## UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

# **FORM 10-Q**

(Mark One)

(

X)	QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
	For the quarterly period ended <u>September 30, 2014</u>

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** 

0-19034

# **REGENERON PHARMACEUTICALS, INC.**

(Exact name of registrant as specified in its charter)

New York

(State or other jurisdiction of incorporation or organization)

777 Old Saw Mill River Road, Tarrytown, New York

(Address of principal executive offices)

# (914) 847-7000

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes X

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, 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).

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.

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes

Number of shares outstanding of each of the registrant's classes of common stock as of October 16, 2014:

Class of Common Stock	Number of Shares
Class A Stock, \$.001 par value	1,973,368
Common Stock, \$.001 par value	99,691,909

13-3444607 (I.R.S. Employer Identification No.)

10591-6707

(Zip Code)

No

No

No X

Yes X

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"ARCALYST<sup>®</sup>", "EYLEA<sup>®</sup>", "ZALTRAP<sup>®</sup>", "*VelocImmune<sup>®</sup>*", "*VelociGene<sup>®</sup>*", "*VelociMouse<sup>®</sup>*", "*VelociMab<sup>®</sup>*", and "*VelociSuite<sup>®</sup>*" are trademarks of Regeneron Pharmaceuticals, Inc. Trademarks and trade names of other companies appearing in this report are, to the knowledge of Regeneron Pharmaceuticals, Inc., the property of their respective owners.

# PART I. FINANCIAL INFORMATION

# **ITEM 1. FINANCIAL STATEMENTS**

# REGENERON PHARMACEUTICALS, INC. CONDENSED CONSOLIDATED BALANCE SHEETS (Unaudited) (In thousands, except share data)

	Se	eptember 30, 2014	D	ecember 31, 2013
ASSETS				
Current assets:				
Cash and cash equivalents	\$	646,554	\$	535,608
Marketable securities		395,650		158,376
Accounts receivable - trade, net		673,915		787,071
Accounts receivable from Sanofi		110,720		104,707
Accounts receivable from Bayer HealthCare		142,619		63,189
Inventories		120,317		70,354
Deferred tax assets		49,005		44,677
Prepaid expenses and other current assets		61,732		32,952
Total current assets		2,200,512		1,796,934
Marketable securities		453,443		389,891
Property, plant, and equipment, at cost, net of accumulated depreciation and amortization		818,967		526,983
Deferred tax assets		263,081		231,878
Other assets		3,416		5,327
Total assets	\$	3,739,419	\$	2,951,013
LIABILITIES and STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable and accrued expenses	\$	337,976	\$	250,896
Deferred revenue from Sanofi, current portion		13,368		12,815
Deferred revenue - other, current portion		57,604		34,185
Facility lease obligations, current portion		1,252		939
Total current liabilities		410,200		298,835
Deferred revenue from Sanofi		75,283		76,522
Deferred revenue - other		114,339		107,677
Facility lease obligations		276,112		184,258
Convertible senior notes		287,950		320,315
Other long-term liabilities		23,747		11,330
Total liabilities		1,187,631		998,937
Stockholders' equity:				
Preferred stock, \$.01 par value; 30,000,000 shares authorized; issued and outstanding - none				
Class A Stock, convertible, \$.001 par value; 40,000,000 shares authorized; shares issued and outstanding - 1,973,368 in 2014 and 2,020,481 in 2013		2		2
Common Stock, \$.001 par value; 160,000,000 shares authorized; shares issued and outstanding - 100,195,822 in 2014 and 97,666,814 in 2013		100		97
Additional paid-in capital		2,423,434		2,045,857
Retained earnings (accumulated deficit)		145,206		(92,692
Accumulated other comprehensive income (loss)		26,895		(1,188
Treasury stock, at cost; 521,892 shares in 2014 and none in 2013		(43,849)		
Total stockholders' equity		2,551,788		1,952,076
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The accompanying notes are an integral part of the financial statements.

# REGENERON PHARMACEUTICALS, INC. CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (Unaudited) (In thousands, except per share data)

	Three months ended September 30,				Nine mo Septer			
		2014		2013		2014		2013
Statements of Operations								
Revenues:								
Net product sales	\$	448,844	\$	367,118	\$	1,229,244	\$	1,019,751
Sanofi collaboration revenue		132,925		134,359		406,028		319,161
Bayer HealthCare collaboration revenue		135,853		88,583		358,460		134,594
Technology licensing and other revenue		8,166		6,967		23,496		20,827
		725,788		597,027		2,017,228		1,494,333
Expenses:								
Research and development		337,728		224,045		919,608		591,807
Selling, general, and administrative		149,748		97,607		361,012		247,330
Cost of goods sold		33,655		28,253		91,073		83,557
Cost of collaboration manufacturing		21,938		10,320		54,471		23,684
		543,069		360,225		1,426,164		946,378
Income from operations		182,719		236,802		591,064		547,955
Other income (expense):		0.501		610		5 205		2.020
Investment and other income		2,591		618		5,205		2,028
Interest expense		(9,232)		(11,736)		(31,022)		(34,776
Loss on extinguishment of debt						(10,787)		(00.540
	. <u></u>	(6,641)		(11,118)		(36,604)		(32,748
Income before income taxes		176,078		225,684		554,460		515,207
Income tax expense		(96,358)		(84,378)		(316,562)		(187,651
	¢	70 700	đ	1 41 200	¢	227.000	¢	
Net income	\$	79,720	\$	141,306	\$	237,898	\$	327,556
Net income per share - basic	\$	0.79	\$	1.44	\$	2.37	\$	3.36
Net income per share - diluted	\$	0.70	\$	1.25	\$	2.10	\$	2.95
Weighted average shares outstanding - basic		100,796		98,226		100,325		97,602
Weighted average shares outstanding - diluted		117,423		116,713		113,203		115,554
Statements of Comprehensive Income								
Net income	\$	79,720	\$	141,306	\$	237,898	\$	327,556
Other comprehensive income (loss):								
Unrealized gain (loss) on marketable securities, net of tax		22,632		578		28,083		(1,685
Comprehensive income	\$	102,352	\$	141,884	\$	265,981	\$	325,871

The accompanying notes are an integral part of the financial statements.

# REGENERON PHARMACEUTICALS, INC. CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (Unaudited) For the nine months ended September 30, 2014 and 2013 (In thousands)

							(111 110 10 10	,						
	Class	A Stoc	<u>k</u>	Commo	on St	tock	Additional	]	Retained Earnings	Treas	Treasury Stock		mulated Other	Total
	Shares	Amou	unt	Shares	An	nount	Paid-in Capital		ccumulated Deficit)	Shares	Amount		rehensive ne (Loss)	Stockholders' Equity
Balance, December 31, 2013	2,020	\$	2	97,667	\$	97	\$2,045,857	\$	(92,692)	_	_	\$	(1,188)	\$ 1,952,076
Issuance of Common Stock in connection with exercise of stock options Common Stock tendered upon exercise of stock options in connection with employee tax	_	-		2,460		3	79,695		_	_	_		_	79,698
obligations	—	-	_	(526)		—	(175,866)		—	—	—		—	(175,866)
Issuance of Common Stock in connection with conversion of convertible senior notes	_	-		522		_	156,373		_	_	_		_	156,373
Issuance of Common Stock in connection with Company 401(k) Savings Plan contribution	_	-		21		_	_		_	_	_		_	_
Issuance of restricted Common Stock under Long-Term Incentive Plan		_		5			_						_	_
Conversion of Class A Stock to Common Stock	(47)	-		47		_	_		_	_	_		_	_
Stock-based compensation charges		_				_	229,692		_					229,692
Excess tax benefit from stock-based compensation	_	-		_		_	343,532		_	_	_		_	343,532
Acquisition of Common Stock in connection with exercise of convertible note hedges	_	-		_		_	43,849		_	(522)	\$(43,849)		_	_
Reduction of warrants in connection with conversion of senior notes	_	-		_		_	(143,041)		_	_	_		_	(143,041)
Reduction of equity component of convertible senior notes	_	_		_		_	(156,657)		_	_	_		_	(156,657)
Net income		-				—			237,898	—				237,898
Other comprehensive income, net of tax			_			_			_				28,083	28,083
Balance, September 30, 2014	1,973	\$	2	100,196	\$	100	\$2,423,434	\$	145,206	(522)	\$(43,849)	\$	26,895	\$ 2,551,788

# CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (Unaudited) - Continued

	Class	A St	ock	Comm	on St	tock	Additional Paid-in		Retained Earnings ccumulated	Treasu	Treasury Stock		ulated 1er hensive	Total Stockholders'
	Shares	Am	ount	Shares	An	iount	Capital		Deficit)	Shares	Amount	Income		Equity
Balance, December 31, 2012	2,069	\$	2	95,223	\$	95	\$1,763,508	\$	(517,054)	_		\$	(1,166)	\$ 1,245,385
Issuance of Common Stock in connection with exercise of stock options	_			2,641		3	42,622		_	_	_		_	42,625
Common Stock tendered upon exercise of stock options in connection with employee tax obligations	_			(597)		(1)	(166,357)		_				_	(166,358)
Issuance of Common Stock in connection with Company 401(k) Savings Plan contribution	_		_	38		_	_		_	_	_		_	_
Issuance of restricted Common Stock under Long-Term Incentive Plan	_		_	6		_	_		_					_
Conversion of Class A Stock to Common Stock	(40)		_	40		_	_		_	_	_		_	_
Stock-based compensation charges	_		_	_		_	144,808		_	_			_	144,808
Excess tax benefit from stock-based compensation			_	_			97,840		_				_	97,840
Net income	—		—	—		—	—		327,556		—		—	327,556
Other comprehensive loss	—		—	—		—	—		—		—		(1,685)	(1,685)
Balance, September 30, 2013	2,029	\$	2	97,351	\$	97	\$1,882,421	\$	(189,498)			\$	(2,851)	\$ 1,690,171
		Т	he ac	companyi	ng n	otes ar	e an integral j	part	of the finan	cial state	nents.			

# REGENERON PHARMACEUTICALS, INC. CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited) (In thousands)

	Nine mor Septen	
	 2014	2013
Cash flows from operating activities:		
Net income	\$ 237,898	\$ 327,556
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	38,551	29,912
Non-cash compensation expense	225,784	143,217
Non-cash interest expense	15,629	17,316
Loss on extinguishment of debt	10,787	_
Other non-cash charges and expenses, net	12,844	15,710
Deferred taxes	(50,466)	82,890
Changes in assets and liabilities:		
Decrease (increase) in Sanofi, Bayer HealthCare, and trade accounts receivable	27,713	(350,809
Increase in inventories	(50,917)	(36,742
(Increase) decrease in prepaid expenses and other assets	(28,850)	3,738
Increase (decrease) in deferred revenue	29,395	(20,815
Increase in accounts payable, accrued expenses, and other liabilities	76,506	94,894
Total adjustments	306,976	(20,689
Net cash provided by operating activities	544,874	 306,867
Cash flows from investing activities:		
Purchases of marketable securities	(478,436)	(477,312
Sales or maturities of marketable securities	216,478	319,152
Capital expenditures	(215,464)	(87,347
Net cash used in investing activities	(477,422)	 (245,507
Cash flows from financing activities:		
Payments in connection with facility and capital lease obligations	(810)	(1,625
Repayments of convertible senior notes	(61,125)	
Payments in connection with reduction of outstanding warrants	(143,041)	
Proceeds from issuance of Common Stock	80,804	41,718
Payments in connection with Common Stock tendered for employee tax obligations	(175,866)	(166,358
Excess tax benefit from stock-based compensation	343,532	97,840
Net cash provided by (used in) financing activities	43,494	 (28,425
Net increase in cash and cash equivalents	110,946	32,935
Cash and cash equivalents at beginning of period	 535,608	 230,276
Cash and cash equivalents at end of period	\$ 646,554	\$ 263,211

The accompanying notes are an integral part of the financial statements.

#### **1. Interim Financial Statements**

The interim Condensed Consolidated Financial Statements of Regeneron Pharmaceuticals, Inc. ("Regeneron" or the "Company") have been prepared in accordance with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all information and disclosures necessary for a presentation of the Company's financial position, results of operations, and cash flows in conformity with accounting principles generally accepted in the United States of America. In the opinion of management, these financial statements reflect all normal recurring adjustments and accruals necessary for a fair statement of the Company's financial position, results of operations, and cash flows for such periods. The results of operations for any interim periods are not necessarily indicative of the results for the full year. The December 31, 2013 Condensed Consolidated Balance Sheet data were derived from audited financial statements, but do not include all disclosures required by accounting principles generally accepted in the United States of America. These financial statements and notes thereto contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2013.

Certain reclassifications have been made to prior period amounts to conform with the current period's presentation.

