respectively. As of September 30, 2016, the Company expects to record amortization expense as follows (in thousands):

Years Ending	Amortization Expense
December 31, 2016 (three months remaining)	$ 553
December 31, 2017	2,211
December 31, 2018	2,022
December 31, 2019	1,999
December 31, 2020	1,666
December 31, 2021	1,358

10. Accrued Liabilities

Accrued liabilities consist of the following (in thousands):

	September 30, 2016	December 31, 2015
Employee compensation	$ 4,440	$ 4,680
Accrued interest payable	862	
Accrued purchases	429	604
Taxes	749	166
Contingent consideration	6,261	4,480
Royalties	592	7
Professional fees	357	269
Unearned revenue	643	258
Other accrued expenses	798	1,593
Total	$ 15,131	$ 12,057

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11. Long Term Debt

The carrying value of the Company s convertible senior notes is as follows:

	September 30, 2016	December 31, 2015
2.125% Convertible Senior Notes due 2021:		
Principal amount	$ 115,000	$
Unamortized debt discount	(17,589)	
Unamortized debt issuance costs	(3,093)	
Total convertible senior notes	$ 94,318	$

On May 24, 2016, the Company issued $115 million aggregate principal amount of its 2.125% Convertible Senior Notes due 2021 (the Notes). The net proceeds from the sale of the Notes, after deducting the underwriting discounts and commissions and other related offering expenses, were approximately $111.1 million. The Notes bear interest at the rate of 2.125% per annum, payable semiannually in arrears on June 1 and December 1 of each year, beginning on December 1, 2016.

The Notes will mature on June 1, 2021, unless earlier repurchased, redeemed or converted in accordance with their terms. Prior to March 1, 2021, the Notes will be convertible at the option of holders of the Notes only upon satisfaction of certain conditions and during certain periods, and thereafter, the notes will be convertible at any time until the close of business on the second scheduled trading day immediately preceding the maturity date. Upon conversion, holders of the Notes will receive shares of the Company s common stock, cash or a combination thereof, at the Company s election. It is the Company s current intent and policy to settle all conversions through combination settlement, which involves satisfying the principal amount outstanding with cash and any note conversion value over the principal amount in shares of the Company s common stock.

The conversion rate for the Notes will initially be 31.1813 shares of the Company s common stock per $1,000 principal amount of Notes, which is equivalent to an initial conversion price of approximately $32.07 per common share, and is subject to adjustment under the terms of the Notes. Holders of the Notes may require the Company to repurchase their Notes upon the occurrence of a fundamental change prior to maturity for cash at a repurchase price equal to 100% of the principal amount of the Notes to be repurchased plus accrued and unpaid interest, if any, to, but excluding, the repurchase date.

The Company will not have the right to redeem the Notes prior to June 5, 2019, but may redeem the Notes, at its option, in whole or in part, on any business day on or after June 5, 2019 and prior to the maturity date if the last reported sale price of the Company s common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which the Company provides written notice of redemption. The redemption price will be equal to 100% of the principal amount of the principal amount of Notes to be redeemed plus accrued and unpaid interest to, but excluding, the redemption date.

The Notes contain customary terms and events of default. If an event of default (other than certain events of bankruptcy, insolvency or reorganization involving the Company) occurs and is continuing, the holders of at least 25% in aggregate principal amount of the outstanding Notes may declare 100% of the principal of, and any accrued

and unpaid interest on, all of the Notes to be due and payable. Upon the occurrence of certain events of bankruptcy, insolvency or reorganization involving the Company, 100% of the principal of and accrued and unpaid interest, if any, on all of the Notes will become due and payable automatically. Notwithstanding the foregoing, the Notes provide that, to the extent the Company elects and for up to 270 days, the sole remedy for an event of default relating to certain failures by the Company to comply with certain reporting covenants consist exclusively of the right to receive additional interest on the Notes. The Company is not aware of any events of default, current events or market conditions that would allow holders to call or convert the Notes as of September 30, 2016.

The cash conversion feature of the Notes required bifurcation from the Notes and was initially accounted for as an equity instrument classified to stockholders equity, as the conversion feature was determined to be clearly and closely related to the Company s stock. Based on market data available for publicly traded, senior, unsecured corporate bonds issued by companies in the same industry and asset base and with similar maturity, the Company estimated the implied interest rate, assuming no conversion option. Assumptions used in the estimate represent what market participants would use in pricing the liability component, including market interest rates, credit standing, and yield curves, all of which are defined as Level 2 observable inputs. The estimated implied interest rate was applied to the Notes, which resulted in a fair value of the liability component of $96,289,000 upon issuance, calculated as the present value of implied future payments based on the $115 million aggregate principal amount. The equity component of the Notes was recognized as a debt discount, recorded in additional paid-in capital, and represents the difference between the aggregate principal of the Notes and the fair value of the Notes without conversion option on their issuance date. The debt discount is amortized to interest expense using the effective interest method over five years, or the life of the Notes. The Company assesses the equity classification of the cash conversion feature quarterly, and it is not remeasured as long as it continues to meet the conditions for equity classification.

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Interest expense recognized on the Notes during the three-month period ended September 30, 2016 includes $611,000, $798,000 and $140,000 for the contractual coupon interest, the accretion of the debt discount and the amortization of the debt issuance costs, respectively. Interest expense recognized on the Notes during the nine-month period ended September 30, 2016 includes $862,000, $1,123,000 and $197,000 for the contractual coupon interest, the accretion of the debt discount and the amortization of the debt issuance costs, respectively. The effective interest rate on the Notes is 6.6%, which includes the interest on the Notes, amortization of the debt discount and debt issuance costs. As of September 30, 2016, the carrying value of the Notes was approximately $94.3 million and the fair value of the principal was approximately $131.8 million. The fair value of the Notes was determined based on the most recent trade activity of the Notes as of September 30, 2016.

12. Stock-Based Compensation

For the three months ended September 30, 2016 and 2015, the Company recorded stock-based compensation expense of approximately $1,282,000 and $981,000, respectively, for share-based awards granted under the Second Amended and Restated 2001 Repligen Corporation Stock Plan (the 2001 Plan) and the Repligen Corporation Amended and Restated 2012 Stock Option and Incentive Plan (the 2012 Plan, and collectively with the 2001 Plan and the 1992 Repligen Corporation Stock Option Plan, the Plans). The Company recorded stock-based compensation expense of approximately $3,341,000 and $2,668,000 for the nine-month periods ended September 30, 2016 and 2015, respectively, for share-based awards granted under the Plans.

