UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

X Quarterly report pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934 For the quarterly period ended September 30, 2013

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: 0-27756

ALEXION PHARMACEUTICALS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

13-3648318

(I.R.S. Employer Identification No.)

352 Knotter Drive, Cheshire Connecticut 06410 (Address of Principal Executive Offices) (Zip Code)

203-272-2596

(Registrant's telephone number, including area code)

N/A

(Former name, former address, and former fiscal year, if changed since last report)

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 x No \Box

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 x 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 x Accelerated filer \Box Non-accelerated filer \Box (Do not check if a smaller reporting company) Smaller reporting company \Box

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

Common Stock, \$0.0001 par value

<u>196,074,387</u>

Class

Outstanding as of October 23, 2013

Alexion Pharmaceuticals, Inc.

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Assets Current Assets: Cash and cash equivalents Marketable securities		2013		2012
Cash and cash equivalents Marketable securities				
Marketable securities				
	\$	910,411	\$	989,501
		392,344		
Trade accounts receivable, net		404,956		295,598
Inventories		105,196		94,521
Deferred tax assets		23,820		26,086
Prepaid expenses and other current assets		78,775		89,894
Total current assets		1,915,502		1,495,600
Property, plant and equipment, net		178,842		165,629
Intangible assets, net		646,138		646,678
Goodwill		254,073		253,645
Deferred tax assets		9,743		13,954
Other assets		45,497		38,054
Total assets	\$	3,049,795	\$	2,613,560
Liabilities and Stockholders' Equity				
Current Liabilities:				
Accounts payable	\$	24,416	\$	21,488
Accrued expenses	•	255,784		249,787
Deferred revenue		54,371		31,266
Current portion of long-term debt		48,000		48,000
Other current liabilities		12,885		9,548
Total current liabilities		395,456		360,089
Long-term debt, less current portion		77,000		101,000
Contingent consideration		144,621		139,002
Deferred tax liabilities		13,607		19,827
Facility lease obligation		12,251		
Other liabilities		52,094		22,792
Total liabilities		695,029	·	642,710
Commitments and contingencies (Note 15)				
Stockholders' Equity:				
Preferred stock, \$0.0001 par value; 5,000 shares authorized, no shares issued or outstanding				
Common stock, \$0.0001 par value; 290,000 shares authorized; 197,018 and 194,918 shares issued at September 30, 2013 and December 31, 2012, respectively		20		20
Additional paid-in capital		2,049,244		1,852,221
Treasury stock, at cost, 985 and 227 shares at September 30, 2013 and December 31, 2012, respectively		(80,365)		(14,229)
Accumulated other comprehensive income (loss)		(12,223)		6,635
Retained earnings		398,090		126,203
Total stockholders' equity		2,354,766		1,970,850
Total liabilities and stockholders' equity	\$	3,049,795	\$	2,613,560

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

Alexion Pharmaceuticals, Inc. Condensed Consolidated Statements of Operations (unaudited) (amounts in thousands, except per share amounts)

	Three months ended September 30,			Nine months ended Sep			ptember 30,	
		2013		2012		2013		2012
Net product sales	\$	400,405	\$	294,136	\$	1,109,437	\$	813,588
Cost of sales:								
Cost of sales		42,177		33,186		116,823		93,067
Change in contingent liability from intellectual property settlements		9,181		(53,377)		9,181		(53,377)
Total cost of sales		51,358		(20,191)		126,004		39,690
Operating expenses:								
Research and development		88,209		54,280		231,308		159,323
Selling, general and administrative		122,886		89,957		354,901		272,054
Acquisition-related costs		2,573		967		6,974		19,447
Impairment of intangible asset		—		26,300				26,300
Amortization of purchased intangible assets		104		104		312		312
Total operating expenses		213,772		171,608		593,495		477,436
Operating income		135,275		142,719		389,938		296,462
Other income and expense:								
Investment income		638		317		1,793		872
Interest expense		(1,078)		(1,855)		(3,305)		(6,220)
Foreign currency loss		(547)		(416)		(134)		(817)
Income before income taxes		134,288		140,765		388,292		290,297
Income tax provision		40,503		48,586		116,405		116,446
Net income	\$	93,785	\$	92,179	\$	271,887	\$	173,851
Earnings per common share								
Basic	\$	0.48	\$	0.48	\$	1.40	\$	0.92
Diluted	\$	0.47	\$	0.46	\$	1.37	\$	0.88
Shares used in computing earnings per common share	_							
Basic		195,662		193,353		194,520		189,219
Diluted		199,711	_	201,142	-	198,655		197,635

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

Alexion Pharmaceuticals, Inc. Condensed Consolidated Statements of Comprehensive Income (unaudited) (amounts in thousands)

	Three months ended September 30,			Nine months ende			ptember 30,	
		2013 2012		2013			2012	
Net income	\$	93,785	\$	92,179	\$	271,887	\$	173,851
Other comprehensive income (loss), net of tax:								
Foreign currency translation		986		984		(543)		241
Unrealized gains (losses) on marketable securities, net of tax of \$136, \$0, \$(9) and \$0, respectively		210				(17)		_
Unrealized losses on pension obligation, net of tax of \$0, \$0, \$(165) and \$(49), respectively		_				(2,682)		(801)
Unrealized losses on hedging activities, net of tax of \$(2,982), \$(950), \$(1,059) and \$(46), respectively		(32,945)		(15,181)		(15,616)		(1,274)
Other comprehensive loss, net of tax		(31,749)		(14,197)		(18,858)		(1,834)
Comprehensive income	\$	62,036	\$	77,982	\$	253,029	\$	172,017

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

Alexion Pharmaceuticals, Inc. Condensed Consolidated Statements of Cash Flows (unaudited) (amounts in thousands)

Cash flows from operating activities:	 2013	0010
Cash flows from operating activities:		 2012
Net income	\$ 271,887	\$ 173,851
Adjustments to reconcile net income to net cash flows from operating activities:		
Depreciation and amortization	20,239	17,613
Impairment of intangible asset	—	26,300
Change in fair value of contingent consideration	5,951	4,333
Share-based compensation expense	56,409	40,322
Premium amortization of available-for-sale securities	579	
Deferred taxes	17,036	57,674
Unrealized foreign currency gain	(3,426)	(5,405
Gains on forward contracts	(1,571)	(202)
Other	177	18
Changes in operating assets and liabilities, excluding the effect of acquisitions:		
Accounts receivable	(98,432)	(65,299)
Inventories	(4,992)	(3,467)
Prepaid expenses and other assets	(3,629)	(17,065
Accounts payable, accrued expenses and other liabilities	3,952	59,945
Deferred revenue	 24,288	 17,038
Net cash provided by operating activities	 288,468	 305,656
Cash flows from investing activities:		
Purchases of available-for-sale securities	(420,515)	—
Proceeds from maturity or sale of available-for-sale securities	27,951	
Purchases of trading securities	(473)	—
Purchases of property, plant and equipment	(20,628)	(14,257)
Payments for acquisitions of businesses, net of cash acquired	—	(605,735
Increase in restricted cash	 (205)	(3)
Net cash used in investing activities	 (413,870)	(619,995
Cash flows from financing activities:		
Debt issuance costs	—	(6,184
Proceeds from revolving credit facility	—	115,000
Payments on revolving credit facility	—	(115,000)
Proceeds from term loan	_	240,000
Payments on term loan	(24,000)	(79,000)
Excess tax benefit from stock options	95,832	7,582
Repurchase of common stock	(66,136)	_
Net proceeds from issuance of common stock	_	462,212
Net proceeds from the exercise of stock options	44,560	54,910
Payment of contingent consideration	(3,000)	_
Other	(133)	(638)
Net cash provided by financing activities	 47,123	 678,882
Effect of exchange rate changes on cash	(811)	118
Net change in cash and cash equivalents	(79,090)	364,661
Cash and cash equivalents at beginning of period	989,501	540,865
Cash and cash equivalents at end of period	\$ 910,411	\$ 905,526
Supplemental cash flow disclosures from investing and financing activities:		
		\$ 117,000
Contingent consideration issued in acquisitions	\$	

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

1. Business

Alexion Pharmaceuticals, Inc. (Alexion, the Company, we, our or us) is a biopharmaceutical company focused on serving patients with severe and ultrarare disorders through the innovation, development and commercialization of life-transforming therapeutic products. Our marketed product Soliris is the first and only therapeutic approved for patients with either of two severe and ultra-rare disorders resulting from chronic uncontrolled activation of the complement component of the immune system: paroxysmal nocturnal hemoglobinuria (PNH), a life-threatening and ultra-rare genetic blood disorder, and atypical hemolytic uremic syndrome (aHUS), a life-threatening and ultra-rare genetic disease. We are also evaluating additional potential indications for Soliris in other severe and ultra-rare diseases in which uncontrolled complement activation is the underlying mechanism, and we are progressing in various stages of development with additional product candidates as potential treatments for patients with severe and life-threatening ultra-rare disorders. We were incorporated in 1992 and began commercial sale of Soliris in 2007.

2. Basis of Presentation and Principles of Consolidation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States for complete financial statements. These accounting principles were applied on a basis consistent with those of the consolidated financial statements contained in our Annual Report on Form 10-K for the year ended December 31, 2012. In our opinion, the accompanying unaudited consolidated financial statements include all adjustments, consisting of normal recurring accruals, necessary for a fair presentation of our financial statements for interim periods in accordance with accounting principles generally accepted in the United States. The condensed consolidated balance sheet data as of December 31, 2012 was derived from audited financial statements but does not include all disclosures required by accounting principles generally accepted in the United States. These interim financial statements for the year ended December 31, 2012 was derived from audited financial statements should be read in conjunction with the audited financial statements for the year ended December 31, 2012 included in our Annual Report on Form 10-K. The results of operations for the three and nine months ended September 30, 2013 are not necessarily indicative of the results to be expected for the full year.

The financial statements of our subsidiaries with functional currencies other than the U.S. dollar are translated into U.S. dollars using period-end exchange rates for assets and liabilities, historical exchange rates for stockholders' equity and weighted average exchange rates for operating results. Translation gains and losses are included in accumulated other comprehensive income (loss), net of tax, in stockholders' equity. Foreign currency transaction gains and losses are included in the results of operations in other income and expense.

The accompanying unaudited condensed consolidated financial statements include the accounts of Alexion Pharmaceuticals, Inc. and its subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Our significant accounting policies are described in Note 1 of the Notes to the Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2012.

New Accounting Pronouncements

In January 2013, the Financial Accounting Standards Board issued an update to clarify the scope of disclosures for offsetting assets and liabilities. The standard is effective for interim and annual periods beginning on or after January 1, 2013 and requires disclosure for all comparative periods. We adopted the provisions of this guidance in 2013.

In February 2013, the Financial Accounting Standards Board issued a new standard to improve the reporting of reclassifications out of accumulated other comprehensive income (AOCI). The new standard requires the disclosure of significant amounts reclassified from each component of AOCI and the income statement line items affected by the reclassification. The standard is effective prospectively for interim and annual periods beginning after December 15, 2012. We adopted the provisions of this guidance, and included the additional disclosure requirements, in the first quarter of 2013.

3. Inventories

Inventories are stated at the lower of cost or estimated realizable value. We determine the cost of inventory using the weighted-average cost method.

The components of inventory are as follows:

	Sep	tember 30,		December 31,
	2013			2012
Raw materials	\$	12,970	\$	6,485
Work-in-process		61,415		43,899
Finished goods		30,811		44,137
	\$	105,196	\$	94,521

4. Intangible Assets and Goodwill

The following table summarizes the carrying amount of our intangible assets and goodwill, net of accumulated amortization:

	Se	ptember 30, 2013	Dece	mber 31, 2012
Licenses, patents and purchased technology, net	\$	17,888	\$	18,428
Acquired in-process research and development		628,250		628,250
Intangible assets	\$	646,138	\$	646,678
Goodwill	\$	254,073	\$	253,645

The following table summarizes the changes in the carrying amount of goodwill:

Balance at December 31, 2012	\$ 253,645
Change in goodwill associated with prior acquisition	428
Balance at September 30, 2013	\$ 254,073

5. Debt

On February 7, 2012, we and our wholly-owned Swiss subsidiary, Alexion Pharma International Sàrl, entered into a credit agreement with a syndicate of banks that provides for a \$240,000 senior secured term loan facility payable in equal quarterly installments of \$12,000 starting June 30, 2012 and a \$200,000 senior secured revolving credit facility through February 7, 2017. In addition to borrowings upon prior notice, the revolving credit facility includes borrowing capacity in the form of letters of credit up to \$60,000 and borrowings on same-day notice, referred to as swingline loans, of up to \$10,000. Borrowings can be used for working capital requirements, acquisitions and other general corporate purposes. With the consent of the lenders and the administrative agent and subject to satisfaction of certain conditions, we may increase the term loan facility and/or the revolving credit facility by an aggregate amount not to exceed \$150,000.

As of September 30, 2013, we had \$125,000 outstanding on the term loan. As of September 30, 2013, we had open letters of credit of \$15,085, and our borrowing availability under the revolving facility was \$184,915.

The fair value of our long term debt, which is measured using Level 2 inputs, approximates book value.

6. Earnings Per Common Share

Basic earnings per common share (EPS) is computed by dividing net income by the weighted-average number of shares of common stock outstanding. For purposes of calculating diluted EPS, the denominator reflects the potential dilution that could occur if stock options, unvested restricted stock, unvested restricted stock units or other contracts to issue common stock were exercised or converted into common stock, using the treasury stock method.

The following table summarizes the calculation of basic and diluted EPS for the three and nine months ended September 30, 2013 and 2012:

	Three months ended September 30,			Nine months ended				
				September 30,			0,	
		2013		2012		2013		2012
Net income used for basic and diluted calculation	\$	93,785	\$	92,179	\$	271,887	\$	173,851
Shares used in computing earnings per common share—basic		195,662		193,353		194,520		189,219
Weighted-average effect of dilutive securities:								
Shares issuable upon the assumed conversion of our 1.375% convertible senior								
notes		—		—		—		11
Stock awards		4,049		7,789		4,135		8,405
Dilutive potential common shares		4,049		7,789		4,135		8,416
Shares used in computing earnings per common share—diluted		199,711		201,142		198,655		197,635
Earnings per common share:								
Basic	\$	0.48	\$	0.48	\$	1.40	\$	0.92
Diluted	\$	0.47	\$	0.46	\$	1.37	\$	0.88

The following table represents the potentially dilutive shares excluded from the calculation of EPS for the three and nine months ended September 30, 2013, and 2012 because their effect is anti-dilutive:

	Three month	is ended	Nine month	is ended	
	Septembe	er 30,	September 30,		
	2013	2012	2013	2012	
Potentially dilutive securities:					
Options to purchase common stock	2,002	226	2,281	1,561	
Unvested restricted stock and restricted stock units	13	—	19	44	
	2,015	226	2,300	1,605	

7. Marketable Securities

We invest our excess cash balances in marketable securities of highly rated financial institutions and investment-grade debt instruments. We seek to diversify our investments and limit the amount of investment concentrations for individual institutions, maturities and investment types. We classify these marketable securities as available-for-sale and, accordingly, record such securities at fair value. We classify these marketable securities as current assets as these investments are intended to be available to the Company for use in funding current operations.

We offer a nonqualified deferred compensation plan which allows participants to elect to defer income to future periods. Participants in the plan earn a return on their deferrals based on several investments options, which mirror returns on underlying mutual fund investments. We choose to invest in the underlying mutual fund investments to offset the liability associated with our nonqualified deferred compensation plan. These securities are classified as trading securities and are carried at fair value with gains and losses included in investment income. The changes in the underlying liability to the employee are recorded in operating expenses.

We held no marketable securities as of December 31, 2012. The amortized cost, gross unrealized holding gains, gross unrealized holding losses and estimated fair value of available-for-sale investments by type of security at September 30, 2013 were as follows:

	Am	nortized Cost	Gross Unrealized Hold Gains	ing	Gross Unrealized Holding Losses	Estimated Fair Value
Commercial paper	\$	51,914	\$ -	_ :	\$ —	\$ 51,914
Corporate bonds		180,322	17	75	(162)	180,335
Municipal bonds		17,211		2	(1)	17,212
U.S. Treasury securities		4,999		1	—	5,000
Other government-related obligations:						
U.S.		48,168	3	33	(39)	48,162
Foreign		106,875	2	42	(77)	106,840
Bank certificates of deposit		3,000	-	_	—	3,000
	\$	412,489	\$ 25	53 5	\$ (279)	\$ 412,463

Unrealized gains and losses that are deemed temporary are included in accumulated other comprehensive income (loss) as a separate component of stockholders' equity. If any adjustment to fair value reflects a significant decline in the value of the security, we evaluate the extent to which the decline is determined to be other-than-temporary and would mark the security to market through a charge to our condensed consolidated statement of operations. Credit losses are identified when we do not expect to receive cash flows sufficient to recover the amount associated with the credit loss is recognized in operating results, with the amount of loss relating to other factors recorded in accumulated other comprehensive income (loss).

The aggregate fair value of available-for-sale securities in an unrealized loss position as of September 30, 2013 was \$171,357. These investments have been in a continuous unrealized loss position for less than 12 months. As of September 30, 2013, we believe that the cost basis of our available-for-sale investments is recoverable.

The fair values of available-for-sale securities by classification in the condensed consolidated balance sheet were as follows:

	Sept	ember 30, 2013
Cash and cash equivalents	\$	20,599
Marketable securities		391,864
	\$	412,463

The fair values of available-for-sale debt securities at September 30, 2013, by contractual maturity, are summarized as follows:

	Sej	ptember 30, 2013
Due in one year or less	\$	133,611
Due after one year through three years		278,852
Due after three years through five years		
	\$	412,463

As of September 30, 2013, the fair value of our trading securities was \$480.

We utilize the specific identification method in computing realized gains and losses. Realized gains and losses on our trading securities and availablefor-sale investments were not material for the three and nine months ended September 30, 2013.

8. Derivative Instruments and Hedging Activities

We operate internationally and, in the normal course of business, are exposed to fluctuations in foreign currency exchange rates. The exposures result from portions of our revenues, as well as the related receivables, and expenses that are denominated in currencies other than the U.S. dollar, primarily the Euro, Japanese Yen, British Pound and Swiss Franc. We manage our foreign currency transaction risk within specified guidelines through the use of derivatives. All of our derivative instruments are utilized for risk management purposes, and we do not use derivatives for speculative trading purposes.

We enter into foreign exchange forward contracts, with durations of up to 36 months, to hedge exposures resulting from portions of our forecasted intercompany revenues that are denominated in currencies other than the U.S. dollar. The purpose of the hedges of intercompany revenue is to reduce the volatility of exchange rate fluctuations on our operating results and to increase the visibility of the foreign exchange impact on forecasted revenues. These hedges are designated as cash flow hedges upon contract inception. At September 30, 2013, we had open contracts with notional amounts totaling \$999,559 that qualified for hedge accounting.

The impact on AOCI and earnings from foreign exchange contracts that qualified as cash flow hedges, for the three and nine months ended September 30, 2013 and 2012 were as follows:

	Three mo	nths	ended		nded		
	 September 30,				Septer	nber 3	10,
	2013		2012		2013		2012
Gain (loss) recognized in AOCI, net of tax	\$ (28,523)	\$	(11,238)	\$	1,011	\$	6,321
Gain reclassified from AOCI to net product sales (effective portion), net of tax	\$ 5,225	\$	4,401	\$	16,803	\$	8,130
Loss reclassified from AOCI to other income and expense (ineffective portion), net of tax	\$ (803)	\$	(458)	\$	(176)	\$	(535)

Assuming no change in foreign exchange rates from market rates at September 30, 2013, \$3,901 of gains recognized in AOCI will be reclassified to revenue over the next 12 months.

We enter into foreign exchange forward contracts, with durations of approximately 30 days, designed to limit the balance sheet exposure of monetary assets and liabilities. We enter into these hedges to reduce the impact of fluctuating exchange rates on our operating results. Hedge accounting is not applied to these derivative instruments as gains and losses on these hedge transactions are designed to offset gains and losses on underlying balance sheet exposures. As of September 30, 2013, the notional amount of foreign exchange contracts where hedge accounting is not applied was \$151,458.

We recognized a gain (loss) of \$(2,640) and \$(3,470), in other income and expense, for the three months ended September 30, 2013 and 2012, respectively, and \$6,146 and \$787, for the nine months ended September 30, 2013 and 2012, respectively, associated with the foreign exchange contracts not designated as hedging instruments. These amounts were largely offset by gains or losses in monetary assets and liabilities.

The following tables summarize the fair value of outstanding derivatives at September 30, 2013 and December 31, 2012:

			Septemb	er 30, 2013					
	Asset Deriv	atives		Liability Derivatives					
	Balance Sheet Location		Fair Value	Balance Sheet Location		Fair Value			
Derivatives designated as hedging instruments:									
Foreign exchange forward contracts	Other current assets	\$	19,164	Other current liabilities	\$	12,538			
Foreign exchange forward contracts	Other non-current assets		7,559	Other non-current liabilities		12,110			
Derivatives not designated as hedging instruments:									
Foreign exchange forward contracts	Other current assets		—	Other current liabilities					
Total fair value of derivative instruments		\$	26,723		\$	24,648			

	December 31, 2012									
	Asset Deriva	Asset Derivatives Liability Derivatives								
	Balance Sheet Location		Fair Value	Balance Sheet Location		Fair Value				
Derivatives designated as hedging instruments:										
Foreign exchange forward contracts	Other current assets	\$	15,617	Other current liabilities	\$	3,529				
Foreign exchange forward contracts	Other non-current assets		9,378	Other non-current liabilities		4,521				
Derivatives not designated as hedging instruments:										
Foreign exchange forward contracts	Other current assets		2,245	Other current liabilities		2,010				
Total fair value of derivative instruments		\$	27,240		\$	10,060				

Although we do not offset derivative assets and liabilities within our condensed consolidated balance sheets, our International Swap and Derivatives Association (ISDA) agreements provide for net settlement of transactions that are due to or from the same counterparty upon early termination of the agreement due to an event of default or other termination event. The following table summarizes the potential effect on our condensed consolidated balance sheets of offsetting our foreign exchange forward contracts subject to such provisions:

					Septe	ember 30, 2013				
							G	ross Amounts Not C Consolidated		
Description	F	s Amounts of ecognized ets/Liabilities	in	s Amounts Offse the Condensed olidated Balance Sheet	t	Amounts of Assets/Liabilities Presented in the Condensed onsolidated Balance Sheet	De	rivative Financial Instruments	sh Collateral ived (Pledged)	Net Amount
Derivative assets	\$	26,723	\$		\$	26,723	\$	(19,710)	\$ 	\$ 7,013
Derivative liabilities		(24,648)				(24,648)		19,710		(4,938)

					Decen	nber 31, 2012				
							G	Fross Amounts Not O Consolidated		
Description	1	ss Amounts of Recognized sets/Liabilities	in t	Amounts Offset he Condensed blidated Balance Sheet	P	Amounts of assets/Liabilities Presented in the Condensed asolidated Balance Sheet	De	erivative Financial Instruments	sh Collateral ived (Pledged)	Net Amount
Derivative assets	\$	27,240	\$		\$	27,240	\$	(10,060)	\$ 	\$ 17,180
Derivative liabilities		(10,060)		—		(10,060)		10,060	—	_

9. Stockholders' Equity

In November 2012, our Board of Directors authorized the repurchase of up to \$400,000 of our common stock. This repurchase program does not have an expiration date, and we are not obligated to acquire a particular number of shares. The program may be discontinued at any time at our discretion. Under the program, we repurchased 758 shares of our common stock at a cost of \$66,136 during the nine months ended September 30, 2013. As of September 30, 2013, there is a total of \$322,311 remaining for repurchases under the program.

10. Other Comprehensive Income and Accumulated Other Comprehensive Income

Other comprehensive income includes changes in equity that are excluded from net income, such as changes in pension liabilities, unrealized gains and losses on marketable securities, unrealized gains and losses on hedge contracts and foreign currency translation adjustments. Certain of these changes in equity are reflected net of tax.

The following tables summarize the changes in AOCI, by component, for the nine months ended September 30, 2013 and 2012:

	_	efined Benefit Pension Plans	(Losses)	alized Gains from Hedging activities	Fo	oreign Currency Translation Adjustment	 otal Accumulated her Comprehensive Income (Loss)	
Balances, December 31, 2012	\$	(5,712)	\$ —	\$	15,156	\$	(2,809)	\$ 6,635
Other comprehensive income before reclassifications		(2,967)	(76)		1,011		(543)	(2,575)
Amounts reclassified from other comprehensive income		285	59		(16,627)		_	(16,283)
Net other comprehensive loss		(2,682)	(17)		(15,616)		(543)	(18,858)
Balances, September 30, 2013	\$	(8,394)	\$ (17)	\$	(460)	\$	(3,352)	\$ (12,223)

	Defined Benefit Pension Plans	Unrealized Gains (Losses) from Hedging Activities	Foreign Currency Translation Adjustment	Total Accumulated Other Comprehensive Income (Loss)
Balances, December 31, 2011	\$ (4,183)	\$ 11,321	\$ (2,959)	\$ 4,179
Other comprehensive income before reclassifications	(1,006)	6,321	241	5,556
Amounts reclassified from other comprehensive income	205	(7,595)		(7,390)
Net other comprehensive income (loss)	(801)	(1,274)	241	(1,834)
Balances, September 30, 2012	\$ (4,984)	\$ 10,047	\$ (2,718)	\$ 2,345

The table below provides details regarding significant reclassifications from AOCI during the three and nine months ended September 30, 2013 and 2012:

Details about Accumulated Other	Other	unt Reclassified From Comprehensive Inc ree months ended Se	come during the	Othe	r Comprehensiv ine months end	l From Accumulated ve Income during the ed September 30,	Affected Line Item in the Condensed
Comprehensive Income Components		2013	2012		2013	2012	Consolidated Statements of Operations
Unrealized Gains (Losses) on Hedging Activity							
Effective portion of foreign exchange contracts	\$	5,710 \$	4,810	\$	18,364	\$ 8,885	Net product sales
Ineffective portion of foreign exchange contracts		(878)	(501)		(192)	(585)	Foreign currency loss
		4,832	4,309		18,172	8,300	
		(410)	(366)		(1,545)	(705)	Income tax provision
	\$	4,422 \$	3,943	\$	16,627 \$	\$ 7,595	
Unrealized Gains (Losses) from Marketable Securities							
Realized gains (losses) on sale of securities	\$	(96) \$		\$	(94) \$	\$	Investment income
		(96)	_	-	(94)	_	
		36			35	_	Income tax provision
	\$	(60) \$	_	\$	(59) 5	\$	
Defined Benefit Pension Items							
Amortization of prior service costs							
and actuarial losses	\$	(104) \$	(73)	\$	(311) 5	\$ (224)	(a)
		(104)	(73)		(311)	(224)	
		9	6		26	19	Income tax provision
	\$	(95) \$	(67)	\$	(285) \$	\$ (205)	

(a) This AOCI component is included in the computation of net periodic pension benefit cost (see Note 13 for additional details).

11. Fair Value Measurement

Authoritative guidance establishes a valuation hierarchy for disclosure of the inputs to the valuation used to measure fair value. This hierarchy prioritizes the inputs into three broad levels as follows. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument. Level 3 inputs are unobservable inputs based on our own assumptions used to measure assets and liabilities at fair value.

The following tables present information about our assets and liabilities that are measured at fair value on a recurring basis as of September 30, 2013 and December 31, 2012, and indicate the fair value hierarchy of the valuation techniques we utilized to determine such fair value.