#### 2. Product Sales

EYLEA<sup>®</sup> net product sales in the United States totaled \$445.0 million and \$363.1 million for the three months ended September 30, 2014 and 2013, respectively, and \$1,218.8 million and \$1,006.8 million for the nine months ended September 30, 2014 and 2013, respectively. In addition, ARCALYST<sup>®</sup> net product sales totaled \$3.8 million and \$4.0 million for the three months ended September 30, 2014 and 2013, respectively, and \$10.4 million and \$12.9 million for the nine months ended September 30, 2014 and 2013, respectively.

The Company recorded 72% and 75% for the three months ended September 30, 2014 and 2013, respectively, and 75% and 76% for the nine months ended September 30, 2014 and 2013, respectively, of its total gross product revenue from sales to Besse Medical, a subsidiary of AmerisourceBergen Corporation.

Revenue from product sales is recorded net of applicable provisions for rebates and chargebacks under governmental programs, distribution-related fees, prompt pay discounts, and other sales-related deductions. The following table summarizes the provisions, and credits/payments, for these sales-related deductions during the nine months ended September 30, 2014.

	Rebates & hargebacks	Distribution- Related Fees	Other Sales- Related Deductions	Total
Balance as of December 31, 2013	\$ 4,400	\$ 19,663	\$ 538	\$ 24,601
Provision related to current period sales	23,265	53,689	1,202	78,156
Credits/payments	(23,873)	(54,878)	(1,211)	(79,962)
Balance as of September 30, 2014	\$ 3,792	\$ 18,474	\$ 529	\$ 22,795

Under the provisions of the Patient Protection and Affordable Care Act ("PPACA") and the Health Care and Education Reconciliation Act of 2010, a nontax deductible annual fee (the "Branded Prescription Drug Fee") is imposed on pharmaceutical manufacturers that sell branded prescription drugs to specified government programs. The legislation imposed an annual fee on companies for each calendar year beginning in 2011. This fee is allocated to companies based on their prior year market share of total branded prescription drug sales into these government programs. Orphan drugs sales, including ARCALYST, are not subject to the fee. In July 2014, the Internal Revenue Service ("IRS") issued final regulations that provide guidance on the Branded Prescription Drug Fee. The final regulations differ in some respects from the temporary regulations issued by the IRS in 2011, including that a company is liable for the fee based on its branded prescription drug sales in the current year, instead of the liability only being applicable upon the first qualifying branded prescription drug sale of the following fee year under the temporary regulations. As a result of the issuance of these final IRS regulations, the Company will record an estimate of the fee in the same period in which its qualifying branded prescription drug sales occur. Therefore, in the third quarter of 2014, an incremental charge was recorded to (i) recognize a liability for the estimated fee payable based on 2014 sales through the first nine months of 2014, and (ii) expense the remaining prepaid asset recorded under the previous accounting for the estimated fee payable based on 2013

sales. The impact of the incremental charge in the third quarter was \$40.6 million, which was included in selling, general, and administrative expenses.

## 3. Collaboration Agreements

## Sanofi

Sanofi collaboration revenue, as detailed below, consisted primarily of reimbursement for research and development expenses that the Company incurred, partly offset by sharing of pre-launch commercialization expenses in connection with the companies' antibody collaboration. In addition, Sanofi collaboration revenue for the nine months ended September 30, 2013 was reduced by two \$10.0 million up-front payments to Sanofi in connection with the Company's acquisition from Sanofi of full exclusive rights to two families of novel antibodies, as described below.

	Three mor Septem				
Sanofi Collaboration Revenue	2014	2013			
ZALTRAP:					
Regeneron's share of losses in connection with commercialization of ZALTRAP	\$ (1,008)	\$	(6,575)		
Reimbursement of Regeneron research and development expenses	1,261		1,316		
Other	756		2,625		
Total ZALTRAP	 1,009		(2,634)		
Antibody:					
Reimbursement of Regeneron research and development expenses	140,497		133,128		
Regeneron's share of commercialization expenses	(12,830)		_		
Other	4,249		3,865		
Total Antibody	131,916		136,993		
Total Sanofi collaboration revenue	\$ 132,925	\$	134,359		

	Nine mor Septen		linded		
Sanofi Collaboration Revenue	 2014	2013			
ZALTRAP:	 				
Regeneron's share of losses in connection with commercialization of ZALTRAP	\$ (4,912)	\$	(22,581)		
Reimbursement of Regeneron research and development expenses	3,691		5,497		
Other	4,417		6,610		
Total ZALTRAP	3,196		(10,474)		
Antibody:	 				
Reimbursement of Regeneron research and development expenses	405,212		338,027		
Regeneron's share of commercialization expenses	(17,125)				
Up-front payments to Sanofi for acquisition of rights related to two					
antibodies			(20,000)		
Other	 14,745		11,608		
Total Antibody	 402,832		329,635		
Total Sanofi collaboration revenue	\$ 406,028	\$	319,161		

Sanofi commenced sales of ZALTRAP<sup>®</sup> (ziv-aflibercept) Injection for Intravenous Infusion, in combination with 5-fluorouracil, leucovorin, irinotecan ("FOLFIRI"), for patients with metastatic colorectal cancer that is resistant to or has progressed following an oxaliplatin-containing regimen, in the United States in the third quarter of 2012 and in certain European and other countries in the first quarter of 2013. The Company and Sanofi globally collaborate on the development and commercialization of ZALTRAP. Under the terms of the companies' September 2003 collaboration agreement, as amended, Regeneron and Sanofi share co-promotion rights and profits and losses on sales of ZALTRAP outside of Japan. The Company is entitled to receive a percentage of sales of ZALTRAP in Japan.

Under the Company's antibody collaboration agreement with Sanofi, agreed upon worldwide development expenses incurred by both companies during the term of the agreement are funded by Sanofi, except that following receipt of the first positive Phase 3 trial results for a co-developed drug candidate, which first occurred in the fourth quarter of 2013, subsequent Phase 3 trial-related costs for that drug candidate ("Shared Phase 3 Trial Costs") are shared 80% by Sanofi and 20% by Regeneron. Consequently, during the three and nine months ended September 30, 2014, the Company recognized as additional research and development expenses \$28.4 million and \$81.3 million, respectively, of antibody development expenses that the Company was obligated to reimburse to Sanofi related to alirocumab and sarilumab.

Effective in the second quarter of 2014, the Company and Sanofi began sharing pre-launch commercialization expenses related to alirocumab in accordance with the companies' antibody collaboration agreement.

In May 2013, the Company acquired from Sanofi full exclusive rights to two families of novel antibodies invented at Regeneron and previously included in the Company's antibody collaboration with Sanofi. The Company acquired full rights to antibodies targeting the platelet derived growth factor (PDGF) family of receptors and ligands in ophthalmology and all other indications and to antibodies targeting the angiopoietin-2 (Ang2) receptor and ligand in ophthalmology. With respect to PDGF antibodies, the Company made a \$10.0 million up-front payment to Sanofi in the second quarter of 2013. In addition, with respect to Ang2 antibodies in ophthalmology, the Company made a \$10.0 million up-front payment to Sanofi in the second quarter of 2013.

With respect to PDGF antibodies, the Company made two \$5.0 million development milestone payments to Sanofi in the first quarter of 2014, which were recorded in the Company's Statements of Operations as research and development expense. The Company is also obligated to pay up to \$30.0 million in additional potential development milestones as well as royalties on any future sales of PDGF antibodies.

In July 2014, in connection with the Company's antibody collaboration with Sanofi, the Company purchased a U.S. Food and Drug Administration ("FDA") priority review voucher from a third party for \$67.5 million. The Company and Sanofi equally

shared the priority review voucher's purchase price, and the Company's share of the cost, or \$33.8 million, was recorded as a research and development expense during the third quarter of 2014. The Company subsequently transferred the voucher to Sanofi, which intends to use the priority review voucher in connection with a planned Biologics License Application submission to the FDA for alirocumab.

## Bayer HealthCare LLC

The Company and Bayer HealthCare globally collaborate on the development and commercialization of EYLEA outside of the United States. Bayer HealthCare commenced sales of EYLEA outside the United States for the treatment of wet AMD in the fourth quarter of 2012, for the treatment of macular edema secondary to CRVO in the fourth quarter of 2013, and for the treatment of DME in the third quarter of 2014. In addition, in January 2014, the Company entered into a license and collaboration agreement with Bayer HealthCare governing the joint development and commercialization outside the United States of an antibody product candidate to Platelet Derived Growth Factor Receptor Beta (PDGFR-beta).

The collaboration revenue the Company earned from Bayer HealthCare is detailed below:

		ended 30,		
<b>Bayer HealthCare Collaboration Revenue</b>		2014		2013
EYLEA:				
Regeneron's net profit in connection with commercialization of EYLEA outside the United States	\$	85,351	\$	31,769
Sales and substantive development milestones		30,000		45,000
Cost-sharing of Regeneron EYLEA development expenses		4,394		3,739
Other		12,745		8,075
Total EYLEA		132,490		88,583
PDGFR-beta antibody:				
Cost-sharing of REGN2176-3 development expenses		518		_
Other		2,845		_
Total PDGFR-beta		3,363		_
Total Bayer HealthCare collaboration revenue	\$	135,853	\$	88,583

		nded 30,		
<b>Bayer HealthCare Collaboration Revenue</b>		2014		2013
EYLEA:				
Regeneron's net profit in connection with commercialization of EYLEA outside the United States	\$	213,291	\$	57,186
Sales and substantive development milestones		75,000		45,000
Cost-sharing of Regeneron EYLEA development expenses		26,235		13,207
Other		34,490		19,201
Total EYLEA		349,016		134,594
PDGFR-beta antibody:				
Cost-sharing of REGN2176-3 development expenses		1,657		
Other		7,787		
Total PDGFR-beta		9,444		_
Total Bayer HealthCare collaboration revenue	\$	358,460	\$	134,594

## EYLEA

During the nine months ended September 30, 2014, the Company earned, and recorded as revenue, five \$15.0 million sales milestones (two of which were recorded in the third quarter of 2014) from Bayer HealthCare upon total aggregate net sales of EYLEA outside the United States exceeding \$500 million, \$600 million, \$700 million, \$800 million, and \$900 million, respectively, over a twelve-month period. The Company is eligible to receive one additional \$15.0 million sales milestone payment if twelve-month sales of EYLEA outside the United States exceed \$1 billion. In addition, in connection with a November 2013 agreement under which Bayer HealthCare obtained rights to use certain of the Company's EYLEA clinical data for a regulatory filing, the Company became eligible to receive up to \$30.0 million in additional sales milestone payments if twelve-month sales of specific commercial supplies of EYLEA outside the United States achieve certain specified levels up to \$200 million.

In January 2014, Bayer HealthCare decided to participate in the global development and commercialization of EYLEA outside the United States for the treatment of macular edema following branch retinal vein occlusion ("BRVO"). In connection with this decision, Bayer HealthCare reimbursed Regeneron \$15.7 million for a defined share of the EYLEA global development costs that the Company had incurred prior to February 2014 for the BRVO indication, which was recognized as Bayer HealthCare collaboration revenue in the first quarter of 2014 and is included with "Cost-sharing of Regeneron EYLEA development expenses" for the nine months ended September 30, 2014 in the table above. In addition, all future agreed upon global EYLEA development expenses incurred in connection with BRVO are being shared equally, and any future profits or losses on sales of EYLEA outside of the United States for the treatment of macular edema following BRVO will also be shared (for countries other than Japan). The Company is entitled to receive a tiered percentage of EYLEA net sales in Japan.

# PDGFR-beta Antibody

In January 2014, the Company also entered into an agreement with Bayer HealthCare governing the joint development and commercialization outside the United States of an antibody product candidate to PDGFR-beta, including in combination with EYLEA, for the treatment of ocular diseases or disorders. REGN2176-3, a combination product candidate comprised of an antibody to PDGFR-beta co-formulated with EYLEA, is being developed under the agreement. Under the agreement, the Company will conduct the initial development of the PDGFR-beta antibody through completion of the first proof-of-concept study, upon which Bayer HealthCare will have a right to opt-in to license and collaborate on further development and commercialization outside the United States.

In connection with the agreement, Bayer HealthCare made a \$25.5 million non-refundable upfront payment to the Company in January 2014, and is obligated to pay 25% of global development costs and 50% of development costs exclusively for the territory outside the United States under the initial development plan. In addition, Bayer HealthCare is obligated to reimburse the Company for 50% of development milestone payments to Sanofi related to the Company's acquisition of rights to antibodies targeting the PDGF family of receptors in May 2013, as described above. In that regard, Bayer HealthCare made two \$2.5 million development milestone payments to the Company in the first quarter of 2014 (both of which, for the purpose of revenue recognition, were not considered substantive). Further, in connection with the Company's initial development of the PDGFR-beta antibody through completion of the first proof-of-concept study, the Company is eligible to receive up to \$15.0 million in future development milestone payments from Bayer HealthCare, although certain of these development milestone payments could be reduced by half if Bayer HealthCare does not opt-in to the collaboration.