The following table presents stock-based compensation expense included in the Company s consolidated statements of comprehensive income (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Cost of product revenue	$ 116	$ 60	$ 260	$ 166
Research and development	177	91	362	250
Selling, general and administrative	989	830	2,719	2,252
Total	$ 1,282	$ 981	$ 3,341	$ 2,668

The 2012 Plan allows for the granting of incentive and nonqualified options to purchase shares of common stock, restricted stock and other equity awards. Incentive options granted to employees under the Plans generally vest over a three to five-year period, with 20%-33% vesting on the first anniversary of the date of grant and the remainder vesting in equal yearly installments thereafter. Nonqualified options issued to non-employee directors under the Plans generally vest over one year. Options granted under the Plans have a maximum term of ten years from the date of grant and generally, the exercise price of the stock options equals the fair market value of the Company s common stock on the date of grant. At September 30, 2016, options to purchase 1,198,673 shares were outstanding under the Plans. At September 30, 2016, 1,929,834 shares were available for future grant under the 2012 Plan.

The Company uses the Black-Scholes option pricing model to calculate the fair value of stock option awards on the grant date, and the Company uses the value of the common stock as of the grant date to value restricted stock units. The Company measures stock-based compensation cost at the grant date based on the estimated fair value of the award, and recognizes awards with service based vesting as expense over the employee s requisite service period on a straight-line basis. The Company has no awards that are performance-based or subject to market conditions. The

Company recognizes stock-based compensation expense for options that are ultimately expected to vest, and accordingly, such compensation expense has been adjusted for estimated forfeitures.

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Information regarding option activity for the nine months ended September 30, 2016 under the Plans is summarized below:

	Options Outstanding	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (in years)	(in thousands) Aggregate Intrinsic Value
Options outstanding at January 1, 2016	1,240,935	$ 10.44		
Granted	366,003	11.22		
Exercised	(305,535)	5.81		
Forfeited/Cancelled	(102,730)	8.40		
Options outstanding at September 30, 2016	1,198,673	$ 12.03	7.49	$ 22,172
Options exercisable at September 30, 2016	432,002	$ 11.28	5.43	$ 8,396
Vested and expected to vest at September 30, 2016 (1)	1,115,150	$ 12.26	7.42	$ 20,396

(1) This represents the number of vested options as of September 30, 2016 plus the number of unvested options expected to vest as of September 30, 2016 based on the unvested outstanding options at September 30, 2016 adjusted for estimated forfeiture rates of 8% for awards granted to non-executive level employees and 3% for awards granted to executive level employees.

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value (the difference between the closing price of the common stock on September 30, 2016 of $30.19 and the exercise price of each in-the-money option) that would have been received by the option holders had all option holders exercised their options on September 30, 2016.

The weighted average grant date fair value of options granted during the nine months ended September 30, 2016 and 2015 was $20.80 and $22.41, respectively. The total fair value of stock options that vested during the nine months ended September 30, 2016 and 2015 was approximately $2,905,000 and $1,862,000, respectively.

As of September 30, 2016, there was approximately $9,276,000 of total unrecognized compensation cost related to unvested share-based awards. This cost is expected to be recognized over a weighted average remaining requisite service period of 2.9 years. The Company expects 683,148 unvested options to vest over the next five years.

13. Income Taxes

The Company s effective tax rate for the three- and nine-month periods ended September 30, 2016 was 47.8% and 34.3%, respectively, compared to 31.0% and 25.8%, respectively, for the corresponding periods in the prior year. For the current three- and nine-month periods, the effective tax rate was higher than the U.S. statutory tax rate of 34% primarily due to unbenefited domestic losses, partially offset by lower statutory tax rates in foreign jurisdictions. For

the three- and nine-month periods ended September 30, 2015, the effective tax rate differed from the U.S. statutory rate of 34% primarily due to the lower statutory tax rate in Sweden, partially offset by unbenefited domestic losses.

As of December 31, 2015, the Company had U.S. net operating loss carryforwards of approximately $46,984,000 and U.S. business tax credit carryforwards of approximately $1,920,000 available to reduce future federal income taxes, if any. The net operating loss and business tax credits carryforwards will continue to expire at various dates through December 2035. Net operating loss carryforwards and available tax credits are subject to review and possible adjustment by the Internal Revenue Service and may be limited in the event of certain changes in the ownership interest of significant stockholders.

As of December 31, 2015, the Company concluded that realization of deferred tax assets in the United States beyond December 31, 2015 is not more likely than not, and as such, the Company maintained a valuation allowance against the majority of its remaining deferred tax assets. As of September 30, 2016, the Company concluded that realization of deferred tax assets beyond September 30, 2016 is not more likely than not, and as such, the Company maintained a valuation allowance against the majority of its remaining U.S. deferred tax assets.

As a result of the Company s acquisition of Atoll on April 1, 2016, the Company acquired intangible assets of approximately $7,561,000. Because the amortization of these intangible assets is not deductible under German tax law, the Company recorded deferred tax liabilities of approximately $2,202,000 as part of the Atoll Acquisition. Additionally, the Company was able to retain net operating losses of approximately $3,039,000. Accordingly, the Company recorded deferred tax assets of approximately $885,000 as part of the Atoll Acquisition.

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The fiscal years ended December 31, 2012, 2013, 2014 and 2015 are subject to examination by U.S. federal, state, Germany and Sweden taxing authorities.

14. Fair Value Measurement

In determining the fair value of its assets and liabilities, the Company uses various valuation approaches. The Company employs a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company s assumptions about the inputs that market participants would use in pricing the asset or liability and are developed based on the best information available in the circumstances. The fair value hierarchy is broken down into three levels based on the source of inputs as follows:

Level 1 Valuations based on unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access

Level 2 Valuations based on quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active and models for which all significant inputs are observable, either directly or indirectly

Level 3 Valuations based on inputs that are unobservable and significant to the overall fair value measurement

The availability of observable inputs can vary among the various types of financial assets and liabilities. To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for financial statement disclosure purposes, the level in the fair value hierarchy within which the fair value measurement is categorized is based on the lowest level input that is significant to the overall fair value measurement.