		Fair Value Measurement at September 30, 2013							
Balance Sheet Classification	Type of Instrument		Total		Level 1		Level 2		Level 3
Cash equivalents	Institutional money market funds	\$	717,980	\$	—	\$	717,980	\$	
Cash equivalents	Commercial paper	\$	19,999	\$	—	\$	19,999	\$	_
Cash equivalents	Other government-related obligations	\$	600	\$		\$	600	\$	
Marketable securities	Mutual funds	\$	480	\$	480	\$	—	\$	_
Marketable securities	Commercial paper	\$	31,915	\$		\$	31,915	\$	
Marketable securities	Corporate bonds	\$	180,335	\$		\$	180,335	\$	_
Marketable securities	Municipal bonds	\$	17,212	\$		\$	17,212	\$	
Marketable securities	U.S. Treasury securities	\$	5,000	\$	5,000	\$	—	\$	_
Marketable securities	Other government-related obligations	\$	154,402	\$		\$	154,402	\$	
Marketable securities	Bank certificates of deposit	\$	3,000	\$		\$	3,000	\$	_
Other current assets	Foreign exchange forward contracts	\$	19,164	\$		\$	19,164	\$	
Other assets	Foreign exchange forward contracts	\$	7,559	\$		\$	7,559	\$	_
Other current liabilities	Foreign exchange forward contracts	\$	12,538	\$		\$	12,538	\$	
Other liabilities	Foreign exchange forward contracts	\$	12,110	\$		\$	12,110	\$	_
Contingent consideration	Acquisition-related contingent consideration	\$	144,621	\$	—	\$	—	\$	144,621

		Fair Value Measurement at December 31, 2012								
Balance Sheet Classification	Type of Instrument		Total		Level 1		Level 2		Level 3	
Cash equivalents	Institutional money market funds	\$	803,550	\$	—	\$	803,550	\$	—	
Other current assets	Foreign exchange forward contracts	\$	17,862	\$	—	\$	17,862	\$	—	
Other assets	Foreign exchange forward contracts	\$	9,378	\$	—	\$	9,378	\$	—	
Other current liabilities	Foreign exchange forward contracts	\$	5,539	\$	—	\$	5,539	\$	—	
Other liabilities	Foreign exchange forward contracts	\$	4,521	\$	—	\$	4,521	\$	—	
Other current liabilities	Acquisition-related contingent consideration	\$	2,668	\$		\$		\$	2,668	
Contingent consideration	Acquisition-related contingent consideration	\$	139,002	\$	—	\$	—	\$	139,002	

There were no securities transferred between Level 1, 2 and 3 during the nine months ended September 30, 2013.

Valuation Techniques

We classify U.S. Treasury securities and mutual fund investments, which are valued based on quoted market prices in active markets with no valuation adjustment, as Level 1 assets within the fair value hierarchy.

Items classified as Level 2 within the valuation hierarchy consist of institutional money market funds, commercial paper, municipal bonds, U.S. and foreign government-related debt, corporate debt securities and certificates of deposit. We estimate the fair values of these marketable securities by taking into consideration valuations obtained from third-party pricing sources. These pricing sources utilize industry standard valuation models, including both income and market-based approaches, for which all significant inputs are observable, either directly or indirectly, to estimate fair value. These inputs include market pricing based on real-time trade data for the same or similar securities, issuer credit spreads, benchmark yields, and other observable inputs.

Our derivative assets and liabilities include foreign exchange derivatives that are measured at fair value using observable market inputs such as forward rates, interest rates, our own credit risk and our counterparties' credit risks. Based on these inputs, the derivative assets and liabilities are classified within Level 2 of the valuation hierarchy.

Items classified as Level 3 within the valuation hierarchy, consisting of contingent consideration liabilities related to acquisitions, were valued based on various estimates, including probability of success, discount rates and amount of time until the conditions of the milestone payments are met.

As of September 30, 2013, there has not been any impact to the fair value of our derivative liabilities due to our own credit risk. Similarly, there has not been any significant adverse impact to our derivative assets based on our evaluation of our counterparties' credit risks.

Contingent Consideration

In connection with prior acquisitions, we may be required to pay future consideration that is contingent upon the achievement of specified development, regulatory approval or sales-based milestone events. We determine the fair value of these obligations on the acquisition date using various estimates that are not observable in the market and represent a Level 3 measurement within the fair value hierarchy. The resulting probability-weighted cash flows were discounted using a cost of debt ranging from 4.9% to 5.4% for developmental milestones and a weighted average cost of capital ranging from 13% to 21% for sales-based milestones.

Each reporting period, we adjust the contingent consideration to fair value with changes in fair value recognized in operating earnings. Changes in fair values reflect new information about the probability and timing of meeting the conditions of the milestone payments. In the absence of new information, changes in fair value will only reflect the interest component of

contingent consideration related to the passage of time as development work progresses towards the achievement of the milestones.

Estimated future contingent milestone payments related to prior business combinations range from zero if no milestone events are achieved, to a maximum of \$876,000 if all development, regulatory and sales-based milestones are reached. As of September 30, 2013, the fair value of acquisition-related contingent consideration was \$144,621. The following table represents a roll-forward of our acquisition-related contingent consideration, which are all Level 3 liabilities:

	Nine	e months ended
	Sept	ember 30, 2013
Balance at beginning of period	\$	(141,670)
Milestone payment		3,000
Changes in fair value		(5,951)
Balance at end of period	\$	(144,621)

12. Income Taxes

We utilize the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement carrying amounts and tax basis of assets and liabilities using enacted tax rates in effect for years in which the temporary differences are expected to reverse. We provide a valuation allowance when it is more likely than not that deferred tax assets will not be realized. We recognize the benefit of an uncertain tax position that has been taken or we expect to take on income tax returns if such tax position is more likely than not to be sustained.

We continue to maintain a valuation allowance against certain other deferred tax assets where realization is not certain. We periodically evaluate the likelihood of the realization of deferred tax assets and reduce the carrying amount of these deferred tax assets by a valuation allowance to the extent we believe a portion will not be realized.

The following table provides a comparative summary of our income tax provision and effective tax rate for the three and nine months ended September 30, 2013 and 2012:

	Three mo	nths e	ıded		ided			
	 September 30,				September 30,			
	2013		2012		2013		2012	
Provision for income taxes	\$ 40,503	\$	48,586	\$	116,405	\$	116,446	
Effective tax rate	30.2%		34.5%		30.0%		40.1%	

The tax provision for the three and nine months ended September 30, 2013 is attributable to the U.S. federal, state and foreign income taxes on our profitable operations. Additionally, included in the nine months ended September 30, 2013 is the tax benefit of \$2,854 attributable to the 2012 U.S. Federal tax credit for research and experimentation.

The U.S. Federal tax credit for research and experimentation expenses expired December 31, 2011. In connection with this expiration, our 2012 tax expense did not include any benefit from the U.S. Federal tax credit for research and experimentation. In January 2013, the American Taxpayer Relief Act of 2012, which retroactively extended the tax credit for research and experimentation back to January 1, 2012 through the end of 2013 was signed into law. The effects of a change in tax law is recognized in the period that includes the date of enactment and, therefore, our tax benefit attributable to the 2012 U.S. Federal tax credit for research and experimentation of 2013.

The tax provision for the three and nine months ended September 30, 2012 is principally attributable to the U.S. federal, state and foreign income taxes on our profitable operations and the tax expense of \$22,673 associated with the settlement and non-exclusive license agreement with a third party, which was executed in the third quarter of 2012. Additionally, included in the nine months ended September 30, 2012 is the impact of the tax expense of \$21,812 associated with the structuring of the Enobia business.

The Internal Revenue Service (IRS) commenced an examination of our U.S. income tax returns for 2008 and 2009 during the second quarter 2011. This examination is anticipated to be completed within the next twelve months. We are not able to determine any impact to our unrecognized tax benefits based on the preliminary stage of discussions with the IRS.

13. Employee Benefit Plans

Defined Contribution Plan

We have one qualified 401(k) plan covering all eligible employees. Under the plan, employees may contribute up to the statutory allowable amount for any calendar year. We make matching contributions equal to \$1.00 for each dollar contributed up to the first 6% of an individual's base salary and incentive cash bonus. For the three months ended September 30, 2013 and 2012, we recorded matching contributions of approximately \$1,362, and \$798, respectively. For the nine months ended September 30, 2013 and 2012, we recorded matching contributions of approximately \$4,626 and \$2,853, respectively.

Deferred Compensation Plan

Effective June 15, 2013, we began sponsoring a nonqualified deferred compensation plan which allows certain highly-compensated employees to make voluntary deferrals of up to 80% of their base salary and incentive bonuses. The plan is designed to work in conjunction with the 401(k) plan and provides for a total combined employer match of up to 6% of an employee's eligible earnings, up to the IRS annual 401(k) contribution limitations. Employee deferrals and employer matching contributions under the plan began in the third quarter of 2013 and were not material for the three and nine months ended September 30, 2013.

Defined Benefit Plans

We maintain defined benefit plans for employees in certain countries outside the United States, including retirement benefit plans required by applicable local law. The plans are valued by independent actuaries using the projected unit credit method. The liabilities correspond to the projected benefit obligations of which the discounted net present value is calculated based on years of employment, expected salary increases, and pension adjustments.

The components of net periodic benefit cost were as follows:

		Three mo	nths ei	nded	Nine months ended				
		Septen),	September 30,					
	2013 2012					2013	2012		
Service cost	\$	1,376	\$	1,061	\$	4,087	\$	3,422	
Interest cost		127		110		376		338	
Expected return on plan assets		(157)		(125)		(471)		(385)	
Employee contributions		(358)		(283)		(1,071)		(868)	
Amortization		104		73		311		224	
Total net periodic benefit cost	\$	1,092	\$	836	\$	3,232	\$	2,731	

14. Leases

In November 2012, we entered into a lease agreement for office and laboratory space to be constructed in New Haven, Connecticut. We amended the lease in July 2013 to expand the building by two floors. Although we will not legally own the premises, we are deemed to be the owner of the building during the construction period based on applicable accounting guidance for build-to-suit leases due to our involvement during the construction period. Accordingly, the landlord's costs of constructing the facility are required to be capitalized, as a non-cash transaction, offset by a corresponding facility lease obligation in our condensed consolidated balance sheet.

Construction of the new facility began in June 2013 and is expected to be completed in 2015. As of September 30, 2013, our construction-in-process asset associated with the new facility and the offsetting facility lease obligation totaled \$12,251.

15. Commitments and Contingencies

Commitments

License Agreements

In January 2013, we entered into a license agreement for a technology, which provides an exclusive research license and an option for an exclusive commercial license for specific targets and products to be developed. Due to the early stage of this asset, we recorded expense for an upfront payment of \$3,000 during the first quarter of 2013. We will also be required to pay annual maintenance fees during the term of the arrangement. In addition, for each target, up to a maximum of six targets we develop, we could be required to pay up to an additional \$70,500 in license fees, development and sales milestones as the specific milestones are met over time.

In July 2013, we entered into a license and collaboration agreement for the identification, development and commercialization of therapeutic candidates based on specific drug targets. Due to the early stage of these assets, we recorded expense for an upfront payment of \$11,500 during the third quarter of 2013. We will also be responsible for funding research activities under the program. In addition, for each drug target, up to a maximum of four targets, we could be required to pay up to an additional \$90,750 in development milestones as the specific milestones are met over time. The agreement also provides for royalty payments on commercial sales of each product developed under the agreement.

Lonza Agreement

We rely on Lonza Group AG and its affiliates (Lonza), a third party manufacturer, to produce a portion of commercial and clinical quantities of Soliris and for clinical quantities of asfotase alfa, and we have contracted and expect to continue contracting for product finishing, vial filling and packaging through third parties. We have various agreements with Lonza, with remaining total commitments of approximately \$163,000 through 2019. Such commitments may be canceled only in limited circumstances. If we terminate certain supply agreements with Lonza without cause, we will be required to pay for product scheduled for manufacture under our arrangement. Under an existing arrangement with Lonza, we also pay Lonza a royalty on sales of Soliris manufactured at Alexion Rhode Island Manufacturing Facility (ARIMF).

Contingent Liabilities

We are currently involved in various claims and legal proceedings. On a quarterly basis, we review the status of each significant matter and assess its potential financial exposure. If the potential loss from any claim, asserted or unasserted, or legal proceeding is considered probable and the amount can be reasonably estimated, we accrue a liability for the estimated loss. Because of uncertainties related to claims and litigation, accruals are based on our best estimates based on available information. On a periodic basis, as additional information becomes available, or based on specific events such as the outcome of litigation or settlement of claims, we may reassess the potential liability related to these matters and may revise these estimates, which could result in a material adverse adjustment to our operating results.

As previously stated, we have received, and may in the future receive, notices from third parties claiming that their patents may be infringed by the development, manufacture or sale of Soliris. Under the guidance of ASC 450, *Contingencies*, we record a royalty accrual based on our best estimate of the fair value percent of net sales of Soliris that we could be required to pay the owners of patents for technology used in the manufacture and sale of Soliris. A costly license, or inability to obtain a necessary license, could have a material adverse effect on our business. However, the amount of such loss or a range of loss, if any, beyond amounts currently accrued, cannot be reasonably estimated.

In January 2011, Novartis Vaccines and Diagnostics, Inc. (Novartis) filed an action against us and other biopharmaceutical companies in the U.S. District Court for the District of Delaware claiming willful infringement by us of U.S. Patent No. 5,688,688 (688 Patent). During the third quarter of 2013, the parties engaged in discussions to resolve the matter. In October 2013, we and Novartis agreed to resolve all claims asserted by Novartis in the action. In October 2013, the parties entered into a settlement agreement and dismissal pursuant to which Novartis granted Alexion a non-exclusive, fully paid license to the 688 Patent for our products and dismissed its case with prejudice. As a result, we recorded expense of \$9,181 in cost of sales in the third quarter 2013 related to this litigation settlement agreement.

As previously reported, in the third quarter of 2012 we reduced our estimate for probable contingent liabilities as of September 30, 2012. The reduction was due to the execution of a settlement and non-exclusive license agreement in October 2012 with a third party related to the third party's intellectual property and reflected the actual, negotiated royalty rate set forth in the agreement. This change in estimate resulted in a positive impact in cost of sales of \$53,377 during the third quarter 2012.

On March 27, 2013, we received a Warning Letter from the U.S. Food and Drug Administration (FDA) regarding compliance with current Good Manufacturing Practices (cGMP) at ARIMF. The Warning Letter followed an FDA inspection which concluded on August 6, 2012. At the conclusion of that inspection, the FDA issued a Form 483 Inspectional Observations, to which we responded in August 2012 and provided additional information to the FDA in September and December 2012. The observations relate to commercial and clinical manufacture of Soliris at ARIMF. We responded to the Warning Letter in a letter to the FDA dated April 15, 2013. We continue to manufacture products, including Soliris, in this facility. While the resolution of this Warning Letter is difficult to predict, we do not currently believe a loss related to this matter is probable or that the potential magnitude of such loss or range of loss, if any, can be reasonably estimated.

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

Note Regarding Forward-Looking Statements

This quarterly report on Form 10-Q contains forward-looking statements that have been made pursuant to the provisions of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are based on current expectations, estimates and projections about our industry, management's beliefs, and certain assumptions made by our management, and may include, but are not limited to, statements regarding the potential benefits and commercial potential of Soliris® (eculizumab) for its approved indications and any expanded uses, timing and effect of sales of Soliris in various markets worldwide, pricing for Soliris, level of insurance coverage and reimbursement for Soliris, level of future Soliris sales and collections, timing regarding development and regulatory approvals for additional indications or in additional territories for Soliris, the medical and commercial potential of additional indications for Soliris, failure to satisfactorily address the issues raised by the FDA in the March 2013 Warning Letter, costs, expenses and capital requirements, cash outflows, cash from operations, status of reimbursement, price approval and funding processes in various countries worldwide, progress in developing commercial infrastructure and interest about Soliris and our drug candidates in the patient, physician and payer communities, the safety and efficacy of Soliris and our product candidates, estimates of the potential markets and estimated commercialization dates for Soliris and our drug candidates around the world, sales and marketing plans, any changes in the current or anticipated market demand or medical need for Soliris or our drug candidates, status of our ongoing clinical trials for eculizumab, asfotase alfa and our other product candidates, commencement dates for new clinical trials, clinical trial results, evaluation of our clinical trial results by regulatory agencies, prospects for regulatory approval, need for additional research and testing, the uncertainties involved in the drug development process and manufacturing, performance and reliance on third party service providers, our future research and development activities, plans for acquired programs, assessment of competitors and potential competitors, the outcome of challenges and opposition proceedings to our intellectual property, assertion or potential assertion by third parties that the manufacture, use or sale of Soliris infringes their intellectual property, estimates of the capacity of manufacturing and other service facilities to support Soliris and our product candidates, potential costs resulting from product liability or other third party claims, the sufficiency of our existing capital resources and projected cash needs, assessment of impact of recent accounting pronouncements, declines in sovereign credit ratings or sovereign defaults in countries where we sell Soliris, delay of collection or reduction in reimbursement due to adverse economic conditions or changes in government and private insurer regulations and approaches to reimbursement, the short and long term effects of other government healthcare measures, and the effect of shifting foreign exchange rates. Words such as "anticipates," "expects," "intends," "plans," "believes," "seeks," "estimates," variations of such words and similar expressions are intended to identify such forward-looking statements, although not all forward-looking statements contain these identifying words. These statements are not guarantees of future performance and are subject to certain risks, uncertainties, and assumptions that are difficult to predict; therefore, actual results may differ materially from those expressed or forecasted in any such forward-looking statements. Such risks and uncertainties include, but are not limited to, those discussed later in this report under the section entitled "Risk Factors". Unless required by law, we undertake no obligation to update publicly any forward-looking statements, whether because of new information, future events or otherwise. However, readers should carefully review the risk factors set forth in this and other reports or documents we file from time to time with the Securities and Exchange Commission.

Business

Overview

We are a biopharmaceutical company focused on serving patients with severe and ultra-rare disorders through the innovation, development and commercialization of life-transforming therapeutic products. Our marketed product Soliris is the first and only therapeutic approved for patients with either of two severe and ultra-rare disorders resulting from chronic uncontrolled activation of the complement component of the immune system: paroxysmal nocturnal hemoglobinuria (PNH), a life-threatening and ultra-rare genetic blood disorder, and atypical hemolytic uremic syndrome (aHUS), a life-threatening and ultra-rare genetic disease. We are also evaluating additional potential indications for Soliris in severe and ultra-rare diseases in which uncontrolled complement activation is the underlying mechanism, and we are progressing in various stages of development with additional biotechnology product candidates as treatments for patients with severe and life-threatening ultra-rare disorders. We were incorporated in 1992 and began commercial sale of Soliris in 2007.

Soliris is designed to inhibit a specific aspect of the complement component of the immune system and thereby treat inflammation associated with chronic disorders in several therapeutic areas, including hematology, nephrology, transplant rejection and neurology. Soliris is a humanized monoclonal antibody that effectively blocks terminal complement activity at the doses currently prescribed. The initial indication for which we received approval for Soliris is PNH. PNH is a debilitating and life-threatening, ultra-rare genetic blood disorder defined by chronic uncontrolled complement activation leading to the



destruction of red blood cells (hemolysis). The chronic hemolysis in patients with PNH may be associated with life-threatening thromboses, recurrent pain, kidney disease, disabling fatigue, impaired quality of life, severe anemia, pulmonary hypertension, shortness of breath and intermittent episodes of dark-colored urine (hemoglobinuria).

Soliris was approved for the treatment of PNH by the U.S. Food and Drug Administration (FDA) and the European Commission (EC) in 2007 and by Japan's Ministry of Health, Labour and Welfare (MHLW) in 2010, and has been approved in several other territories. Additionally, Soliris has been granted orphan drug designation for the treatment of PNH in the United States, Europe, Japan and several other territories.

In September and November 2011, Soliris was approved by the FDA and EC, respectively, for the treatment of pediatric and adult patients with aHUS in the United States and Europe. aHUS is a severe and life-threatening genetic ultra-rare disease characterized by chronic uncontrolled complement activation and thrombotic microangiopathy (TMA), the formation of blood clots in small blood vessels throughout the body, causing a reduction in platelet count (thrombocytopenia) and life-threatening damage to the kidney, brain, heart and other vital organs. In addition, the FDA and EC have granted Soliris orphan drug designation for the treatment of patients with aHUS. In September 2013, the MHLW approved Soliris for the treatment of pediatric and adult patients with aHUS in Japan.

Products and Development Programs

We focus our product development programs on life transforming therapeutics for severe and life-threatening ultra-rare diseases for which we believe current treatments are either non-existent or inadequate. Eculizumab is a humanized antibody known as a C5 terminal complement inhibitor (C5 Inhibitor), which is designed to selectively block the production of inflammation-causing proteins of the complement cascade. We believe that selective suppression of this immune response may provide a significant therapeutic advantage relative to existing therapies. In addition to PNH and aHUS, for which the use of eculizumab has been approved in the United States, Europe and Japan, we believe that C5 Inhibitors may be useful in the treatment of a variety of other serious diseases and conditions resulting from uncontrolled complement activation.

Marketed Products

Our marketed products include the following:

Product	Development Area	Indication	Development Stage
Soliris (eculizumab)	Hematology	Paroxysmal Nocturnal Hemoglobinuria (PNH)	Commercial
		PNH Registry	Phase IV
	Hematology/Nephrology	Atypical Hemolytic Uremic Syndrome (aHUS)	Commercial
		aHUS Trials	Phase IV
		aHUS Registry	Phase IV

Paroxysmal Nocturnal Hemoglobinuria (PNH)

Soliris is the first and only therapy approved for the treatment of patients with PNH, a debilitating and life-threatening ultra-rare blood disorder in which an acquired genetic deficiency causes uncontrolled complement activation which leads to life-threatening complications. We continue to work with researchers to expand the base of knowledge in PNH and the utility of Soliris to treat patients with PNH. The EC recently extended the Soliris label to include pediatric patients with PNH. Additionally, we are sponsoring multinational registries to gather information regarding the natural history of patients with PNH and the longer term outcomes during Soliris treatment.

Atypical Hemolytic Uremic Syndrome (aHUS)

aHUS is a chronic and life-threatening ultra-rare genetic disease in which uncontrolled complement activation causes blood clots in small blood vessels throughout the body (thrombotic microangiopathy, or TMA) leading to kidney failure, stroke, heart attack and death. Soliris is the first and only therapy approved for the treatment of patients with aHUS. Pursuant to a post marketing requirement imposed by the FDA, we have now completed enrollment in a prospective open-label trial in adults with aHUS and, separately, enrollment has been completed in a prospective trial of pediatric patients with aHUS.

Clinical Development Program

Our significant programs, including investigator sponsored clinical programs, include the following:

Product	Development Area	Indication	Development Stage
Soliris (eculizumab)	Nephrology	Presensitized Renal Transplant - Living Donor	Phase II
	Presensitized Renal Transplant - Deceased F Donor		Phase II
		Delayed Kidney Transplant Graft Function*	Phase II
		ABO Incompatible Renal Transplant*	Phase II
		STEC-HUS (Shiga-toxin producing <i>E</i> . <i>coli</i> Hemolytic Uremic Syndrome)	Phase II
	Neurology	Neuromyelitis Optica (NMO)*	Phase II
		Myasthenia Gravis (MG)	Phase II
	Hematology	Cold Agglutinin Disease (CAD)*	Phase II
Asfotase alfa	Metabolic Disorders	Hypophosphatasia (HPP)	Phase II
cPMP (ALXN 1101)	Metabolic Disorders	MoCD Type A	Phase I
ALXN 1102/1103	Hematology	PNH	Phase I
ALXN 1007	Inflammatory Disorders		Phase I

* Investigator Initiated Trial

Soliris (eculizumab)

Nephrology

Acute Humoral Rejection (AHR) in Presensitized Kidney Transplant Patients

Enrollment of the targeted number of patients is complete in a multi-national, multi-site controlled clinical trial of eculizumab in presensitized renal transplant patients at elevated risk for AHR who have received deceased donor grafts. In response to physician requests for eculizumab for their immunized patients awaiting kidney transplant and positive preliminary data, we have decided to expand the study by reopening enrollment. Enrollment is ongoing in a multi-national, multi-site controlled clinical trial of eculizumab in presensitized renal transplant patients at elevated risk for AHR who have received living donor grafts.

Delayed Kidney Transplant Graft Function

Enrollment has been completed in an investigator-initiated Phase II study of eculizumab in patients at elevated risk for delayed graft function (DGF) following kidney transplant. DGF is the term used to describe the failure of a kidney or other organs to function immediately after transplantation due to ischemia-reperfusion and immunological injury.

Shiga-toxin producing E. coli Hemolytic Uremic Syndrome (STEC-HUS)

STEC-HUS is an ultra-rare disorder, comprising only a small sub-set of the already rare population of patients with EHEC. Following an authorization by the Paul-Ehrlich-Institut, Germany's health care regulatory body for biologics, and an access program for patients initiated in May 2011, we initiated an open-label clinical trial to investigate eculizumab as a treatment for patients with STEC-HUS. Enrollment in this trial has been completed. We are obtaining and analyzing additional control clinical outcome data from an epidemiologic study in approximately 400 STEC-HUS patients who received only best supportive care. The FDA and the EC have each granted orphan designation for eculizumab as a treatment for patients with STEC-HUS.



Neurology

Neuromyelitis Optica (NMO)

NMO is a severe and ultra-rare autoimmune disease of the central nervous system (CNS) that primarily affects the optic nerves and spinal cord. Preliminary data from the investigator-initiated Phase II clinical trial of eculizumab in severe and relapsing NMO patients was presented to the American Neurological Association (ANA) meeting in October 2012. The study was reported to have achieved its primary efficacy endpoint with a high degree of clinical and statistical significance and several key secondary endpoints were also achieved. We are completing our discussions with regulators and plan to initiate what we expect to be a single pivotal NMO registration trial.

Myasthenia Gravis (MG)

MG is an ultra-rare autoimmune syndrome characterized by complement activation leading to the failure of neuromuscular transmission. Preliminary data from a Phase II trial evaluating the safety and efficacy of eculizumab in patients with severe, refractory MG demonstrated an encouraging disease improvement signal and was presented at the Myasthenia Gravis Foundation Annual Meeting in September 2011. We continue to work with investigators to design the next clinical trial to evaluate eculizumab as a treatment for patients with severe and refractory MG. We have completed our discussions with regulators and plan to initiate what we expect to be a single pivotal MG registration trial.

Hematology

Cold Agglutinin Disease (CAD)

We are aware that dosing is ongoing in an investigator-initiated Phase II study of eculizumab in patients for the treatment of CAD. CAD is a severe, ultra-rare complement-mediated autoimmune disease characterized by the presence of high concentrations of circulating complement-activating antibodies directed against red blood cells. As observed with PNH patients, CAD patients also suffer from the clinical consequences of severe hemolysis.

Asfotase Alfa

Hypophosphatasia (HPP)

HPP is an ultra-rare, genetic, and life-threatening metabolic disease characterized by impaired phosphate and calcium regulation, leading to progressive damage to multiple vital organs including destruction and deformity of bones, profound muscle weakness, seizures, impaired renal function, and respiratory failure.

Asfotase alfa, a targeted enzyme replacement therapy in Phase II clinical trials for patients with HPP, is designed to directly address the morbidities and mortality of HPP by targeting alkaline phosphatase directly to the deficient tissue. In this way, asfotase alfa is designed to normalize the genetically defective metabolic process and prevent or reverse the severe, crippling and life-threatening complications of dysregulated mineral metabolism in patients with HPP. Initial studies with asfotase alfa in HPP patients indicate that the treatment significantly decreases the levels of targeted metabolic substrates. We have completed enrollment in a natural history study in infants with HPP and have completed our initial analysis for the study. We are currently dosing patients in a separate global trial of severe infant HPP patients.

cPMP (ALXN 1101)

Molybdenum Cofactor Deficiency (MoCD) Disease Type A (MoCD Type A)

MoCD Type A is a rare metabolic disorder characterized by severe and rapidly progressive neurologic damage and death in newborns. MoCD Type A results from a genetic deficiency in cyclic Pyranopterin Monophosphate (cPMP), a molecule that enables production of certain enzymes, the absence of which allows neurotoxic sulfite to accumulate in the brain. To date, there is no approved therapy available for MoCD Type A. There has been some early clinical experience with the cPMP replacement therapy in a small number of children with MoCD Type A and we have initiated a natural history study in patients with MoCD Type A. We received authorization to initiate testing of our synthetic cPMP replacement therapy in healthy volunteers and began dosing healthy volunteers in the second quarter 2013.