From inception of the agreement until Bayer HealthCare has the right to opt-in to the collaboration, the Company's sole significant deliverable is research and development services provided in accordance with the agreement. Therefore, the \$25.5 million upfront payment was allocated to this deliverable, initially recorded as deferred revenue, and will be recognized as revenue over the related performance period. In addition, the two \$2.5 million non-substantive development milestone payments from Bayer HealthCare were also initially recorded as deferred revenue and will be recognized over the same performance period as the upfront payment.

If Bayer HealthCare exercises its right to opt-in to the collaboration, it will obtain exclusive commercialization rights to the product outside the United States, continue to pay for 25% of global development costs and 50% of development costs exclusively for the territory outside the United States, pay a \$20.0 million opt-in payment to the Company, pay a \$20.0 million development milestone to the Company upon receipt of the first marketing approval in the European Union or Japan, share profits and losses from sales outside the United States equally with the Company, and be responsible for the payment of royalties on sales outside the United States to Sanofi.

Within the United States, the Company has exclusive commercialization rights and will retain all of the profits from sales. If Bayer HealthCare does not opt-in to the collaboration, the Company will have exclusive rights to develop and commercialize PDGFR-beta antibodies (except as a combination product with EYLEA) for use outside the United States.

The Company also has the right to opt-out of the collaboration upon completion of the first proof-of-concept study for the PDGFR-beta antibody. If the Company opts-out of the collaboration and Bayer HealthCare exercises its right to opt-in to the collaboration, Bayer HealthCare will obtain exclusive rights to the PDGFR-beta antibody (except as a combination product with EYLEA) outside of the United States, be responsible for all royalty and milestone payments to a third party, and will retain all of the profits from sales of the PDGFR-beta antibody outside of the United States.

Unless terminated earlier in accordance with its provisions, the agreement will continue to be in effect until such time as neither party or its respective affiliates or sublicensees is developing or commercializing a PDGFR-beta antibody in the specified field outside of the United States and such discontinuation is acknowledged as permanent by both the Company and Bayer HealthCare in writing.

#### Avalanche Biotechnologies, Inc.

In May 2014, the Company entered into a research collaboration and license agreement with Avalanche Biotechnologies, Inc. to discover, develop, and commercialize novel gene therapy products for the treatment of ophthalmologic diseases. In connection with the agreement, the Company made a \$2.0 million upfront payment and a \$6.0 million pre-payment of collaboration research costs, and is obligated to pay potential additional research costs, an aggregate amount of up to \$80.0 million per product upon meeting certain potential development and regulatory milestones (for products directed to as many as eight therapeutic targets, or up to an aggregate of \$640.0 million), and royalties on any future sales of such products. The Company also purchased an aggregate of \$5.0 million of Avalanche preferred stock. Under the agreement, the Company will collaborate with Avalanche to conduct research for the discovery of novel gene therapy vectors. Subsequent to the filing of an Investigational New Drug application ("IND") with the FDA for a product candidate developed under the agreement, Regeneron may exercise its right to obtain exclusive worldwide rights to further research, develop, and commercialize such product candidates directed to the applicable therapeutic target. In addition, Avalanche has the option to share in development costs and profits for products directed toward up to two therapeutic targets of its choice.

In July 2014, Avalanche commenced an initial public offering ("IPO") of its common stock and thereby triggered the Company's obligation under the research collaboration and license agreement to purchase up to \$10.0 million of Avalanche common stock in a concurrent private placement. As part of the concurrent private placement, the Company purchased from Avalanche at the closing of the IPO 588,235 shares of Avalanche common stock for an aggregate purchase price of \$10.0 million. In addition, at the closing of the IPO, Avalanche preferred stock, including the Avalanche preferred stock held by the Company, automatically converted on a one-for-one basis into Avalanche common stock.

#### 4. Net Income Per Share

The Company's basic net income per share amounts have been computed by dividing net income by the weighted average number of shares of Common Stock and Class A Stock outstanding. Net income per share is presented on a combined basis, inclusive of Common Stock and Class A Stock outstanding, as each class of stock has equivalent economic rights. Diluted net income per share includes the potential dilutive effect of other securities as if such securities were converted or exercised during the period, when the effect is dilutive. The calculations of basic and diluted net income per share are as follows:

	Three months ended September 30,				
		2014		2013	
Net income - basic	\$	79,720	\$	141,306	
Effective of dilutive securities:					
Convertible senior notes - interest expense related to contractual coupon interest rate and amortization of discount and note					
issuance costs		2,803		4,678	
Net income - diluted	\$	82,523	\$	145,984	
(Shares in thousands)					
Weighted average shares - basic		100,796		98,226	
Effect of dilutive securities:					
Stock options		9,377		10,379	
Restricted stock		430		462	
Convertible senior notes		4,033		4,761	
Warrants		2,787		2,885	
Dilutive potential shares		16,627		18,487	
Weighted average shares - diluted		117,423		116,713	
Net income per share - basic	\$	0.79	\$	1.44	
Net income per share - diluted	\$	0.70	\$	1.25	

	Nine months ended September 30,			
		2014		2013
Net income - basic	\$	237,898	\$	327,556
Effective of dilutive securities:				
Convertible senior notes - interest expense related to contractual coupon interest rate and amortization of discount and note				
issuance costs		—		13,857
Net income - diluted	\$	237,898	\$	341,413
(Shares in thousands)				
Weighted average shares - basic		100,325		97,602
Effect of dilutive securities:				
Stock options		9,515		10,220
Restricted stock		413		415
Convertible senior notes		_		4,761
Warrants		2,950		2,556
Dilutive potential shares		12,878		17,952
Weighted average shares - diluted		113,203		115,554
Net income per share - basic	\$	2.37	\$	3.36
Net income per share - diluted	\$	2.10	\$	2.95

Shares which have been excluded from the September 30, 2014 and 2013 diluted per share amounts because their effect would have been antidilutive include the following:

	Three mont Septemb		
(Shares in thousands)	2014	2013	
Stock options	1,227	135	
	Nine months ended September 30,		
(Shares in thousands)	2014	2013	
Stack antions			
Stock options	3,741	1,265	

# 5. Marketable Securities

Marketable securities at September 30, 2014 and December 31, 2013 consist of both debt securities issued by investment grade institutions as well as equity securities. The Company also held restricted marketable securities as of September 30, 2014, consisting of the Company's investment in Avalanche common shares (see Note 3), which are subject to customary transfer restrictions until January 2015 under a lock-up agreement with the underwriters of Avalanche's IPO.

The following tables summarize the Company's investments in marketable securities at September 30, 2014 and December 31, 2013.

	А	mortized	Unrealized		ed	Fair	
<u>At September 30, 2014</u>	C	Cost Basis		Gains Losses		Value	
Unrestricted							
U.S. government and government agency obligations	\$	51,059	\$	71	\$	(1)	\$ 51,129
Corporate bonds		696,149		574		(1,131)	695,592
Municipal bonds		42,756		94		(8)	42,842
Equity securities		1,166		3,933		—	5,099
		791,130		4,672	_	(1,140)	 794,662
Restricted							
Equity securities		15,000		39,431			54,431
	\$	806,130	\$	44,103	\$	(1,140)	\$ 849,093
<u>At December 31, 2013</u>							
Unrestricted							
U.S. government and government agency obligations	\$	107,493	\$	55	\$	(27)	\$ 107,521
Corporate bonds		369,321		233		(361)	369,193
Commercial paper		23,891		53			23,944
Municipal bonds		36,935		45		(59)	36,921
International government agency obligations		2,007		1			2,008
Certificates of deposit		7,509		5			7,514
Equity securities		1,166		—		—	1,166
	\$	548,322	\$	392	\$	(447)	\$ 548,267

The Company classifies its debt security investments based on their contractual maturity dates. The debt securities listed at September 30, 2014 mature at various dates through August 2024. The fair values of debt security investments by contractual maturity as of September 30, 2014 and December 31, 2013 consist of the following:

	Sept	ember 30, 2014	Dec	ember 31, 2013
Maturities within one year	\$	287,739	\$	158,376
Maturities after one year through five years		496,700		383,410
Maturities after five years through ten years		5,124		4,138
Maturities after ten years		_		1,177
	\$	789,563	\$	547,101

The following table shows the fair value of the Company's marketable securities that have unrealized losses and that are deemed to be only temporarily impaired, aggregated by investment category and length of time that the individual securities have been in a continuous unrealized loss position, at September 30, 2014 and December 31, 2013.

		Less than	12 M	Ionths	12 Months	or Greater		Т	otal	
<u>At September 30, 2014</u>	F	air Value	ι	Unrealized Loss	Fair Value	Unrealized Loss	]	Fair Value	I	Unrealized Loss
U.S. government and government agency obligations	\$	1,401	\$	(1)	_		\$	1,401	\$	(1)
Corporate bonds		343,835		(1,131)		—		343,835		(1,131)
Municipal bonds		10,502		(8)	—	—		10,502		(8)
	\$	355,738	\$	(1,140)			\$	355,738	\$	(1,140)
<u>At December 31, 2013</u>										
U.S. government and government agency obligations	\$	49,241	\$	(27)	_	_	\$	49,241	\$	(27)
Corporate bonds		176,140		(361)	—			176,140		(361)
Municipal bonds		14,431		(59)	_	_		14,431		(59)
	\$	239,812	\$	(447)	_		\$	239,812	\$	(447)

Realized gains and losses are included as a component of investment income. For both the three and nine months ended September 30, 2014, total realized gains and losses on sales of marketable securities were not material. For both the three and nine months ended September 30, 2013, total realized gains on sales of marketable securities were \$0.5 million and \$1.0 million, respectively, and there were no realized losses. Changes in the Company's accumulated other comprehensive income (loss) for the three and nine months ended September 30, 2014 and 2013 related to unrealized gains and losses on available-for-sale marketable securities. For the three and nine months ended September 30, 2014 and 2013, amounts reclassified from accumulated other comprehensive income (loss) into investment income in the Company's Statements of Operations were related to realized gains and losses on sales of marketable securities.

# 6. Fair Value Measurements

The Company's assets that are measured at fair value on a recurring basis, at September 30, 2014 and December 31, 2013, consist of the following:

			Fair Value Measurer Reporting Date U			
<u>At September 30, 2014</u>	I	N for	oted Prices in Active Iarkets Identical Assets Level 1)	0	ignificant Other bservable Inputs (Level 2)	
Available-for-sale marketable securities:						
Unrestricted						
U.S. government and government agency obligations	\$	51,129			\$	51,129
Corporate bonds		695,592				695,592
Municipal bonds		42,842				42,842
Equity securities		5,099	\$	5,099		
		794,662		5,099		789,563
Restricted						
Equity securities		54,431		_		54,431
	\$	849,093	\$	5,099	\$	843,994
<u>At December 31, 2013</u>						
Available-for-sale marketable securities:						
Unrestricted						
U.S. government and government agency obligations	\$	107,521		_	\$	107,521
Corporate bonds		369,193		_		369,193
Commercial paper		23,944				23,944
Municipal bonds		36,921		_		36,921
International government agency obligations		2,008		—		2,008
Certificates of deposit		7,514		_		7,514
Equity securities		1,166	\$	1,166		_
	\$	548,267	\$	1,166	\$	547,101

Marketable securities included in Level 2 are valued using quoted market prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, or model-based valuations in which significant inputs used are observable. The Company considers market liquidity in determining the fair value for these securities. The Company did not record any charges for other-than-temporary impairment of its Level 2 marketable securities during the three and nine months ended September 30, 2014 and 2013.

During the three months ended September 30, 2013, the Company sold a Level 3 marketable security and realized a \$0.4 million gain on its sale. There were no other sales, or purchases or maturities of, Level 3 marketable securities and no unrealized gains or losses related to Level 3 marketable securities for the three and nine months ended September 30, 2014 and 2013. There were no transfers of marketable securities between Levels 1, 2, or 3 classifications during the three and nine months ended September 30, 2014 and 2013.

As of September 30, 2014 and December 31, 2013, the Company had \$338.9 million and \$400.0 million, respectively, in aggregate principal amount of 1.875% convertible senior notes (the "Notes") that will mature on October 1, 2016 unless earlier converted or repurchased. As described in Note 9, a portion of the Notes was surrendered for conversion during the second quarter of 2014. The fair value of the outstanding Notes was estimated to be \$1,433.8 million and \$1,327.2 million as of September 30, 2014 and December 31, 2013, respectively, and was determined based on Level 2 inputs, such as market and observable sources.

## 7. Inventories

Inventories consist of the following:

	September 30,		De	cember 31,
		2014		2013
Raw materials	\$	10,170	\$	9,120
Work-in-process		70,965		35,868
Finished goods		11,368		14,352
Deferred costs		27,814		11,014
	\$	120,317	\$	70,354

Deferred costs represent the costs of product manufactured and shipped to the Company's collaborators for which recognition of revenue has been deferred. For the three months ended September 30, 2014, cost of goods sold included inventory write-downs and reserves totaling \$1.6 million; such amounts were not material for the three months ended September 30, 2013. For the nine months ended September 30, 2014 and 2013, cost of goods sold included inventory write-downs and reserves totaling \$3.5 million and \$4.8 million, respectively.