The Company s fixed income investments are comprised of obligations of U.S. government agencies and corporate marketable securities. These investments have been initially valued at the transaction price and subsequently valued, at the end of each reporting period, utilizing third party pricing services or other market observable data. The pricing services utilize industry standard valuation models, including both income and market based approaches and observable market inputs to determine value. These observable market inputs include reportable trades, benchmark yields, credit spreads, broker/dealer quotes, bids, offers, current spot rates and other industry and economic events. At least annually, the Company validates the prices provided by third party pricing services by reviewing their pricing methods and matrices, obtaining market values from other pricing sources, analyzing pricing data in certain instances and confirming that the relevant markets are active. The Company did not adjust or override any fair value measurements provided by the pricing services as of September 30, 2016.

The following fair value hierarchy table presents information about each major category of the Company s assets measured at fair value on a recurring basis as of September 30, 2016 (in thousands):

Fair value measurement at reporting date using:

	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets:				
Money market funds	$ 117,733	$	$	$ 117,733
U.S. Government and agency securities	2,017	500		2,517
Corporate and other debt securities		18,542		18,542
Total	$ 119,750	$ 19,042	$	$ 138,792
Liabilities:				
Contingent consideration short-term	$	$	$ 6,261	$ 6,261
Total	$	$	$ 6,261	$ 6,261

The Company has no other assets or liabilities for which fair value measurement is either required or has been elected to be applied. The liabilities for contingent consideration are recorded in connection with the Refine and Atoll business combinations. The Company entered into a settlement agreement and remitted all remaining contingent consideration to BioFlash Partners, LLC (BioFlash) in the third quarter of 2016. The contingent consideration related to Refine is valued using management s estimates of expected future milestone payments based on forecasted sales and a portion of any receipts that might be received in connection with the resolution, withdrawal or settlement of certain patent disputes with a third party to be paid to Refine. The contingent consideration related to Atoll is valued using management s estimates of expected future milestone payments based on forecasted sales. These valuations are Level 3 valuations, as the primary inputs are unobservable.

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Changes in the fair value of contingent consideration in the nine-month period ended September 30, 2016 are primarily attributable to contingent consideration recorded at the date of the Atoll Acquisition in the amount of 836,000 (approximately $928,000), an increase to the expected 2016 Refine milestone payment of $3,156,000, an increase to the expected 2016 Atoll milestone payment of 132,000 (approximately $148,000), a $4,350,000 milestone payment to Refine, a $130,000 minimum royalty payment made to BioFlash, and a final settlement payment of $500,000 to BioFlash, of which $301,000 was previously accrued as contingent consideration and $199,000 was previously accrued and recorded to selling, general and administrative expenses.

The following table provides a rollforward of the fair value of contingent consideration (in thousands):

Balance at December 31, 2015	$ 6,788
Additions	928
Payments	(4,781)
Foreign currency translation adjustments	9
Changes in fair value	3,317
Balance at September 30, 2016	$ 6,261

The following tables provide quantitative information associated with the fair value measurement of the Company s contingent consideration related to Refine using Level 3 inputs (in thousands):

	Contingent Consideration Refine
Fair value as of September 30, 2016	$5,175
Valuation technique	Probability-adjusted discounted cash flow
Remaining period in which milestones can be achieved	2016

	Fixed Earn-out	Maximum Variable Earn-out	Accrued Balance
2016	4,250	1,300	5,175

The significant unobservable inputs used in the fair value measurement of Refine s contingent consideration are the probabilities of successful achievement of 2016 sales milestones. During the first nine months of 2016, the estimated fair value of the 2016 contingent payment was increased by $3,156,000 to $5,175,000 based on revised sales forecasts. Increases or decreases in the Company s projected sales during the fourth quarter of 2016 may result in a significantly higher or lower fair value measurement, respectively, and could result in a reversal of the current accrual.

The following table provides quantitative information associated with the fair value measurement of the Company s contingent consideration related to Atoll using Level 3 inputs (in thousands):

	Contingent Consideration Atoll
Fair value as of September 30, 2016	$1,085
Valuation technique	Probability-weighted expected return method.
Remaining period in which milestones can be achieved	2016

The significant unobservable inputs used in the fair value measurement of Atoll s contingent consideration are the probabilities of successful achievement of 2016 sales milestones. The initial valuation of contingent consideration upon the Atoll Acquisition in April 2016 resulted in a fair value of 836,000 (approximately $928,000). The estimated fair value of the contingent payment was increased by 132,000 (approximately $148,000) based on revised sales forecasts. Increases or decreases in the Company s projected sales during the fourth quarter of 2016 may result in a significantly higher or lower fair value measurement, respectively, and could result in a reversal of the current accrual.

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In May 2016, the Company issued $115 million aggregate principal amount of the Notes due June 1, 2021. Interest is payable semi-annually in arrears on June 1 and December 1 of each year, beginning on December 1, 2016. As of September 30, 2016, the carrying value of the Notes was $94.3 million, net of unamortized discount, and the fair value of the Notes was approximately $131.8 million. The fair value of the Notes was determined based on the most recent trade activity of the Notes as of September 30, 2016. The Notes are discussed in more detail in Note 11, Long Term Debt.

There were no re-measurements to fair value during the three months ended September 30, 2016 of financial assets and liabilities that are not measured at fair value on a recurring basis.

15. Commitments and Contingencies

Future minimum rental commitments under the Company s leases as of September 30, 2016 are as follows (in thousands):

	Minimum Rental Commitments
2016 (three months remaining)	$ 622
2017	2,410
2018	2,410
2019	2,410
2020	2,410
2021	2,410
Thereafter	1,672

16. Segment Reporting

The Company views its operations, makes decisions regarding how to allocate resources and manages its business as one operating segment. As a result, the financial information disclosed herein represents all of the material financial information related to the Company s principal operating segment.