ALXN 1102/1103

ALXN 1102/1103 is a novel alternative pathway complement inhibitor with a mechanism of action unique from Soliris. ALXN 1102 is currently being investigated in a Phase I single dose, dose escalating safety and pharmacology study. ALXN 1103 is being dosed in the same Phase I trial as a subcutaneous formulation.



ALXN 1007

ALXN 1007 is a novel humanized antibody designed to target rare and severe inflammatory disorders and is a product of our proprietary antibody discovery technologies. We are completing enrollment in a Phase I single-dose, dose escalating safety and pharmacology study in healthy volunteers and we are currently enrolling patients in a multi-dose, dose escalating safety and pharmacology study in healthy volunteers.

Manufacturing

We currently rely on three manufacturing facilities, Alexion's Rhode Island manufacturing facility (ARIMF) and two facilities operated by Lonza Group AG and its affiliates (Lonza), to produce commercial and clinical bulk quantities of Soliris, and we rely on a facility operated by Lonza for clinical quantities of asfotase alfa. We produce our clinical and preclinical quantities of our other product candidates at ARIMF. We also depend on a limited number of third party providers for other services with respect to our clinical and commercial requirements, including product finishing, packaging, vialing and labeling.

On March 27, 2013, we received a Warning Letter from the FDA regarding compliance with current Good Manufacturing Practices (cGMP) at ARIMF. The Warning Letter followed an FDA inspection which concluded on August 6, 2012. At the conclusion of that inspection, the FDA issued a Form 483 Inspectional Observations, to which we responded in August 2012 and provided additional information to the FDA in September and December 2012. The observations relate to commercial and clinical manufacture of Soliris at ARIMF. We responded to the Warning Letter in a letter to the FDA dated April 15, 2013. We continue to manufacture products, including Soliris, in this facility. While the resolution of the issues raised in this Warning Letter is difficult to predict, we do not currently believe a loss related to this matter is probable or that the potential magnitude of such loss or range of loss, if any, can be reasonably estimated. To the extent that circumstances related to this matter change, the impact could have a material adverse effect on our financial operations. Further, the European Medicines Agency (EMA) inspected ARIMF in January 2013 and a GMP certificate was issued in May 2013.

On August 19, 2013, we initiated a voluntary recall and replacement of the remaining vials of a single lot of Soliris due to the presence of visible particles in a limited number of vials in the lot. The recall did not interrupt the supply of Soliris to patients and had no material impact on operations or financial results.

Critical Accounting Policies and the Use of Estimates

The significant accounting policies and basis of preparation of our consolidated financial statements are described in Note 1, "Business Overview and Summary of Significant Accounting Policies," of our financial statements included in our Form 10-K for the year ended December 31, 2012. Under accounting principles generally accepted in the United States, we are required to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and disclosure of contingent assets and liabilities in our financial statements. Actual results could differ from those estimates.

We believe the judgments, estimates and assumptions associated with the following critical accounting policies have the greatest potential impact on our consolidated financial statements:

- Revenue recognition;
- Contingent liabilities;
- Inventories;
- Research and development expenses;
- Share-based compensation;
- Valuation of goodwill, acquired intangible assets and in-process research and development (IPR&D);
- Valuation of contingent consideration; and
- Income taxes.

For a complete discussion of these critical accounting policies, refer to "Critical Accounting Policies and Use of Estimates" within "Item 7 -Management's Discussion and Analysis of Financial Condition and Results of Operations" included within our Form 10-K for the year ended December 31, 2012. We have reviewed our critical accounting policies as disclosed in our Form 10-K, and we have not noted any material changes.

New Accounting Pronouncements

In January 2013, the Financial Accounting Standards Board issued an update to clarify the scope of disclosures for offsetting assets and liabilities. The standard is effective for interim and annual periods beginning on or after January 1, 2013 and requires disclosure for all comparative periods. We adopted the provisions of this guidance in 2013.

In February 2013, the Financial Accounting Standards Board issued a new standard to improve the reporting of reclassifications out of accumulated other comprehensive income. The new standard requires the disclosure of significant amounts reclassified from each component of accumulated other comprehensive income and the income statement line items affected by the reclassification. The standard is effective prospectively for interim and annual periods beginning after December 15, 2012. We adopted the provisions of this guidance, and included the additional disclosure requirements, in the first quarter of 2013.

Results of Operations

Net Product Sales

The following table summarizes net product sales for the three and nine months ended September 30, 2013 and 2012:

	Three month	s ended		Nine months	s ended	
	Septembe	r 30,	\$	Septembe	r 30,	\$
	2013	2012	Variance	2013	2012	Variance
Net product sales	\$400,405	\$294,136	\$106,269	\$1,109,437	\$813,588	\$295,849

The increase in revenue for the three and nine months ended September 30, 2013, as compared to the same period in 2012, was primarily due to an increased volume of unit shipments, partially offset by a negative impact of price and foreign exchange.

The increase in revenue of 36.1% and 36.4% for the three and nine months ended September 30, 2013, respectively, was due to an increase in unit volumes of 42.1% and 40.1%, offset by a negative price impact of 4.1% and 2.7%, and a negative impact on foreign exchange of 1.9% and 1.0%. The increase in volume was largely due to physicians globally requesting Soliris therapy for additional patients. The negative price impact of 4.1% for the three months ended September 30, 2013 was primarily due to increased rebates in certain countries in Europe. The negative price impact of 2.7% for the nine months ended September 30, 2013 was primarily due to increased rebates in certain countries in Europe, offset by a price increase in the United States.

The negative impact on foreign exchange of \$5,467 and \$7,809, or 1.9% and 1.0%, for the three and nine months ended September 30, 2013 was due to changes in foreign currency exchange rates (inclusive of hedging activity) versus the dollar for the three and nine months ended September 30, 2012. The negative impact was primarily due to the weakening of the Japanese Yen. We recorded a gain in revenue of \$5,709 and \$4,810 for the three months ended September 30, 2013 and 2012, respectively, and \$18,364 and \$8,885 for the nine months ended September 30, 2013 and 2012, respectively, related to our foreign currency cash flow hedging program.

Cost of Sales

In October 2013, we entered into a settlement agreement and dismissal with Novartis pursuant to which Alexion was granted a non-exclusive, fully paid license and the case was dismissed with prejudice. As a result, we recorded expense of \$9,181 in cost of sales in the third quarter 2013 related to this litigation settlement agreement.

In the third quarter of 2012, we reduced our estimate for probable contingent liabilities as of September 30, 2012 due to the execution of a settlement and non-exclusive license agreement in October 2012 with a third party related to the third party's intellectual property. The adjustment reflected the actual, negotiated royalty rate set forth in the agreement. This change in estimate resulted in a positive impact in cost of sales of \$53,377 during the third quarter 2012.

Exclusive of the settlements noted above, cost of sales were \$42,177 and \$33,186 for the three months ended September 30, 2013 and 2012, respectively, and \$116,823 and \$93,067 for the nine months ended September 30, 2013 and 2012, respectively. Exclusive of the settlements noted above, cost of sales as a percentage of net product sales decreased to 10.5% for the three months ended September 30, 2013 from 11.3% for the three months ended September 30, 2012 and cost of sales as a percentage of net product sales decreased to 10.5% for the nine months ended September 30, 2013 from 11.4% for the nine months ended September 30, 2012. The decreases in cost of sales as a percentage of sales primarily related to a decrease in ongoing royalty expense from the settlement and non-exclusive license agreement we entered into in October 2012.



Research and Development Expense

Our research and development expense includes personnel, facility and external costs associated with the research and development of our product candidates, as well as product development costs. We group our research and development expenses into two major categories: external direct expenses and all other research and development (R&D) expenses.

External direct expenses are comprised of costs paid to outside parties for clinical development, product development and discovery research. Clinical development costs are comprised of costs to conduct and manage clinical trials related to eculizumab and other product candidates. Product development costs are those incurred in performing duties related to manufacturing development and regulatory functions, including manufacturing of material for clinical and research activities. Discovery research costs are incurred in conducting laboratory studies and performing preclinical research for other uses of eculizumab and other product candidates. Clinical development costs have been accumulated and allocated to each of our programs, while product development and discovery research costs have not been allocated.

All other R&D expenses consist of costs to compensate personnel, to maintain our facility, equipment and overhead and similar costs of our research and development efforts. These costs relate to efforts on our clinical and preclinical products, our product development and our discovery research efforts. These costs have not been allocated directly to each program.

The following table provides information regarding research and development expenses:

	Three montl	hs ended		Nine mont		
	Septembe	er 30,	\$	Septem	ber 30,	\$
	2013	2012	Variance	2013	2012	Variance
Clinical development	\$20,719	\$10,274	\$10,445	\$48,715	\$33,133	\$15,582
Product development	12,435	11,292	1,143	48,951	40,552	8,399
Discovery research	11,754	2,174	9,580	18,732	5,774	12,958
Total external direct expenses	44,908	23,740	21,168	116,398	79,459	36,939
Payroll and benefits	38,504	25,400	13,104	101,288	68,972	32,316
Operating and occupancy	2,099	3,029	(930)	6,308	5,608	700
Depreciation and amortization	2,698	2,111	587	7,314	5,284	2,030
Total other R&D expenses	43,301	30,540	12,761	114,910	79,864	35,046
Research and development expense	\$88,209	\$54,280	\$33,929	\$231,308	\$159,323	\$71,985

For the three months ended September 30, 2013, the increase of \$33,929 in research and development expense, as compared to the same period in the prior year, was primarily related to the following:

- Increase of \$10,445 in external clinical development expenses related primarily to an expansion of studies of our eculizumab, asfotase alfa and cPMP programs (see table below).
- Increase of \$9,580 in discovery research expenses primarily related to the upfront payment on the license agreement entered into in the third quarter of 2013.
- Increase of \$13,104 in R&D payroll and benefit expense related primarily to the continued global expansion of staff supporting our increasing number of clinical and development programs.

For the nine months ended September 30, 2013, the increase of \$71,985 in research and development expense, as compared to the same period in the prior year, was primarily related to the following:

- Increase of \$15,582 in external clinical development expenses related primarily to an expansion of studies of our eculizumab, asfotase alfa and cPMP programs (see table below).
- Increase of \$8,399 in external product development expenses related primarily to costs associated with the preparation of regulatory filings for asfotase alfa, as well as manufacturing costs related to our other product development programs.
- Increase of \$12,958 in discovery research expenses primarily related to the upfront payments on the license agreements entered into in 2013.
- Increase of \$32,316 in R&D payroll and benefit expense related primarily to the continued global expansion of staff supporting our increasing number of clinical and development programs.

The following table summarizes external direct expenses related to our clinical development programs. Please refer to "Clinical Development Programs" above for a description of each of these programs:

	Three months	s ended	Nine months ended					
	September 30,		\$	Septembe	r 30,	\$		
	2013	2012	Variance	2013	2012	Variance		
External direct expenses								
Eculizumab	\$14,234	\$7,986	\$6,248	\$30,555	\$26,753	\$3,802		
Asfotase alfa	2,234	794	1,440	8,518	2,249	6,269		
cPMP	1,965	987	978	4,753	1,010	3,743		
Other Programs	1,686	597	1,089	3,469	2,750	719		
Unallocated	600	(90)	690	1,420	371	1,049		
	\$20,719	\$10,274	\$10,445	\$48,715	\$33,133	\$15,582		

The successful development of our drug candidates is uncertain and subject to a number of risks. We cannot guarantee that results of clinical trials will be favorable or sufficient to support regulatory approvals for our other programs. We could decide to abandon development or be required to spend considerable resources not otherwise contemplated. For additional discussion regarding the risks and uncertainties regarding our development programs, please refer to Item 1A "Risk Factors" in this Form 10-Q.

Selling, General and Administrative Expense

Our selling, general and administrative expense includes commercial and administrative personnel, corporate facility and external costs required to support the marketing and sales of our commercialized products. These selling, general and administrative costs include: corporate facility operating expenses and depreciation; marketing and sales operations in support of Soliris; human resources; finance, legal, information technology and support personnel expenses; and other corporate costs such as telecommunications, insurance, audit and legal expenses.

The table below provides information regarding selling, general and administrative expense:

	Three months ended							Nine mo				
	September 30,				\$		Septer	nber 3	80,		\$	
		2013	2012		Variance		2013			2012		Variance
Salary, benefits and other labor expense	\$	75,222	\$	52,117	\$	23,105	\$	216,384	\$	161,327	\$	55,057
External selling, general and administrative expense		47,664		37,840		9,824		138,517		110,727		27,790
Total selling, general and administrative expense	\$	122,886	\$	89,957	\$	32,929	\$	354,901	\$	272,054	\$	82,847

For the three months ended September 30, 2013, the increase of \$32,929 in selling, general and administrative expense, as compared to the same period in the prior year, was primarily related to the following:

- Increase in salary, benefits and other labor expenses of \$23,105. The increase was a result of increased headcount related to commercial development activities, including increases in payroll and benefits costs of \$15,500 related to our global commercial staff to support global expansion. This increase was also due to increases in payroll and benefits of \$7,600 within our general and administrative functions to support our infrastructure growth as a global commercial entity.
- Increase in external selling, general and administrative expenses of \$9,824. The increase was primarily due to an increase in legal costs associated with the Novartis settlement, an increase in consulting fees related to our global supply chain expansion in Ireland, and an increase in marketing costs to support the continued growth in global sales.

For the nine months ended September 30, 2013, the increase of \$82,847 in selling, general and administrative expense, as compared to the same period in the prior year, was primarily related to the following:

• Increase in salary, benefits and other labor expenses of \$55,057. The increase was a result of increased headcount related to commercial development activities, including increases in payroll and benefits costs of \$40,200 related to our global commercial staff to support global expansion. This increase was also due to increases in payroll and

benefits of \$14,800 within our general and administrative functions to support our infrastructure growth as a global commercial entity.

• Increase in external selling, general and administrative expenses of \$27,790. This increase was primarily due to an increase in legal costs associated with the Novartis settlement, an increase in consulting fees related to our global supply chain expansion in Ireland, an increase in marketing costs to support the continued growth in global sales, as well as an increase in general administrative expenses due to infrastructure growth.

Acquisition-related Costs

Acquisition-related costs for the three and nine months ended September 30, 2013 and 2012 associated with our business combinations included the following:

		Three mo	nths en	ded	Nine months ended					
		September 30,				Septer	nber 3	0,		
	2013 2012			2012		2013		2012		
Separately-identifiable employee costs	\$	_	\$	457	\$	248	\$	3,552		
Professional fees		_		1,052		775		11,562		
Changes in fair value of contingent consideration		2,573		(542)		5,951		4,333		
	\$	2,573	\$	967	\$	6,974	\$	19,447		

The following table provides information for acquisition-related costs for each business combination:

	Three months ended					Nine mor	nths e	nded		
	September 30,					September 30,				
	2013 2012				2013		2012			
Enobia Pharma Corp.	\$	2,210	\$	3,441	\$	5,920	\$	20,558		
Taligen Therapeutics, Inc.		(53)		(4,224)		118		(3,069)		
Orphatec Pharmaceuticals GmbH	416			1,750		936		1,958		
	\$	2,573	\$	967	\$	6,974	\$	19,447		

Impairment of Intangible Asset

During the three months ended September 30, 2012, we reviewed for impairment the value of an early stage, preclinical indefinite-lived intangible asset related to the Taligen acquisition. We initiated such review based on our evaluation of negative scientific findings associated with our development of a different asset for the treatment of age-related macular degeneration, the likelihood of success for ophthalmic use and the value that can be obtained from a market participant in an arm's length transaction. These developments led us to deprioritize the development of this acquired asset. As a result, in the third quarter 2012, we recognized an impairment charge of \$26,300 to write-down this asset to fair value, which was determined to be de minimis. We did not recognize any impairment loss for intangible assets during the three and nine months ended September 30, 2013.

Other Income and Expense

The following table provides information regarding other income and expense:

	Three months ended							Nine mo	nths ended			
	September 30,			\$ Septe			Septer	ember 30,			\$	
		2013		2012		Variance		2013		2012		Variance
Investment income	\$	638	\$	317	\$	321	\$	1,793	\$	872	\$	921
Interest expense		(1,078)		(1,855)		777		(3,305)		(6,220)		2,915
Foreign currency loss		(547)		(416)		(131)		(134)		(817)		683
Total interest and other expense	\$	(987)	\$	(1,954)	\$	967	\$	(1,646)	\$	(6,165)	\$	4,519

We recognize investment income primarily from our portfolio of cash equivalents and marketable securities. Investment income was \$638 and \$317, for the three months ended, and \$1,793 and \$872 for the nine months ended September 30, 2013 and 2012, respectively.

We incur interest on our term notes and revolving credit facility. Interest expense was \$1,078 and \$1,855, for the three months ended, and \$3,305 and \$6,220 for the nine months ended September 30, 2013 and 2012, respectively. The decrease in interest expense is primarily due to a decrease in amounts outstanding under our credit facility.

Foreign currency transaction gains and losses relate to changes in the fair value of monetary assets and liabilities denominated in foreign currencies. The foreign currency transaction losses totaled \$547 and \$416, for the three months ended, and \$134 and \$817, for the nine months ended September 30, 2013 and 2012, respectively. The amounts recorded in these periods were a result of the costs of hedging our exposures, as well as the fluctuation in exchange rates on the portion of our monetary assets and liabilities that were not fully hedged as part of our hedging programs.

Income Taxes

During the three and nine months ended September 30, 2013, we recorded an income tax provision of \$40,503 and \$116,405 and an effective tax rate of 30.2% and 30.0%, compared to an income tax provision of \$48,586 and \$116,446 and an effective tax rate of 34.5% and 40.1% for the three and nine months ended September 30, 2012. The change in the effective tax rate is primarily attributable to our favorable jurisdictional profitability mix, as well as the recognition of the 2012 U.S. Federal tax credit for research and experimentation which was recorded in first quarter 2013.

The tax provision for the three and nine months ended September 30, 2013 is attributable to the U.S. federal, state and foreign income taxes on our profitable operations. Additionally, included in the nine months ended September 30, 2013 is the tax benefit of \$2,854 attributable to the 2012 U.S. Federal tax credit for research and experimentation. The U.S. Federal tax credit for research and experimentation expenses expired December 31, 2011. In connection with this expiration, our 2012 tax expense did not include any benefit from the U.S. Federal tax credit for research and experimentation. In January 2013, the American Taxpayer Relief Act of 2012, which retroactively extended the tax credit for research and experimentation back to January 1, 2012 through the end of 2013 was signed into law. The effects of a change in tax law is recognized in the period that includes the date of enactment and, therefore, our tax benefit attributable to the 2012 U.S. Federal tax credit for research and experimentation was recorded in the first quarter of 2013.

On September 13, 2013, the Treasury Department and the Internal Revenue Service released final regulations that provided guidance on the application of IRC Section 263(a) for amounts paid to acquire, produce, or improve tangible property, as well as the rules for materials and supplies and proposed regulations addressing dispositions and general asset accounts. The final regulations are generally effective for tax years beginning on or after January 1, 2014. We are currently evaluating the impact of these new regulations and do not expect them to have a material impact to our financial statements.

The tax provision for the three and nine months ended September 30, 2012 is principally attributable to the U.S. federal, state and foreign income taxes on our profitable operations and the tax expense of \$22,673 associated with the settlement and non-exclusive license agreement with a third party, which was executed in the third quarter of 2012. Additionally, included in the nine months ended September 30, 2012 is the impact of the tax expense of \$21,812 associated with the structuring of the Enobia business.

We continue to maintain a valuation allowance against certain other deferred tax assets where realization is not certain. We periodically evaluate the likelihood of the realization of deferred tax assets and reduce the carrying amount of these deferred tax assets by a valuation allowance to the extent we believe a portion will not be realized.

Financial Condition, Liquidity and Capital Resources

The following table summarizes the components of our financial condition as of September 30, 2013 and December 31, 2012:

Sept	ember 30, 2013	De	ecember 31, 2012		\$ Variance
\$	910,411	\$	989,501	\$	(79,090)
\$	392,344	\$		\$	392,344
\$	125,000	\$	149,000	\$	(24,000)
\$	1,915,502	\$	1,495,600	\$	419,902
	395,456		360,089		35,367
\$	1,520,046	\$	1,135,511	\$	384,535
	\$ \$ \$ \$	\$ 392,344 \$ 125,000 \$ 1,915,502 395,456	\$ 910,411 \$ \$ 392,344 \$ \$ 125,000 \$ \$ 1,915,502 \$ 395,456	\$ 910,411 \$ 989,501 \$ 392,344 \$ \$ 125,000 \$ 149,000 \$ 1,915,502 \$ 1,495,600 395,456 360,089 360,089	\$ 910,411 \$ 989,501 \$ \$ 392,344 \$

The decrease in cash and cash equivalents was primarily attributable to the purchase of marketable securities and the repurchase of common stock, offset by cash generated from operations, net proceeds from the exercise of stock options and a reduction of income taxes payable due to excess tax benefits from stock options. During the second quarter of 2013, we began

investing excess cash in high-quality marketable securities which are carried at fair value and are intended for use in meeting our ongoing liquidity needs.

We expect continued growth in our expenditures, particularly those related to research and product development, clinical trials, regulatory approvals, international expansion, commercialization of products and capital investment. However, we anticipate that cash generated from operations and our existing available cash, cash equivalents and marketable securities should provide us adequate resources to fund our operations as currently planned for the foreseeable future.

We have financed our operations and capital expenditures primarily through positive cash flows from operations. We expect to continue to be able to fund our operations, for the foreseeable future, including principal and interest payments on our credit facility and contingent payments from our acquisitions principally through our cash flows from operations. We may, from time to time, also seek additional funding through a combination of equity or debt financings or from other sources, if necessary for future acquisitions or other strategic purposes.

Financial Instruments

Until required for use in the business, we may invest our cash reserves in money market funds or high-quality marketable securities in accordance with our investment policy. The stated objectives of our investment policy are to preserve capital, provide liquidity consistent with forecasted cash flow requirements, maintain appropriate diversification and generate returns relative to these investment objectives and prevailing market conditions.

Financial instruments that potentially expose us to concentrations of credit risk are limited to cash equivalents, marketable securities, accounts receivable and our foreign exchange derivative contracts. At September 30, 2013, one individual customer accounted for 19% of the accounts receivable balance. At December 31, 2012, two individual customers accounted for 18% and 12% of the accounts receivable balance. For the three and nine months ended September 30, 2013, one customer accounted for 20% of our product sales. For the three and nine months ended September 30, 2012, two customers accounted for 21% and 12% of our product sales, respectively.

We continue to monitor economic conditions, including volatility associated with international economies and the sovereign debt crisis in Europe, and the associated impacts on the financial markets and our business. The credit and economic conditions in Greece, Italy and Spain, among other members of the European Union, have deteriorated over the last several years. These conditions have resulted in, and may continue to result in, an increase in the average length of time it takes to collect our outstanding accounts receivable in these countries. Substantially all of our accounts receivable due from these countries are due from or backed by sovereign or local governments, and the amount of non-sovereign accounts receivable is not material. Our exposure to the sovereign debt issue in Greece is limited, as we do not have a material amount of accounts receivable in Greece.

As of September 30, 2013 and December 31, 2012, our gross accounts receivable in Italy and Spain totaled approximately \$82,076 and \$82,200, respectively. As of September 30, 2013 and December 31, 2012, approximately \$15,706 and \$21,100, respectively, of these amounts has been outstanding for greater than one year, and we have recorded an allowance of approximately \$1,275 and \$2,000, respectively, related to these gross receivables. As of September 30, 2013 and December 31, 2012, we recorded \$7,633 and \$21,334, respectively, of accounts receivable in Spain within other non-current assets, which approximates the amount of the receivables that we estimate with collection periods beyond one year.

We have recorded income (expense) of approximately \$329 and \$(115) for the three months ended, and \$840 and \$(1,580) for the nine months ended September 30, 2013 and 2012, respectively, related to recoveries of past due amounts from these countries or the expectation of delayed payments. Our net accounts receivable from these countries as of September 30, 2013 and December 31, 2012 are summarized as follows:

	Total Accounts Receivable, net				Accounts Receivable, net > one year			
	Septen	nber 30, 2013	December 31, 2012	Sep	September 30, 2013		December 31, 2012	
Italy	\$	36,059	\$ 35,758	\$	5,127	\$	7,197	
Spain	\$	44,741	\$ 44,465	\$	9,303	\$	12,873	

We manage our foreign currency transaction risk within specified guidelines through the use of derivatives. All of our derivative instruments are utilized for risk management purposes, and we do not use derivatives for speculative trading purposes. As of September 30, 2013, we have foreign exchange forward contracts with notional amounts totaling \$1,151,017. These outstanding foreign exchange forward contracts had a net fair value of \$2,075, of which an unrealized gain of \$26,723 is included in other assets, offset by an unrealized loss of \$24,648 included in other liabilities. The counterparties to these foreign exchange forward contracts are large multinational commercial banks, and we believe the risk of nonperformance is not material.



At September 30, 2013, our financial assets and liabilities were recorded at fair value. We have classified our financial assets and liabilities as Level 1, 2 or 3 within the fair value hierarchy. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Our Level 1 assets consist of mutual funds and U.S. Treasury securities. Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, but substantially the full term of the financial instrument. Our Level 2 assets consist primarily of money market funds, marketable securities and foreign exchange forward contracts. Our Level 2 liabilities at fair value. Our Level 3 liabilities consist of contingent consideration related to acquisitions.

Business Combinations and Contingent Consideration Obligations

The purchase agreements for our business combinations include contingent payments totaling up to \$876,000 that will become payable if and when certain development and commercial milestones are achieved. Of these milestone amounts, \$561,000 and \$315,000 of the contingent payments relate to development and commercial milestones, respectively. We do not expect that significant contingent payments will be made in the next 12 months and, accordingly, we do not expect these amounts to have an impact on our liquidity in the near-term. As future payments become probable, we will evaluate methods of funding payments, which could be made from available cash and marketable securities, cash generated from operations or proceeds from other financing.

Leases

In November 2012, we entered into a lease agreement for office and laboratory space to be constructed in New Haven, Connecticut. Although we will not legally own the premises, we are deemed to be the owner of the building during the construction period based on applicable accounting guidance for build-to-suit leases due to our involvement during the construction period. Accordingly, the landlord's costs of constructing the facility are required to be capitalized, as a non-cash transaction, offset by a corresponding facility lease obligation in our condensed consolidated balance sheet. As of September 30, 2013, our construction-in-process asset associated with the new facility and the offsetting lease obligation totaled \$12,251.

License Agreements

In January 2013, we entered into a license agreement for a technology, which provides an exclusive research license and an option for an exclusive commercial license for specific targets and products to be developed. Due to the early stage of this asset, we recorded expense for an upfront payment of \$3,000 during the first quarter of 2013. We will also be required to pay annual maintenance fees during the term of the arrangement. In addition, for each target up to a maximum of six targets we develop, we could be required to pay up to an additional \$70,500 in license fees, development and sales milestones as the specific milestones are met over time.

In July 2013, we entered into a license and collaboration agreement for the identification, development and commercialization of therapeutic candidates based on specific drug targets. Due to the early stage of these assets, we recorded expense for an upfront payment of \$11,500 during the third quarter of 2013. We will also be responsible for funding research activities under the program. In addition, for each drug target, up to a maximum of four targets, we could be required to pay up to an additional \$90,750 in development milestones as the specific milestones are met over time. The agreement also provides for royalty payments on commercial sales of each product developed under the agreement.