## 8. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses consist of the following:

	September 30,			December 31,
		2014		2013
Accounts payable	\$	47,342	\$	61,936
Accrued payroll and related costs		75,159		69,429
Accrued clinical trial expense		45,384		23,654
Accrued sales-related charges, deductions,				
and royalties		114,408		66,855
Other accrued expenses and liabilities		55,683		29,022
	\$	337,976	\$	250,896

## 9. Convertible Debt

In the second quarter of 2014, \$61.1 million principal amount of the Company's \$400.0 million aggregate principal amount of Notes were surrendered for conversion. In accordance with the terms of the Notes, the Company elected to settle these conversion obligations through a combination of cash, in an amount equal to the principal amount of the converted Notes, and shares of the Company's Common Stock in respect of any amounts due in excess thereof. Consequently, upon settlement of the Notes during the second quarter of 2014, the Company (i) paid \$61.1 million in cash, (ii) issued 521,876 shares of Common Stock, (iii) recognized a \$10.8 million loss on the debt extinguishment, and (iv) allocated \$156.7 million of the settlement consideration provided to the Note holders to the reacquisition of the equity component of the Notes, and recognized such amount as a reduction of stockholder's equity.

In connection with the initial offering of the Notes in October 2011, the Company entered into convertible note hedge and warrant transactions with multiple counterparties, which were recorded to additional paid-in capital. As a result of the Note conversions described above, in the second quarter of 2014 the Company exercised a proportionate amount of its convertible note hedges, for which the Company received 521,876 shares of Common Stock, which was equivalent to the number of shares the Company was required to issue to settle the non-cash portion of the related Note conversions. The shares received were recorded as Treasury Stock, at cost, in the Company's Balance Sheet and Statement of Stockholders' Equity.

Also during the second quarter of 2014, the Company entered into agreements to reduce the number of warrants held by each of the warrant holders in proportion to the amount of Notes converted. Pursuant to the agreements, the Company paid an aggregate amount of \$143.0 million to the warrant holders to reduce the maximum number of shares of Common Stock issuable upon exercise of the warrants from 4,760,840 to 4,033,324 (subject to adjustment from time to time as provided in the applicable warrant agreements). The remaining warrants expire, and will be exercisable, at various dates during 2017.

In October 2014, the Company received notification that an additional \$160.8 million principal amount of the Notes were surrendered for conversion, and settlement is anticipated during the fourth quarter of 2014. The Company elected to settle these conversion obligations through a combination of cash and shares (total payment will be based on the average of the volume-weighted-average prices of the Common Stock during the 40 trading-day cash settlement averaging period specified in the indenture governing the Notes). In connection with these Note conversions, the Company exercised a proportionate amount of its convertible note hedges, for which the Company expects to receive shares of Common Stock equivalent to the number of shares the Company will be required to issue to settle the non-cash portion of the related Note conversions.

#### **10. Income Taxes**

The Company is subject to U.S. federal, state, and foreign income taxes. The Company recorded an income tax provision in its Statement of Operations of \$96.4 million and \$84.4 million for the three months ended September 30, 2014 and 2013, respectively, and \$316.6 million and \$187.7 million for the nine months ended September 30, 2014 and 2013, respectively, and 37.4% for the three months ended September 30, 2014 and 2013, respectively, and 57.1% and 36.4% for the nine months ended September 30, 2014 and 2013, respectively. The Company's effective tax rate was 54.7% and 37.4% for the three months ended September 30, 2014 was negatively impacted by losses incurred in foreign jurisdictions with rates lower than the federal statutory rate, the incremental charge related to the non-tax deductible Branded Prescription Drug Fee (see Note 2), and expiration at the end of 2013 of the federal tax credit for increased research activities. In addition, the Company's effective tax rate for the nine months ended September 30, 2014 was negatively impacted by New York State tax legislation enacted in the first quarter of 2014. This tax legislation reduced the New York State income tax rate to zero percent for "qualified manufacturers", including Regeneron, effective in 2014; however, it also resulted in the Company's effective tax rate of 2.2% for the nine months ended September 30, 2014.

The Company's effective tax rate for the nine months ended September 30, 2013 included, as a discrete item in the first quarter of 2013, the favorable impact of the enactment of The American Taxpayer Relief Act in January 2013. The American Taxpayer Relief Act included a provision to extend the income tax credit for increased research activities retroactively to the tax year ended December 31, 2012, as well as for 2013. As a result, the Company's 2012 research tax credit reduced its effective tax rate for the nine months ended September 30, 2013 by 4.3%.

The Company also recorded an income tax provision in its Statement of Comprehensive Income of \$13.5 million and \$14.9 million for the three and nine months ended September 30, 2014, respectively, in connection with the Company's unrealized gains on "available-for-sale" marketable securities. For both the three and nine months ended September 30, 2013, no such income tax provision or benefit was required in connection with the Company's unrealized gains (losses) on "available-for-sale" marketable securities.

Tax years subsequent to 2010 remain open to examination by federal tax authorities. The Company's 2011 federal income tax return is currently under audit by the IRS. During the second quarter of 2014, New York State tax authorities finalized their audit of the Company's 2009, 2010, and 2011 business corporation franchise tax returns with no adjustments.



## 11. Statement of Cash Flows

Supplemental disclosure of non-cash investing and financing activities:

Included in accounts payable and accrued expenses at September 30, 2014 and December 31, 2013 were \$38.6 million and \$16.1 million, respectively, of accrued capital expenditures primarily in connection with renovation of the Company's new Limerick, Ireland facility and expansion and renovations in its Rensselaer, New York manufacturing facilities. Included in accounts payable and accrued expenses at September 30, 2013 and December 31, 2012 were \$18.4 million and \$8.6 million, respectively, of accrued capital expenditures.

Pursuant to the application of authoritative guidance issued by the Financial Accounting Standards Board ("FASB") to the Company's lease of office and laboratory facilities in Tarrytown, New York, the Company recognized a facility lease obligation of \$92.6 million and \$7.7 million during the nine months ended September 30, 2014 and 2013, respectively, in connection with capitalizing, on the Company's books, the landlord's costs of constructing new facilities that the Company has leased. In addition, included in property, plant, and equipment at September 30, 2014 and September 30, 2013 were \$4.5 million and \$1.0 million of capitalized interest for the nine months ended September 30, 2014 and September 30, 2013, respectively, as the related facilities are currently under construction.

#### 12. Legal Matters

From time to time, the Company is a party to legal proceedings in the course of the Company's business. Costs associated with the Company's involvement in legal proceedings are expensed as incurred.

#### Proceedings Relating to '287 Patent and '018 Patent

The Company is a party to patent infringement litigation involving its European Patent No. 1,360,287 (the "'287 Patent") and its U.S. Patent No. 8,502,018 (the "'018 Patent"), both of which concern genetically altered mice capable of producing chimeric antibodies that are part human and part mouse. Chimeric antibody sequences can be used to produce high-affinity fully human monoclonal antibodies. In these proceedings (the "'287 Patent Infringement Litigation," respectively), the Company claims infringement of several claims of the '287 Patent and the '018 Patent (as applicable), and seeks, among other types of relief, an injunction and an account of profits in connection with the defendants' infringing acts, which may include, among other things, the making, use, keeping, sale, or offer for sale of genetically engineered mice (or certain cells from which they are derived) that infringe one or more claims of the '287 Patent and the '018 Patent (as applicable). With respect to the '018 Patent Infringement Litigation against Ablexis, LLC, on October 31, 2014, the Company and Ablexis reached a confidential settlement and filed a joint stipulation dismissing the action with prejudice. As the '287 Patent Infringement Litigation and remaining '018 Patent Infringement Litigation proceedings are at an early stage, at this time the Company is not able to predict the outcome of, or an estimate of gain, if any, related to, these proceedings.

#### Proceedings Relating to PCSK9 Antibody (Alirocumab)

On October 17, 2014 and October 28, 2014, Amgen Inc. filed lawsuits against Regeneron, Sanofi, Aventisub LLC, and Aventis Pharmaceuticals, Inc. in the United States District Court for the District of Delaware seeking an injunction to prevent Regeneron and the other defendants from making, using, offering to sell, or selling within the United States (as well as importing into the United States) alirocumab, the antibody to PCSK9 for LDL cholesterol reduction Regeneron is jointly developing with Sanofi. In the complaints, Amgen asserts U.S. Patent Nos. 8,563,698, 8,829,165, and 8,859,741 and U.S. Patent Nos. 8,871,913 and 8,871,914, respectively. Amgen also seeks a judgment of patent infringement of the asserted patents, monetary damages (together with interest), costs and expenses of the lawsuits, and attorneys' fees. This matter has not yet progressed sufficiently through discovery and/or development of important factual information and legal issues to enable the Company to estimate a range of possible loss, if any.

# 13. Recently Issued Accounting Standards

In May 2014, the FASB issued a new standard related to revenue recognition, *Revenue from Contracts with Customers*, which will replace existing revenue recognition guidance. The new standard requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. To achieve that core principle, an entity must identify the contract(s) with a customer, identify the performance obligations in the contract, determine the transaction price, allocate the transaction price to the performance obligations in the contract, and recognize revenue when (or as) the entity satisfies the performance obligation. The new standard will be effective for annual and interim reporting periods beginning after December 15, 2016, and early adoption is not permitted. The standard allows for two transition methods - retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of initially applying the standard recognized at the date of initial adoption. The Company has not yet determined its method of transition and is evaluating the impact that this guidance will have on the Company's financial statements.

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2	2

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

The discussion below contains forward-looking statements that involve risks and uncertainties relating to future events and the future performance of Regeneron Pharmaceuticals, Inc. ("Regeneron," "Company," "we," "us," and "our"), and actual events or results may differ materially from these forwardlooking statements. Words such as "anticipate," "expect," "intend," "plan," "believe," "seek," "estimate," 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 concern, and these risks and uncertainties include, among others, the nature, timing, and possible success and therapeutic applications of our products, product candidates, and research and clinical programs now underway or planned, including without limitation Regeneron's human genetics initiative; unforeseen safety issues resulting from the administration of products and product candidates in patients, including serious complications or side effects in connection with the use of our product candidates in clinical trials; the likelihood and timing of possible regulatory approval and commercial launch of our late-stage product candidates and new indications for marketed products, including without limitation EYLEA<sup>®</sup>, sarilumab, alirocumab, and dupilumab; ongoing regulatory obligations and oversight impacting our research and clinical programs and business, including those relating to patient privacy; determinations by regulatory and administrative governmental authorities which may delay or restrict our ability to continue to develop or commercialize our products and product candidates; competing drugs and product candidates that may be superior to our products and product candidates; uncertainty of market acceptance and commercial success of our products and product candidates; our ability to manufacture and manage supply chains for multiple products and product candidates; coverage and reimbursement determinations by third-party payers, including Medicare and Medicaid; unanticipated expenses; the costs of developing, producing, and selling products; our ability to meet any of our sales or other financial projections or quidance, including without limitation capital expenditures and income tax obligations, and changes to the assumptions underlying those projections or guidance; the potential for any license or collaboration agreement, including our agreements with Sanofi and Bayer HealthCare LLC, to be cancelled or terminated without any further product success; and risks associated with intellectual property of other parties and pending or future litigation relating thereto. These statements are made based on management's current beliefs and judgment, and the reader is cautioned not to rely on any such statements. In evaluating such statements, shareholders and potential investors should specifically consider the various factors identified under Part II, Item 1A. "Risk Factors," which could cause actual events and results to differ materially from those indicated by such forward-looking statements. We do not undertake any obligation to update publicly any forwardlooking statement, whether as a result of new information, future events, or otherwise.

#### Overview

Regeneron Pharmaceuticals, Inc. is a fully integrated biopharmaceutical company that discovers, invents, develops, manufactures, and commercializes medicines for the treatment of serious medical conditions. We commercialize medicines for eye diseases, colorectal cancer, and a rare inflammatory condition and have product candidates in development in other areas of high unmet medical need, including hypercholesterolemia, oncology, rheumatoid arthritis (RA), asthma, and atopic dermatitis.

Our total revenues were \$725.8 million in the third quarter and \$2,017.2 million in the first nine months of 2014, compared to \$597.0 million in the third quarter and \$1,494.3 million in the first nine months of 2013. Our net income was \$79.7 million, or \$0.70 per diluted share, in the third quarter and \$237.9 million, or \$2.10 per diluted share, in the first nine months of 2014, compared to net income of \$141.3 million, or \$1.25 per diluted share, in the third quarter and \$327.6 million, or \$2.95 per diluted share, in the first nine months of 2013. Refer to the "Results of Operations" section below for further details of our financial results.