The following table represents the Company s total revenue by geographic area (based on the location of the customer):

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
United States	45%	38%	40%	29%
Sweden	23%	27%	29%	39%
United Kingdom	2%	18%	8%	18%
Other	30%	17%	23%	14%
Total	100%	100%	100%	100%

Revenue from significant customers as a percentage of the Company s total revenue is as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
GE Healthcare	23%	26%	29%	38%
MilliporeSigma	28%	38%	30%	32%

Significant accounts receivable balances as a percentage of the Company s total trade accounts receivable are as follows:

	September 30, 2016	December 31, 2015
GE Healthcare	29%	13%
MilliporeSigma	29%	32%
Bioprocessing Customer C	6%	21%

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ITEM 2. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

Repligen is a bioprocessing company that develops, manufactures and markets innovative products and solutions used to manufacture biologic drugs. Biologics, or principally monoclonal antibodies, recombinant proteins, and vaccines, are manufactured through a complex process involving the use of live cells to produce the drug, followed by multiple separation and purification processes. Our products are used in this process to enhance end product yields for the manufacturer while lowering costs and reducing risks through increased process efficiencies.

For over twenty-five years, we have been a global market leader in native and recombinant forms of Protein A, a critical reagent used in the downstream purification of therapeutic monoclonal antibodies, or mAbs, one of the largest and fastest-growing classes of biologic drugs on the market. Our Protein A ligands are a critical component of Protein A resins currently used in the commercial production of over 50 mAbs, and in clinical stage production of over 350 investigational mAbs. In upstream bioprocessing, where a biologic drug product is grown in bioreactors, we supply several growth factor products used to supplement cell culture media and enhance cell productivity. Our XCell ATF filtration systems, which now include a commercial single-use version are also used upstream to increase cell retention and accelerate cell productivity, resulting in significantly higher product yield from a bioreactor. In downstream bioprocessing, where the biologic drug product is separated and purified, we develop and market our innovative OPUS® line of chromatography columns for use in bench-scale through clinical production-scale purification. We deliver OPUS® pre-packed with chromatography resins of our customers choice, and customized to their size requirements. In the industry, OPUS® is one of the leading single-use technologies that are being adopted for their convenience, flexibility and reliability as biomanufacturers seek ways to increase productivity while reducing facility size and cost. In October 2016, we introduced to the market OPUS® R, which are OPUS® pre-packed columns with an innovative side port for recovering chromatography resin from inside the column allowing our customers to re-use the unpacked resin in other applications. The unpacking port feature will be available in the first quarter of 2017 on our largest production-scale OPUS® columns; we refer to these as our OPUS® 45R and OPUS® 60R columns.

We generally manufacture and sell Protein A ligands through long-term supply agreements, and we sell our XCell ATF and OPUS® lines directly to end users (biopharmaceutical developers and contract manufacturing organizations) worldwide. Our growth factor products are sold through a distribution agreement with MilliporeSigma under which we co-promote LONG®R3 IGF-1 and other growth factors in our portfolio. We refer to these activities as our bioprocessing business. Our manufacturing facilities are located in the United States, Sweden and Germany.

Through strategic acquisitions and internal product development, we have expanded our portfolio of products that we sell direct to end users. This expansion includes our acquisition of the Alternating Tangential Flow (ATF) System (now XCell ATF) which we acquired under an asset purchase agreement with Refine Technology LLC, or Refine, on June 2, 2014. This acquisition strengthened our upstream product portfolio and complements our growth factor portfolio. Additionally, on April 1, 2016, we acquired Atoll GmbH (Atoll), an innovator and manufacturer of pre-packed chromatography columns used in process development and clinical manufacturing of biologic drugs, from UV-Cap GmbH & Co. KG. This acquisition strengthens and complements our growing OPUS® product line, and provides an important customer-facing center in Central Europe.

Historically, we also conducted activities aimed at developing proprietary therapeutic drug candidates, often with a potential of entering into a collaboration with a larger commercial stage pharmaceutical or biotechnology company in respect of these programs. As part of our strategic decision in 2012 to focus our efforts on our core bioprocessing

business, we discontinued our clinical development programs, and outlicensed those programs to biopharmaceutical companies, including BioMarin, under agreements that allow us to share in the potential commercialization of the subject compounds.

Critical Accounting Policies and Estimates

A critical accounting policy is one which is both important to the portrayal of our financial condition and results and requires management s most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. For additional information, please see the discussion of our critical accounting policies in Management s Discussion and Analysis of Financial Condition and Results of Operations and our significant accounting policies in Note 2 to the Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2015.

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Results of Operations

Revenues

Product revenues for the three- and nine-month periods ended September 30, 2016 and 2015 were as follows:

(in thousands, except percentages)	Three months ended September 30,				Nine months ended September 30,			
	2016	2015	$ Change	% Change	2016	2015	$ Change	% Change
Product revenue	$ 24,677	$ 19,814	$ 4,863	24.5%	$ 78,942	$ 62,088	$ 16,854	27.1%

Sales of bioprocessing products increased 24.5% and 27.1% in the current three- and nine-month periods, respectively, compared to the corresponding periods in the prior year. This increase was primarily due to increases in orders for our chromatography columns and ATF products from our key bioprocessing customers. Sales of our bioprocessing products are impacted by the timing of orders, development efforts at our customers or end-users and regulatory approvals for biologics that incorporate our products, which may result in significant quarterly fluctuations. Such quarterly fluctuations are expected, but they may not be predictive of future revenue or otherwise indicate a trend.

Costs and operating expenses

Total costs and operating expenses for the three- and nine-month periods ended September 30, 2016 and 2015 were comprised of the following:

(in thousands, except percentages)	Three months ended September 30,				Nine months ended September 30,			
	2016	2015	$ Change	% Change	2016	2015	$ Change	% Change
Cost of product revenue	$ 11,242	$ 8,444	$ 2,798	33.1%	$ 34,955	$ 25,103	$ 9,852	39.2%
Research and development	1,886	1,490	396	26.6%	5,316	4,309	1,007	23.4%
Selling, general and administrative	7,127	5,959	1,168	19.6%	22,286	18,226	4,060	22.3%
Contingent consideration fair value adjustments	675	233	442	189.7%	3,317	2,114	1,203	56.9%
Total costs and operating expenses	$ 20,930	$ 16,126	$ 4,804	29.8%	$ 65,874	$ 49,752	$ 16,122	32.4%

Cost of product revenue increased 33.1% and 39.2% in the current three- and nine-month periods, respectively, compared to the corresponding periods in the prior year. This increase is primarily due to the increased product revenues noted above and product mix. Gross margins may fluctuate in the fourth quarter of 2016 based on expected production volume and product mix.