Long-term Debt

In February 2012, we and our wholly-owned Swiss subsidiary, Alexion Pharma International Sàrl, entered into the Credit Agreement (Credit Agreement) with a syndicate of lenders and other parties named in the Credit Agreement that provides for a \$240,000 senior secured term loan facility payable in equal quarterly installments of \$12,000 starting June 30, 2012 and a \$200,000 senior secured revolving credit facility, which includes up to a \$60,000 sublimit for letters of credit and a \$10,000 sublimit for swingline loans. We may also use the facilities for working capital requirements, acquisitions and other general corporate purposes. Any of Alexion's wholly-owned foreign subsidiaries may borrow funds under the facilities upon satisfaction of certain conditions described in the Credit Agreement. As of September 30, 2013, we had \$125,000 outstanding on the term loan. As of September 30, 2013, we had open letters of credit of \$15,085, and our borrowing availability under the revolving facility was \$184,915 at September 30, 2013. We expect that cash generated from operations will be sufficient to meet debt service obligations.

Lonza Agreement

We have various agreements with Lonza, with remaining total commitments of approximately \$163,000 through 2019. Such commitments may be canceled only in limited circumstances. If we terminate certain supply agreements with Lonza



without cause, we will be required to pay for product scheduled for manufacture under our arrangement. Under an existing arrangement with Lonza, we also pay Lonza a royalty on sales of Soliris manufactured at ARIMF.

Taxes

We do not record U.S. tax expense on the undistributed earnings of our non-U.S. subsidiaries as these earnings are intended to be permanently reinvested in the businesses offshore. We do not have any present or anticipated future need for cash held by our non-U.S. subsidiaries, as cash generated in the U.S., as well as borrowings, are expected to be sufficient to meet future U.S. liquidity needs. At September 30, 2013, approximately \$127,000 of our cash and cash equivalents was held by foreign subsidiaries, a significant portion of which is required for liquidity needs of our foreign subsidiaries. Our foreign subsidiaries have bank debt which remains outstanding as of September 30, 2013. Due to the liability position of our foreign subsidiaries, these subsidiaries will repay the bank debt, as well as any outstanding intercompany debt, prior to having excess cash available which could be used to repatriate to our entities in the United States. While our expectation is that all foreign undistributed earnings are permanently invested, there could be certain unforeseen future events that could impact our permanent reinvestment assertion. Such events include acquisitions, corporate restructurings or tax law changes not currently contemplated.

Common Stock Repurchase Program

In November 2012, we announced that our Board of Directors authorized the repurchase of up to \$400,000 of our common stock. This repurchase program does not have an expiration date. We expect that cash generated from operations and our existing available cash and cash equivalents are sufficient to fund any share repurchases.

Under the program, we repurchased 758 shares of our common stock at a cost of \$66,136 during the nine months ended September 30, 2013. As of September 30, 2013, there is a total of \$322,311 remaining for repurchases under the program.

Cash Flows

The following summarizes our net change in cash and cash equivalents:

	Nine months ended September 30,					
	2013			2012	\$ Variance	
Net cash provided by operating activities	\$	288,468	\$	305,656	\$	(17,188)
Net cash used in investing activities		(413,870)		(619,995)		206,125
Net cash provided by financing activities		47,123		678,882		(631,759)
Effect of exchange rate changes on cash		(811)		118		(929)
Net change in cash and cash equivalents	\$	(79,090)	\$	364,661	\$	(443,751)

The decrease in cash and cash equivalents was primarily attributable to the purchase of marketable securities and the repurchase of common stock, offset by cash generated from operations, net proceeds from the exercise of stock options and a reduction of income taxes payable due to excess tax benefits from stock options.

Operating Activities

The components of cash flows from operating activities, as reported in our Condensed Consolidated Statements of Cash Flows, are as follows:

- Our net income was \$271,887 and \$173,851 for the nine months ended September 30, 2013 and 2012, respectively.
- Non-cash items included depreciation and amortization, impairment of intangible assets, change in fair value of contingent consideration, share-based compensation expense, premium amortization of available-for-sale securities, deferred taxes, unrealized foreign currency gains, and gains on forward contracts, and were \$95,394 and \$140,653 for the nine months ended September 30, 2013 and 2012, respectively.
- Net cash outflow due to changes in operating assets and liabilities was \$78,813 and \$8,848 for the nine months ended September 30, 2013 and 2012, respectively. The \$78,813 change in operating assets and liabilities primarily relates to:
 - Increase in accounts receivable of \$98,432 due to the increased number of patients treated with Soliris globally.

• Increase in deferred revenue of \$24,288 due to increased shipments in advance of recognizing revenue.

Investing Activities

The components of cash flows from investing activities consisted of the following:

- Purchases of available-for-sale marketable securities of \$420,515 for the nine months ended September 30, 2013, offset by proceeds from the sale of available-for-sale marketable securities of \$27,951 during the same period.
- Additions to property, plant and equipment of \$20,628 and \$14,257 for the nine months ended September 30, 2013 and 2012, respectively.
- Payment of \$605,735 related to the acquisition of Enobia in the first quarter of 2012.

Financing Activities

Net cash flows from financing activities reflected proceeds from the exercise of stock options of \$44,560 and \$54,910 for the nine months ended September 30, 2013 and 2012, respectively. Net cash flows for the nine months ended September 30, 2013 and 2012 also include \$95,832 and \$7,582, respectively, of excess tax benefits from stock options attributable to the utilization of the excess tax benefit portion of federal and state net operating losses and tax credits. In addition, during the nine months ended September 30, 2012, we recognized proceeds of \$462,212 in connection with the sale of 5,000 shares of our common stock.

In connection with the acquisition of Enobia in February 2012, we borrowed \$240,000 under the term loan facility and \$80,000 under the revolving facility, and we used our available cash for the remaining purchase price. During the nine months ended September 30, 2012, we repaid the revolving credit facility in full and made payments of \$79,000 against the term loan facility. During the nine months ended September 30, 2013, we made payments of \$24,000 against the term loan facility had \$125,000 remaining outstanding as of September 30, 2013.

During the nine months ended September 30, 2013, we repurchased \$66,136 worth of shares of our common stock under a repurchase program that was approved by our Board of Directors in November 2012. As of September 30, 2013, \$322,311 remains available for repurchases under the program.

Contractual Obligations

The disclosure of payments we have committed to make under our contractual obligations are summarized in our Annual Report on Form 10-K for the twelve months ended December 31, 2012, in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the caption "Contractual Obligations."

Item 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

(amounts in thousands, except percentages)

Interest Rate Risk

As of September 30, 2013, we invested our cash in a variety of financial instruments, principally money market funds, corporate bonds, municipal bonds, commercial paper, U.S. Treasury securities and other government-related obligations. All of our interest-bearing securities are subject to interest rate risk and could decline in value if interest rates fluctuate. Our investment portfolio is comprised of marketable securities of highly rated financial institutions and investment-grade debt instruments, and we have guidelines to limit the term-to-maturity of our investments. Based on the type of securities we invest in, we do not believe a change in interest rates would have a material impact on our financial statements. If interest rates were to increase or decrease by 1%, the fair value of our investment portfolio would increase (decrease) by approximately \$(5,400) and \$3,400, respectively.

In February 2012, we entered into the Credit Agreement with a floating rate of interest based on LIBOR, Prime Rate, Federal Funds Rate or Eurodollar Rate, at our election, plus an applicable credit spread. We do not expect changes in interest rates related to the Credit Agreement to have a material effect on our financial statements. As of September 30, 2013, we had approximately \$125,000 of variable rate debt outstanding. If interest rates were to increase or decrease by 1% for the year, annual interest expense would increase or decrease by approximately \$1,250.

Foreign Exchange Market Risk

As a result of our foreign operations, we face exposure to movements in foreign currency exchange rates, primarily the Euro, Japanese Yen, Swiss Franc and British Pound against the U.S. dollar. The current exposures arise primarily from cash, accounts receivable, intercompany receivables and payables, and product sales denominated in foreign currencies. Both positive and negative impacts to our international product sales from movements in foreign currency exchange rates are partially mitigated by the natural, opposite impact that foreign currency exchange rates have on our international operating expenses. We have operations based in Switzerland to support our business outside the U.S., and accordingly, our expenses are impacted by fluctuations in the value of the Swiss Franc against the U.S. dollar.

We currently have a derivative program in place to achieve the following: 1) limit the foreign currency exposure of our monetary assets and liabilities on our balance sheet, using contracts with durations of up to 30 days and 2) hedge a portion of our forecasted intercompany product sales, using contracts with durations of up to 36 months. The objectives of this program are to reduce the volatility of exchange rate fluctuations on our operating results and to increase the visibility of the foreign exchange impact on forecasted revenues. This program utilizes foreign exchange forward contracts intended to reduce, not eliminate, the impact of fluctuations in foreign currency rates.

As of September 30, 2013, we held foreign exchange forward contracts with notional amounts totaling \$1,151,017. As of September 30, 2013, our outstanding foreign exchange forward contracts had a net fair value of \$2,075.

We do not use derivative financial instruments for speculative trading purposes. The counterparties to these foreign exchange forward contracts are multinational commercial banks. We believe the risk of counterparty nonperformance is not material.

Since our foreign currency hedges are designed to offset gains and losses on our monetary assets and liabilities, we do not expect that a hypothetical 10% adverse fluctuation in exchange rates would result in a material change in the fair value of our foreign currency sensitive net assets, which include our monetary assets and liabilities and our foreign exchange forward contracts. The analysis above does not consider the impact that hypothetical changes in foreign currency exchange rates would have on future transactions such as anticipated sales.

Credit Risk

As a result of our foreign operations, we are exposed to changes in the general economic conditions in the countries in which we conduct business. We continue to monitor economic conditions, including volatility associated with international economies and the sovereign debt crisis in Europe, and the associated impacts on the financial markets and our business. The credit and economic conditions in Greece, Italy and Spain, among other members of the European Union, have deteriorated over the last several years. These conditions have resulted in, and may continue to result in, an increase in the average length of time it takes to collect our outstanding accounts receivable in these countries. Substantially all of our accounts receivable due from these countries are due from or backed by sovereign or local governments, and the amount of non-sovereign accounts receivable is not material. Our exposure to the sovereign debt issue in Greece is limited, as we do not have a material amount of accounts receivable in Greece. We have provided detail on amounts outstanding in Italy and Spain in the "Financial Condition, Liquidity and Capital Resources" section in Item 2 above.

Item 4. CONTROLS AND PROCEDURES

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act) as of September 30, 2013. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of September 30, 2013, our disclosure controls and procedures were effective to provide reasonable assurance that information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure, and ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms.

There has been no change in our internal control over financial reporting that occurred during the quarter ended September 30, 2013 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. LEGAL PROCEEDINGS.

In January 2011, Novartis Vaccines and Diagnostics, Inc. (Novartis) filed an action against us and other biopharmaceutical companies in the U.S. District Court for the District of Delaware claiming willful infringement by us of U.S. Patent No. 5,688,688 (688 Patent). During the third quarter of 2013, the parties engaged in discussions to resolve the matter. In October 2013, we and Novartis agreed to resolve all claims asserted by Novartis in the action. In October 2013, the parties entered into a settlement agreement and dismissal pursuant to which Novartis granted Alexion a non-exclusive, fully paid license to the 688 Patent for our products and dismissed its case with prejudice. As a result, we recorded expense of \$9,181 in cost of sales in the third quarter 2013 related to this litigation settlement agreement.

Item 1A. Risk Factors.

(amounts in thousands, except percentages)

You should carefully consider the following risk factors before you decide to invest in Alexion and our business because these risk factors may have a significant impact on our business, operating results, financial condition, and cash flows. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. If any of the following risks actually occurs, our business, financial condition and results of operations could be materially and adversely affected.

Risks Related to Our Lead Product Soliris

We depend heavily on the success of our lead product, Soliris. If we are unable to increase sales of Soliris, or obtain approval or commercialize Soliris in new territories for the treatment of PNH, aHUS or for additional indications, or if we are significantly delayed or limited in doing so, our business may be materially harmed.

Our ability to generate revenues will continue to depend on commercial success of Soliris in the United States, Europe, Japan and in a number of key markets in the rest of the world and whether physicians, patients and health care payers view Soliris as therapeutically effective and safe relative to cost. Since we launched Soliris in the United States in April 2007, essentially all of our revenue has been attributed to sales of Soliris, and we expect that Soliris product sales will continue to contribute to a significant percentage or almost all of our total revenue over the next several years.

In September and November 2011 we obtained marketing approval in the United States and the European Union, respectively, for Soliris for the treatment of a second indication, aHUS. In September 2013, the MHLW approved Soliris for the treatment of patients with aHUS in Japan.

We dedicate significant resources to the worldwide commercialization of Soliris. We have established sales and marketing capabilities in the United States and in many countries throughout the world. We cannot guarantee that any marketing application for Soliris for the treatment of PNH, aHUS or any other indication, will be approved or maintained in any country where we seek marketing authorization to sell Soliris. In certain countries, we continue discussions with authorities to finalize operational, reimbursement, price approval and funding processes so that we may, upon conclusion of such discussions, commence commercial sales of Soliris for the treatment of PNH in those countries. We have had and will continue to have similar discussions with authorities to facilitate the commercialization of Soliris for the treatment of aHUS in certain countries in the European Union. Our ability to complete such processes successfully is subject to the risks and uncertainties described in this Quarterly Report on Form 10-Q. We cannot guarantee that we will be able to obtain reimbursement for Soliris or successfully commercialize Soliris in any additional countries, or that we will be able to maintain coverage or reimbursement at anticipated levels in any country in which we have already received marketing approval. As a result, sales in certain countries may be delayed or never occur, or may be subsequently reduced.

The commercial success of Soliris and our ability to generate and increase revenues will depend on several factors, including the following:

- receipt of marketing approvals for Soliris for the treatment of PNH in new territories and the maintenance of marketing approvals for the treatment of PNH in the United States, the European Union, Japan and other territories;
- receipt and maintenance of marketing approvals for Soliris for the treatment of aHUS in other territories and the maintenance of the marketing approval in the United States, Japan and the European Union;



- our ability to obtain sufficient coverage or reimbursement by government or third-party payers and our ability to maintain coverage or reimbursement at anticipated levels;
- establishment and maintenance of commercial manufacturing capabilities ourselves or through third-party manufacturers;
- the number of patients with PNH and aHUS, and the number of those patients who are diagnosed with PNH and aHUS and identified to us;
- the number of patients with PNH and aHUS that may be treated with Soliris;
- successful continuation of commercial sales in the United States, Japan and in European countries where we are already selling Soliris for the treatment of PNH, and successful launch in countries where we have not yet obtained, or only recently obtained, marketing approval or commenced sales;
- successfully launching commercial sales of Soliris for the treatment of aHUS in the United States, Japan and Europe, and in countries where we have not yet obtained marketing approval;
- acceptance of Soliris and maintenance of safety and efficacy in the medical community; and
- our ability to develop, register and commercialize Soliris for indications other than PNH, including aHUS.

If we are not successful in increasing sales of Soliris in the United States, Europe and Japan and commercializing in the rest of the world, or are significantly delayed or limited in doing so, we may experience surplus inventory, our business may be materially harmed and we may need to significantly curtail operations.

Because the target patient populations of Soliris for the treatment of PNH and aHUS are small and have not been definitively determined, we must be able to successfully identify patients in order to maintain profitability and growth.

PNH and aHUS are each ultra-rare diseases with small patient populations that have not been definitively determined. There can be no guarantee that any of our programs will be effective at identifying patients and the number of patients in the United States, Japan and Europe and elsewhere may turn out to be lower than expected, may not be otherwise amenable to treatment with Soliris, or new patients may become increasingly difficult to identify, all of which would adversely affect our results of operations and our business.

If we are unable to obtain, or maintain at anticipated levels, reimbursement for Soliris from government health administration authorities, private health insurers and other organizations, our pricing may be affected or our product sales, results of operations or financial condition could be harmed.

We may not be able to sell Soliris on a profitable basis or our profitability may be reduced if we are required to sell our product at lower than anticipated prices or reimbursement is unavailable or limited in scope or amount. Soliris is significantly more expensive than traditional drug treatments and almost all patients require some form of third party coverage to afford its cost. Our future revenues and profitability will be adversely affected if we cannot depend on governmental payers, such as Medicare and Medicaid in the United States or country specific governmental organizations, and private third-party payers to defray the cost of Soliris to patients. These entities may refuse to provide coverage and reimbursement with respect to Soliris, determine to provide a lower level of coverage and reimbursement than anticipated, or reduce previously approved levels of coverage and reimbursement, including in the form of higher mandatory rebates or modified pricing terms. In any such case, our pricing or reimbursement for Soliris may be affected and our product sales, results of operations or financial condition could be harmed.

In certain countries where we sell or are seeking or may seek to commercialize Soliris, including certain countries where we both sell Soliris for the treatment of PNH and sell or seek to commercialize Soliris for the treatment of aHUS, if approved by the appropriate regulatory authority, pricing, coverage and level of reimbursement of prescription drugs are subject to governmental control. We may be unable to timely or successfully negotiate coverage, pricing, and reimbursement on terms that are favorable to us, or such coverage, pricing, and reimbursement may differ in separate regions in the same country. For example, in January 2013, we were informed by the Advisory Group for National Specialised Services that although Soliris would help save lives and improve the quality of life for children and adults with aHUS, the U.K. Health Ministers decided not to recommend national commissioning of Soliris for the treatment of aHUS and at that time determined to refer the evaluation of Soliris for treatment of patients with aHUS to National Institute for Health and Clinical Excellence (NICE) for further review as part of its new Highly Specialised Technologies program. In July 2013, the Government's Clinical Priorities Advisory Group (CPAG) decided to recommend a formal clinical access policy that includes aHUS patients who have functioning kidneys as well as patients on dialysis who are transplantable. In September 2013, England's National Health Service adopted the positive CPAG recommendation and commissioned Soliris for the treatment of children and adults with aHUS. Funding for patients in England is expected to be available through completion of NICE review. The NICE decision is anticipated in 2014. In some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully



marketed. The requirements governing drug pricing vary widely from country to country, and we cannot guarantee that we will have the capabilities or resources to successfully conclude the necessary processes and commercialize Soliris in every or even most countries in which we seek to sell Soliris.

Reimbursement sources are different in each country and in each country may include a combination of distinct potential payers, including private insurance and governmental payers. For example, the European Union member states' authorities may restrict the range of medicinal products for which their national health insurance systems provide reimbursement and adopt additional measures to control the prices of medicinal products for human use. This includes the use of reference pricing and Health Technology Assessment (HTA). HTA is the procedure according to which the assessment of the public health impact, therapeutic impact and the economic and societal impact of the use of a given medicinal product in the national healthcare systems of the individual country is conducted. HTA generally focuses on the clinical efficacy and effectiveness, safety, cost, and cost-effectiveness of individual medicinal products as well as their potential implications for the healthcare system. These elements of medicinal products are compared with other treatment options available on the market. The national authorities of some European Union member states may from time to time approve a specific price for the medicinal product. Others may adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the national market. Some countries have and others may seek to impose limits on the aggregate reimbursement for Soliris or for the use of Soliris for certain indications. In such cases, our commercial operations in such countries and our results of operations and our business are and may be adversely affected. Our results of operations may suffer if we are unable to successfully and timely conclude reimbursement, price approval or funding processes and market Soliris in such foreign countries or if coverage and reimbursement for Soliris is limited or reduced. If we are not able to obtain coverage, pricing or reimbursement on terms acceptable to us or at all, or if such terms should c

The potential increase in the number of patients receiving Soliris may cause third-party payers to modify or limit coverage or reimbursement for Soliris for the treatment of PNH, aHUS, or both indications.

Changes in pricing or the amount of reimbursement in countries where we currently commercialize Soliris may also reduce our profitability and worsen our financial condition. In the United States, the European Union member states, and elsewhere, there have been, and we expect there will continue to be, efforts to control and reduce health care costs. Government and other third-party payers in the United States and the European Union member states are challenging the prices charged for health care products and increasingly limiting and attempting to limit both coverage and level of reimbursement for prescription drugs. For example, during 2010 the German government adopted legislation to increase mandatory discounts on pharmaceutical products and impose a temporary freeze on pharmaceutical pricing, including Soliris. A significant reduction in the amount of reimbursement or pricing for Soliris in one or more countries may have a material adverse effect on our business. See additional discussion below under the headings "Government initiatives that affect coverage and reimbursement of drug products could adversely affect our business" and "The credit and financial market conditions may aggravate certain risks affecting our business." In addition, certain countries establish pricing and reimbursement amounts by reference to the price of the same or similar products in other countries. If coverage or the level of reimbursement is limited in one or more countries, we may be unable to obtain or maintain anticipated pricing or reimbursement in current or new territories.

Many third-party payers cover only selected drugs, making drugs that are not preferred by such payer more expensive for patients, and require prior authorization or failure on another type of treatment before covering a particular drug. Third-party payers may be especially likely to impose these obstacles to coverage for higher-priced drugs such as Soliris.

Even in countries where patients have access to insurance, their insurance co-payment amounts or annual or lifetime caps on reimbursements may represent a barrier to obtaining or continuing Soliris. We have financially supported non-profit organizations which assist patients in accessing treatment for PNH and aHUS, including Soliris. Such organizations assist patients whose insurance coverage leaves them with prohibitive co-payment amounts or other expensive financial obligations. Such organizations' ability to provide assistance to patients is dependent on funding from external sources, and we cannot guarantee that such funding will be provided at adequate levels, if at all. We have also provided Soliris without charge to patients who have no insurance coverage for drugs for related charitable purposes. We are not able to predict the financial impact of the support we may provide for these and other charitable purposes; however, substantial support could have a material adverse effect on our profitability in the future.

We are also focusing development efforts on the use of eculizumab for the treatment of additional diseases. The success of these programs depends on many factors, including those described under the heading "Risks Related to Development, Clinical Testing and Regulatory Approval of Our Product Candidates." As eculizumab is approved by regulatory agencies for indications other than PNH, the potential increase in the number of patients receiving Soliris may cause third-party payers to refuse coverage or reimbursement for Soliris for the treatment of PNH or for any other approved indication, or provide a lower level of coverage or reimbursement than anticipated or currently in effect.

We may not be able to gain or maintain market acceptance among the medical community or patients, which would prevent us from maintaining profitability or growth in the future.

We cannot be certain that Soliris will gain or maintain market acceptance in a particular country among physicians, patients, health care payers, and others. Although we have received regulatory approval for Soliris in certain territories, including the United States, Japan and the European Union, such approvals do not guarantee future revenue. We cannot predict whether physicians, other health care providers, government agencies or private insurers will determine or continue to accept that Soliris is safe and therapeutically effective relative to its cost. Medical doctors' willingness to prescribe, and patients' willingness to accept, Soliris depends on many factors, including prevalence and severity of adverse side effects in both clinical trials and commercial use, effectiveness of our marketing strategy and the pricing of Soliris, publicity concerning Soliris, our other product candidates or competing products, our ability to obtain and maintain third-party coverage or reimbursement, and availability of alternative treatments, including bone marrow transplant as an alternative treatment for PNH. The likelihood of medical doctors to prescribe Soliris for patients with aHUS may also depend on how quickly Soliris can be delivered to the hospital or clinic and our distribution methods may not be sufficient to satisfy this need. In addition, we are aware that medical doctors have determined not to continue Soliris treatment for some patients with aHUS. If Soliris fails to achieve or maintain market acceptance among the medical community or patients in a particular country, we may not be able to market and sell it successfully in such country, which would limit our ability to generate revenue and could harm our overall business.

If we or our contract manufacturers fail to comply with continuing United States and foreign regulations, we could lose our approvals to market Soliris or our manufacturers could lose their approvals to manufacture Soliris, and our business would be seriously harmed.

We cannot guarantee that we will be able to maintain our regulatory approvals for Soliris. If we do not maintain our regulatory approvals for Soliris, the value of our company and our results of operations will be materially harmed. We and our current and future partners, contract manufacturers and suppliers are subject to rigorous and extensive regulation by the FDA, other federal and state agencies, and governmental authorities in other territories. For example, in March 2013, we received a Warning Letter (Warning Letter) from the FDA relating to compliance with current Good Manufacturing Practices (cGMP) at ARIMF. While we believe that we will successfully resolve outstanding concerns expressed by the FDA in the Warning Letter, we cannot guarantee that we will do so to the satisfaction of the FDA, EMA or other regulatory agencies and approval of the facility by any such agencies could be withdrawn as a result.

Regulations continue to apply after product approval, and cover, among other things, testing, manufacturing, quality control, finishing, vialing, labeling, advertising, promotion, risk mitigation, adverse event reporting requirements, and export of biologics. For example, the risk management program established in 2007 upon the FDA's approval of Soliris for the treatment of PNH was replaced with a Risk Evaluation and Mitigation Strategy (REMS) program, approved by the FDA in 2010. The REMS program requires mandatory physician certification in the United States. Each physician must certify that the physician is aware of the potential risks associated with the administration of Soliris and that the physician will inform each patient of these risks using educational material approved by the FDA.

As a condition of approval for marketing Soliris, governmental authorities may require us to conduct additional studies. For example, in connection with the approval of Soliris in the United States, European Union and Japan, for the treatment of PNH, we agreed to establish a PNH Registry, monitor immunogenicity, monitor compliance with vaccination requirements, and determine the effects of anticoagulant withdrawal among PNH patients receiving eculizumab, and, specifically in Japan, we agreed to conduct a trial in a limited number of Japanese PNH patients to evaluate the safety of a meningococcal vaccine. Further, in connection with the approval of Soliris in the United States for the treatment of aHUS, we agreed to establish an aHUS Registry and complete additional human clinical studies in adult and pediatric patients. In the United States, for example, the FDA can propose to withdraw approval for a product if it determines that such additional studies are inadequate or if new clinical data or information shows that a product is not safe for use in an approved indication. We are required to report any serious and unexpected adverse experiences and certain quality problems with Soliris to the FDA, the EMA, the competent authorities of the European Union member states, MHLW, and certain other health agencies. We or any health agency may have to notify health care providers of any such developments.

The discovery of any previously unknown problems with Soliris, a manufacturer or a facility may result in restrictions on Soliris, a manufacturer or a facility, including withdrawal of Soliris from the market, batch failures, or interruption of production or a product recall such as the one our affiliate voluntarily initiated in August 2013. Certain changes to an approved product, including the way it is manufactured or promoted, often require prior regulatory approval before the product as modified may be marketed. Our manufacturing and other facilities and those of any third parties manufacturing Soliris will be subject to inspection prior to grant of marketing approval by each regulatory authority where we seek marketing approval and subject to continued review and periodic inspections by the regulatory authorities, such as the inspections that resulted in issuance of the Warning Letter. We and any third party we would use to manufacture Soliris for sale, including Lonza, must also be licensed by applicable regulatory authorities.

Failure to comply with the laws and requirements, including statutes and regulations, administered by the FDA, the EMA, the competent authorities of the European Union member states, the MHLW or other agencies, including without limitation, failures or delays in resolving the concerns raised by the FDA in the Warning Letter, could result in:

- a product recall or withdrawal;
- significant administrative and judicial sanctions, including, warning letters or untitled letters;
- significant fines and other civil penalties;
- suspension or withdrawal of a previously granted approval for Soliris;
- interruption of production;
- operating restrictions, such as a shutdown of production facilities or production lines;
- suspension of ongoing clinical trials;
- delays in approving or refusal to approve Soliris or a facility that manufactures Soliris;
- seizing or detaining product;
- injunctions; and/or
- criminal prosecution.

If the use of Soliris harms people, or is perceived to harm patients even when such harm is unrelated to Soliris, our regulatory approvals could be revoked or otherwise negatively impacted and we could be subject to costly and damaging product liability claims.

The testing, manufacturing, marketing and sale of drugs for use in humans exposes us to product liability risks. Side effects and other problems from using Soliris could (1) lessen the frequency with which physicians decide to prescribe Soliris, (2) encourage physicians to stop prescribing Soliris to their patients who previously had been prescribed Soliris, (3) cause serious adverse events and give rise to product liability claims against us, and (4) result in our need to withdraw or recall Soliris from the marketplace. Some of these risks are unknown at this time.