We currently have three marketed products:

• **EYLEA (aflibercept) Injection**, known in the scientific literature as VEGF Trap-Eye, which is available in the United States, European Union (EU), Japan, and certain other countries outside the United States for the treatment of neovascular age-related macular degeneration (wet AMD) and macular edema following central retinal vein occlusion (CRVO). In July 2014, the U.S. Food and Drug Administration (FDA) approved EYLEA for the treatment of diabetic macular edema (DME), and in August 2014, the European Commission approved EYLEA for the treatment of visual impairment due to DME. In September 2014, the Japanese Ministry of Health, Labour and Welfare (MHLW) approved EYLEA for myopic choroidal neovascularization (mCNV). In October 2014, the FDA approved EYLEA for the treatment of macular edema following retinal vein occlusion (RVO), which includes macular edema following branch retinal vein occlusion (BRVO). We are collaborating with Bayer HealthCare on the global development and commercialization of EYLEA outside the United States. Regulatory applications have been submitted for EYLEA in Japan, and certain markets within Asia Pacific and Latin America for the treatment of DME, and in Europe and Japan for the treatment of macular edema following BRVO.

- ZALTRAP<sup>®</sup> (ziv-aflibercept) Injection for Intravenous Infusion, known in the scientific literature as VEGF Trap, which is available in the United States, EU, and certain other countries for treatment, in combination with 5-fluorouracil, leucovorin, irinotecan (FOLFIRI), of patients with metastatic colorectal cancer (mCRC) that is resistant to or has progressed following an oxaliplatin-containing regimen. Regulatory applications for marketing authorization of ZALTRAP for the treatment of previously treated mCRC patients in other countries have also been submitted and are currently under review by the respective regulatory agencies. We and Sanofi globally collaborate on the development and commercialization of ZALTRAP.
- ARCALYST<sup>®</sup> (rilonacept) Injection for Subcutaneous Use, which is available in the United States for the treatment of Cryopyrin-Associated Periodic Syndromes (CAPS), including Familial Cold Auto-inflammatory Syndrome (FCAS) and Muckle-Wells Syndrome (MWS), in adults and children 12 years and older.

We have 18 product candidates in clinical development, all of which were discovered in our research laboratories. These consist of two Trap-based clinical programs and 16 fully human monoclonal antibody product candidates, as summarized below. Each of the antibodies in the table below was generated using our *VelocImmune*<sup>®</sup> technology.

## **Trap-based Clinical Programs**

# EYLEA

In Phase 3 clinical development for the treatment of wet AMD (Asia) and DME in collaboration with Bayer HealthCare. As described below, EYLEA is also being studied in combination with (i) an antibody to Platelet Derived Growth Factor Receptor Beta (PDGFR-beta), and (ii) an antibody to angiopoietin-2 (Ang2).

# ZALTRAP

In Phase 3 clinical development in metastatic colorectal cancer in the Asia-Pacific region (in collaboration with Sanofi).

Antibody-based Clinical Programs in Collaboration with Sanofi

#### Alirocumab (REGN727)

Antibody to Proprotein Convertase Subtilisin/Kexin type 9 (PCSK9). In Phase 3 clinical development for low-density lipoprotein (LDL) cholesterol reduction and for the prevention of cardiovascular events.

## Sarilumab (REGN88)

Antibody to the interleukin-6 receptor (IL-6R). In clinical development in rheumatoid arthritis (Phase 3) and non-infectious uveitis (Phase 2).

#### Dupilumab (REGN668)

Antibody to the interleukin-4 receptor (IL-4R) alpha subunit. In clinical development in atopic dermatitis (Phase 3), asthma (Phase 2b), and chronic sinusitis with nasal polyps (CSwNP) (Phase 2).

#### **REGN1033**

Antibody to myostatin (GDF8). In Phase 2 clinical development in skeletal muscle disorders.

# Nesvacumab (REGN910)

Antibody to Ang2, a novel angiogenesis target. In Phase 1 clinical development in oncology. Currently on partial clinical hold by the FDA for systemic use in oncology.

## **REGN2222**

Antibody against respiratory syncytial virus (RSV). Phase 1 clinical study initiated in the second quarter of 2014.

#### Antibody-based Clinical Programs in Collaboration with Bayer HealthCare

## REGN2176-3

Combination product comprised of an antibody to PDGFR-beta co-formulated with EYLEA for use in ophthalmology, via intravitreal administration. Phase 1 clinical study for the treatment of wet AMD initiated in the first quarter of 2014.

#### Antibody-based Clinical Programs Developing Independently

## REGN1908-1909\*

Antibody combination in Phase 1/Phase 2 clinical development against allergic disease.

# **REGN1400**

Antibody to ErbB3. In Phase 1 clinical development in oncology.

# Antibody to **REGN1154**\*

Antibody against an undisclosed target. Phase 1 clinical study in Australia completed.

## **REGN1500\***

Antibody to Angptl-3 in Phase 1 clinical development. Studies are ongoing under a partial clinical hold by the FDA that excludes women of childbearing potential.

#### **REGN1193\***

Antibody in Phase 1 clinical development against an undisclosed target.

## Enoticumab (REGN421)\*

Antibody to Delta-like ligand-4 (Dll4), a novel angiogenesis target. In Phase 1 clinical development in oncology (advanced malignancies).

#### **REGN1979**

Bispecific antibody against both CD20 and CD3 for use in oncology. Phase 1 clinical study initiated in the third quarter of 2014.

# REGN910-3\*\*

Combination product comprised of an antibody to Ang2 co-formulated with EYLEA for use in ophthalmology, via intravitreal administration. Phase 1 clinical study initiated in the fourth quarter of 2014.

# Fasinumab (REGN475)\*

Antibody to Nerve Growth Factor (NGF). In development for the treatment of pain; currently on partial clinical hold by the FDA.

\* Sanofi did not opt-in to or elected not to continue to co-develop the product candidate and we have sole global rights. Under the terms of our agreement, Sanofi is entitled to receive a mid-single digit royalty on any future sales of the product candidate.

\*\* We acquired from Sanofi full exclusive rights to antibodies targeting the Ang2 receptor and ligand in ophthalmology, which were previously included in our antibody collaboration with Sanofi. Under the terms of our agreement, Sanofi is entitled to receive a potential development milestone and royalties on any future sales of the product candidate.

Development of REGN2009, which was an antibody in Phase 1 clinical development against an undisclosed target, was discontinued in the second quarter of 2014.

Our core business strategy is to maintain a strong foundation in basic scientific research and discovery-enabling technologies, and to combine that foundation with our clinical development, manufacturing, and commercial capabilities. We are executing our long-term objective to build a successful, integrated, multi-product biopharmaceutical company that provides patients and medical professionals with innovative options for preventing and treating human diseases.

We believe that our ability to develop product candidates is enhanced by the application of our *VelociSuite*<sup>®</sup> technology platforms. Our discovery platforms are designed to identify specific proteins of therapeutic interest for a particular disease or cell type and validate these targets through high-throughput production of genetically modified mice using our *VelociGene*<sup>®</sup> technology to understand the role of these proteins in normal physiology, as well as in models of disease. Our human monoclonal antibody technology (*VelocImmune*) and cell line expression technologies (*VelociMab*<sup>®</sup>) may then be utilized to discover and produce new product candidates directed against the disease target. Our antibody product candidates currently in clinical trials were developed using *VelocImmune*. We continue to invest in the development of enabling technologies to assist in our efforts to identify, develop, manufacture, and commercialize new product candidates.

In early 2014, we launched a new human genetics initiative via a wholly owned subsidiary, Regeneron Genetics Center LLC (RGC). RGC performs sequencing and genotyping to generate de-identified genomic data. The objective of RGC is to expand the use of human genetics for discovering and validating genetic factors that cause or influence a range of diseases where there are major unmet medical needs, with the prospect of improving the drug discovery and development process. RGC is undertaking both large population-based efforts as well as family-based approaches.

#### **Marketed Products**

#### EYLEA (aflibercept) Injection

Net product sales of EYLEA in the United States were \$445.0 million in the third quarter and \$1,218.8 million in the first nine months of 2014, compared to \$363.1 million in the third quarter and \$1,006.8 million in the first nine months of 2013. Bayer HealthCare records revenue from sales of EYLEA outside the United States, which were \$277.0 million in the third quarter and \$741.9 million in the first nine months of 2014, compared to \$124.8 million in the third quarter and \$288.3 million in the first nine months of 2013.

We commenced sales of EYLEA for the treatment of wet AMD in November 2011, for the treatment of macular edema following CRVO in September 2012, and for the treatment of DME in July 2014, following receipt of regulatory approval in the United States. In addition, in October 2014, the FDA approved EYLEA for the treatment of macular edema following RVO, which includes macular edema following BRVO. Bayer HealthCare commenced sales of EYLEA for the treatment of wet AMD in the fourth quarter of 2012 and for the treatment of macular edema following receipt of regulatory approvals outside the United States. In addition, Bayer HealthCare commenced sales of EYLEA for the treatment of visual impairment due to DME in the third quarter of 2014 following receipt of regulatory approval in the EU. In September 2014, the Japanese MHLW approved EYLEA for mCNV. Bayer HealthCare has additional regulatory applications for EYLEA for the treatment of wet AMD, macular edema secondary to CRVO, and DME pending in other countries. In addition, Bayer HealthCare has submitted applications to the European Medicines Agency (EMA) and MHLW seeking marketing authorization in the EU and Japan, respectively, for EYLEA for the treatment of macular edema following BRVO.

In September 2014, based on data from the VIVID-DME and VISTA-DME trials, the FDA granted EYLEA Breakthrough Therapy designation for the treatment of diabetic retinopathy in patients with DME.

We are collaborating with Bayer HealthCare on the global development and commercialization of EYLEA outside the United States. Bayer HealthCare markets, and records revenue from sales of, EYLEA outside the United States, where, for countries other than Japan, the companies share equally the profits and losses from sales of EYLEA. In Japan, we are entitled to receive a percentage of the sales of EYLEA. We maintain exclusive rights to EYLEA in the United States and are entitled to all profits from such sales.

#### ZALTRAP (ziv-aflibercept) Injection for Intravenous Infusion

We and Sanofi globally collaborate on the development and commercialization of ZALTRAP, and share profits and losses from commercialization of ZALTRAP, except for Japan, where we are entitled to receive a percentage of the sales of ZALTRAP.

ZALTRAP net product sales, which are recorded by Sanofi, commenced in the United States in August 2012 and in Europe in the first quarter of 2013, and were \$23.4 million in the third quarter and \$66.2 million in the first nine months of 2014, compared to \$17.8 million in the third quarter and \$50.5 million in the first nine months of 2013. Regulatory applications for marketing authorization of ZALTRAP for the treatment of previously treated mCRC patients in other countries have also been submitted and are currently under review by the respective regulatory agencies.

#### ARCALYST (rilonacept) Injection for Subcutaneous Use

ARCALYST (rilonacept) Injection for Subcutaneous Use is available in the United States for the treatment of CAPS in adults and children 12 years and older. CAPS are a group of rare, inherited, auto-inflammatory conditions characterized by life-long, recurrent symptoms of rash, fever/chills, joint pain, eye redness/pain, and fatigue. Intermittent, disruptive exacerbations or flares can be triggered at any time by exposure to cooling temperatures, stress, exercise, or other unknown stimuli. Net product sales of ARCALYST totaled \$3.8 million in the third quarter and \$10.4 million in the first nine months of 2014, compared to \$4.0 million in the third quarter and \$12.9 million in the first nine months of 2013.

#### **Trap-based Clinical Programs**

#### **EYLEA - Ophthalmologic Diseases**

#### <u>Overview</u>

Vascular Endothelial Growth Factor (VEGF) is a naturally occurring protein in the body. Its normal role in a healthy organism is to trigger formation of new blood vessels (angiogenesis) supporting the growth of the body's tissues and organs. However, in certain diseases, such as wet AMD, it is also associated with the growth of abnormal new blood vessels in the eye, which exhibit abnormal increased permeability that leads to edema. Scarring and loss of fine-resolution central vision often results. CRVO is caused by obstruction of the central retinal vein that leads to a back-up of blood and fluid in the retina. Release of VEGF contributes to increased vascular permeability in the eye and macular edema. In BRVO, a blockage occurs in the blood vessels branching from the main vein draining the retina, resulting in the release of VEGF and consequent retinal edema. For centrally involved DME, VEGF-mediated leakage of fluid from blood vessels in the eye results in interference with vision. Wet AMD, diabetic retinopathy (which includes DME), and retinal vein occlusion are three of the leading causes of adult blindness in the developed world. In these conditions, severe visual loss is caused by neovascular proliferation and/or retinal edema.

EYLEA is a recombinant fusion protein, consisting of portions of human VEGF receptors 1 and 2 extracellular domains fused to the Fc portion of human IgG1 and formulated as an iso-osmotic solution for intravitreal administration. EYLEA acts as a soluble decoy receptor that binds VEGF-A and placental growth factor (PIGF) and thereby can inhibit the binding and activation of these cognate VEGF receptors. EYLEA is specially purified and contains iso-osmotic buffer concentrations, allowing for injection into the eye.