Research and development expenses increased 26.6% and 23.4% in the current three- and nine-month periods, respectively, compared to the corresponding periods in the prior year. This increase is primarily related to the timing and scale of our bioprocessing product development projects. Expenses generally include personnel costs, external development costs, supplies and other expenses related to our new products in development.

Selling, general and administrative expenses increased 19.6% and 22.3% in the current three- and nine-month periods, respectively, compared to the corresponding periods in the prior year. This increase is primarily due to the continued buildout of our administrative infrastructure to support future growth, the expansion of our customer-facing activities to drive sales of our bioprocessing products and approximately $1.3 million of costs incurred related to the acquisition of Atoll on April 1, 2016.

Contingent consideration fair value adjustments increased 189.7% and 56.9% in the current three- and nine-month periods, respectively, compared to the corresponding periods in the prior year. Fair value adjustments for contingent consideration are based on changes in the probabilities of achieving milestones and payments related to our acquisitions of Refine and Atoll.

Investment income

Investment income for the three- and nine-month periods ended September 30, 2016 and 2015 was as follows:

(in thousands, except percentages)	Three months ended September 30,				Nine months ended September 30,			
	2016	2015	$ Change	% Change	2016	2015	$ Change	% Change
Investment income	$ 97	$ 37	$ 60	162.2%	$ 234	$ 92	$ 142	154.3%

Investment income includes income earned on invested cash balances. Increases in investment income in the current three- and nine-month periods, respectively, compared to the corresponding periods in the prior year are mainly attributable to higher average invested cash balances related to the receipt of proceeds from our issuance of convertible senior notes in May 2016.

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Interest expense

Interest expense for the three- and nine-month periods ended September 30, 2016 and 2015 was as follows:

(in thousands, except percentages)	Three months ended September 30,				Nine months ended September 30,			
	2016	2015	$ Change	% Change	2016	2015	$ Change	% Change
Interest expense	$ (1,555)	$ (8)	$ (1,547)	19,337.5%	$ (2,198)	$ (24)	$ (2,174)	9,058.3%

Increases in interest expense in the current three- and nine-month periods, respectively, compared to the corresponding periods in the prior year are attributable to interest expense related to the issuance of convertible senior notes in May 2016.

Other expense

Other expense for the three- and nine-month periods ended September 30, 2016 and 2015 was as follows:

(in thousands, except percentages)	Three months ended September 30,				Nine months ended September 30,			
	2016	2015	$ Change	% Change	2016	2015	$ Change	% Change
Other expense	$ (75)	$ (38)	$ (37)	97.4%	$ (979)	$ (175)	$ (804)	459.4%

Increases in other expense in the current three- and nine-month periods, respectively, compared to the corresponding periods in the prior year are primarily attributable to foreign currency losses related to amounts due from non-Swedish kronor-based customers and cash balances denominated in U.S. dollars and British pounds held by our Sweden operations.

Provision for income taxes

Provision for income taxes for the three- and nine-month periods ended September 30, 2016 and 2015 was as follows:

(in thousands, except percentages)	Three months ended September 30,				Nine months ended September 30,			
	2016	2015	$ Change	% Change	2016	2015	$ Change	% Change
Income tax provision	$ 1,059	$ 1,141	$ (82)	(7.2%)	$ 3,474	$ 3,149	$ 325	10.3%

Our effective tax rate for the current three- and nine-month periods was 47.8% and 34.3%, respectively, compared to 31.0% and 25.8%, respectively, for the corresponding periods in the prior year. The effective tax rate in the current year is higher than the U.S. statutory tax rate primarily due to unbenefited domestic losses, partially offset by lower statutory tax rates in foreign jurisdictions. The effective tax rate in the prior year is lower than the U.S. statutory tax rate primarily due to lower statutory tax rates in foreign jurisdictions and the tax treatment of contingent consideration expense and related payments.

Non-GAAP Financial Measures

We provide non-GAAP adjusted income from operations, non-GAAP adjusted net income and adjusted EBITDA as supplemental measures to GAAP measures regarding our operating performance. These financial measures exclude the impact of certain acquisition related items and, therefore, have not been calculated in accordance with GAAP. A detailed explanation and a reconciliation of each non-GAAP financial measures to its most comparable GAAP financial measures are described below.

We include this financial information because we believe these measures provide a more accurate comparison of our financial results between periods and more accurately reflect how management reviews its financial results. We excluded the impact of certain acquisition related items because we believe that the resulting charges do not accurately reflect the performance of our ongoing operations for the period in which such charges are incurred.

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Non-GAAP Adjusted Income from Operations

Non-GAAP adjusted income from operations is measured by taking income from operations as reported in accordance with GAAP and excluding acquisition costs and contingent consideration expenses booked through our consolidated statements of comprehensive income. The following is a reconciliation of income from operations in accordance with GAAP to non-GAAP adjusted income from operations for the three- and nine-month periods ended September 30, 2016 and 2015 (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
GAAP income from operations	$ 3,747	$ 3,688	$ 13,068	$ 12,336
Non-GAAP adjustments to net income:				
Acquisition costs	144		1,262	
Contingent consideration fair value adjustments	675	233	3,317	2,114
Non-GAAP adjusted income from operations	$ 4,566	$ 3,921	$ 17,647	$ 14,450

Non-GAAP Adjusted Net Income

Non-GAAP adjusted net income is measured by taking net income as reported in accordance with GAAP and excluding acquisition costs, contingent consideration expenses and non-cash interest expense booked through our consolidated statements of comprehensive income. The following is a reconciliation of net income in accordance with GAAP to non-GAAP adjusted net income for the three-month periods ended September 30, 2016 and 2015:

	Three Months Ended September 30,			
	2016		2015	
	(in thousands) Amount	Fully Diluted Earnings per Share	(in thousands) Amount	Fully Diluted Earnings per Share
GAAP net income	$ 1,155	$ 0.03	$ 2,538	$ 0.08
Non-GAAP adjustments to net income:				
Acquisition costs	144	0.00		
Contingent consideration fair value adjustments	675	0.02	233	0.01
Non-cash interest expense	938	0.03		
Non-GAAP adjusted net income	$ 2,912	$ 0.08	$ 2,771	$ 0.08

The following is a reconciliation of net income in accordance with GAAP to non-GAAP adjusted net income for the nine-month periods ended September 30, 2016 and 2015:

	Nine Months Ended September 30,			
	2016		2015	
	(in thousands) Amount	Fully Diluted Earnings per Share	(in thousands) Amount	Fully Diluted Earnings per Share
GAAP net income	$ 6,651	$ 0.20	$ 9,080	$ 0.27
Non-GAAP adjustments to net income:				
Acquisition costs	1,262	0.04		
Contingent consideration fair value adjustments	3,317	0.10	2,114	0.06
Non-cash interest expense	1,320	0.04		
Non-GAAP adjusted net income	$ 12,550	$ 0.37	$ 11,194	$ 0.33

Note that earnings per share amounts may not add due to rounding.