We tested Soliris in only a small number of patients. The FDA marketing approval for the treatment of patients with aHUS was based on two prospective studies in a total of 37 adult and adolescent patients, together with a retrospective study that included 19 pediatric patients. PNH and aHUS are ultra-rare diseases. As more patients use Soliris, including more children and adolescents, new risks and side effects may be discovered, the rate of known risks or side effects may increase, and risks previously viewed as less significant could be determined to be significant. Previously unknown risks and adverse effects of Soliris may also be discovered in connection with unapproved uses of Soliris, which may include administration of Soliris under acute emergency conditions, such as the Enterohemorrhagic *E. coli* health crisis in Europe, primarily Germany, that began in May 2011. We do not promote, or in any way support or encourage the promotion of Soliris for unapproved uses in violation of applicable law, but physicians are permitted to use products for unapproved purposes and we are aware of such uses of Soliris. In addition, we are studying and expect to continue to study Soliris in diseases other than PNH and aHUS in controlled clinical settings, and independent investigators are doing so as well. In the event of any new risks or adverse effects discovered as new patients are treated for approved indications and as Soliris is studied in or used by patients for other indications, regulatory authorities may delay or revoke their approvals, we may be required to conduct additional clinical trials and safety studies, make changes in labeling of Soliris, reformulate Soliris or make changes and obtain new approvals for our and our suppliers' manufacturing facilities. We may also experience a significant drop in the potential sales of Soliris, experience harm to our reputation and the reputation of Soliris in the marketplace or become subject to lawsuits, including class actions. Any of these results could decrease or

We may be sued by people who use Soliris, whether as a prescribed therapy, during a clinical trial, during an investigator initiated study, or otherwise. Many patients who use Soliris are already very ill. Any informed consents or waivers obtained from people who enroll in our trials or use Soliris may not protect us from liability or litigation. Our product liability insurance may not cover all potential types of liabilities or may not cover certain liabilities completely. Moreover, we may not be able to maintain our insurance on acceptable terms. In addition, negative publicity relating to the use of Soliris or a product candidate, or to a product liability claim, may make it more difficult, or impossible, for us to market and sell Soliris. As a result of these factors, a product liability claim, even if successfully defended, could have a material adverse effect on our business, financial condition or results of operations.

Patients who use Soliris already often have severe and advanced stages of disease and known as well as unknown significant pre-existing and potentially life-threatening health risks, including, for example, bone marrow failure, kidney failure and thrombosis. During the course of treatment, patients may suffer adverse events, including death, for reasons that may or



may not be related to Soliris. Such events could subject us to costly litigation, require us to pay substantial amounts of money to injured patients, delay, negatively impact or end our opportunity to receive or maintain regulatory approval to market Soliris, or require us to suspend or abandon our commercialization efforts. Even in a circumstance in which we do not believe that an adverse event is related to Soliris, the investigation into the circumstance may be time consuming or inconclusive. These investigations may interrupt our sales efforts, delay our regulatory approval process in other countries, or impact and limit the type of regulatory approvals Soliris receives or maintains.

Some patients treated with Soliris for PNH and other diseases, including patients who have participated in our clinical trials, have died or suffered potentially life-threatening diseases either during or after ending their Soliris treatments. In particular, use of C5 Inhibitors, such as Soliris, is associated with an increased risk for certain types of infection, including meningococcal infection. Serious cases of meningococcal infection can result in severe illness, including but not limited to brain damage, loss of limbs or parts of limbs, kidney failure, or death. Under controlled settings, patients in our eculizumab trials all receive vaccination against meningococcal infection prior to first administration of Soliris and patients who are prescribed Soliris in most countries are required by prescribing guidelines to be vaccinated prior to receiving their first dose. A physician may not have the opportunity to timely vaccinate a patient in the event of an acute emergency episode, such as in a patient presenting with aHUS or during the health crisis that began in May 2011 in Europe, principally in Germany, due to the epidemic of infections from Enterohemorrhagic *E. coli*. Vaccination does not, however, eliminate all risk of meningococcal infection. Additionally, in some countries there may not be any vaccine approved for general use or approved for use in infants and children. Some patients treated with Soliris who had been vaccinated have nonetheless experienced meningococcal infection, including patients who have suffered serious illness or death. Each such incident is required to be reported to appropriate regulatory agencies in accordance with relevant regulations.

We are also aware of a potential risk for PNH patients who delay a dose of Soliris or discontinue their treatment of Soliris. Treatment with Soliris blocks complement and allows complement-sensitive PNH red blood cells to increase in number. If treatment with Soliris is thereafter delayed or discontinued, a greater number of red blood cells therefore would become susceptible to destruction when the patient's complement system is no longer blocked. The rapid destruction of a larger number of a patient's red blood cells may lead to numerous complications, including death. Several PNH patients in our studies of Soliris have received delayed doses or discontinued their treatment. In none of those circumstances were significant complications shown to be due to rapid destruction of a larger number of PNH red blood cells; however, we have not studied the delay or termination of treatment in enough patients to determine that such complications in the future are unlikely to occur. Additionally, such delays or discontinuations may be associated with significant complications without evidence of such rapid cell destruction.

We are aware of a risk for aHUS patients who delay or miss a dose of Soliris or discontinue their treatment of Soliris. Treatment with Soliris blocks complement and inhibits complement-mediated TMA. After missing a dose or discontinuing Soliris, blood clots may form in small blood vessels throughout the body, causing a reduction in platelet count. The reduction in platelet count may lead to numerous complications, including changes in mental status, seizures, angina, thrombosis, renal failure or even death. In our aHUS clinical studies, such TMA complications were observed in some patients who missed a dose.

Clinical evaluations of outcomes in the post-marketing setting are required to be reported to appropriate regulatory agencies in accordance with relevant regulations. Determination of significant complications associated with the delay or discontinuation of Soliris could have a material adverse effect on our ability to sell Soliris.

Although we obtained regulatory approval to market and sell Soliris for PNH and aHUS in the United States, Japan and European Union, and Soliris for PNH in other territories, we cannot guarantee that we will obtain the regulatory approval or reimbursement approval for Soliris for the treatment of PNH, aHUS or other diseases in each territory where we seek approvals.

Governments in countries where we seek to commercialize Soliris regulate the distribution of drugs and the facilities where such drugs are manufactured, and obtaining their approvals can be lengthy, expensive and highly uncertain. The approval process varies from country to country, and the requirements governing the conduct of clinical trials, product manufacturing, product licensing, pricing and reimbursement vary greatly from country to country. In certain jurisdictions, we are required to finalize operational, reimbursement, price approval and funding processes prior to marketing our products, even in countries where marketing approval has been obtained. We have received regulatory approval for Soliris for treatment of patients with PNH in the United States, the European Union, Japan and other territories. In September and November 2011 we received regulatory approval for Soliris for the treatment of patients with aHUS in the United States and the European Union, respectively. In September 2013, the MHLW approved Soliris for the treatment of patients with aHUS in Japan. We may not receive regulatory or reimbursement approval for Soliris for the treatment of PNH, aHUS or any other disease in any other territories on a timely basis, if ever.

Regulatory agencies may require additional information or data with respect to our submissions for Soliris, including the marketing authorization applications submitted to the EMA for the treatment of patients with aHUS. We may have to conduct additional lengthy clinical testing and other costly and time-consuming procedures to satisfy foreign regulatory agencies. Even with approval of Soliris in certain countries, the regulatory agencies in other countries may not agree with our interpretations of our clinical trial data for Soliris and may decide that our results are not adequate to support approval for marketing of Soliris. In those circumstances, we would not be able to obtain regulatory approval in such country on a timely basis, if ever. Even if approval is granted in such country, the approval may require limitations on the indicated uses for which the drug may be marketed. The foreign regulatory approval process includes all of the risks associated with FDA approval as well as country-specific regulations. We must obtain approval of a product by the comparable regulatory authorities and ethics committees of foreign countries before we can commence clinical trials or marketing of the product in those countries. We were required to conduct clinical studies with Soliris in patients with PNH in Japan prior to obtaining marketing approval in that country and Japanese authorities could require additional studies in Japan for Soliris for the treatment of aHUS. Commercialization of Soliris for the treatment of PNH, aHUS or any other indication could be delayed, limited or may not occur in territories where we seek marketing approval if the applicable regulatory agency requires additional information or data.

Our commercialization of Soliris may be stopped, delayed or made less profitable if we or any other third party provider fails to provide sufficient quantities of Soliris. Commercial quantities of Soliris can only be manufactured at three facilities, including our own facility in Rhode Island. Vial filling can only be performed at three third party facilities.

Commercial quantities of Soliris are manufactured by us at ARIMF and by Lonza. Manufacturing processes must comply with applicable regulations and manufacturing practices, as well as our own quality standards. In particular, the manufacture of Soliris is heavily regulated by governmental authorities around the world, including the FDA, EMA, the competent authorities of the European Union member states, and MHLW. If we do not resolve outstanding concerns expressed by the FDA in the Warning Letter to the satisfaction of the FDA, EMA or any other regulatory agency, or we or our third-party providers, including our product vialers, packagers and labelers, fail to comply fully with applicable regulations then we may be required to initiate a recall or withdrawal of our products. We may also lose any redundancy in our manufacturing capabilities if we are no longer able to perform operations at ARIMF or any other facility. Regulatory agencies could take action that leads to product shortages. Such action may include:

- issuing warning or untitled letters, such as the Warning Letter;
- requiring corrective action or restrictions on operations, including costly and time-consuming new manufacturing requirements;
- ordering shutdown of production facilities or production lines;
- seizing or detaining product;
- suspending or withdrawing the approval of Soliris;
- imposing significant civil penalties and criminal fines;
- suspending ongoing clinical studies for Soliris;
- require us or our partners to enter into a consent decree, which can include imposition of various fines, reimbursements for inspection costs, required due dates for specific actions and penalties for noncompliance; and/or
- refusing to approve pending BLAs or BLA supplements for Soliris.

The manufacture of Soliris is difficult. Manufacture of a biologic requires a multi-step controlled process and even minor problems or deviations could result in defects or failures. We cannot be certain that we, Lonza or our other third party providers will be able to perform uninterrupted supply chain services. The failure to manufacture appropriate supplies of Soliris, on a timely basis, or at all, may prevent or interrupt the commercialization of Soliris. If we, Lonza or our other third party providers were unable to manufacture Soliris for any period, or if we, Lonza or our other third party providers do not obtain approval for the manufacturing of Soliris in the respective facility by the applicable regulatory agencies, we may incur substantial loss of sales. If we are forced to find an alternative supplier or other third party providers for Soliris, in addition to loss of sales, we may also incur significant costs and experience significant delay in establishing a new arrangement.

We are authorized to sell product that is manufactured at ARIMF in the United States, the European Union, Japan and certain other territories. However, we will not be capable of manufacturing Soliris at ARIMF for commercial sale in certain other territories until such time as we have received the required regulatory approval for our facility, if ever. We will continue to depend entirely on one company, Lonza, to manufacture Soliris for commercial sale in such other territories until that time.

In September and November 2011 we received marketing approval for Soliris for the treatment of patients with aHUS in the United States and European Union, respectively. In September 2013, the MHLW approved Soliris for the treatment of patients with aHUS in Japan. If Soliris is approved in other territories for the treatment of patients with aHUS, or for additional indications, we expect that the demand for Soliris will increase. We may underestimate demand, or experience product interruptions at ARIMF, Lonza or a facility of a third party provider, including as a result of risks and uncertainties described in this report. If we, Lonza or our other third party providers do not manufacture sufficient quantities of Soliris to satisfy demand, our business will be materially harmed.

We depend on a very limited number of third party providers for other services with respect to our clinical and commercial requirements, including product finishing, packaging, vialing and labeling. We have changed or added third party vialers in the past in order to support uninterrupted supply, and may do so in the future. We currently rely on two third party vialers to support our commercial requirements in the United States, three to support requirements in the European Union, and a single third party vialer to support requirements in Japan. No guarantee can be made that any third party vialer will be able to perform such services for sufficient product volumes for any country or territory. We do not have control over any third party provider's compliance with our internal or external specifications or the rules and regulations of the FDA, EMA, competent authorities of the European Union member states, MHLW or any other applicable regulations or standards. In the past, we have had to write off and incur other charges and expenses for production that failed to meet requirements. Any difficulties or delays in our third party manufacturing of Soliris, or any failure of our third party providers to comply with our internal and external specifications or any applicable rules, regulations and standards could increase our costs, constrain our ability to satisfy demand for Soliris from customers, cause us to lose revenue or incur penalties for failure to deliver product, make us postpone or cancel clinical trials, or cause our products to be recalled or withdrawn, such as the voluntary recall, initiated by our affiliate in August 2013, of a single lot of Soliris due to the presence of visible particles in a limited number of vials in the lot.

Many additional factors could cause production interruptions at ARIMF or at the facilities of Lonza or our third party providers, including natural disasters, labor disputes, acts of terrorism or war, human error, equipment malfunctions, contamination, or raw material shortages. The occurrence of any such event could adversely affect our ability to satisfy demand for Soliris, which could materially and adversely affect our operating results.

We are dependent upon a small number of customers for a significant portion of our revenue, and the loss of, or significant reduction or cancellation in sales to, any one of these customers could adversely affect our operations and financial condition.

For the nine months ended September 30, 2013, our largest customer accounted for 20% of our global Soliris net product sales, and our three largest customers accounted for approximately 39% of our global net product sales. As of September 30, 2013, our single largest customer accounted for 19% of the global accounts receivable balance. We expect such customer concentration to continue for the foreseeable future. We typically sell Soliris to third party distributors, such as specialty pharmacies, who in turn sell to patient health care providers. We do not promote Soliris to these distributors, and they do not set or determine demand for Soliris. Our ability to successfully commercialize Soliris will depend, in part, on the extent to which we are able to provide adequate distribution of Soliris to patients. Although a number of specialty distributors and specialty pharmacies, which supply physician office clinics, hospital outpatient clinics, infusion clinics, home health care providers, and governmental organizations, distribute Soliris, they generally carry a very limited inventory and may be reluctant to distribute Soliris in the future if demand for the product does not increase. Further, it is possible that our distributors could decide to change their policies or fees, or both, at some time in the future. This could result in their refusal to distribute smaller volume products such as Soliris, or cause higher product distribution costs, lower margins or the need to find alternative methods of distributing our product. Although we believe we can find alternative distributors on a relatively short notice, our revenue during that period of time may suffer and we may incur additional costs to replace a distributor. The loss of any large customer, a significant reduction in sales we make to them, any cancellation of orders they have made with us or any failure to pay for the products we have shipped to them could materially and adversely affect our results of operations and financial condition.

If we are unable to establish and maintain effective sales, marketing and distribution capabilities, or to enter into agreements with third parties to do so, we will be unable to successfully commercialize Soliris.

We are marketing and selling Soliris ourselves in the United States, Europe, Japan and several other territories. If we are unable to establish and/or expand our capabilities to sell, market and distribute Soliris for the treatment of PNH, aHUS or, if approved by the necessary regulatory agencies, other future indications, either through our own capabilities or by entering into agreements with others, or to maintain such capabilities in countries where we have already commenced commercial sales, we will not be able to successfully sell Soliris. In that event, we will not be able to generate significant revenues. We cannot guarantee that we will be able to establish and maintain our own capabilities or enter into and maintain any marketing or

distribution agreements with third-party providers on acceptable terms, if at all. Even if we hire the qualified sales and marketing personnel we need to support our objectives, or enter into marketing and distribution agreements with third parties on acceptable terms, we may not do so in an efficient manner or on a timely basis. We may not be able to correctly judge the size and experience of the sales and marketing force and the scale of distribution capabilities necessary to successfully market and sell Soliris. Establishing and maintaining sales, marketing and distribution capabilities are expensive and timeconsuming. Our expenses associated with building up and maintaining the sales force and distribution capabilities around the world may be disproportionate compared to the revenues we may be able to generate on sales of Soliris. We cannot guarantee that we will be successful in commercializing Soliris.

If we market Soliris in a manner that violates health care fraud and abuse laws and other laws regulating marketing and promotion, we may be subject to investigations and civil or criminal penalties.

In addition to FDA and related regulatory requirements, we are subject to health care "fraud and abuse" laws, such as the Federal False Claims Act, the anti-kickback provisions of the federal Social Security Act, and other state and federal laws and regulations. Federal and state anti-kickback laws prohibit, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce, or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any health care item or service reimbursable under Medicare, Medicaid, or other federally or state financed health care programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, patients, purchasers and formulary managers on the other. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain common activities from prosecution, the exemptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchasing, or recommending may be subject to scrutiny or penalty if they do not qualify for an exemption or safe harbor. We seek to comply with the anti-kickback laws and with the available statutory exemptions and safe harbors. However, our practices may not in all cases fit within the safe harbors, and our practices may therefore be subject to case-by-case scrutiny.

The Federal False Claims Act prohibits any person from knowingly presenting, or causing to be presented, a false claim for payment to the Federal government, or knowingly making, or causing to be made, a false statement to get a false claim paid. Pharmaceutical companies have been investigated and have reached substantial financial settlements with the Federal government under this Act for a variety of alleged promotional and marketing activities, such as allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product; providing consulting fees and other benefits to physicians to induce them to prescribe product; reporting inflated prices to private publications that were then used by federal programs to set reimbursement rates; engaging in promotion for uses that the FDA has not approved, or "off-label" uses, that caused claims to be submitted to Federal programs for non-covered off-label uses; and submitting inflated best price information to the Medicaid Rebate Program.

Although physicians are permitted to, based on their medical judgment, prescribe products for indications other than those cleared or approved by the FDA, manufacturers are prohibited from promoting their products for such off-label uses. In the United States, we market Soliris for PNH and aHUS and provide promotional materials and training programs to physicians regarding the use of Soliris for PNH and aHUS. Although we believe our marketing materials and training programs for physicians do not constitute off-label promotion of Soliris, the FDA, the U.S. Justice Department, or other federal or state government agencies may disagree. If the FDA or other government agencies determine that our promotional materials, training or other activities constitute off-label promotion of Soliris, it could request that we modify our training or promotional materials or other activities or subject us to regulatory enforcement actions, including the issuance of a warning letter, injunction, seizure, civil fine and criminal penalties. It is also possible that other federal, state or foreign enforcement authorities might take action if they believe that the alleged improper promotion led to the submission and payment of claims for reimbursement. Even if it is later determined we are not in violation of these laws, we may be faced with negative publicity, incur significant expenses defending our position and have to divert significant management resources from other matters.

The majority of states also have statutes or regulations similar to the federal anti-kickback law and false claims laws, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payer. Sanctions under these federal and state laws may include civil monetary penalties, exclusion of a manufacturer's products from reimbursement under government programs, criminal fines, and imprisonment. Even if we are not determined to have violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which would also harm our financial condition. Because of the breadth of these laws and the narrowness of the safe harbors and because government scrutiny in this area is high, it is possible that some of our business activities could come under that scrutiny.

In recent years, several states and localities, including California, the District of Columbia, Minnesota, Nevada, New Mexico, Vermont, and West Virginia, have enacted legislation requiring pharmaceutical companies to establish marketing

compliance programs, file periodic reports with the state or make periodic public disclosures on sales, marketing, pricing, clinical trials, and other activities. Similar legislation is being considered in other states. Additionally, as part of the Patient Protection and Affordable Care Act, the Federal government has enacted the Physician Payment Sunshine provisions, which when fully implemented requires manufacturers to publicly report gifts and payments made to physicians and teaching hospitals. Many of these requirements are new and uncertain, and the penalties for failure to comply with these requirements are unclear. Nonetheless, if we are found not to be in full compliance with these laws, we could face enforcement action and fines and other penalties, and could receive adverse publicity.

Similar strict restrictions are imposed on the promotion and marketing of drug products in the European Union and other countries. Laws in the European Union, including in the individual European Union member states, require promotional materials and advertising for drug products to comply with the product's Summary of Product Characteristics (SmPC), which is approved by the competent authorities. Promotion of a drug product which does not comply with the SmPC is considered to constitute off-label promotion. The off-label promotion of drug products is prohibited in the European Union. Laws in the European Union, including in the individual European Union member states, also prohibit the direct-to-consumer advertising of prescription-only drug products. Violations of the rules governing the promotion of drug products in the European Union could be penalized by administrative measures, fines and imprisonment.

Interactions between pharmaceutical companies and physicians are also governed by strict laws, regulations, industry self-regulation codes of conduct and physicians' codes of professional conduct in the individual European Union member states. The provision of any inducements to physicians to prescribe, recommend, endorse, order, purchase, supply, use or administer a drug product is prohibited. A number of European Union member states have introduced additional rules requiring pharmaceutical companies to publicly disclose their interactions with physicians and to obtain approval from employers, professional organizations and/or competent authorities before entering into agreements with physicians. Violations of these rules could lead to the imposition of fines or imprisonment.

Laws, including those governing promotion, marketing and anti-kickback provisions, industry regulations and professional codes of conduct are often strictly enforced. Increasing regulatory scrutiny of the promotional activities of pharmaceutical companies has been observed in a number of European Union member states. We are also subject to the United States Foreign Corrupt Practices Act (FCPA), the U.K. Bribery Act, and other anti-corruption laws and regulations pertaining to our financial relationships with government officials. Worldwide regulators are increasing their regulatory and enforcement efforts in this area. For example, the Bribery Act in the United Kingdom entered into force in July 2011 applies to any company incorporated in or "carrying on business" in the United Kingdom, regardless of the country in which the alleged bribery activity occurs and even if the inappropriate activity is undertaken by our international distribution partners.

Risks Related to Development, Clinical Testing and Regulatory Approval of Our Product Candidates

None of our product candidates except for Soliris has received regulatory approvals. Soliris has not been approved for any indication other than for the treatment of patients with PNH and aHUS. If we are unable to obtain regulatory approvals to market one or more of our product candidates, including asfotase alfa and Soliris for other indications, our business may be adversely affected.

All of our product candidates except Soliris are in early stages of development, and we do not expect our other product candidates to be commercially available for several years, if at all. Similarly, Soliris has not been approved for any indication other than for the treatment of patients with PNH in the United States, the European Union, Japan and other territories, and for patients with aHUS in the United States, Japan and the European Union. We do not know when or if our product candidates, including asfotase alfa and Soliris for other indications, will be approved. Our product candidates are subject to strict regulation by regulatory authorities in the United States, in the European Union and in other territories. We cannot market any product candidate until we have completed all necessary preclinical studies and clinical trials and have obtained the necessary regulatory approvals. We do not know whether regulatory agencies will grant approval for any of our product candidates. Even if we complete preclinical studies and clinical trials successfully, we may not be able to obtain regulatory approvals or we may not receive approvals to make claims about our products that we believe to be necessary to effectively market our products. Data obtained from preclinical studies and clinical trials are subject to varying interpretations that could delay, limit or prevent regulatory approval, failure to comply with regulatory requirements, resolve pending concerns described in the Warning Letter, and inadequate manufacturing processes are examples of other problems that could prevent approval. In addition, we may encounter delays or rejections due to additional government regulation from future legislation, administrative action or changes in the FDA policy. Even if the FDA approves a product, the approval will be limited to those indications covered in the approval.

Outside the United States, our ability to market any of our potential products is dependent upon receiving marketing approvals from the appropriate regulatory authorities. These foreign regulatory approval processes include all of the risks associated with the FDA approval process described above. If we are unable to receive regulatory approvals, we will be unable to commercialize our product candidates, and our business may be adversely affected.

Completion of preclinical studies or clinical trials does not guarantee advancement to the next phase of development.

Completion of preclinical studies or clinical trials does not guarantee that we will initiate additional studies or trials for our product candidates, including asfotase alfa, that if further studies or trials are initiated what the scope and phase of the trial will be or that they will be completed, or that if these further studies or trials are completed, that the design or results will provide a sufficient basis to apply for or receive regulatory approvals or to commercialize products. Results of clinical trials could be inconclusive, requiring additional or repeat trials. If the design or results achieved in our clinical trials are insufficient to proceed to further trials or to regulatory approval of our product candidates, including asfotase alfa, our company could be materially adversely affected. Failure of a clinical trial to achieve its pre-specified primary endpoint generally increases the likelihood that additional studies or trials will be required if we determine to continue development of the product candidate, reduces the likelihood of timely development of and regulatory approval to market the product candidate, and may decrease the chances for successfully achieving the primary endpoint in scientifically similar indications.

There are many reasons why drug testing could be delayed or terminated.

For human trials, patients must be recruited and each product candidate must be tested at various doses and formulations for each clinical indication. In addition, to ensure safety and effectiveness, the effect of drugs often must be studied over a long period of time, especially for the chronic diseases that we are studying. Many of our programs focus on diseases with small patient populations and insufficient patient enrollment in our clinical trials could delay or cause us to abandon a product development program. We may decide to abandon development of a product candidate, including asfotase alfa, at any time due to unfavorable results or other reasons, or we may have to spend considerable resources repeating clinical trials or conducting additional trials, either of which would increase costs and delay any revenue from those product candidates, if any.

Additional factors that can cause delay, impairment or termination of our clinical trials or our product development efforts include:

- delay or failure in obtaining institutional review board (IRB), approval or the approval of other reviewing entities to conduct a clinical trial at each site;
- delay or failure in reaching agreement on acceptable terms with prospective contract research organizations(CROs), and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- withdrawal of clinical trial sites from our clinical trials as a result of changing standards of care or the ineligibility of a site to participate in our clinical trials;
- clinical sites and investigators deviating from trial protocol, failing to conduct the trial in accordance with regulatory requirements, or dropping out of a trial;
- slow patient enrollment, including, for example, due to the rarity of the disease being studied;
- delay or failure in having patients complete a trial or return for post-treatment follow-up;
- long treatment time required to demonstrate effectiveness;
- lack of sufficient supplies of the product candidate;
- disruption of operations at the clinical trial sites;
- adverse medical events or side effects in treated patients, and the threat of legal claims and litigation alleging injuries;
- failure of patients taking the placebo to continue to participate in our clinical trials;
- insufficient clinical trial data to support effectiveness of the product candidates;
- lack of effectiveness or safety of the product candidate being tested;
- lack of sufficient funds;
- inability to meet required specifications or to manufacture sufficient quantities of the product candidate for development or commercialization activities in a timely and cost-efficient manner;



- decisions by regulatory authorities, the IRB, ethics committee, or us, or recommendation by a data safety monitoring board, to suspend or terminate clinical trials at any time for safety issues or for any other reason;
- failure to obtain the necessary regulatory approvals for the product candidate or the approvals for the facilities in which such product candidate is manufactured; and
- decisions by competent authorities, IRBs or ethics committees to demand variations in protocols or conduct of clinical trials.

The regulatory approval process is costly and lengthy and we may not be able to successfully obtain all required regulatory approvals.

The preclinical development, clinical trials, manufacturing, marketing and labeling of pharmaceuticals are all subject to extensive regulation by numerous governmental authorities and agencies in the United States, the European Union and other territories. We must obtain regulatory approval for each of our product candidates, including asfotase alfa, before marketing or selling any of them. It is not possible to predict how long the approval processes of the FDA or any other applicable federal or foreign regulatory authority or agency for any of our product candidates will take or whether any such approvals ultimately will be granted. The FDA and foreign regulatory agencies have substantial discretion in the drug approval process, and positive results in preclinical testing or early phases of clinical studies offer no assurance of success in later phases of the approval process. The approval process varies from country to country and the requirements governing the conduct of clinical trials, product manufacturing, product licensing, pricing and reimbursement vary greatly from country to country. Generally, preclinical and clinical testing of product candidates can take many years and require the expenditure of substantial resources, and the data obtained from these tests and trials can be susceptible to varying interpretations that could delay, limit or prevent regulatory approval. If we encounter significant delays in the regulatory process that result in excessive costs, this may prevent us from continuing to develop our product candidates, including asfotase alfa. Any delay in obtaining, or failure to obtain, approvals could adversely affect the marketing of our products and our ability to generate product revenue. The risks associated with the approval process include:

- failure of our product candidates to meet a regulatory agency's requirements for safety, efficacy and quality;
- disagreement over interpretation of data from preclinical studies or clinical trials;
- restricted distribution or limitation on the indicated uses for which a product may be marketed;
- unforeseen safety issues or side effects and potential requirements to establish REMS;
- disapproval of the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and
- governmental or regulatory delays and changes in regulatory requirements and guidelines.