#### Wet AMD

*Phase 3 SIGHT Trial.* In the fourth quarter of 2011, we and Bayer HealthCare initiated a Phase 3 trial in China evaluating the efficacy and safety of EYLEA in wet AMD (SIGHT). In the trial, EYLEA 2 milligrams (mg) dosed every two months achieved the primary endpoint of a significantly greater improvement in best-corrected visual acuity (BCVA) from baseline compared to photodynamic therapy (PDT) at 28 weeks (14 letters for EYLEA vs. 3.9 letters for PDT, p<0.0001). The safety results were consistent with results from prior studies in wet AMD.

*RE-VIEW Study.* In the fourth quarter of 2012, we initiated a study (RE-VIEW) to fulfill a post-marketing requirement by the FDA, which is evaluating the effect of EYLEA on corneal endothelium. The trial is fully enrolled.

## DME

*Phase 3 VISTA-DME and VIVID-DME Trials.* We are conducting the VISTA-DME study in the United States. Bayer HealthCare is conducting the VIVID-DME study in Europe, Japan, and Australia. Patients in both trials were randomized to receive either EYLEA 2 mg monthly, EYLEA 2 mg every two months (after 5 initial monthly injections), or the comparator treatment of laser photocoagulation.

Based on the positive results of the Phase 3 VISTA-DME and VIVID-DME trials of EYLEA for the treatment of DME at 52 weeks, we submitted a supplemental Biologics License Application (BLA) for U.S. regulatory approval of EYLEA in DME and in July 2014, the FDA approved EYLEA for the treatment of DME. Bayer HealthCare also submitted an application for marketing approval for the treatment of DME in the EU, and the European Commission approved EYLEA for the treatment of visual impairment due to DME in August 2014. Bayer HealthCare has made regulatory submissions in Japan, and certain markets within Asia Pacific and Latin America.

In February 2014, we and Bayer HealthCare announced that in the Phase 3 VISTA-DME trial of EYLEA for the treatment of DME, EYLEA 2 mg dosed monthly and EYLEA 2 mg dosed every two months (after 5 initial monthly injections) showed a sustained improvement from baseline in BCVA at week 100, compared to laser photocoagulation. After two years, patients receiving EYLEA 2 mg monthly had a mean change from baseline in BCVA of 11.5 letters and patients receiving EYLEA 2 mg every other month (after 5 initial monthly injections) had a mean change from baseline in BCVA of 11.1 letters, compared to patients receiving laser photocoagulation who had a mean change from baseline in BCVA of 0.9 letters. In the VISTA-DME trial, EYLEA was generally well tolerated with a similar overall incidence of adverse events (AEs), ocular serious AEs, and non-ocular serious AEs across the treatment groups and the laser control group. The most frequent ocular treatment emergent AEs (TEAEs) observed included conjunctival hemorrhage, eye pain, and vitreous floaters. The most frequent non-ocular TEAEs included hypertension, nasopharyngitis, anemia, and urinary tract infection, which occurred with similar frequency in the treatment groups and the laser control group. Arterial thromboembolic events as defined by the Anti-Platelet Trialists' Collaboration (non-fatal stroke, non-fatal myocardial infarction, and vascular death) were similar across the treatment groups and the laser control group, 11 out of 152 patients in the EYLEA 2 mg dosed every two months group, and 9 out of 154 patients in the laser treatment group. Eight out of 155 patients died in the EYLEA 2 mg dosed monthly group, 4 out of 152 patients in the EYLEA 2 mg dosed every two months group, and 3 out of 154 patients in the laser treatment group.

In July 2014, we announced that in the Phase 3 VIVID-DME trial, EYLEA 2 mg dosed monthly and EYLEA 2 mg dosed every two months (after 5 initial monthly injections) showed a sustained improvement from baseline in BCVA at week 100 (2 years), compared to laser photocoagulation. After two years, patients receiving EYLEA 2 mg monthly had a mean change from baseline in BCVA of 11.4 letters and patients receiving EYLEA 2 mg every two months had a mean change from baseline in BCVA of 0.7 letters. Additionally, 31.1% of patients receiving EYLEA every two months achieved an increase of greater than or equal to 15 letters, or approximately 3 lines of vision, from baseline (P = 0.0001), and 38.2% receiving EYLEA every month achieved an increase of greater than or equal to 15 letters from baseline (P less than 0.0001 vs. laser), compared with 12.1% of patients in the laser control arm achieving similar vision gains. In the VIVID-DME trial, EYLEA had a similar overall incidence of AEs, ocular serious AEs, and non-ocular serious AEs across the EYLEA treatment groups and the laser control group. The most frequent ocular AEs observed in the VIVID-DME trial included conjunctival hemorrhage, cataract, and increased intraocular pressure. The most frequent non-ocular AEs included nasopharyngitis and hypertension. Arterial thromboembolic events as defined by the Anti-Platelet Trialists' Collaboration (non-fatal stroke, non-fatal myocardial infarction, and vascular death) were similar across the treatment groups and the laser control group. Four out of 136 patients died in the EYLEA 2 mg dosed monthly group, 6 out of 135 patients in the laser conferences in 2014.

Both the VIVID-DME and VISTA-DME trials will continue as planned up to 148 weeks.

In September 2014, based on data from the VIVID-DME and VISTA-DME trials, the FDA granted EYLEA Breakthrough Therapy designation for the treatment of diabetic retinopathy in patients with DME.

*Phase 3 VIVID-Japan and VIVID EAST-DME Studies.* An additional Phase 3 safety study in Japan (VIVID-Japan) was initiated in the first quarter of 2012 and is required for approval in Japan. In the first quarter of 2014, Bayer HealthCare reported positive results from the VIVID-Japan study, which did not change the overall safety profile for EYLEA in DME, and submitted an application for marketing authorization of EYLEA for the treatment of DME in Japan. In February 2013, we and Bayer HealthCare also initiated another Phase 3 study to evaluate the efficacy and safety of EYLEA in DME in Russia, China, and other Asian countries (VIVID EAST-DME). This trial is fully enrolled.

#### Macular Edema Following RVO

*Phase 3 VIBRANT Study*. In October 2013, we reported positive top-line results from the VIBRANT trial. The study achieved its primary endpoint of a statistically significant difference for EYLEA dose 2 mg monthly versus laser in proportion of patients who gained at least 15 letters of visual acuity at 24 weeks versus baseline. The incidence of serious AEs was similar in both study arms. The most common ocular AEs in the EYLEA treated patients were conjunctival hemorrhage and eye pain. There were no cases of intraocular inflammation. There was one ocular SAE in a patient in the EYLEA group, which was a traumatic cataract. Based on the positive results of the VIBRANT study, a supplemental BLA for U.S. regulatory approval of EYLEA in BRVO was submitted, and the FDA approved EYLEA for the treatment of macular edema following RVO, which includes macular edema following BRVO, in October 2014.

In January 2014, Bayer HealthCare exercised its right to opt-in to the global development and commercialization of EYLEA outside the United States for the treatment of macular edema following BRVO as described below under "Collaborations with Bayer HealthCare - *EYLEA outside the United States*." Bayer HealthCare has also submitted applications to the EMA and the

Japanese MHLW seeking marketing authorization in the EU and Japan, respectively, for EYLEA for the treatment of macular edema following BRVO.

#### ZALTRAP (ziv-aflibercept) - Oncology

ZALTRAP is a fusion protein that is designed to bind all forms of VEGF-A, VEGF-B, and PIGF, and prevent their interaction with cell surface receptors. VEGF-A (and to a lesser degree, PIGF) is required for angiogenesis that is needed for tumors to grow. ZALTRAP is in Phase 3 clinical development in metastatic colorectal cancer in the Asia-Pacific region.

#### Late-Stage Antibody-based Clinical Programs

#### Alirocumab (REGN727; PCSK9 Antibody) for LDL cholesterol reduction

#### **Overview**

Elevated LDL cholesterol ("bad cholesterol") level is a validated risk factor leading to cardiovascular disease. Statins are a class of drugs that lower LDL through inhibition of HMG-CoA, an enzyme regulating the early and rate-limiting step in cholesterol biosynthesis that ultimately results in an increase in LDL receptors to increase the uptake of plasma LDL lipoproteins. PCSK9 is a secreted protein that plays a key role in modulating LDL cholesterol (LDL-C) levels in the body. PCSK9 binds to and induces the destruction of the LDL receptor, thereby interfering with cellular uptake and increasing circulating levels of LDL cholesterol. In a landmark study published in the *New England Journal of Medicine* in March 2006, patients with lower than normal PCSK9 levels due to a genetic abnormality not only had significantly lower levels of LDL-C, but also a significant reduction in the risk of coronary heart disease. We used our *VelocImmune* technology to generate a fully human monoclonal antibody inhibitor of PCSK9, called alirocumab, that is intended to lower LDL cholesterol.

#### Clinical Programs

*Phase 3 ODYSSEY Program.* We and Sanofi initiated the global Phase 3 ODYSSEY program for alirocumab in the second quarter of 2012. The ODYSSEY program is expected to enroll more than 23,500 patients. This includes eleven clinical trials evaluating the effect of alirocumab, dosed every two weeks, on lowering LDL cholesterol. In addition, the 18,000 patient ODYSSEY OUTCOMES trial, assessing reduction in serious cardiovascular events, is currently enrolling patients, while the other trials exploring every two week dosing in the ODYSSEY program are fully enrolled. LDL cholesterol reduction is expected to be the primary efficacy endpoint for initial regulatory filings. Additionally, the ODYSSEY program includes two trials of alirocumab dosed every four weeks, ODYSSEY CHOICE I, which was initiated in the fourth quarter of 2013, and ODYSSEY CHOICE II, which was initiated in the first quarter of 2014; both of these trials are fully enrolled. Patients in the ODYSSEY CHOICE I trial receive alirocumab 300 mg in combination with statins each month and patients in the CHOICE II trial receive alirocumab 150 mg monotherapy and in combination with non-statin lipid lowering therapy each month. The ODYSSEY studies are being conducted in clinical centers around the world including North America, Western and Eastern Europe, South America, Australia, and Asia.

The first trial to report data from the Phase 3 ODYSSEY program was the ODYSSEY MONO trial (in the fourth quarter of 2013), which evaluated the efficacy and safety of alirocumab monotherapy versus ezetimibe monotherapy in patients with primary hypercholesterolemia. The study achieved its primary efficacy endpoint and demonstrated that patients randomized to receive alirocumab monotherapy experienced a mean reduction in LDL-C levels of 47.2% from baseline to week 24, compared to 15.6% in patients receiving ezetimibe monotherapy (p<0.0001). The percentage of patients who reported TEAEs was 78.4% in the ezetimibe group and 69.2% in the alirocumab group. The most common class of AEs was infections (39.2% with ezetimibe vs. 42.3% with alirocumab), which included nasopharyngitis, influenza, and upper respiratory tract infection. Injection-site reactions occurred in less than 2% of patients in both groups. Muscle-related AEs occurred in 3.9% of patients treated with ezetimibe and 3.8% of patients treated with alirocumab.

In July 2014, we and Sanofi reported positive, top-line results from nine Phase 3 ODYSSEY studies. All nine studies (ODYSSEY LONG TERM, FH I, FH II, HIGH FH, COMBO I, COMBO II, OPTIONS I, OPTIONS II, and ALTERNATIVE), met their primary efficacy endpoint of a greater percent reduction from baseline in LDL-C at 24 weeks compared to placebo or active comparator. In all nine studies, the mean percent reduction in LDL-C from baseline at 24 weeks in alirocumab-treated patients was consistent with results seen in previous alirocumab trials. All patients received alirocumab in addition to standard-of care lipid-lowering therapy, with the exception of some patients in ODYSSEY ALTERNATIVE. All trials included patients with LDL-C not at goal with or without a documented history of cardiovascular disease (CVD). The trials evaluated two distinct dosing regimens: 150 mg every two weeks or 75 mg every two weeks increasing to 150 mg if needed to reach protocol-specified LDL-C targets. A majority of patients in these trials were able to reach their LDL-C goals while remaining on the 75 mg dose. The 75 mg and the 150 mg doses were delivered with a single, self-administered one-milliliter (mL) injection.

The 2,341-patient ongoing ODYSSEY LONG TERM trial evaluated the long-term safety and efficacy of alirocumab compared to placebo. Both treatment groups received statins and some patients also received additional lipid-lowering therapies. The trial

met its primary efficacy endpoint at 24 weeks. A pre-specified interim safety analysis was performed when all patients reached one year and approximately 25% of patients reached 18 months of treatment. A lower rate of adjudicated major cardiovascular events (cardiac death, myocardial infarction, stroke, and unstable angina requiring hospitalization) was observed in the alirocumab arm compared to placebo in a post-hoc safety analysis (1.4 percent compared to 3.0 percent, nominal p-value less than 0.01). The potential of alirocumab to demonstrate cardiovascular benefit is being prospectively assessed in the ongoing 18,000-patient ODYSSEY OUTCOMES trial.