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Adjusted EBITDA

Adjusted EBITDA is measured by taking net income as reported in accordance with GAAP, excluding investment income, interest expense, taxes, depreciation and amortization, and excluding acquisition costs and contingent consideration expenses booked through our consolidated statements of comprehensive income. The following is a reconciliation of net income in accordance with GAAP to adjusted EBITDA for the three- and nine-month periods ended September 30, 2016 and 2015 (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
GAAP net income	$ 1,155	$ 2,538	$ 6,651	$ 9,080
Non-GAAP EBITDA adjustments to net income:				
Investment income	(97)	(37)	(234)	(92)
Interest expense	1,555	8	2,198	24
Tax provision	1,059	1,141	3,474	3,149
Depreciation	824	758	2,360	2,251
Amortization	552	400	1,484	1,199
EBITDA	5,048	4,808	15,933	15,611
Other non-GAAP adjustments:				
Acquisition costs	144		1,262	
Contingent consideration fair value adjustments	675	233	3,317	2,114
Adjusted EBITDA	$ 5,867	$ 5,041	$ 20,512	$ 17,725

Liquidity and capital resources

We have financed our operations primarily through revenues derived from product sales, and research grants, proceeds and royalties from license arrangements, a litigation settlement, sales of equity securities and issuance of debt. Our revenue for the foreseeable future will primarily be limited to our bioprocessing product revenue.

At September 30, 2016, we had cash and marketable securities of $178,711,000 compared to $73,407,000 at December 31, 2015. A deposit for leased office space of $450,000 is classified as restricted cash and is not included in cash and marketable securities totals as of September 30, 2016 and December 31, 2015.

On April 1, 2016, pursuant to the terms of a Share Purchase Agreement dated as of March 31, 2016, Repligen Sweden AB, our wholly-owned subsidiary, acquired Atoll from UV-Cap GmbH & Co. KG (the Seller). Under the terms of the Share Purchase Agreement, Repligen Sweden paid to the Seller in consideration for all of the equity interests in Atoll a purchase price of 7.8 million ($8.8 million) in cash (net of cash received) and 538,700 shares of our common stock. The Share Purchase Agreement includes a future contingent payment by Repligen Sweden to the Seller consisting of 1.0 million ($1.1 million) in cash if Atoll s revenue increases by a specified amount from calendar year 2015 to calendar year 2016.

On May 24, 2016, we received net proceeds of $111.1 million from the issuance of our 2.125% Convertible Senior Notes due 2021 (the Notes). The Notes bear interest at the rate of 2.125% per annum, payable semiannually in arrears

on June 1 and December 1 of each year, beginning on December 1, 2016.

The Notes will mature on June 1, 2021, unless earlier repurchased, redeemed or converted in accordance with their terms. Prior to March 1, 2021, the Notes will be convertible at the option of holders of the Notes only upon satisfaction of certain conditions and during certain periods, and thereafter, the Notes will be convertible at any time until the close of business on the second scheduled trading day immediately preceding the maturity date. Upon conversion, holders of the Notes will receive shares of the Company s common stock, cash or a combination thereof, at the Company s election.

The Company will not have the right to redeem the Notes prior to June 5, 2019, but may redeem the Notes, at its option, in whole or in part, on any business day on or after June 5, 2019 and prior to the maturity date if the last reported sale price of the Company s common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which the Company provides written notice of redemption. The redemption price will be equal to 100% of the principal amount of the principal amount of Notes to be redeemed plus accrued and unpaid interest to, but excluding, the redemption date.

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Operating activities

For the nine-month period ended September 30, 2016, our operating activities provided cash of $5,567,000 reflecting net income of $6,651,000 and non-cash charges totaling $12,148,000 including depreciation, amortization, non-cash interest expense, stock-based compensation charges, deferred tax expenses and the revaluation of contingent consideration. An increase in accounts receivable consumed $3,270,000 of cash, and was primarily due to the timing of cash receipts from customers. An increase in inventories consumed $6,457,000 of cash to support future revenues. Decreases in accounts payable consumed $1,918,000 of cash, and were due primarily due to purchasing activity and timing of cash payments to vendors. Payments of accrued liabilities consumed $2,389,000 of cash, and was mainly due to the payment of contingent consideration to Refine related to 2015 sales milestones.

For the nine-month period ended September 30, 2015, our operating activities provided cash of $11,701,000, reflecting net income of $9,080,000 and non-cash charges totaling $8,461,000 mainly attributable to depreciation and amortization, stock-based compensation charges and the revaluation of contingent consideration. An increase in accounts receivable consumed $2,767,000 of cash, and was primarily due to a 38% increase in product revenues as well as timing of sales and payments from customers. Additionally, an increase in inventory consumed $4,051,000 of cash, and was due to increasing inventory levels to meet future production requirements. The remaining cash flow used in operations resulted from net favorable changes in various other working capital accounts.

Investing activities

We place our marketable security investments in high quality credit instruments as specified in our investment policy guidelines. Our investing activities consumed $13,878,000 for the nine-month period ended September 30, 2016. On April 1, 2016 we paid approximately $8.8 million as cash consideration for the acquisition of Atoll. Net purchases of marketable securities consumed $1,694,000 of cash, and fixed asset additions consumed $3,462,000 of cash in the nine-month period ended September 30, 2016. Our investing activities provided $2,119,000 for the nine-month period ended September 30, 2015 due to net redemptions of marketable securities of $4,174,000 offset by $2,055,000 used for fixed asset additions.