Even if asfotase alfa and our other product candidates obtain regulatory approval, they may not gain market acceptance among physicians, patients and health care payers.

Physicians may elect not to recommend our drugs even if they receive marketing approval for a variety of reasons, including the timing of the market introduction of competitive drugs; lower demonstrated clinical safety and efficacy compared to other drugs; perceived lack of cost-effectiveness; lack of availability of reimbursement from third-party payers; convenience and ease of administration; prevalence and severity of adverse side effects; other potential advantages of alternative treatment methods; and ineffective marketing and distribution support. Sales of pharmaceutical products depend in significant part on the coverage and reimbursement policies of government programs, including Medicare and Medicaid in the United States and similar programs in other countries, and other third-party payers. These health insurance programs may restrict coverage of some products by using payer formularies under which only selected drugs are covered, variable co-payments that make drugs that are not preferred by the payer more expensive for patients, and by using utilization management controls, such as requirements for prior authorization or failure on another type of treatment. Payers may especially impose these obstacles to coverage for higher-priced drugs, and consequently our drug candidates may be subject to paver-driven restrictions. In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, European Union member states may restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices and/or reimbursement of medicinal products for human use. A European Union member state may approve a specific price or level of reimbursement for the medicinal product, or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. The reimbursement or budget identified by a government or non-government payer for Soliris in a new indication, if obtained, may be adversely affected by the reimbursement or budget for Soliris in previously approved indications and/or adversely affect the reimbursement or budget for Soliris in such previously approved indication by that payer.

Inability to contract with third party manufacturers and other third party providers on commercially reasonable terms, or failure or delay by us or our third party manufacturers or other third party providers to provide services with respect to our drug products, including asfotase alfa if approved, in the volumes and quality required, would have a material adverse effect on our business.

Clinical quantities of eculizumab are manufactured by us at ARIMF and by Lonza. Clinical quantities of our other product candidates are manufactured by us at ARIMF or by a third party. We also depend on a very limited number of third party providers for other services with respect to our clinical and commercial requirements, including product finishing, packaging, vialing and labeling. We have changed or added third party vialers in the past in order to support uninterrupted supply, and may do so in the future. No guarantee can be made that regulators will approve additional third party vialers in a timely manner or at all, or that any third party vialer will be able to perform such services for sufficient product volumes for any country or territory. Manufacture of our drug products, including asfotase alfa, is highly technical, and only a small number of companies have the ability and capacity to manufacture our drug products for our development and commercialization needs. Due to the highly technical requirements of manufacturing our drug products and the strict quality and control specifications, we and our third party providers may be unable to manufacture or supply our drug products despite our and their efforts. In addition, we cannot be certain that any third party will be able or willing to honor the terms of its agreement, including any obligations to manufacture the drug products in accordance with regulatory requirements and to our quality specifications and volume requirements. Further, we have limited experience manufacturing the drug candidates that we acquired from Enobia, Taligen Therapeutics, Inc. (Taligen) and Orphatec Pharmaceuticals GmbH (Orphatec), such as asfotase alfa, ALXN1102 and cPMP. We cannot guarantee that we or any third party provider will be able to manufacture or supply such drug candidates, or that we or a third party provider or supply such drug candidates, or that we or a third party provider will be able to manufacture or supply such drug candidates, or that we or a third p

Manufacture of drug products, including the need to develop and utilize manufacturing processes that consistently produce our drug products to their required quality specifications, is highly regulated by the FDA, EMA and other domestic and foreign authorities. Regulatory authorities must approve the facilities in which our products are manufactured vialed, packaged and labeled prior to granting marketing approval for any product candidate. Such facilities are also subject to ongoing inspections, and minor changes in manufacturing or other related processes may require additional regulatory approvals. For example, if future inspections by regulatory authorities of our facilities or the facilities of our third party providers identify issues, including issues similar to those raised in the Warning Letter, then manufacture of some of our product candidates and our business may be adversely affected. Further, we cannot assure you that we or our third party providers will successfully comply with all requirements and regulations. In the past we have had to write-off and incur other charges and expenses for production that failed to meet requirements and in August 2013 instituted a voluntary recall of a single lot of Soliris due to the presence of visible particles in a limited number of vials in the lot. Failure to comply with all requirements and regulations by third parties in the future could have a material adverse effect on our business.

We currently have limited experience in manufacturing drug products in volumes that would be necessary to support commercial sales, and we can provide no assurance that we will be able to do so successfully. We acquired ARIMF in July 2006. The EC, the FDA and MHLW have approved the use of ARIMF for the production of Soliris, and we are authorized to sell Soliris manufactured in ARIMF in the United States, the European Union, Japan and certain other territories. We are entirely dependent on only one third party provider for commercial vialing in certain territories, including Japan. We have limited experience in developing commercial-scale manufacturing. We can provide no assurance that we will be able to manufacture our drug products at ARIMF under conditions required by the FDA or foreign regulatory agencies on a timely basis, if at all. ARIMF is subject to approval by other national and regional regulatory agencies before we can begin sales of Soliris or other drug products manufactured in this facility in the applicable countries or regions, and we will continue to be subject to ongoing regulatory inspections thereafter.

We, and our third party providers, may experience higher failure rates than in the past if and when we attempt to increase production volume. If we experience interruptions in the manufacture or supply of our products, our drug development and commercialization efforts will be delayed. If any of our outside third party providers stops manufacturing or supplying our products or reduces the amount manufactured or supplied, or is otherwise unable to provide our required amounts at our required quality, we may need to find other alternatives, which is likely to be expensive and time consuming, and also may result in reduced revenue during this period. Even if we are able to find alternatives they may ultimately be insufficient for our needs. As a result, our ability to conduct testing and drug trials and our plans for commercialization could be materially adversely affected. Submission of products and new development programs for regulatory approval, as well as our plans for commercialization, would be delayed or suspended. Our competitive position and our prospects for achieving or maintaining profitability could be materially and adversely affected.

Due to the nature of the current market for third-party commercial manufacturing, many arrangements require substantial penalty payments by the customer for failure to use the manufacturing capacity for which it contracted. Penalty payments under these agreements typically decrease over the life of the agreement, and may be substantial initially and de minimis or non-existent in the final period. The payment of a substantial penalty could harm our financial condition.

Risks Related to Intellectual Property

If we cannot obtain new patents, maintain our existing patents and protect the confidentiality and proprietary nature of our trade secrets and other intellectual property, our business and competitive position will be harmed.

In order to protect our drugs and technology more effectively, we need to obtain and maintain patents covering the drugs and technologies we develop. We have and may in the future obtain patents or the right to practice patents through ownership or license. Our patent applications may not result in the issue of patents in the United States or other countries. Our patents may not afford adequate protection for our products. Third parties may challenge our patents, and have challenged our patents in the past. If any of our patents are narrowed, invalidated or become unenforceable, competitors may develop and market products similar to ours that do not conflict with or infringe our patents rights, which could have a material adverse effect on our financial condition. We may also finance and collaborate in research conducted by government organizations, hospitals, universities or other educational or research institutions. Such research partners may be unwilling to grant us exclusive rights to technology or products developed through such collaborations. There is also a risk that disputes may arise as to the rights to technology or products developed in collaboration with other parties. Soliris and our drug candidates are expensive and time-consuming to test and develop. Even if we obtain and maintain patents, our business may be significantly harmed if the patents are not broad enough to protect our drugs from copycat products.

In addition, our business requires using sensitive technology, techniques and proprietary compounds that we protect as trade secrets. However, we may also rely heavily on collaboration with, or discuss the potential for collaboration with, suppliers, outside scientists and other drug companies. Collaboration and discussion of potential collaboration present a strong risk of exposing our trade secrets. If our trade secrets were exposed, it would help our competitors and adversely affect our business prospects.

If we are found to be infringing on patents owned by others, we may be forced to pay damages to the patent owner and/or obtain a license to continue the manufacture, sale or development of our drugs. If we cannot obtain a license, we may be prevented from the manufacture, sale or development of our drugs, including Soliris, which would adversely affect our business.

Parts of our technology, techniques and proprietary compounds and potential drug candidates, including those which are or may be in-licensed, may be found to infringe patents owned by or granted to others. We previously reported that Novartis and other third parties have filed civil lawsuits against us claiming infringement of their intellectual property rights. Each of these matters have been resolved, however, additional third parties may claim that the manufacture, use or sale of Soliris or other drugs under development infringes patents owned or granted to such third parties. In addition to the civil actions referenced above, we have received, and may in the future receive, notices from third parties claiming that their patents may be infringed by the development, manufacture or sale of Soliris or some of our drug candidates. We are aware of patents owned by third parties that might be claimed by such third parties to be infringed by the development and commercialization of Soliris and some of our drug candidates. In respect to some of these patents, we have obtained licenses, or expect to obtain licenses. However, with regard to such other patents, we have determined in our judgment that:

- Soliris and our product candidates do not infringe the patents;
- the patents are not valid; or
- we have identified and tested or are testing various modifications that we believe should not infringe the patents and which should permit commercialization of our product candidates.

Any holder of these patents or other patents covering similar technology could sue us for damages and seek to prevent us from manufacturing, selling or developing our drugs. Legal disputes can be costly and time consuming to defend. If we cannot successfully defend against any future actions or conflicts, if they arise, we may incur substantial legal costs and may be liable for damages, be required to obtain costly licenses or need to stop manufacturing, using or selling Soliris, which would adversely affect our business. We may seek to obtain a license prior to or during legal actions in order to reduce further costs and the risk of a court determination that our product infringes the third party's patents. A required license may be costly or may not be available on acceptable terms, if at all. A costly license, or inability to obtain a necessary license, could have a material adverse effect on our business.

There can be no assurance that we would prevail in a patent infringement action or that we would be able to obtain a license to any third-party patent on commercially reasonable terms or any terms at all; successfully develop non-infringing



alternatives on a timely basis; or license alternative non-infringing technology, if any exists, on commercially reasonable terms. Any impediment to our ability to manufacture, use or sell approved forms of Soliris or our product candidates could have a material adverse effect on our business and prospects.

Risks Related to Our Operations

We cannot guarantee that we will achieve our financial goals, including our ability to maintain profitability on a quarterly or annual basis in the future.

Until the quarter ended June 30, 2008, we had never been profitable since we were incorporated in January 1992. We have maintained profitability on a quarterly basis since the quarter ended June 30, 2008 and on an annual basis beginning with the year ended December 31, 2008. We believe that we formulate our annual operating budgets with reasonable assumptions and targets, however we cannot guarantee that we will be able to generate sufficient revenues or control expenses to achieve our financial goals, including continued profitability. Even if we do achieve profitability in any subsequent quarters, we may not be able to sustain or increase profitability on a quarterly or annual basis. You should not consider our revenue growth in recent periods as indicative of our future performance. Our revenue in future periods could decline. We may make errors in predicting and reacting to relevant business trends or our business may be subject to factors beyond our control, which could harm our operations. Since we began our business, we have focused on research and development of product candidates. We launched Soliris for sale for the treatment of patients with PNH in the United States and Europe during 2007. We obtained marketing approval from the FDA and the EC for Soliris for the treatment of patients with aHUS in September and November 2011, respectively. In September 2013, the MHLW approved Soliris for the treatment of patients with aHUS in Japan. We have not obtained marketing approval for aHUS in any other country or territory. We cannot guarantee that we will be successful in marketing and selling Soliris on a continued basis in countries or regions where we have obtained marketing approval, including the United States, Europe and Japan, and we do not know when we will have Soliris available for sale in territories where we have applied or will apply for marketing approval, if ever. We incurred significant debt to finance the acquisition of Enobia and we will have substantial expenses as we continue our research and development efforts, continue to conduct clinical trials and continue to develop manufacturing, sales, marketing and distribution capabilities in the United States and abroad. The achievement of our financial goals, including the extent of our future profitability, depends on many factors, including our ability to successfully market Soliris in the United States, the European Union and Japan and other territories, our ability to obtain regulatory, pricing, coverage, and reimbursement approvals of Soliris in additional countries and regions and for aHUS and other indications, our ability to successfully market Soliris in additional countries and regions, our ability to successfully manufacture and commercialize our drug candidates and our ability to successfully bring our other product candidates, including product candidates we acquired from Enobia, Taligen and Orphatec, to the major commercial markets throughout the world.

If our competitors get to the marketplace before we do, or with better or less expensive drugs, it may not be profitable to continue to produce Soliris and our product candidates.

The FDA, EC and the MHLW granted orphan drug designation for Soliris in the treatment of PNH and the FDA and EC granted orphan drug designation for aHUS. Orphan drug status which entitles Soliris to market exclusivity for a total of seven years in the United States and for ten years in the European Union and Japan. However, if a competitive product that is the same as or similar to Soliris, as defined under the applicable regulations, is shown to be clinically superior to Soliris in the treatment of PNH or aHUS, or if a competitive product is different from Soliris, as defined under the applicable regulations, the orphan drug exclusivity we have obtained may not block the approval of such competitive product. Several biotechnology and pharmaceutical companies throughout the world have programs to develop complement inhibitor therapies or have publicly announced their intentions to develop drugs which target the inflammatory effects of complement in the immune system. Pharmaceutical companies have publicly announced intentions to establish or develop rare disease programs and these companies may introduce products that are competitive with ours. These and other companies, many of which have significantly greater resources than us, may develop, manufacture, and market better or cheaper drugs than Soliris or our product candidates. They may establish themselves in the marketplace before us for Soliris for other indications or for any of our other product candidates. Other pharmaceutical companies also compete with us to attract academic research institutions as drug development partners, including for licensing these institutions' proprietary technology. If our competitors successfully enter into such arrangements with academic institutions, we will be precluded from pursuing those unique opportunities and may not be able to find equivalent opportunities elsewhere.

If we fail to satisfy our debt service obligations or obtain the capital necessary to fund our operations, we will be unable to continue the commercialization of Soliris or continue or complete our product development.

We have used our cash on hand and incurred debt under the terms of a senior secured credit facility to finance acquisitions. In addition, we are party to definitive agreements relating to these acquisitions that include significant contingent

payments that will become payable if and when certain development and commercial milestones are achieved. We have also entered into strategic license agreements that require us to make significant payments if and when research, development or commercial milestones are achieved. We expect to enter into similar agreements in the future. In May 2012, Alexion issued 5,000 shares of its common stock in a public offering resulting in net proceeds of approximately \$462,000. We believe that revenues and collections from sales of Soliris along with our existing cash and cash equivalents will provide sufficient capital to satisfy our debt service obligations and the contingent consideration required by the acquisitions, and to fund our operations and product development for at least 12 months. We may need to raise additional capital before or after that time to complete or continue the development or commercialization of our products and product candidates or for other purposes. We are currently selling or preparing for the commercialization of Soliris in the United States, the European Union, Japan, and several other territories, evaluating and preparing regulatory submissions for Soliris in several countries, and conducting, preparing or evaluating several clinical trials. Funding needs may shift between projects and potentially accelerate and increase as we continue launch and commercialization activities throughout the world and as we initiate or continue clinical trials for our product candidates.

Additional financing could take the form of public or private debt or equity offerings, equity line facilities, bank loans, including additional borrowing under our existing credit facility, collaborative research and development arrangements with corporate partners and/or the sale or licensing of some of our property. The amount of capital we may need depends on many factors, including:

- the cost necessary to sell, market and distribute Soliris;
- the rate of new patient sales and drug utilization by treated patients;
- the time and cost necessary to obtain and maintain regulatory approvals for Soliris in multiple countries;
- the ability to obtain and maintain reimbursement approvals and funding for Soliris and the time necessary to obtain such approvals and funding;
- the time and cost necessary to develop sales, marketing and distribution capabilities outside the United States;
- the time and cost necessary to purchase or to further develop manufacturing processes, arrange for contract manufacturing or build manufacturing facilities and obtain and maintain the necessary regulatory approvals for those facilities;
- changes in applicable governmental regulatory policies or requests by regulatory agencies for additional information or data;
- the progress, timing and scope of our research and development programs;
- the progress, timing and scope of our preclinical studies and clinical trials;
- any new collaborative, licensing or other commercial relationships that we may establish; and
- the cost of any acquisition.

We may not receive additional funding when we need it or funding may only be available on unfavorable terms. Financial markets in the United States, Europe and the rest of the world have been experiencing significant volatility in security prices, substantially diminished liquidity and credit availability, rating downgrades of certain investments and declining valuations of others. There can be no assurance that we will be able to access additional credit or the equity markets in order to finance our operations, grow our operations in any territory, or expand development programs for our product candidates, or that there will not be a further deterioration in financial markets and confidence in economies. If we cannot raise adequate funds to satisfy our capital requirements, we may have to delay, scale-back or eliminate our research and development activities or future operations. We might have to license our technology to others or relinquish commercialization rights. This could result in sharing revenues that we might otherwise retain for ourselves. Any of these actions would harm our business.

If we fail to recruit and retain personnel, we may not be able to implement our business strategy.

We are highly dependent upon the efforts of our senior management and scientific personnel, particularly Dr. Leonard Bell, M.D., our Chief Executive Officer and a member of our Board of Directors, and Dr. Stephen P. Squinto, Ph.D., our Executive Vice President, Chief Global Operations Officer. There is intense competition in the biopharmaceutical industry for qualified scientific and technical personnel. Since our business is science-oriented and specialized, we need to continue to attract and retain such people. We may not be able to continue to attract and retain the qualified personnel necessary for developing our business. We have employment agreements with Dr. Bell and Dr. Squinto. None of our key personnel is nearing retirement age or to our knowledge, planning to retire. To our knowledge, there is no tension between any of our key personnel and the Board of Directors. If we are unable to retain and recruit highly qualified personnel, our ability to execute our business plan will be materially and adversely affected.

In particular, we highly value the services of Dr. Bell, our Chief Executive Officer. The loss of his services could materially and adversely affect our ability to achieve our objectives.

The terms of our Credit Agreement may restrict our current and future operations, including our ability to respond to changes or to take certain actions.

In February 2012 we and our wholly-owned Swiss subsidiary, Alexion Pharma International Sàrl, entered into the Credit Agreement with a syndicate of banks. The Credit Agreement provides for a \$240,000 senior secured term loan facility and a \$200,000 senior secured revolving credit facility, which includes up to a \$60,000 sublimit for letters of credit and a \$10,000 sublimit for swingline loans. Our obligations under the credit facilities are unconditionally guaranteed, jointly and severally, by certain of our existing domestic subsidiaries and are required to be guaranteed by certain of our future domestic subsidiaries. The obligations of Alexion Pharma International Sàrl under the credit facilities are unconditionally guaranteed, jointly and severally, by us, certain of our existing domestic subsidiaries, and certain of our foreign subsidiaries, and are required to be guaranteed by certain of our future subsidiaries. All obligations of each borrower under the credit facilities, and the guarantees of those obligations, are secured, subject to certain exceptions, by substantially all of each borrower's assets and the assets of certain guarantors, including the pledge of the equity interests of certain of our subsidiaries and real estate located in Smithfield, Rhode Island, but excluding intellectual property and assets of certain foreign subsidiaries.

The Credit Agreement requires us to comply with certain financial covenants on a quarterly basis. Further, the Credit Agreement includes negative covenants, subject to exceptions, restricting or limiting our ability and the ability of our subsidiaries to, among other things, incur additional indebtedness, grant liens, engage in certain investment, acquisition and disposition transactions, pay dividends, repurchase capital stock and enter into transactions with affiliates. The Credit Agreement also contains customary representations and warranties, affirmative covenants and events of default, including payment defaults, breach of representations and warranties, covenant defaults and cross defaults.

The credit facilities, and the contingent consideration payable in connection with our acquisitions remain outstanding or available, and the degree to which we are leveraged could, among other things:

- make it difficult for us to make payments on the credit facilities;
- make it difficult for us to obtain financing for additional acquisitions or in-licensing opportunities or other purposes on favorable terms, if at all;
- make us more vulnerable to industry downturns and competitive pressures; and
- limit our flexibility in planning for, or reacting to changes in, our business.

Our ability to meet our debt service obligations will depend upon our future performance, which will be subject to financial, business and other factors affecting our operations, many of which are beyond our control. A breach of the covenants under the Credit Agreement could result in an event of default. If an event of default occurs, the interest rate would increase and the administrative agent would be entitled to take various actions, including the acceleration of amounts due under the Credit Agreement. Furthermore, if we were unable to repay the amounts due and payable under our Credit Agreement, those lenders could proceed against the collateral granted to them to secure that indebtedness, which could force us into bankruptcy or liquidation. In the event our administrative agent or lenders accelerate the repayment of our borrowings, we and our subsidiaries may not have sufficient assets to repay that indebtedness.

We are subject to environmental laws and potential exposure to environmental liabilities.

We are subject to various federal, state and local environmental laws and regulations that govern our operations, including our manufacturing operations at ARIMF, the handling and disposal of non-hazardous and hazardous wastes, such as medical and biological wastes, and emissions and discharges into the environment, such as air, soils and water sources. Failure to comply with such laws and regulations could result in costs for corrective action, penalties or the imposition of other liabilities. We also are subject to laws and regulations that impose liability and clean-up responsibility for releases of hazardous substances into the environment. Under certain of these laws and regulations, a current or previous owner or operator of property may be liable for the costs of remediating its property or locations to which wastes were sent from its facilities, without regard to whether the owner or operator knew of, or necessarily caused, the contamination. Such obligations and liabilities, which to date have not been material, could have a material impact on our business and financial condition.

We may expand our business through acquisitions or in-licensing opportunities that could disrupt our business and harm our financial condition.

Our business strategy includes expanding our products and capabilities. In 2011, we acquired Taligen and certain assets of Orphatec. In February 2012 we acquired Enobia. We may seek additional acquisitions or in-licensing of businesses or



products to expand our products and capabilities. Acquisitions of new businesses or products and in-licensing of new products may involve numerous risks, including:

- substantial cash expenditures;
- potentially dilutive issuance of equity securities;
- incurrence of debt and contingent liabilities, some of which may be difficult or impossible to identify at the time of acquisition;
- difficulties in assimilating the operations of the acquired companies;
- diverting our management's attention away from other business concerns;
- risks of entering markets in which we have limited or no direct experience;
- the potential loss of our key employees or key employees of the acquired companies; and
- failure of any acquired businesses or products or in-licensed products to achieve the scientific, medical, commercial or other results anticipated.

We have limited experience in the acquisition and integration of other companies. We cannot assure you that any acquisition or in-licensing of new products, will result in short-term or long-term benefits to us. We may incorrectly judge the value or worth of an acquired company or business or an acquired or in-licensed product. In addition, the future success of such transactions would depend in part on our ability to manage the rapid growth associated with any such acquisitions or in-licensing. We cannot assure you that we will be able to make the combination of our business with that of any acquired businesses or companies work or be successful.

We compete with pharmaceutical companies that have significantly greater resources than we for many of the same acquisition and in-licensing opportunities. Such pharmaceutical companies may be less leveraged and have better access to capital resources that may preclude us from completing any acquisition or in-licensing. In addition, several pharmaceutical companies have publicly announced intentions to establish or develop rare disease programs. For these and other reasons, we may not be able to acquire the rights to additional product candidates and approved products on terms that we find acceptable, or at all. Furthermore, the development or expansion of our business, any acquired business or any acquired or in-licensed products may require a substantial capital investment by us. We may not have these necessary funds or they might not be available to us on acceptable terms or at all. We may also seek to raise funds by selling shares of our capital stock, which could dilute current stockholders' ownership interest in our company, or securities convertible into our capital stock, which could dilute current stockholders' ownership interest in our company.

Our ability to use net operating loss carry forwards to reduce future tax payments may be limited if there is a change in ownership of Alexion, or if taxable income does not reach sufficient levels.

As of December 31, 2012, we had \$439,216 of U.S. federal net operating loss carryforwards (NOL's), available to reduce taxable income in future years. Included in our U.S. federal net operating losses is \$10,337 associated with the acquisition of Enobia. A portion of these NOL's are currently subject to an annual limitation under section 382 of the Internal Revenue Code of 1986, as amended (section 382). We believe it is more likely than not that we will use the majority of net operating losses. However, the ability to use net operating loss carryforwards will be dependent on our ability to generate taxable income. The net operating loss carryforwards may expire before we generate sufficient taxable income.

Our ability to utilize the NOL's may be further limited if we undergo an ownership change, as defined in section 382. This ownership change could be triggered by substantial changes in the ownership of our outstanding stock, which are generally outside of our control. An ownership change would exist if the stockholders, or group of stockholders, who own or have owned, directly or indirectly, 5% or more of the value of our stock, or are otherwise treated as 5% stockholders under section 382 and the regulations promulgated there under, increase their aggregate percentage ownership of our stock by more than 50 percentage points over the lowest percentage of our stock owned by these stockholders at any time during the testing period, which is generally the three-year period preceding the potential ownership change. In the event of an ownership change NOL's. The limitation imposed by section 382 for any post-change year would be determined by multiplying the value of our stock immediately before the ownership change (subject to certain adjustments) by the applicable long-term tax-exempt rate. Any unused annual limitation may be carried over to later years, and the limitation may under certain circumstances be increased by built-in gains which may be present with respect to assets held by us at the time of the ownership change that are recognized in the five-year period after the ownership change. Our use of NOL's arising after the date of an ownership change would not be affected.

We may have exposure to additional tax liabilities which could have a material impact on our results of operations and financial position.

As a company with international operations, we are subject to income taxes, as well as non-income based taxes, in both the United States and various foreign jurisdictions. Significant judgment is required in determining our worldwide tax liabilities. Although we believe our estimates are reasonable, the ultimate outcome with respect to the taxes we owe may differ from the amounts recorded in our financial statements. If the Internal Revenue Service, or other taxing authority, disagrees with the positions we take, we could have additional tax liability, and this could have a material impact on our results of operations and financial position. In addition, the United States government and other governments are considering and may adopt tax reform measures that significantly increase our worldwide tax liabilities which could materially harm our business, financial condition and results of operations.

Our sales and operations are subject to the economic, political, legal and business conditions in the countries in which we do business, and our failure to operate successfully or adapt to changes in these conditions could cause our sales and operations to be limited or disrupted.

Since 2007, we have significantly expanded our operations and expect to continue to do so in the future. Our operations in foreign countries subject us to the following additional risks:

- fluctuations in currency exchange rates;
- political or economic determinations that adversely impact pricing or reimbursement policies;
- economic problems or political instability that disrupt health care payment systems;
- difficulties or inability to obtain financing in markets;
- unexpected changes in tariffs, trade barriers and regulatory requirements;
- difficulties enforcing contractual and intellectual property rights;
- changes in laws, regulations or enforcement practices with respect to our business, including without limitation laws relating to reimbursement, competition, pricing and sales and marketing of our products;
- trade restrictions and restrictions on direct investments by foreign entities;
- compliance with tax, employment and labor laws;
- costs and difficulties in recruiting and retaining qualified managers and employees to manage and operate the business in local jurisdictions;
- costs and difficulties in managing and monitoring international operations; and
- longer payment cycles.

Our business and marketing methods are also subject to regulation by the governments of the countries in which we operate. The FCPA and similar antibribery laws in other countries prohibit companies and their representatives from offering, promising, authorizing or making payments to foreign officials for the purpose of obtaining or retaining business. We have policies and procedures designed to help ensure that we and our representatives, including our employees, comply with such laws, however we cannot guarantee that these policies and procedures will protect us against liability under the FCPA or other anti-bribery laws for actions taken by our representatives. Failure to comply with the laws and regulations of the countries in which we operate could materially harm our business.