The ODYSSEY ALTERNATIVE trial evaluated patients with a history of intolerance to two or more statins, who were randomized to receive alirocumab, ezetimibe or atorvastatin 20 mg (a calibrator arm). This trial met its primary efficacy endpoint of a greater percent reduction from baseline in LDL-C at 24 weeks with alirocumab compared to ezetimibe. In the ALTERNATIVE trial, rates of discontinuation due to AEs were 25.4% for atorvastatin, 24.8% for ezetimibe and 18.3% for alirocumab; these differences between treatment groups were not statistically significant.

Alirocumab was generally well tolerated in the nine ODYSSEY trials. The most common AEs were nasopharyngitis and upper respiratory tract infection, which were generally balanced between treatment groups. Injection site reactions were more frequent in the alirocumab group compared to placebo. Serious AEs and deaths were generally balanced between treatment groups as were other key AEs including musculoskeletal, neurocognitive, and liver-related events.

In July 2014, we and Sanofi also announced that the companies intend to use an FDA rare pediatric disease priority review voucher in connection with the planned BLA submission for alirocumab. The priority review voucher entitles the holder to designate a human drug application for priority review. The FDA's goal for reviewing a human drug application with priority review is to take action within 6 months instead of 10 months under standard review. We purchased the voucher from a third party, which had received it through the FDA's Rare Pediatric Disease Priority Review Voucher Program. We and Sanofi equally shared the voucher's purchase price of \$67.5 million.

We and Sanofi expect to submit U.S. and EU regulatory applications for alirocumab before the end of 2014.

In August 2014, detailed positive results from four Phase 3 ODYSSEY trials of alirocumab in patients with hypercholesterolemia were presented at the ESC Congress 2014 in Barcelona, Spain. This included the ODYSSEY LONG TERM, COMBO II, and FH I and FH II studies. On the primary efficacy endpoint of the LONG TERM trial, at 24 weeks, there was a 61% reduction from baseline in LDL-C levels in the alirocumab group as compared to a 1% increase in the placebo group (62% reduction in alirocumab group compared to placebo), p < 0.0001. Of the alirocumab patients, 81% achieved their prespecified LDL-C goal (either 70 milligrams/deciliter (mg/dL) or 100 mg/dL depending on patients' baseline cardiovascular (CV) risk) compared to 9% for placebo (p < 0.0001). The most common AEs (greater than or equal to 5% of patients) were nasopharyngitis (13% alirocumab; 13% placebo), upper respiratory tract infection (7% alirocumab; 8% placebo), and injection site reactions (6% alirocumab; 4% placebo). In a post hoc safety analysis, there was a lower rate of adjudicated major CV events (cardiac death, myocardial infarction, stroke, and unstable angina requiring hospitalization) in the alirocumab group compared to placebo (1.4% compared to 3.0%, nominal p-value less than 0.01). These CV events comprise the composite primary endpoint of the ongoing 18,000-patient ODYSSEY OUTCOMES trial, which is prospectively evaluating the potential of alirocumab to demonstrate CV benefit.

On the primary endpoint of the COMBO II trial, which was conducted in patients with hypercholesterolemia with high CV risk and inadequate LDL-C reduction at baseline despite stable, maximally tolerated statin therapy, at 24 weeks, there was a 51% reduction from baseline in LDL-C levels in the alirocumab group compared to a 21% reduction in the ezetimibe group (30% reduction in alirocumab group compared to ezetimibe group), p < 0.0001. The most common AEs (greater than or equal to 5% of patients) were upper respiratory tract infection (6.5% alirocumab; 6% ezetimibe), accidental overdose (6% alirocumab; 7% ezetimibe), dizziness (5% alirocumab; 5% ezetimibe), and myalgia (4% alirocumab; 5% ezetimibe).

On the primary endpoint of the FH I and FH II trials, at 24 weeks, there was a 49% reduction from baseline in LDL-C levels in both FH I and FH II alirocumab groups compared to an increase of 9% in FH I and 3% in FH II in the placebo groups (58% and 51% reduction compared to placebo), p < 0.0001. In pooled data from both trials, the most common AEs (greater than or equal to 5% of patients) were injection site reactions (11.5% alirocumab; 9% placebo), nasopharyngitis (10% alirocumab; 11% placebo), influenza (9% alirocumab; 6% placebo), and headache (5.5% alirocumab; 7% placebo).

*Phase 2 Studies.* In the first quarter of 2014, the first Phase 2 study with alirocumab in Japanese patients met its primary endpoint. The results demonstrated that the mean LDL-C percentage reduction from baseline to week 12, the primary efficacy endpoint of the study, was significantly greater in patients randomized to receive one of three doses of alirocumab administered every other week (Q2W) - 150 mg, 75 mg, and 50 mg, in combination with statin therapy, compared to patients receiving placebo. At week 12, the mean percentage reduction in LDL-C from baseline in patients receiving alirocumab 50 mg Q2W was 55%, alirocumab 75 mg Q2W was 62% and alirocumab 150 mg Q2W was 72%, compared to 3% in the placebo group. TEAEs in this study were reported by 52% of patients in the alirocumab 50 mg group, 48% of patients in the 75 mg group, and 64% of patients

in the 150 mg group, compared to 32% in the placebo group. The most frequently reported TEAEs were nasopharyngitis, injection site reaction, back pain, cystitis and ligament sprain.

## Sarilumab (REGN88; IL-6R Antibody) for inflammatory diseases

#### <u>Overview</u>

IL-6 is a key cytokine involved in the pathogenesis of RA, causing inflammation and joint destruction. Sarilumab is a fully human monoclonal antibody to IL-6R generated using our *VelocImmune* technology.

## **Rheumatoid** Arthritis

*Phase 3 SARIL-RA-MOBILITY Trial.* In the fourth quarter of 2013, we and Sanofi announced that in the SARIL-RA-MOBILITY Phase 3 clinical trial in adult patients with active RA who were inadequate responders to methotrexate (MTX) therapy, sarilumab treatment in combination with MTX improved disease signs and symptoms as well as physical function, and inhibited progression of joint damage. The 52 week SARIL-RA-MOBILITY Phase 3 trial enrolled approximately 1,200 patients with active, moderate-to-severe rheumatoid arthritis, and who were inadequate responders to MTX therapy. Patients were randomized to one of three subcutaneous treatment groups, all in combination with MTX and dosed every other week: sarilumab 200 mg, sarilumab 150 mg, or placebo. Both sarilumab groups showed clinically relevant and statistically significant improvements compared to the placebo group in all three coprimary endpoints (p < 0.0001).

In the SARIL-RA-MOBILITY trial, infections were the most frequently reported adverse events and were reported with a higher incidence in the sarilumab groups compared to placebo, all in combination with MTX. Among patients treated with sarilumab, a dose dependent decrease in mean neutrophil counts was observed. Serious infections were not associated with grades 3 and 4 neutropenia in this study. Increases in mean LDL cholesterol and transaminases were observed.

In June 2014, efficacy and safety data from the SARIL-RA-MOBILITY study was presented at the annual meeting of The European League Against Rheumatism (EULAR).

Additional data from the study will be presented at the American College of Rheumatology in November 2014.

Additional Phase 3 Studies. We and Sanofi have also initiated additional Phase 3 studies, SARIL-RA-TARGET and SARIL-RA-ASCERTAIN. The broad SARIL-RA clinical development program is focused on adult populations with moderate-to-severe RA who are inadequate responders to either MTX or tumor necrosis factor alpha (TNF-alpha) inhibitor therapy. SARIL-RA-TARGET is a randomized, double-blind, placebo-controlled study evaluating sarilumab in combination with non-biologic, disease-modifying anti-rheumatic drugs (DMARDS) in moderate-to-severe active RA patients with inadequate responses to, or who are intolerant of, one or more TNF-alpha inhibitors. The SARIL-RA-ASCERTAIN study, which is fully enrolled, is a safety study evaluating the safety and tolerability of sarilumab versus a calibrator, tocilizumab, both in combination with MTX, in patients with RA who are inadequate responders to, or intolerant of, TNF-alpha inhibitors. Patients who complete SARIL-RA-MOBILITY, SARIL-RA-TARGET, or SARIL-RA-ASCERTAIN are offered enrollment into the ongoing SARIL-RA-EXTEND, which is an open-label, long-term safety study of sarilumab. The SARIL-RA-COMPARE Phase 3 study has been discontinued due to slower than anticipated enrollment; this discontinuation will not impact planned global regulatory filings.

#### Non-infectious Uveitis

*Phase 2 SARIL-NIU-SATURN Study.* A Phase 2 study, SARIL-NIU-SATURN, was initiated in the fourth quarter of 2013 and is a placebo-controlled proof-of-concept study evaluating the safety and efficacy of sarilumab in non-infectious uveitis.

#### Dupilumab (REGN668; IL-4R Antibody) for allergic and inflammatory conditions

#### **Overview**

IL-4R is required for signaling by the cytokines IL-4 and IL-13. Both of these cytokines are critical mediators of immune response, which, in turn, drives the formation of Immunoglobulin E (IgE) antibodies and the development of allergic responses, as well as the atopic state that underlies atopic (allergic) dermatitis, asthma, and chronic sinusitis with nasal polyposis. Dupilumab is a fully human monoclonal antibody generated using our *VelocImmune* technology that is designed to bind to IL-4R alpha subunit and block signaling from both IL-4 and IL-13.

#### Atopic Dermatitis

*Phase 2a Trial.* Data from four Phase 1 and Phase 2 studies of dupilumab in adults with moderate-to-severe atopic dermatitis, a severe chronic form of eczema, were published in the *New England Journal of Medicine* in July 2014. In the Phase 2a study of 109 patients with moderate-to-severe atopic dermatitis, dupilumab 300 mg administered weekly was associated with rapid and marked sustained improvements in several endpoints such as Eczema Severe Score Index (EASI), Scoring of Atopic Dermatitis

(SCORAD), Investigator's Global Assessment Score (IGA), baseline Body Surface Area (BSA), and pruritus. After 12 weeks of treatment, patients receiving dupilumab achieved statistically superior clinical outcomes compared to patients in the placebo group in all measures of disease activity and pruritus. There were notably fewer patients with skin infections associated with dupilumab treatment (5.5%), compared with placebo (24.1%). There were no infection related serious AEs or eczema herpeticum in the dupilumab group. In the placebo group, three patients with skin infections and four patients with atopic dermatitis exacerbations required hospitalization. The most common TEAEs were nasopharyngitis, headache, and conjunctivitis.

*Phase 2b Trial.* In the second quarter of 2013, a Phase 2b trial in atopic dermatitis was initiated. In July 2014, we and Sanofi announced positive results from a Phase 2b dose-ranging study of dupilumab in adult patients with moderate-to-severe atopic dermatitis. All doses of dupilumab met the primary endpoint of a greater improvement in EASI scores from baseline compared to placebo. In the Phase 2b trial, all five subcutaneous doses of dupilumab showed a dose-dependent improvement in the primary endpoint, the mean percent change in EASI score from baseline to week 16. The improvements in EASI score ranged from a high of 74% for patients in the highest dose group, who received 300 mg weekly, to a low of 45% in patients who received the lowest dose of 100 mg monthly, compared to 18% for patients in the placebo group (p<0.0001 for all doses). The most common AE in the Phase 2b study was nasopharyngitis, which was balanced across dupilumab treatment groups (18.5% to 23%) compared to placebo (21%). Injection site reactions were more frequent in the dupilumab group (5% to 9.5%) compared to placebo (3%), as was headache (12% to 15%) compared to placebo (8%).

Dupilumab-treated patients showed highly statistically significant and dose-dependent improvements in additional key efficacy measures compared to placebo after 16 weeks of treatment:

- 12% to 33% of dupilumab-treated patients achieved clearing or near-clearing of skin lesions, as measured by an IGA score of 0 or 1, compared to 2% with placebo (p=0.02 to p<0.0001).</li>
- Dupilumab-treated patients experienced a 16.5% to 47% mean reduction in itching, as measured by the pruritus numerical-rating scale (NRS) score, compared to an increase of 5% in the placebo group (p=0.0005 to p<0.0001).

This Phase 2b double-blind, placebo-controlled, 16-week, dose-ranging study randomized 380 patients with moderate-to-severe atopic dermatitis, who could not be adequately controlled with topical medication or for whom topical treatment was not advisable. Patients were randomized to receive one of five doses of dupilumab (300 mg weekly, 300 mg every other week, 300 mg monthly, 200 mg every other week, 100 mg monthly) or placebo. Patients in the study had approximately 50% of their skin affected by atopic dermatitis at baseline. In the year preceding enrollment in the study, approximately 35% of patients received an oral corticosteroid and approximately 20% received a systemic non-steroid immunosuppressant for AD. Approximately 60% of patients had another allergic condition, including approximately 40% of patients who had a history of asthma. The follow-up period of the study is ongoing and patients will be followed for 16 weeks after treatment.

*Phase 3 Study.* In the fourth quarter of 2014, a Phase 3 trial in atopic dermatitis, LIBERTY AD CHRONOS, was initiated and is currently enrolling patients. LIBERTY AD CHRONOS, is a randomized, double-blind, placebo-controlled, multi-national study with the primary objective of demonstrating the efficacy of dupilumab in adults with moderate-to-severe atopic dermatitis when administered concomitantly with topical corticosteroids through 16 weeks. Secondary objectives of the study will evaluate the long-term safety and efficacy of dupilumab up to 52 weeks. The trial will enroll approximately 700 adult patients.