Financing activities

For the nine-month period ended September 30, 2016 and 2015, our financing activities provided cash of $112,202,000 and $828,000, respectively. In May 2016, we received net proceeds of $111,100,000 from the issuance of the Notes. For the nine-month period ended September 30, 2016, proceeds from exercises of $1,630,000 were partially offset by contingent consideration payments of $498,000 which stemmed from the initial valuation of the likelihood that the 2015 ATF sales milestone would be achieved. For the nine-month period ended September 30, 2015, proceeds from exercises of $927,000 were partially offset by contingent consideration payments of $99,000 which stemmed from the initial valuation of the likelihood that the 2014 ATF sales milestone would be achieved.

We do not currently use derivative financial instruments.

Working capital increased by approximately $115,170,000 to $199,641,000 at September 30, 2016 from $84,471,000 at December 31, 2015 due to the issuance of the Notes and the various changes noted above.

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

the expansion of our bioprocessing business;

the ability to sustain sales and profits of our bioprocessing products;

market acceptance of our new products;

our ability to acquire additional bioprocessing products;

the resources required to successfully integrate the acquisitions of Refine and Atoll and recognize expected synergies;

our identification and execution of strategic acquisitions or business combinations;

the scope of and progress made in our research and development activities;

the extent of any share repurchase activity; and

the success of any proposed financing efforts.

Absent acquisitions of additional products, product candidates or intellectual property, we believe our current cash balances are adequate to meet our cash needs for the foreseeable future. We expect operating expenses in the year ending December 31, 2016 to increase as we continue to expand our bioprocessing business. We expect to incur continued spending related to the development and

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expansion of our bioprocessing product lines and expansion of our commercial capabilities for the foreseeable future. Our future capital requirements may include, but are not limited to, purchases of property, plant and equipment, the acquisition of additional bioprocessing products and technologies to complement our existing manufacturing capabilities, and continued investment in our intellectual property portfolio.

We plan to continue to invest in our bioprocessing business and in key research and development activities associated with the development of new bioprocessing products. We actively evaluate various strategic transactions on an ongoing basis, including monetizing existing assets and licensing or acquiring complementary products, technologies or businesses that would complement our existing portfolio of development programs. We continue to seek to acquire such potential assets that may offer us the best opportunity to create value for our shareholders. In order to acquire such assets, we may need to seek additional financing to fund these investments. This may require the issuance or sale of additional equity or debt securities. The sale of additional equity may result in additional dilution to our stockholders. Should we need to secure additional financing to acquire a product, fund future investment in research and development, or meet our future liquidity requirements, we may not be able to secure such financing, or obtain such financing on favorable terms because of the volatile nature of the biotechnology marketplace.

Off-Balance Sheet Arrangements

We do not have any special purpose entities or off-balance sheet financing arrangements as of September 30, 2016.

Contractual Obligations

As of September 30, 2016, we had the following fixed obligations and commitments:

		Payments Due by Period			
(In thousands)	**Total**	**Less than 1 Year**	**1 - 3 Years**	**3 - 5 Years**	**More than 5 Years**
Operating lease obligations	$ 14,344	$ 2,429	$ 4,820	$ 4,820	$ 2,275
Purchase obligations (1)	8,785	8,785			
Contingent consideration (2)	6,261	6,261			
Total	$ 29,390	$ 17,475	$ 4,820	$ 4,820	$ 2,275

(1) Primarily represents purchase orders for the procurement of raw material for manufacturing.
(2) Represents the current estimated fair value of contingent consideration amounts relating to the Refine and Atoll acquisitions. These amounts are recorded in accrued expenses on our consolidated balance sheets.

Cautionary Statement Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements which are made pursuant to the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act). The forward-looking statements in this Quarterly Report on Form 10-Q do not constitute guarantees of future performance. Investors are cautioned that statements in this Quarterly Report on Form 10-Q which are not strictly historical statements, including, without limitation, express or implied statements or guidance regarding current or future financial performance and position, potential impairment of future earnings,

management s strategy, plans and objectives for future operations or acquisitions, product development and sales, litigation strategy, product candidate research, development and regulatory approval, selling, general and administrative expenditures, intellectual property, development and manufacturing plans, availability of materials and product and adequacy of capital resources and financing plans constitute forward-looking statements. Such forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated, including, without limitation, risks associated with: the success of current and future collaborative or supply relationships, including our agreements with BioMarin, General Electric and MilliporeSigma, our ability to successfully grow our bioprocessing business, including as a result of acquisition, commercialization or partnership opportunities, and our ability to develop and commercialize products, our ability to obtain required regulatory approvals, our compliance with all Food and Drug Administration regulations, our ability to obtain, maintain and protect intellectual property rights for our products, the risk of litigation regarding our patent and other intellectual property rights, the risk of litigation with collaborative partners, our limited sales and marketing experience and capabilities, our limited manufacturing capabilities and our dependence on third-party manufacturers and value-added resellers, our ability to hire and retain skilled personnel, the market acceptance of our products, reduced demand for our products that adversely impacts our future revenues, cash flows, results of operations and financial condition, our ability to compete with larger, better financed life sciences companies, our history of losses and expectation of incurring losses, our ability to generate future revenues, our ability to successfully integrate Refine and Atoll, our ability to raise additional capital to fund potential acquisitions, our volatile stock price, and the effects of our anti-takeover provisions. Further information on potential risk factors that could affect our financial results are included in the filings made by us from time to time with the Securities and Exchange Commission including under the section entitled Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2015 and in this Quarterly Report on Form 10-Q.

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ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest rate risk

We have investments in commercial paper, U.S. Government and agency securities as well as corporate bonds and other debt securities. As a result, we are exposed to potential loss from market risks that may occur as a result of changes in interest rates, changes in credit quality of the issuer or otherwise.

We generally place our marketable security investments in high quality credit instruments, as specified in our investment policy guidelines. A hypothetical 100 basis point increase in interest rates would result in an approximate $106,000 decrease in the fair value of our investments as of September 30, 2016. We believe, however, that the conservative nature of our investments mitigates our interest rate exposure, and our investment policy limits the amount of our credit exposure to any one issuer, (with the exception of U.S. agency obligations) and type of instrument. We do not expect any material loss from our marketable security investments and therefore believe that our potential interest rate exposure is limited.