We conduct, or anticipate that we will conduct, a substantial portion of our business in currencies other than the U.S. dollar. We are exposed to fluctuations in foreign currency exchange rates in the normal course of our business. The exposures result from portions of our revenues, as well as the related receivables, and expenses that are denominated in currencies other than the U.S. dollar, primarily the Euro, Japanese Yen and Swiss Franc. We manage our foreign currency transaction risk within specified guidelines through the use of derivatives. All of our derivative instruments are utilized for risk management purposes, and we do not use derivatives for speculative trading purposes. We enter into foreign exchange forward contracts, with durations of up to 36 months, to hedge exposures resulting from portions of our forecasted intercompany revenues that are denominated in currencies other than the U.S. dollar. The purpose of the hedges of intercompany revenue is to reduce the volatility of exchange rate fluctuations on our operating results and to increase the visibility of the foreign exchange impact on forecasted revenues. Further, we enter into foreign exchange forward contracts, with durations of approximately 30 days, designed to limit the balance sheet exposure of monetary assets and liabilities. We enter into these hedges to reduce the impact of fluctuating exchange rates on our operating results. Gains and losses on these hedge transactions are designed to offset gains and losses on underlying balance sheet exposures. While we attempt to hedge certain currency risks, currency fluctuations between the U.S. dollar and the currencies in which we do business have, in the past, caused foreign currency transaction gains



and losses and have also impacted the amounts of revenues and expenses calculated in U.S. dollars and will likely do so in the future. Likewise, past currency fluctuations have at times resulted in foreign currency transaction gains, and there can be no assurance that these gains can be reproduced. See also Footnote 8, Derivative Instruments and Hedging Activities, in the Condensed Consolidated Financial Statements included in this Quarterly Report on Form 10-Q.

The credit and financial market conditions may aggravate certain risks affecting our business.

Sales of Soliris are dependent, in large part, on reimbursement from government health administration organizations and private and governmental thirdparty payers, and also co-payments from individual patients in certain situations. As a result of adverse credit and financial market conditions, and the overall financial climate, these governmental organizations and payers, and/or individuals, may reduce or delay initiation of treatment, may be unable to satisfy their reimbursement obligations, may delay payment or may seek to reduce reimbursement for Soliris in the future, which could have a material adverse effect on our business and results of operations. For example, in July 2011, we received non-interest bearing bonds issued by the Greek government that mature in 2012 and 2013 for payment on receivables from 2008 and 2009 as part of the Greek government's plan repayment of its debt to international pharmaceutical companies. We sold the associated bonds in July 2011 and recorded expense of approximately \$4,100 through December 31, 2011 related to the reduction of value of the Greek bonds and other delays impacting the book value of our accounts receivable in other countries. Soliris is approved for the treatment of patients with PNH and aHUS in the United States, Japan and the European Union and for the treatment of PNH in several other territories. If Soliris is approved in additional territories for PNH, aHUS, or for additional indications that are under clinical development, the reimbursement risks and uncertainties associated with adverse credit and financial market conditions may be exacerbated due to increases in the number of patients receiving Soliris that require reimbursement. Payment defaults by a government payer could require us to expense previously recorded revenue as uncollectible, and might cause us to end or restrict sales to patients in that country. Further, the risk of payment default by a government payer could require us to revise our revenue recognition policies in regard to that pa

We continue to monitor economic conditions, including volatility associated with U.S. and international economies, associated impacts on the financial markets and our business, and the sovereign debt crisis in Europe. The credit and economic conditions in Greece, Italy and Spain, among other members of the European Union deteriorated in 2011 and 2012. These conditions have resulted in, and may continue to result in, an increase in the average length of time it takes to collect our outstanding accounts receivable in these countries. We have recorded an allowance related to all or a portion of receivables in each of Greece, Italy and Spain that have been outstanding for greater than one year as of September 30, 2013.

We may not be able to successfully mitigate or prevent our exposures to volatile economic and financial conditions and our failure to operate successfully or adapt to changes in these conditions could cause our sales and operations to be limited or disrupted or otherwise harm our business.

Additionally, we rely upon third-parties for certain parts of our business, including Lonza, licensees, wholesale distributors of Soliris, contract clinical trial providers, contract manufacturers and other third-party suppliers and financial institutions. Because of the volatility in the financial markets, there may be a disruption or delay in the performance or satisfaction of commitments to us by these third parties which could have a material adverse effect on our business and results of operations.

Government initiatives that affect coverage and reimbursement of drug products could adversely affect our business.

Governments in countries where we operate have adopted or have shown significant interest in pursuing legislative initiatives to reduce costs of health care. Any such government-adopted health care measures could adversely impact the pricing of Soliris or the amount of coverage and reimbursement available for Soliris from governmental agencies or other third-party payers. For example, in March 2010, the President signed the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Act of 2010 (the PPACA), which substantially changes the way healthcare is financed by both governmental and private insurers in the U.S., and significantly impacts the pharmaceutical industry. PPACA contains a number of provisions that are expected to impact our business and operations, in some cases in ways we cannot currently predict. Changes that may affect our business include those governing enrollment in federal healthcare programs, reimbursement changes, rules regarding prescription drug benefits under health insurance exchanges, and fraud and abuse enforcement. While the constitutionality of key provisions of PPACA have been upheld by the Supreme Court, legislative changes remain possible. In addition, our industry may be affected by broader legislation addressing federal spending, including, for example, a sequester that took effect in March 2013 and cuts to most Medicare spending by 2%. As another example, the governments of Germany and Spain each approved increases to mandatory rebates on the sales of pharmaceutical products. Further in January 2013, Alexion was informed by the Advisory Group for National Specialised Services that although Soliris would help save lives and improve the quality of life for children and adults with aHUS, the U.K. Health Ministers decided not to recommend national commissioning of Soliris for the treatment of aHUS and at that time determined

to refer the evaluation of Soliris for treatment of patients with aHUS to NICE for further review as part of its new Highly Specialised Technologies program. In July 2013, CPAG decided to recommend a formal clinical access policy that includes aHUS patients who have functioning kidneys as well as patients on dialysis who are transplantable. In September 2013, England's National Health Service adopted the positive CPAG recommendation and commissioned Soliris for the treatment of children and adults with aHUS. Funding for patients in England is expected to be available through completion of NICE review. The NICE decision is anticipated in 2014.

We expect that the implementation of current laws and policies, the amendment of those laws and policies in the future, as well as the adoption of new laws and policies, could have a material adverse effect on our industry generally and on our ability to maintain or increase our product sales or successfully commercialize our product candidates, or could limit or eliminate our future spending on development projects. In many cases, these government initiatives, even if enacted into law, are subject to future rulemaking by regulatory agencies. Although we have evaluated these government initiatives and the impact on our business, we cannot know with certainty whether any such law, rule or regulation will adversely affect coverage and reimbursement of Soliris, or to what extent, until such laws, rules and regulations are promulgated, implemented and enforced. The announcement or adoption of regulatory or legislative proposals could delay or prevent our entry into new markets, affect our reimbursement or sales in the markets where we are already selling Soliris and materially harm our business, financial condition and results of operations.

Security breaches and other disruptions could compromise our information and expose us to liability, which would cause our business and reputation to suffer.

In the ordinary course of our business, we collect and store sensitive data, including intellectual property, our proprietary business information and that of our suppliers, customers and business partners, and personally identifiable information. The secure maintenance of this information is critical to our operations and business strategy. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks by hackers or breached due to employee error, malfeasance or other disruptions. Any such breach could compromise our networks and the information stored there could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, disrupt our operations, and damage our reputation which could adversely affect our business.

Natural disasters, acts of war or terrorism, shipping embargoes, labor unrest or political instability, could adversely affect our operations, including our ability to supply and commercialize Soliris.

Natural disasters such as earthquakes, hurricanes, tsunamis or other adverse weather and climate conditions, whether occurring in the U.S. or abroad, and the effects of these natural disasters, as well as acts of war or terrorism, shipping embargoes, labor unrest or political instability could disrupt our operations, or the operations of our vendors and other suppliers. Such events could adversely impact our facilities, or interfere with the manufacture or distribution of Soliris and our product candidates.

Risks Related to Our Common Stock

If the trading price of our common stock continues to fluctuate in a wide range, our stockholders will have uncertainty with respect to an investment in our common stock.

The trading price of our common stock has been volatile and may continue to be volatile in the future. Factors such as announcements of fluctuations in our or our competitors' operating results or clinical or scientific results, fluctuations in the trading prices or business prospects of our competitors and collaborators, changes in our prospects, particularly with respect to sales of Soliris, failure to resolve, delays in resolving or other developments with respect to the issues raised in the Warning Letter, and market conditions for biopharmaceutical stocks in general could have a significant impact on the future trading prices of our common stock. In particular, the trading price of the common stock of many biopharmaceutical companies, including ours, has experienced extreme price and volume fluctuations, which have at times been unrelated to the operating performance of the companies whose stocks were affected. This is due to several factors, including general market conditions, sales of Soliris, the announcement of the results of our clinical trials or product development and the results of our efforts to obtain regulatory approval for our products. While we cannot predict our future performance, if our stock price continues to fluctuate in a wide range, an investment in our common stock may result in considerable uncertainty for an investor.

Anti-takeover provisions of Delaware law, provisions in our charter and bylaws and our stockholders' rights plan, or poison pill, could make a third-party acquisition of us difficult and may frustrate any attempt to remove or replace our current management.

Because we are a Delaware corporation, the anti-takeover provisions of Delaware law could make it more difficult for a third party to acquire control of us, even if the change in control would be beneficial to stockholders. We are subject to the provisions of Section 203 of the Delaware General Laws, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

Our corporate charter and by-law provisions and stockholder rights plan may discourage certain types of transactions involving an actual or potential change of control that might be beneficial to us or our stockholders. Our bylaws, which were amended in October 2013, provide that special meetings of our stockholders may be called only by the Chairman of the Board, the President, the Secretary, or a majority of the Board of Directors, or upon the written request of stockholders who together own of record 50% of the outstanding stock of all classes entitled to vote at such meeting. Our bylaws also specify that the authorized number of directors may be changed only by resolution of the board of directors. Our charter does not include a provision for cumulative voting for directors, which may have enabled a minority stockholder holding a sufficient percentage of a class of shares to elect one or more directors. Under our charter, our board of directors has the authority, without further action by stockholders, to designate up to 5,000 shares of preferred stock in one or more series. The rights of the holders of common stock will be subject to, and may be adversely affected by, the rights of the holders of any class or series of preferred stock that may be issued in the future.

Pursuant to our stockholder rights plan, each share of common stock has an associated preferred stock purchase right. The rights will not trade separately from the common stock until, and are exercisable only upon, the acquisition or the potential acquisition through tender offer by a person or group of 20% or more of the outstanding common stock. The rights are designed to make it more likely that all of our stockholders receive fair and equal treatment in the event of any proposed takeover of us and to guard against the use of partial tender offers or other coercive tactics to gain control of us. These provisions could delay or discourage transactions involving an actual or potential change in control of us or our management, including transactions in which stockholders might otherwise receive a premium for their shares over then current prices. These provisions could also limit the ability of stockholders to remove current management or approve transactions that stockholders may deem to be in their best interests and could adversely affect the price of our common stock.

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

ISSUER PURCHASE OF EQUITY SECURITIES (amounts in thousands)

On November 8, 2012, we announced that our Board of Directors authorized the repurchase of up to \$400,000 of our common stock. This repurchase program does not have an expiration date. There was no common stock repurchase activity during the third quarter of 2013. As of September 30, 2013, the maximum dollar value of shares remaining for purchase under the program was \$322,311.

Item 5. OTHER INFORMATION.

On October 25, 2013, Alexion's Board of Directors adopted Amended and Restated Bylaws, which took effect immediately. The amendments approved by the Board amend the prior Bylaws in the following principal respects:

- Article I, Section 1.7 is added to provide that a stockholder may propose nominees for election to the Board of Directors and other business at an annual or special stockholder meeting (excluding stockholder proposals submitted for inclusion in our proxy statement that comply with Rule 14a-8 of the Securities Exchange Act of 1934, as amended) only if the stockholder complies with the requirements in Section 1.7 and the other provisions of the Bylaws.
- Article I, Section 1.8 is added to establish advance notice requirements for stockholders who propose nominees for election to the Board of Directors or other business at a meeting of stockholders. The advance notice provision in Section 1.8:
 - provides that the notice period for making a director nomination or other proposal of business at an annual meeting of stockholders is not later than the 90th day, nor earlier than the 120th day, prior to the first anniversary of the preceding year's annual meeting of stockholders.



- specifies the notice periods (a) with respect to an annual meeting of stockholders scheduled on a date significantly different from the one year anniversary of the previous year's annual meeting, and (b) relating to special meetings of stockholders called to elect directors.
- specifies information which a stockholder must provide in its notice relating to (a) the stockholder, including interests in derivative securities, relationships and/or arrangements between the stockholder and the director nominee or other person in connection with the proposed business, (b) the director nominee, if applicable, including information that would enable the Board of Directors to determine a nominee's eligibility to serve as an independent director, and (c) any business proposed by the stockholder.
- Article I, Section 1.9 is added to provide that a director nominee for election or reelection to the Board of Directors must deliver a written questionnaire with respect to the background and qualification of such person and the background of any other person on whose behalf the nomination is made, and a written representation and agreement that such person (a) is not and will not become a party to any arrangement with any person as to how such nominee, if elected as a director, will act or vote, or that could limit or interfere with the nominee's ability to comply, if elected, with such nominee's fiduciary duties, (b) is not and will not become a party to any arrangement with any person other than Alexion with respect to any direct or indirect compensation, reimbursement or indemnification in connection with the directorship, (c) would be in compliance, if elected, and will comply, with all applicable corporate governance, conflict of interest, confidentiality and stock ownership and trading policies and guidelines of Alexion.
- Article I, Section 1.11 is modified and Sections 1.12-1.13 are added to address the procedures by which action may be taken by the written consent of stockholders, including the record date for such action, the effectiveness of written consents, and Alexion's obligation to retain an independent inspector to review the validity of submitted consents and revocations.
- Article II, Section 2.9 is added to provide that no person will serve as a director if such individual is a party to any compensatory, payment or other financial arrangement with any person other than Alexion, or has received any compensation or other payment from any person other than Alexion, in both cases in connection with candidacy or service as a director.
- Article VII is added to provide that unless Alexion consents in writing to the selection of an alternative forum, a court located within the State of
 Delaware will be the sole and exclusive forum for (a) derivative actions brought on behalf of Alexion, (b) any action asserting a claim of breach of a
 fiduciary duty owed by any director or officer or other employee to Alexion or our stockholders, (c) any action asserting a claim against Alexion or
 any director or officer or other employee arising under the Delaware General Corporation Law or our Certificate of Incorporation or By-Laws, or (d)
 any action asserting a claim against Alexion or any director or officer or other employee governed by the internal affairs doctrine.

Item 6. EXHIBITS.

(a) Exhibits:

- 3.1 Amended and Restated Bylaws
- 31.1 Certificate of Chief Executive Officer pursuant to Exchange Act Rules 13a-14 and 15d-14, as adopted pursuant to Section 302 Sarbanes Oxley Act of 2002.
- 31.2 Certificate of Chief Financial Officer pursuant to Exchange Act Rules 13a-14 and 15d-14, as adopted pursuant to Section 302 of Sarbanes Oxley Act of 2002.
- 32.1 Certificate of Chief Executive Officer pursuant to Section 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes Oxley Act.
- 32.2 Certificate of Chief Financial Officer pursuant to Section 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes Oxley Act.
- 101 The following materials from the Alexion Pharmaceuticals, Inc. Quarterly Report on Form 10-Q for the quarter ended September 30, 2013 formatted in eXtensible Business Reporting Language (XBRL): (i) the Condensed Consolidated Balance Sheets at September 30, 2013 and December 31, 2012, (ii) the Condensed Consolidated Statements of Operations for the three and nine months ended September 30, 2013 and 2012, (iii) the Condensed Consolidated Statements of Comprehensive Income for the three and nine months ended September 30, 2013 and 2012, (iv) the Condensed Consolidated Statements of Cash Flows for the nine months ended September 30, 2013 and 2012, (iv) the Condensed Consolidated Statements of Cash Flows for the nine months ended September 30, 2013 and 2012 and (v) Notes to Condensed Consolidated Financial Statements.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

ALEXION PHARMACEUTICALS, INC.

By:/s/Leonard BellDate: October 25, 2013Leonard Bell, M.D.
Chief Executive Officer, Treasurer and Director (principal executive officer)

By:

Date: October 25, 2013

Vikas Sinha, M.B.A., C.A. Executive Vice President and Chief Financial Officer (principal financial officer)

/s/ Vikas Sinha

ALEXION PHARMACEUTICALS, INC.

A Delaware Corporation

AMENDED AND RESTATED BY-LAWS

ARTICLE I

STOCKHOLDERS

Section 1.1 <u>Annual Meeting</u>.

An annual meeting of stockholders for the purpose of electing directors and of transacting such other business as may come before it shall be held each year at such date, time, and place, either within or without the State of Delaware, as may be specified by the Board of Directors.

Section 1.2 Special Meetings.

Special meetings of stockholders for any purpose or purposes may be held at any time upon call of the Chairman of the Board, the President, the Secretary, or a majority of the Board of Directors, at such time and place either within or without the State of Delaware as may be stated in the notice. A special meeting of stockholders shall be called by the Chairman of the Board, the President, or the Secretary upon the written request, stating time, place, and the purpose or purposes of the meeting, of stockholders who together own of record 50% of the outstanding stock of all classes entitled to vote at such meeting.

Section 1.3 Notice of Meetings.

Written notice of stockholders meetings, stating the place, date, and hour thereof, and, in the case of a special meeting, the purpose or purposes for which the meeting is called, shall be given by the Chairman of the Board, the President, any Vice President, the Secretary, or an Assistant Secretary, to each stockholder entitled to vote thereat at least 10 days but not more than 60 days before the date of the meeting, unless a different period is prescribed by law.

Section 1.4 Quorum.

Except as otherwise provided by law or in the Certificate of Incorporation or these By-Laws, at any meeting of stockholders, the holders of a majority of the outstanding shares of each class of stock entitled to vote at the meeting shall be present or represented by proxy in order to constitute a quorum for the transaction of any business. In the absence of a quorum, a majority in interest of the stockholders present or the chairman of the meeting may adjourn the meeting from time to time in the manner provided in Section 1.5 of these By-Laws until a quorum shall attend.

Section 1.5 Adjournment.

Any meeting of stockholders, annual or special, may adjourn from time to time to reconvene at the same or some other place, and notice need not be given of any such adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the Corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than

30 days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 1.6 <u>Organization</u>.

The Chairman of the Board, or in his absence the President, or in their absence any Vice President, shall call to order meetings of stockholders and shall act as chairman of such meetings. The Board of Directors or, if the Board fails to act, the stockholders may appoint any stockholder, director, or officer of the Corporation to act as chairman of any meeting in the absence of the Chairman of the Board, the President, and all Vice Presidents.

The Secretary of the Corporation shall act as secretary of all meetings of stockholders, but, in the absence of the Secretary, the chairman of the meeting may appoint any other person to act as secretary of the meeting.

Section 1.7 Order of Business.

(A) Annual Meetings of Stockholders. At any annual meeting of the stockholders, only such nominations of persons for election to the Board of Directors shall be made, and only such other business shall be conducted or considered, as shall have been properly brought before the meeting. For nominations to be properly made at an annual meeting, and proposals of other business to be properly brought before an annual meeting, nominations and proposals of other business must be: (a) specified in the Corporation's notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (b) otherwise properly made at the annual meeting, by or at the direction of the Board of Directors or (c) otherwise properly requested to be brought before the annual meeting by a stockholder of the Corporation in accordance with these By-Laws. For nominations of persons for election to the Board of Directors or proposals of other business to be properly requested by a stockholder to be made at an annual meeting, a stockholder must (i) be a stockholder of record at the time of giving of notice of such annual meeting by or at the direction of the Board of Directors and at the time of the annual meeting, (ii) be entitled to vote at such annual meeting and (iii) comply with the procedures set forth in these By-Laws as to such business proposals (other than matters properly brought under Rule 14a-8 under the Securities Exchange Act of 1934, as amended (the "Exchange Act") and included in the Corporation's notice of meeting) before an annual meeting of stockholders.

(B) Special Meetings of Stockholders. At any special meeting of the stockholders, only such business shall be conducted or considered, as shall have been properly brought before the meeting pursuant to the Corporation's notice of meeting. To be properly brought before a special meeting, proposals of business must be (a) specified in the Corporation's notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, or (b) otherwise properly brought before the special meeting, by or at the direction of the Board of Directors, or (c) otherwise properly requested to be brought before the special meeting by a stockholder of the Corporation in accordance with these By-Laws. For proposals of business to be properly requested by a stockholder to be brought before a special meeting, a stockholder must (i) be a stockholder of record at the time of giving of notice of such special meeting by or at the direction of the Board of Directors and at the time of the special meeting, (ii) be entitled to vote at such special meeting and (iii) comply with the procedures set forth in these By-Laws as to such business.

Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting (a) by or at the direction of the Board of Directors or (b) provided that the Board of Directors has determined that directors shall be elected at such meeting, by any stockholder of the Corporation who (i) is a stockholder of record at the time of giving of notice of such special meeting and at the time of the special meeting, (ii) is entitled to vote at the meeting, and (iii) complies with the procedures set forth in these By-Laws as to such nomination. The immediately preceding sentence shall be the exclusive means for a stockholder to make nominations (other than matters properly brought under Rule 14a-8 under the Exchange Act and included in the Corporation's notice of meeting) before a special meeting of stockholders.

(C) General. Except as otherwise provided by law, the Certificate of Incorporation or these By-Laws, the Chairman of any annual or special meeting shall have the power to determine whether a nomination or any other business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with these By-Laws and, if any proposed nomination or other business is not in compliance with these By-Laws, to declare that no action shall be taken on such nomination or other proposal and such nomination or other proposal shall be disregarded.

Section 1.8 Advance Notice of Stockholder Business and Nominations.

(A) Annual Meeting of Stockholders. Without qualification or limitation, subject to Section 1.8(C)(4) of these By-Laws, for any nominations or any other business to be properly brought before an annual meeting by a stockholder pursuant to Section 1.7(A) of these By-Laws, the stockholder must have given timely notice thereof (including, in the case of nominations, the completed and signed questionnaire, representation and agreement required by Section 1.9 of these By-Laws), and timely updates and supplements thereof, in writing to the Secretary, and such other business must otherwise be a proper matter for stockholder action.

To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the Corporation not earlier than the close of business on the 120th day and not later than the close of business on the 90th day prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is more than thirty (30) days before or more than sixty (60) days after such anniversary date, notice by the stockholder must be so delivered not earlier than the close of business on the 120th day prior to the date of such annual meeting and not later than the close of business on the later of the 90th day prior to the date of such annual meeting or, if the first public announcement of the date of such annual meeting is less than one hundred (100) days prior to the date of such annual meeting, the 10th day following the day on which public announcement of the date of such meeting is first made by the Corporation. In no event shall any adjournment or postponement of an annual meeting, or the public announcement thereof, commence a new time period for the giving of a stockholder's notice as described above.

Notwithstanding anything in the immediately preceding paragraph to the contrary, in the event that the number of directors to be elected to the Board of Directors is increased by the Board of Directors, and there is no public announcement by the Corporation naming all of the nominees for director or specifying the size of the increased Board of Directors at least one hundred (100) days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section 1.8(A) shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the 10th day following the day on which such public announcement is first made by the Corporation.

In addition, to be considered timely, a stockholder's notice shall further be updated and supplemented, if necessary, so that the information provided or required to be provided in such notice shall be true and correct as of the record date for the meeting and as of the date that is ten (10) business days prior to the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to the Secretary at the principal executive offices of the Corporation not later than five (5) business days after the record date for the meeting in the case of the update and supplement required to be made as of the record date, and not later than eight (8) business days prior to the date for the meeting or any adjournment or postponement thereof in the case of the update and supplement required to be made as of the (10) business days prior to the meeting or any adjournment or postponement thereof.

(B) Special Meetings of Stockholders. Without qualification or limitation, subject to Section 1.8(C)(4) of these By-Laws, for any business to be properly requested to be brought before a special meeting by a stockholder pursuant to Section 1.7(B) of these By-Laws, the stockholder must have given timely notice thereof and timely updates and supplements thereof in writing to the Secretary and such business must otherwise be a proper matter for stockholder action.

Subject to Section 1.8(C)(4) of these By-Laws, in the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any stockholder may nominate a person or persons (as the case may be) for election to such position(s) as specified in the Corporation's notice of meeting, provided that the stockholder gives timely notice thereof (including the completed and signed questionnaire, representation and agreement required by Section 1.9 of these By-Laws), and timely updates and supplements thereof, in writing, to the Secretary.

To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the Corporation not earlier than the close of business on the 120th day prior to the date of such special meeting and not later than the close of business on the later of the 90th day prior to the date of such special meeting or, if the first public announcement of the date of such special meeting is less than one hundred (100) days prior to the date of such special meeting, the 10th day following the day on which public announcement is first made of the date of the special meeting and, if applicable, of the nominees proposed by the Board of Directors to be elected at such meeting. In no event shall any adjournment or postponement of a special meeting of stockholders, or the public announcement thereof, commence a new time period for the giving of a stockholder's notice as described above.

In addition, to be considered timely, a stockholder's notice shall further be updated and supplemented, if necessary, so that the information provided or required to be provided in such notice shall be true and correct as of the record date for the meeting and as of the date that is ten (10) business days prior to the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to the Secretary at the principal executive offices of the Corporation not later than five (5) business days after the record date for the meeting in the case of the update and supplement required to be made as of the record date, and not later than eight (8) business days prior to the date for the meeting, any adjournment or postponement thereof in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting or any adjournment or postponement thereof.

(C) <u>Disclosure Requirements</u>.

(1) To be in proper form, a stockholder's notice (whether given pursuant to Section 1.7(A) or 1.7(B) of these By-Laws) to the Secretary must include the following, as applicable.