Foreign exchange risk

The reporting currency of the Company is U.S. dollars. Transactions by Repligen Sweden, a wholly-owned subsidiary, may be denominated in Swedish kronor, British pound sterling, U.S. dollars, or Euros while the entity s functional currency is the Swedish krona. Transactions by Atoll, a wholly-owned subsidiary acquired by the Company on April 1, 2016, may be denominated in U.S. dollars or Euros while the entity s functional currency is the Euro. Certain sales transactions made by the U.S. entity related to ATF system products are denominated in foreign currencies. Exchange gains or losses resulting from the translation between the transactional currency and the functional currency are included in net income (loss). Fluctuations in exchange rates may adversely affect our results of operations, financial position and cash flows. We currently do not seek to hedge this exposure to fluctuations in exchange rates.

ITEM 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The Company s management, with the participation of the principal executive officer and the principal financial officer, has evaluated the effectiveness of the Company s disclosure controls and procedures (as defined in Rules 13a-15(e) or 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act)) as of the end of the period covered by this report. Based on such evaluation, the principal executive officer and principal financial officer have concluded that, as of the end of such period, the Company s disclosure controls and procedures were effective in ensuring that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, on a timely basis, and is accumulated and communicated to the Company s management, including the Company s principal executive officer and the Company s principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control

We acquired Atoll in the second quarter of 2016. The financial results of Atoll are included in our unaudited condensed consolidated financial statements as of September 30, 2016 and for the quarter then ended. The Atoll business represented approximately 10% of our total assets as of September 30, 2016 and approximately $1.04 million and $45,000 of revenue and net income, respectively, for the quarter then ended. As this acquisition occurred in the

second quarter of 2016, the scope of our assessment of our internal control over financial reporting does not include Atoll. This exclusion is in accordance with the SEC s general guidance that an assessment of a recently acquired business may be omitted from our scope in the year of acquisition.

Other than the change noted above, there was no change in the Company s internal control over financial reporting that occurred during the period covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, the Company s internal control over financial reporting.

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PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

From time to time, we may be subject to legal proceedings and claims in the ordinary course of business. We are not currently aware of any such proceedings or claims that we believe will have, individually or in the aggregate, a material adverse effect on our business, financial condition or results of operations.

ITEM 1A. RISK FACTORS

The matters discussed in this Form 10-Q include forward-looking statements that involve risks or uncertainties. These statements are neither promises nor guarantees, but are based on various assumptions by management regarding future circumstances, over many of which Repligen has little or no control. A number of important risks and uncertainties, including those identified under the caption Risk Factors in Item 1A in our Annual Report on Form 10-K for the year ended December 31, 2015 and subsequent filings as well as risks and uncertainties discussed elsewhere in this Form 10-Q, could cause our actual results to differ materially from those in the forward-looking statements. There are no material changes to the Risk Factors described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, in our Quarterly Report on Form 10-Q for the three-month period ended March 31, 2016, and in our Quarterly Report on Form 10-Q for the three- and six-month periods ended June 30, 2016, other than as set forth below.

Future strategic transactions or acquisitions may require us to seek additional financing, which we may not be able to secure on favorable terms, if at all.

We plan to continue a strategy of growth and development for our bioprocessing business, and we actively evaluate various strategic transactions on an ongoing basis, including licensing or acquiring complementary products, technologies or businesses that would complement our existing portfolio of development programs. In order to complete such strategic transactions, we may need to seek additional financing to fund these investments and acquisitions. Should we need to do so, we may not be able to secure such financing, or obtain such financing on favorable terms because of the volatile nature of the biotechnology marketplace. In addition, future acquisitions may require the issuance or sale of additional equity or debt securities, which may result in additional dilution to our stockholders.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

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ITEM 6. EXHIBITS
(a) Exhibits

Exhibit Number	Document Description
3.1	Restated Certificate of Incorporation, dated June 30, 1992 and amended September 17, 1999 (filed as Exhibit 3.1 to Repligen Corporation s Quarterly Report on Form 10-Q for the quarter ended September 30, 1999 and incorporated herein by reference).
3.2	Amended and Restated By-Laws (filed as Exhibit 3.2 to Repligen Corporation s Quarterly Report on Form 10-Q for the quarter ended September 30, 2003 and incorporated herein by reference).
3.3	Amendment No. 1 to the Amended and Restated By-Laws (filed as Exhibit 3.1 to Repligen Corporation s Current Report on Form 8-K filed on December 20, 2011 and incorporated herein by reference).
3.4	Amendment No. 2 to the Amended and Restated By-Laws (filed as Exhibit 3.1 to Repligen Corporation s Current Report on Form 8-K filed on May 25, 2012 and incorporated herein by reference).
3.5	Certificate of Amendment to the Certificate of Incorporation of Repligen Corporation, effective as of May 16, 2014 (filed as Exhibit 3.1 to Repligen Corporation s Current Report on Form 8-K filed on May 19, 2014 and incorporated herein by reference).
10.1	Amended and Restated Transitional Services and Separation Agreement, dated August 31, 2016, by and between Repligen and James R. Rusche, Ph.D. (filed as Exhibit 10.1 to Repligen Corporations Current Report on Form 8-K filed on September 2, 2016).
31.1 +	Rule 13a-14(a)/15d-14(a) Certification.
31.2 +	Rule 13a-14(a)/15d-14(a) Certification.
32.1 *	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101+	The following materials from Repligen Corporation on Form 10-Q for the quarterly period ended September 30, 2016, formatted in Extensible Business Reporting Language (xBRL): (i) Condensed Consolidated Statements of Comprehensive Income (Loss), (ii) Condensed Consolidated Balance Sheets, (iii) Condensed Consolidated Statements of Cash Flows, and (iv) Notes to Condensed Consolidated Financial Statements, tagged as blocks of text.

\+ Filed herewith.
* Furnished herewith.

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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.

REPLIGEN CORPORATION

Date: November 3, 2016 By: /s/ TONY J. HUNT
Tony J. Hunt
President and Chief Executive Officer

(Principal executive officer)

Repligen Corporation

Date: November 3, 2016 By: /s/ JON SNODGRES
Jon Snodgres
Chief Financial Officer

(Principal financial officer)

Repligen Corporation