(a) As to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made, a stockholder's notice must set forth: (i) the name and address of such stockholder, as they appear on the Corporation's books, of such beneficial owner, if any, and of their respective affiliates or associates or others acting in concert therewith, (ii) (A) the class or series and number of shares of the Corporation which are, directly or indirectly, owned beneficially and of record by such stockholder, such beneficial owner and their respective affiliates or associates or others acting in concert therewith, (B) any option, warrant, convertible security, stock appreciation right, or similar right with an exercise or conversion privilege or a settlement payment or mechanism at a price related to any class or series of shares of the Corporation or with a value derived in whole or in part from the value of any class or series of shares of the Corporation, or any derivative or synthetic arrangement having the characteristics of a long position in any class or series of shares of the Corporation, or any contract, derivative, swap or other transaction or series of transactions designed to produce economic benefits and risks that correspond substantially to the ownership of any class or series of shares of the Corporation, including due to the fact that the value of such contract, derivative, swap or other transaction or series of transactions is determined by reference to the price, value or volatility of any class or series of shares of the Corporation, whether or not such instrument, contract or right shall be subject to settlement in the underlying class or series of shares of the Corporation, through the delivery of cash or other property, or otherwise, and without regard to whether the stockholder of record, the beneficial owner, if any, or any affiliates or associates or others acting in concert therewith, may have entered into transactions that hedge or mitigate the economic effect of such instrument, contract or right, or any other direct or indirect opportunity to profit or share in any profit derived from any increase or decrease in the value of shares of the Corporation (any of the

foregoing, a "Derivative Instrument") directly or indirectly owned beneficially by such stockholder, the beneficial owner, if any, or any affiliates or associates or others acting in concert therewith, (C) any proxy, contract, arrangement, understanding, or relationship pursuant to which such stockholder has a right to vote any class or series of shares of the Corporation, (D) any agreement, arrangement, understanding, relationship or otherwise, including any repurchase or similar so-called "stock borrowing" agreement or arrangement, involving such stockholder, directly or indirectly, the purpose or effect of which is to mitigate loss to, reduce the economic risk (of ownership or otherwise) of any class or series of the shares of the Corporation by, manage the risk of share price changes for, or increase or decrease the voting power of, such stockholder with respect to any class or series of the shares of the Corporation, or which provides, directly or indirectly, the opportunity to profit or share in any profit derived from any decrease in the price or value of any class or series of the shares of the Corporation (any of the foregoing, a "Short Interest"), (E) any rights to dividends on the shares of the Corporation owned beneficially by such stockholder that are separated or separable from the underlying shares of the Corporation, (F) any proportionate interest in shares of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership in which such stockholder is a general partner or, directly or indirectly, beneficially owns an interest in a general partner of such general or limited partnership, (G) any performance-related fees (other than an asset-based fee) that such stockholder is entitled to based on any increase or decrease in the value of shares of the Corporation or Derivative Instruments, if any, including without limitation any such interests held by members of such stockholder's immediate family sharing the same household, (H) any significant equity interests or any Derivative Instruments or Short Interests in any principal competitor of the Corporation held by such stockholder, and (I) any direct or indirect interest of such stockholder in any contract with the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation (including, in any such case, any employment agreement, collective bargaining agreement or consulting agreement), and (iii) any other information relating to such stockholder and beneficial owner, if any, that would be required to be disclosed in a proxy statement and form or proxy or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or for the election of directors in a contested election pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder;

(b) If the notice relates to any business other than a nomination of a director or directors that the stockholder proposes to bring before the meeting, a stockholder's notice must, in addition to the matters set forth in paragraph (a) above, also set forth: (i) a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest of such stockholder and beneficial owner, if any, in such business, (ii) the text of the proposal or business (including the text of any resolutions proposed for consideration and, in the event that such proposal or business includes a proposal to amend the By-Laws of the Corporation, the text of the proposed amendment), and (iii) a description of all agreements, arrangements and understandings between such stockholder and beneficial owner, if any, and any other person or persons (including their names) in connection with the proposal of such business by such stockholder;

(c) As to each person, if any, whom the stockholder proposes to nominate for election or reelection to the Board of Directors, a stockholder's notice must, in addition to the matters set forth in paragraph (a) above, also set forth: (i) all information relating to such person that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for election of directors in a contested election pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected) and (ii) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three (3) years, and any other material relationships, between or among such stockholder and beneficial owner, if any, and their

respective affiliates and associates, or others acting in concert therewith, on the one hand, and each proposed nominee, and his or her respective affiliates and associates, or others acting in concert therewith, on the other hand, including, without limitation all information that would be required to be disclosed pursuant to Rule 404 promulgated under Regulation S-K if the stockholder making the nomination and any beneficial owner on whose behalf the nomination is made, if any, or any affiliate or associate thereof or person acting in concert therewith, were the "registrant" for purposes of such rule and the nominee were a director or executive officer of such registrant; and

(d) With respect to each person, if any, whom the stockholder proposes to nominate for election or reelection to the Board of Directors, a stockholder's notice must, in addition to the matters set forth in paragraphs (a) and (c) above, also include a completed and signed questionnaire, representation and agreement required by Section 1.9 of these By-Laws. The Corporation may require any proposed nominee to furnish such other information as may reasonably be required by the Corporation to determine the eligibility of such proposed nominee to serve as an independent director of the Corporation or that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such nominee.

(2) For purposes of these By-Laws, "public announcement" shall mean disclosure in a press release reported by a national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act and the rules and regulations promulgated thereunder.

(3) Notwithstanding the provisions of these By-Laws, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in this By-Law; provided, however, that any references in these By-Laws to the Exchange Act or the rules promulgated thereunder are not intended to and shall not limit the separate and additional requirements set forth in these By-Laws with respect to nominations or proposals as to any other business to be considered pursuant to Section 1.7 of these By-Laws.

(4) Nothing in these By-Laws shall be deemed to affect any rights (i) of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act or (ii) of the holders of any series of Preferred Stock if and to the extent provided for under law, the Certificate of Incorporation or these By-Laws. Subject to Rule 14a-8 under the Exchange Act, nothing in these By-Laws shall be construed to permit any stockholder, or give any stockholder the right, to include or have disseminated or described in the Corporation's proxy statement any nomination of director or directors or any other business proposal.

Section 1.9 Submission of Questionnaire, Representation and Agreement.

To be eligible to be a nominee for election or reelection as a director of the Corporation, a person must deliver (in accordance with the time periods prescribed for delivery of notice under Section 1.8 of these By-Laws) to the Secretary at the principal executive offices of the Corporation a written questionnaire with respect to the background and qualification of such person and the background of any other person or entity on whose behalf the nomination is being made (which questionnaire shall be provided by the Secretary upon written request), and a written representation and agreement (in the form provided by the Secretary upon written request) that such person (A) is not and will not become a party to (1) any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any person or entity as to how such person, if elected as a director of the Corporation, will act or vote on any issue or question (a "Voting Commitment") that has not been disclosed to the Corporation or (2) any Voting Commitment that could limit or interfere with such person's ability to comply, if elected as a director of the Corporation or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director that has not been disclosed therein, (C) in such person's individual capacity and on behalf of any person or entity on whose behalf the nomination is being made, would be in compliance, if elected

as a director of the Corporation, and will comply, with all applicable corporate governance, conflict of interest, confidentiality and stock ownership and trading policies and guidelines of the Corporation publicly disclosed from time to time, and (D) will abide by the requirements of Section 1.10 of these By-Laws.

Section 1.10 Voting.

(a) Except as otherwise provided by law or in the Certificate of Incorporation or these By-Laws and except as provided in clause (b) for the election of directors, at any meeting duly called and held at which a quorum is present, a majority of the votes cast at such meeting upon a given question by the holders of outstanding shares of stock of all classes of stock of the Corporation entitled to vote thereon who are present in person or by proxy shall decide such question.

(b) <u>Election of Directors</u>.

(i) In an uncontested election, stockholders will be given the choice to cast votes "for" or "against" the election of directors. Except as otherwise provided in clause (iii) for contested elections (as defined below), a nominee for director in an uncontested election shall be elected if the votes cast "for" such nominee's election exceed the votes cast "against" such nominee's election, with "abstentions" and "broker non-votes" not counted as a vote cast either "for" or "against" that director's election.

If a nominee for director, who is an incumbent director, is not elected, the director shall promptly (ii) offer to tender his or her resignation to the Board of Directors. The Corporate Governance and Nominating Committee, or such other committee designated by the Board of Directors, shall make a recommendation to the Board of Directors as to whether to accept or reject the resignation of such incumbent director, or whether other action should be taken. The Board of Directors shall act on the resignation, taking into account the committee's recommendation, and publicly disclose (by a press release, a filing with the Securities and Exchange Commission or other broadly disseminated means of communication) its decision regarding the tendered resignation and the rationale behind the decision within ninety (90) days following certification of the election results. The director who tenders his or her resignation shall not participate in the recommendation of the committee or the decision of the Board of Directors with respect to his or her resignation. If such incumbent director's resignation is not accepted by the Board of Directors, such director shall continue to serve until the next annual meeting and until his or her successor is duly elected or his or her earlier resignation or removal. If the Board of Directors accepts a director's resignation pursuant to this Section 1.10(b)(ii), or if a nominee for director is not elected and the nominee is not an incumbent director, the Board of Directors may fill the resulting vacancy pursuant to the provisions of Section 4.3 or may decrease the size of the Board of Directors pursuant to the provisions of Section 2.1.

(iii) In the event of a contested election of directors, directors shall be elected by a plurality of the votes cast for nominees in the election of directors at any meeting of stockholders for the election of directors at which a quorum is present. A contested election for purposes of these By-Laws means any election of directors for which the Board of Directors determines that the number of candidates for election as directors exceeds the number of directors to be elected. In a contested election, stockholders will be given the choice to cast "for" or "withhold" votes for the election of directors.

Section 1.11 Record Date for Action by Written Consent.

(A) Request for Record Date. Unless otherwise provided in the certificate of incorporation, any action required to be taken at any annual or special meeting of stockholders of the Corporation, or any action which may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted. Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing. The record date for determining stockholders entitled to express consent to corporate action in writing without a meeting shall be as fixed by the Board of Directors or as otherwise established under this Section 1.11. Any person seeking to have the stockholders authorize or take corporate action by written consent without a meeting shall, by written notice addressed to the Secretary of the Corporation and delivered to the Corporation and signed by a stockholder of record, request that a record date be fixed for such purpose. The written notice must contain the information set forth in paragraph (B) of this Section 1.11. Following receipt of the notice, the Board of Directors shall have ten (10) days to determine the validity of the request, and if appropriate, adopt a resolution fixing the record date for such purpose. The record date for such purpose shall be no more than ten (10) days after the date upon which the resolution fixing the record date is adopted by the Board of Directors and shall not precede the date such resolution is adopted. If the Board of Directors fails within ten (10) days after the Corporation receives such notice to fix a record date for such purpose, the record date shall be the day on which the first written consent is delivered to the Corporation; except that, if prior action by the Board of Directors is required under the provisions of Delaware law, the record date shall be at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action.

(B) Notice Requirements. Any stockholder's notice required by paragraph (A) of this Section 1.11 must describe the action that the stockholder proposes to take by consent. For each such proposal, every notice by a stockholder must state (i) the information required by Section 1.8(C) as though such stockholder was intending to make a nomination or to bring any such other matter before a meeting of stockholders and (ii) the text of the proposal (including the text of any resolutions to be effected by consent and the language of any proposed amendment to the By-Laws of the Corporation). In addition to the foregoing, the notice must state as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the notice is given a representation whether the stockholder or the beneficial owner, if any, intends or is part of a group which intends to (i) deliver a proxy statement and/or consent solicitation statement to stockholders of at least the percentage of the Corporation's outstanding capital stock required to effect the action by consent either to solicit consents or to solicit proxies to execute consents, and/or (ii) otherwise solicit proxies or consents from stockholders in support of the action to be taken by consent. The Corporation may require the stockholder of record and/or beneficial owner requesting a record date for proposed stockholder action by consent to furnish such other information as it may reasonably require to determine the validity of the request for a record date.

Section 1.12 Inspectors of Written Consent.

In the event of the delivery, in the manner provided by Section 1.11 of these By-Laws, to the Corporation of the requisite written consent or consents to take corporate action and/or any related revocation or revocations, the Corporation shall engage nationally recognized independent inspectors of elections for the purpose of promptly performing a ministerial review of the validity of the consents and revocations. For the purpose of permitting the inspectors to perform such review, no action by written consent without a meeting shall be effective until such date as the independent inspectors certify to the Corporation that the consents delivered to the Corporate action. Nothing contained in this paragraph shall in any way be construed to suggest or imply that the Corporation or any stockholder shall not be entitled to contest the validity of any consent or revocation thereof, whether before or after such certification by the independent inspectors, or to take any other action (including, without limitation, the commencement, prosecution or defense of any litigation with respect thereto, and the seeking of injunctive relief in such litigation).

Section 1.13 Effectiveness of Written Consent.

Every written consent shall bear the date of signature of each stockholder who signs the consent and no written consent shall be effective to take the corporate action referred to therein unless, within sixty (60) days of the earliest dated written consent received in accordance with Section 1.11 of these By-Laws, a written consent or consents signed by a sufficient number of holders to take such action are delivered to the Corporation in the manner prescribed in Section 1.11 of these By-Laws.

ARTICLE II

BOARD OF DIRECTORS

Section 2.1 <u>Number and Term of Office</u>.

The business, property, and affairs of the Corporation shall be managed by or under the direction of a Board of two directors; provided, however, that the Board, by resolution adopted by vote of a majority of the then authorized number of directors, may increase or decrease the number of directors. The directors shall be elected by the holders of shares entitled to vote thereon at the annual meeting of stockholders, and each shall serve (subject to the provisions of Article IV) until the next succeeding annual meeting of stockholders and until his respective successor has been elected and qualified.

Section 2.2 Meetings.

Regular meetings of the Board of Directors may be held without notice at such time and place as shall from time to time be determined by the Board.

Special meetings of the Board of Directors shall be held at such time and place as shall be designated in the notice of the meeting whenever called by the Chairman of the Board, the President, or by a majority of the directors then in office.

Section 2.3 Notice of Special Meetings.

The Secretary, or in his absence any other officer of the Corporation, shall give each director notice of the time and place of holding of special meetings of the Board of Directors by mail at least three days before the meeting, or by telegram, telecopy, cable, radiogram, or personal service at least one day before the meeting. Unless otherwise stated in the notice thereof, any and all business may be transacted at any meeting without specification of such business in the notice.

Section 2.4 Quorum and Organization of Meetings.

A majority of the total number of members of the Board of Directors as constituted from time to time shall constitute a quorum for the transaction of business, but, if at any meeting of the Board of Directors (whether or not adjourned from a previous meeting) there shall be less than a quorum present, a majority of those present may adjourn the meeting to another time and place, and the meeting may be held as adjourned without further notice or waiver. Except as otherwise provided by law or in the Certificate of Incorporation or these By-Laws, a majority of the directors present at any meeting at which a quorum is present may decide any question brought before such meeting. Meetings shall be presided over by the Chairman of the Board, or in his absence by the President, or in the absence of both by such other person as the directors may select. The Secretary of the Corporation shall act as secretary of the meeting, but in his absence the chairman of the meeting may appoint any person to act as secretary of the meeting.

Section 2.5 <u>Committees</u>.

The Board of Directors may, by resolution passed by a majority of the whole Board, designate one or more committees, each committee to consist of one or more of the directors of the Corporation. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business, property, and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but no such committee shall have power or authority in reference to amending the Certificate of Incorporation of the Corporation (except that a committee may, to the extent authorized in the resolution or resolutions providing for the issuance of shares of stock adopted by the Board of Directors pursuant to authority expressly granted to the Board of Directors by the Corporation's Certificate of Incorporation, fix any of the preferences or rights of such shares relating to dividends, redemption, dissolution, any distribution of assets of the Corporation, or the conversion into, or the exchange of such shares for, shares of any other class or classes or any other series of the same or any other class or classes of stock of the Corporation), adopting an agreement of merger or consolidation under Section 251 or 252 of the General Corporation Law of the State of Delaware, recommending to the stockholders the sale, lease, or exchange of all or substantially all of the Corporation's property and assets, recommending to the stockholders a dissolution of the Corporation or a revocation of dissolution, or amending these By-Laws; and, unless the resolution expressly so provided, no such committee shall have the power or authority to declare a dividend, to authorize the issuance of stock, or to adopt a certificate of ownership and merger pursuant to Section 253 of the General Corporation Law of the State of Delaware. Each committee which may be established by the Board of Directors pursuant to these By-Laws may fix its own rules and procedures. Notice of meetings of committees, other than of regular meetings provided for by the rules, shall be given to committee members. All action taken by committees shall be recorded in minutes of the meetings.

Section 2.6 Action Without Meeting.

Nothing contained in these By-Laws shall be deemed to restrict the power of members of the Board of Directors or any committee designated by the Board to take any action required or permitted to be taken by them without a meeting.

Section 2.7 <u>Telephone Meetings</u>.

Nothing contained in these By-Laws shall be deemed to restrict the power of members of the Board of Directors, or any committee designated by the Board, to participate in a meeting of the Board, or committee, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other.

Section 2.8 Good Faith Reliance.

Each director and each member of any committee designated by the Board of Directors shall, in the performance of his duties, be fully protected in relying in good faith upon the books of account or reports made to the Corporation by any officers of the Corporation, or any officers of its wholly-owned subsidiaries, or by an independent certified public accountant, or by an appraiser selected with reasonable care by the Board of Directors or by any such committee, or in relying in good faith upon other records of the Corporation.

Section 2.9 <u>Qualification</u>.

No person shall qualify for service as a director of the Corporation if he or she is a party to any compensatory, payment or other financial agreement, arrangement or understanding with any person or entity other

than the Corporation, or has received any such compensation or other payment from any person or entity other than the Corporation, in each case in connection with candidacy or service as a director of the Corporation; provided that agreements providing only for indemnification and/or reimbursement of out-of-pocket expenses in connection with candidacy as a director (but not, for the avoidance of doubt, in connection with service as a director) and any pre-existing employment agreement a candidate has with his or her employer (not entered into in contemplation of the employer's investment in the Corporation or such employee's candidacy as a director), shall not be disqualifying under this By-Law.

ARTICLE III

OFFICERS

Section 3.1 <u>Officers</u>.

The officers of the Corporation shall be chosen by the Board of Directors and shall be a President, a Secretary and a Treasurer. The Board of Directors may also choose a Chairman of the Board, a Controller, one or more Vice Presidents, one or more Assistant Secretaries and Assistant Treasurers. Any number of offices may be held by the same person, unless the Certificate of Incorporation or these By-Laws otherwise provide. The Board of Directors at its first meeting after each annual meeting of stockholders shall choose a Chairman of the Board, a President, a Secretary and a Treasurer. The Board of Directors may appoint such other officers and agents as it shall deem necessary who shall hold their offices for such terms and shall exercise such power and perform such duties as shall be determined from time to time by the Board of Directors. The salaries of all officers and agents of the Corporation shall be fixed by the Board of Directors may be removed at any time with or without cause by the affirmative vote of a majority of the Board of Directors. Any vacancy occurring in any office of the Corporation shall be filled by the Board of Directors.

Section 3.2 The President.

The President shall be the chief executive officer of the Corporation and shall have the general direction and supervision over day-today matters relating to the business and affairs of the Corporation, shall implement or supervise the implementation of corporate policies as established by the Board of Directors, and perform such duties and have such powers as the Board of Directors may from time to time prescribe. The President shall, in the absence or disability of the Chairman of the Board, preside at meetings of the stockholders and the Board of Directors. The President shall execute bonds, mortgages and other contracts requiring a seal under the seal of the Corporation, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be delegated by the Board of Directors to some other officer or agent of the Corporation.

Section 3.3 The Secretary and Assistant Secretary.

The Secretary shall attend all meetings of the Board of Directors and all meetings of the stockholders and record all the proceedings of the meetings of the Corporation and of the Board of Directors in a book to be kept for that purpose and shall perform like duties for the standing committees when required. He or she shall give, or cause to be given, notice of all meetings of the stockholders and special meetings of the Board of Directors, and shall perform such other duties as may be prescribed by the Board of Directors or person serving as chief executive officer, under whose supervision he or she shall be. He or she shall have custody of the corporate seal of the Corporation and he or she, or an Assistant Secretary, shall have authority to affix the same to any instrument requiring it and, when so affixed, it may be attested by his signature or by the signature of such Assistant Secretary. The Board of Directors may give general authority to any other officer to affix the seal of the Corporation and to attest the affixing by his or her signature. The Assistant Secretary or, if there be more than one, the Assistant Secretaries in the order determined by the Board of Directors (or, in the absence of any designation, then in the

order of their election), shall, in the absence or disability of the Secretary, perform the duties and exercise the powers of the Secretary and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

Section 3.4 <u>The Treasurer and Assistant Treasurers</u>.

The Treasurer shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the Corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the Corporation in such depositories as may be designated by the Board of Directors. He or she shall disburse the funds of the Corporation as may be ordered by the Board of Directors, taking proper vouchers for such disbursements, and shall render to the person serving as chief executive officer, the President and Board of Directors at its regular meetings, or when the Board of Directors so requires, an account of all his or her transactions as Treasurer and of the financial condition of the Corporation. If required by the Board of Directors for the faithful performance of the duties of his office and for the restoration to the Corporation, in case of his death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his possession or under his or her control belonging to the Corporation. The Assistant Treasurer, or, if there shall be more than one, the Assistant Treasurers in the order determined by the Board of Directors (or, in the absence of any designation, then in the order of their election), shall, in the absence or disability of the Treasurer, perform the duties and exercise the powers of the Treasurer and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

Section 3.5 The Vice Presidents.

The Vice President, if any, or, if there shall be more than one, the Vice Presidents in the order determined by the Board of Directors (or, in the absence of any designation, then in the order of their election) shall, in the absence or disability of the President, perform the duties and exercise the powers of the President and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

ARTICLE IV

RESIGNATIONS, REMOVALS, AND VACANCIES

Section 4.1 <u>Resignations</u>.

Section 4.2 Any director or officer of the Corporation, or any member of any committee, may resign at any time by giving written notice to the Board of Directors, the Chairman of the Board, the President, or the Secretary of the Corporation. Except as provided by Section 1.10(b)(ii), any such resignation shall take effect at the time specified therein or, if the time be not specified therein, then upon receipt thereof. Except as provided by Section 1.10(b)(ii), the acceptance of such resignation shall not be necessary to make it effective.

Section 4.3 <u>Removals</u>.

The Board of Directors, by a vote of not less than a majority of the entire Board, at any meeting thereof, or by written consent, at any time, may, to the extent permitted by law, remove with or without cause from office or terminate the employment of any officer or member of any committee and may, with or without cause, disband any committee.

Any director or the entire Board of Directors may be removed, with or without cause, by the holders of a majority of the shares entitled at the time to vote at an election of directors.

Section 4.4 <u>Vacancies</u>.

Any vacancy in the office of any director or officer through death, resignation, removal, disqualification, or other cause, and any additional directorship resulting from increase in the number of directors, may be filled at any time by a majority of the directors then in office (even though less than a quorum remains) or, in the case of any vacancy in the office of any director, by the stockholders, and, subject to the provisions of this Article IV, the person so chosen shall hold office until his successor shall have been elected and qualified; or, if the person so chosen is a director elected to fill a vacancy, he shall (subject to the provisions of this Article IV) hold office for the unexpired term of his predecessor.

ARTICLE V

CAPITAL STOCK

Section 5.1 <u>Stock Certificates</u>.

The certificates for shares of the capital stock of the Corporation shall be in such form as shall be prescribed by law and approved, from time to time, by the Board of Directors.

Section 5.2 Transfer of Shares.

Shares of the capital stock of the Corporation may be transferred on the books of the Corporation only by the holder of such shares or by his duly authorized attorney, upon the surrender to the Corporation or its transfer agent of the certificate representing such stock properly endorsed.

Section 5.3 Fixing Record Date.

In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof or to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion, or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which, unless otherwise provided by law, shall not be more than 60 nor less than 10 days before the date of such meeting, nor more than 60 days prior to any other action.

Section 5.4 Lost Certificates.

The Board of Directors or any transfer agent of the Corporation may direct a new certificate or certificates representing stock of the Corporation to be issued in place of any certificate or certificates theretofore issued by the Corporation, alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate to be lost, stolen, or destroyed. When authorizing such issue of a new certificate or certificates, the Board of Directors (or any transfer agent of the Corporation authorized to do so by a resolution of the Board of Directors) may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen, or destroyed certificate or certificates, or his legal representative, to give the Corporation a bond in such sum as the Board of Directors (or any transfer agent so authorized) shall direct to indemnify the Corporation against any claim that may be made against the Corporation with respect to the certificate alleged to have been lost, stolen, or destroyed or the issuance of such new certificates, and such requirement may be general or confined to specific instances.

Section 5.5 <u>Regulations</u>.

The Board of Directors shall have power and authority to make all such rules and regulations as it may deem expedient concerning the issue, transfer, registration, cancellation, and replacement of certificates representing stock of the Corporation.

ARTICLE VI

MISCELLANEOUS

Section 6.1 Corporate Seal.

The corporate seal shall have inscribed thereon the name of the Corporation and shall be in such form as may be approved from time to time by the Board of Directors.

Section 6.2 Fiscal Year.

The fiscal year of the Corporation shall be determined by resolution of the Board of Directors.

Section 6.3 <u>Notices and Waivers Thereof</u>.

Whenever any notice whatever is required by law, the Certificate of Incorporation, or these By-Laws to be given to any stockholder, director, or officer, such notice, except as otherwise provided by law, may be given personally, or by mail, or, in the case of directors or officers, by telegram, telecopy, cable, or radiogram, addressed to such address as appears on the books of the Corporation. Any notice given by telegram, telecopy, cable, or radiogram shall be deemed to have been given when it shall have been delivered for transmission and any notice given by mail shall be deemed to have been given when it shall have been deposited in the United States mail with postage thereon prepaid.

Whenever any notice is required to be given by law, the Certificate of Incorporation, or these By-Laws, a written waiver thereof, signed by the person entitled to such notice, whether before or after the meeting or the time stated therein, shall be deemed equivalent in all respects to such notice to the full extent permitted by law.

Section 6.4 Stock of Other Corporations or Other Interests.

Unless otherwise ordered by the Board of Directors, the Chairman of the Board, the President, the Secretary, and such attorneys or agents of the Corporation as may be from time to time authorized by the Board of Directors, the Chairman of the Board or the President, shall have full power and authority on behalf of this Corporation to attend and to act and vote in person or by proxy at any meeting of the holders of securities of any corporation or other entity in which this Corporation may own or hold shares or other securities, and at such meetings shall possess and may exercise all the rights and powers incident to the ownership of such shares or other securities which this Corporation, as the owner or holder thereof, might have possessed and exercised if present. The Chairman of the Board, the President, the Secretary, or such attorneys or agents, may also execute and deliver on behalf of this Corporation powers of attorney, proxies, consents, waivers, and other instruments relating to the shares or securities owned or held by this Corporation.

ARTICLE VII

EXCLUSIVE FORUM

Unless the Corporation consents in writing to the selection of an alternative forum, the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of the Corporation, (b) any action asserting a claim of breach of a fiduciary duty owed by any director or officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (c) any action asserting a claim against the Corporation or any director or officer or other employee of the Corporation or these By-Laws (as either may be amended from time to time), or (d) any action asserting a claim against the Corporation or any director or officer or other employee of the Corporation or other employee of the Corporation or any director or officer or other employee of the corporation or these By-Laws (as either may be amended from time to time), or (d) any action asserting a claim against the Corporation or any director or officer or other employee of the Corporation governed by the internal affairs doctrine shall be a state court located within the State of Delaware (or, if no state court located within the State of Delaware has jurisdiction, the federal district court for the District of Delaware).

ARTICLE VIII

AMENDMENTS

The holders of shares entitled at the time to vote for the election of directors shall have power to adopt, amend, or repeal the By-Laws of the Corporation by vote of not less than a majority of such shares, and except as otherwise provided by law, the Board of Directors shall have power equal in all respects to that of the stockholders to adopt, amend, or repeal the By-Laws by vote of not less than a majority of the entire Board. However, any By-Law adopted by the Board may be amended or repealed by vote of the holders of a majority of the shares entitled at the time to vote for the election of directors.

I, Leonard Bell, M.D., certify that:

- 1 I have reviewed this quarterly report on Form 10-Q of Alexion Pharmaceuticals, Inc.;
- 2 Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3 Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4 The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5 The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: October 25, 2013

/s/ Leonard Bell, M.D.

Chief Executive Officer

I, Vikas Sinha, certify that:

- 1 I have reviewed this quarterly report on Form 10-Q of Alexion Pharmaceuticals, Inc.;
- 2 Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3 Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4 The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5 The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: October 25, 2013

/s/ Vikas Sinha

Executive Vice President and Chief Financial Officer

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

In connection with the quarterly report on Form 10-Q of Alexion Pharmaceuticals, Inc. (the "Company") for the fiscal quarter ended September 30, 2013 as filed with the Securities and Exchange Commission (the "Report"), I, Leonard Bell, M.D., Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

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

Dated: October 25, 2013

/s/ Leonard Bell, M.D.

Chief Executive Officer

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

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

In connection with the quarterly report on Form 10-Q of Alexion Pharmaceuticals, Inc. (the "Company") for the fiscal quarter ended September 30, 2013 as filed with the Securities and Exchange Commission (the "Report"), I, Vikas Sinha, Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

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

Dated: October 25, 2013

/s/ Vikas Sinha

Executive Vice President and Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.