The LIBERTY AD Phase 3 clinical program will consist of at least five trials, including LIBERTY AD CHRONOS, of patients with moderate-to-severe atopic dermatitis at sites worldwide.

## <u>Asthma</u>

*Phase 2a Trial.* Data from a Phase 2a trial in asthma patients with elevated eosinophils were presented at the American Thoracic Society in May 2013, and were also published in the *New England Journal of Medicine* in June 2013. In this study, patients receiving dupilumab at 300 mg weekly for 12 weeks experienced an 87% reduction in the incidence of asthma exacerbations compared to patients receiving placebo (p<0.0001). Clinically meaningful and statistically significant improvements were observed for lung function and other asthma control parameters, such as forced expiratory volume over one second (FEV<sub>1</sub>). TEAEs were reported by a similar proportion of patients in both treatment groups (76.9% placebo; 80.8% dupilumab). AEs were generally non-specific and of mild-to-moderate intensity. The most common AEs for placebo and dupilumab were injection-site reaction, nasopharyngitis, upper respiratory tract infection, headache, and nausea.

Phase 2b Trial. In the second quarter of 2013, a Phase 2b trial in asthma was initiated and is fully enrolled.

## Chronic Sinusitis with Nasal Polyps

*Phase 2a Study.* In the third quarter of 2013, a Phase 2a trial in nasal polyposis was initiated. In September 2014, we and Sanofi announced positive results from the Phase 2a proof-of-concept study of dupilumab in patients with moderate-to-severe CSwNP who did not respond to intranasal corticosteroids. The randomized, double-blind, placebo-controlled study enrolled 60 adult patients with moderate-to-severe CSwNP. Patients in the study received 300 mg of dupilumab or placebo administered once per week

subcutaneously for 16 weeks, following an initial loading dose of 600 mg. All patients in the study also received a standard-of-care nasal corticosteroid spray. Patients were eligible for the study if they continued to have severe CSwNP despite standard treatment for at least one month. Fifty percent of patients in the study had received prior surgery for their condition. Asthma was also present in 58 percent of CSwNP patients in the study. The conditions are often co-morbid and symptoms/exacerbations are frequently interdependent.

In the study, dupilumab resulted in a statistically-significant improvement in the size of nasal polyps, as measured by endoscopic Nasal Polyp Score (NPS), the primary endpoint of the study. Statistically significant improvements in all secondary efficacy endpoints were also observed, including objective measures of sinusitis by CT scan, nasal air flow, and patient-reported symptoms (sense of smell, congestion, postnasal drip, runny nose and sleep disturbance). In a pre-specified exploratory analysis, dupilumab-treated patients who also had asthma demonstrated significant improvements in asthma control. The safety profile was consistent with previous studies. The most common AEs with dupilumab were injection site reactions, nasopharyngitis, oropharyngeal pain, epistaxis, headache, and dizziness. Detailed results of the study will be presented at an upcoming medical conference.

#### **Research Programs**

Our preclinical research programs are in the areas of oncology, angiogenesis, ophthalmology, metabolic and related diseases, muscle diseases and disorders, inflammation and immune diseases, bone and cartilage, pain, cardiovascular diseases, and infectious diseases.

#### **Research and Development Technologies**

Many proteins that are either on the surface of or secreted by cells play important roles in biology and disease. One way that a cell communicates with other cells is by releasing specific signaling proteins, either locally or into the bloodstream. These proteins have distinct functions and are classified into different "families" of molecules, such as peptide hormones, growth factors, and cytokines. All of these secreted (or signaling) proteins travel to and are recognized by another set of proteins, called "receptors," which reside on the surface of responding cells. These secreted proteins impact many critical cellular and biological processes, causing diverse effects ranging from the regulation of growth of particular cell types to inflammation mediated by white blood cells. Secreted proteins can at times be overactive and thus result in a variety of diseases. In these disease settings, blocking the action of specific secreted proteins can have clinical benefit. In other cases, proteins on the cell-surface can mediate the interaction between cells, such as the processes that give rise to inflammation and autoimmunity.

Our scientists have developed two different technologies to design protein therapeutics to block the action of specific cell surface or secreted proteins. The first technology, termed the "Trap" technology, was used to generate our three approved products, EYLEA, ZALTRAP, and ARCALYST. These novel "Traps" are composed of fusions between two distinct receptor components and the constant region of an antibody molecule called the "Fc region," resulting in high affinity product candidates. *VelociSuite* is our second technology platform; it is used for discovering, developing, and producing fully human monoclonal antibodies that can address both secreted and cell-surface targets.

*VelociSuite*. *VelociSuite* consists of *VelocImmune*, *VelociGene*, *VelociMouse*<sup>®</sup>, *and VelociMab*. The *VelocImmune* mouse platform is utilized to produce fully human monoclonal antibodies. *VelocImmune* was generated by exploiting our *VelociGene* technology (see below), in a process in which six megabases of mouse immune gene loci were replaced, or "humanized," with corresponding human immune gene loci. *VelocImmune* mice can be used to generate efficiently fully human monoclonal antibodies to targets of therapeutic interest. *VelocImmune* and our entire *VelociSuite* offer the potential to increase the speed and efficiency through which human monoclonal antibody therapeutics may be discovered and validated, thereby improving the overall efficiency of our early stage drug development activities. We are utilizing the *VelocImmune* technology to produce our next generation of drug candidates for preclinical and clinical development.

Our *VelociGene* platform allows custom and precise manipulation of very large sequences of DNA to produce highly customized alterations of a specified target gene, or genes, and accelerates the production of knock-out and transgenic expression models without using either positive/negative selection or isogenic DNA. In producing knock-out models, a color or fluorescent marker may be substituted in place of the actual gene sequence, allowing for high-resolution visualization of precisely where the gene is active in the body during normal body functioning as well as in disease processes. For the optimization of preclinical development and pharmacology programs, *VelociGene* offers the opportunity to humanize targets by replacing the mouse gene with the human homolog. Thus, *VelociGene* allows scientists to rapidly identify the physical and biological effects of deleting or over-expressing the target gene, as well as to characterize and test potential therapeutic molecules.

Our *VelociMouse* technology platform allows for the direct and immediate generation of genetically altered mice from embryonic stem cells (ES cells), thereby avoiding the lengthy process involved in generating and breeding knockout mice from chimeras. Mice generated through this method are normal and healthy and exhibit a 100% germ-line transmission. Furthermore, mice developed using our *VelociMouse* technology are suitable for direct phenotyping or other studies. We have also developed

our *VelociMab* platform for the rapid screening of antibodies and rapid generation of expression cell lines for our Traps and our *VelocImmune* human monoclonal antibodies.

We have utilized our *VelociSuite* technologies to develop a class of potential drug candidates, known as bi-specific antibodies. In the area of immunotherapies in oncology, we are exploring the use of bi-specific antibodies that target tumor antigens and the CD3 receptor on T-cells to harness the oncolytic properties of T-cells. Our first such bi-specific antibody, which entered into clinical development in 2014, targets CD20 and CD3.

**Regeneron Genetics Center.** In early 2014, we launched a new human genetics initiative via a wholly owned subsidiary, Regeneron Genetics Center LLC. RGC leverages de-identified clinical and molecular data from human volunteers for medically relevant associations in a blinded fashion designed to preserve patients' privacy. The objective of RGC is to expand the use of human genetics for discovering and validating genetic factors that cause or influence a range of diseases where there are major unmet medical needs, with the prospect of improving the drug discovery and development process. RGC is undertaking both large population-based efforts as well as family-based approaches.

Central to the work of RGC is a collaboration with the Geisinger Health System of Pennsylvania. During the initial five-year collaboration term, Geisinger plans to collect samples from more than 100,000 consented patient volunteers, while RGC will perform sequencing and genotyping to generate de-identified genomic data. In addition, RGC has formed research collaborations with other institutions such as Columbia University Medical Center, the Clinic for Special Children, and Baylor College of Medicine.

#### **Collaboration Agreements**

## **Collaborations with Sanofi**

**ZALTRAP.** Since September 2003, we and Sanofi have been parties to a global collaboration for the development and commercialization of ZALTRAP. Under the current terms of our collaboration agreement we and Sanofi share co-promotion rights and share profits and losses from commercialization of ZALTRAP outside of Japan. In Japan, we are entitled to receive a percentage of approximately 35% on sales of ZALTRAP, subject to certain potential adjustments.

Under the collaboration agreement, agreed upon worldwide development expenses incurred by both companies during the term of the agreement are funded by Sanofi. If the collaboration becomes profitable, we will be obligated to reimburse Sanofi out of our share of ZALTRAP profits for 50% of the development expenses that they funded. The reimbursement payment in any quarter will equal 5% of the then outstanding repayment obligation, but never more than our share of the ZALTRAP profits in the quarter unless we elect to reimburse Sanofi at a faster rate. As a result, we expect that, for the foreseeable future, our share of any ZALTRAP profits will be used to reimburse Sanofi for this repayment obligation.

Antibodies. Since November 2007, we and Sanofi have been parties to a global, strategic collaboration to discover, develop, and commercialize fully human monoclonal antibodies. The collaboration is governed by a Discovery and Preclinical Development Agreement and a License and Collaboration Agreement (each as amended). Pursuant to the collaboration, Sanofi is funding up to \$160 million per year of our antibody discovery activities over the period from 2010-2017 to identify and validate potential drug discovery targets and develop fully human monoclonal antibodies against these targets. We lead the design and conduct of research activities under the collaboration, including target identification and validation, antibody development, research and preclinical activities through filing of an Investigational New Drug application (IND) or its equivalent, toxicology studies, and manufacture of preclinical and clinical supplies. Sanofi has an option to extend certain antibody development and preclinical activities relating to selected program targets for up to an additional three years after 2017.

For each drug candidate identified through discovery research under the discovery agreement, Sanofi has the option to license rights to the candidate under the license agreement. If it elects to do so, Sanofi will co-develop the drug candidate with us through product approval. Development costs for the drug candidate are shared between the companies, with Sanofi generally funding these costs upfront, except that following receipt of the first positive Phase 3 trial results for a co-developed drug candidate, subsequent Phase 3 trial-related costs for that drug candidate are shared 80% by Sanofi and 20% by us. We are generally responsible for reimbursing Sanofi for half of the total development costs for all collaboration antibody products from our share of profits from commercialization of collaboration products to the extent they are sufficient for this purpose. However, we are not required to apply more than 10% of our share of the profits from collaboration products in any calendar quarter towards reimbursing Sanofi for these development costs.

Sanofi will lead commercialization activities for products developed under the license agreement, subject to our right to co-promote such products. We and Sanofi will equally share profits and losses from sales within the United States. We and Sanofi will share profits outside the United States on a sliding scale based on sales starting at 65% (Sanofi)/35% (us) and ending at 55% (Sanofi)/45% (us), and will share losses outside the United States at 55% (Sanofi)/45% (us). In addition to profit sharing, we are

entitled to receive up to \$250 million in sales milestone payments, with milestone payments commencing after aggregate annual sales outside the United States exceed \$1.0 billion on a rolling 12-month basis.

## **Collaborations with Bayer HealthCare**

**EYLEA outside the United States.** Since October 2006, we and Bayer HealthCare have been parties to a license and collaboration agreement for the global development and commercialization outside the United States of EYLEA. Under the agreement, we and Bayer HealthCare collaborate on, and share the costs of, the development of EYLEA through an integrated global plan. Bayer HealthCare markets EYLEA outside the United States, where, for countries other than Japan, the companies share equally in profits and losses from sales of EYLEA. In Japan, we are entitled to receive a tiered percentage of between 33.5% and 40.0% of EYLEA net sales.

In January 2014, Bayer HealthCare decided to participate in the global development and commercialization of EYLEA outside the United States for the treatment of macular edema following BRVO. In connection with this decision, Bayer HealthCare reimbursed us for a defined share of the EYLEA global development costs that we had incurred prior to February 2014 for the BRVO indication. In addition, all future agreed upon global EYLEA development expenses incurred in connection with BRVO are being shared equally, and profits or losses on sales of EYLEA outside of the United States for the treatment of macular edema following BRVO will also be shared (for countries other than Japan). As described above, we are entitled to receive a tiered percentage of EYLEA net sales in Japan.

Since inception of the agreement, we have received \$110.0 million of development milestone payments and \$120.0 million of sales milestone payments from Bayer HealthCare. In addition, we may earn up to \$45.0 million in additional sales milestone payments if twelve-month sales of EYLEA outside the United States achieve certain specified levels.

Commencing with the first commercial sale of EYLEA in a major market country outside the United States, we became obligated to reimburse Bayer HealthCare for 50% of the development costs that it has incurred under the agreement from our share of the collaboration profits (including payments to us based on sales in Japan). The reimbursement payment in any quarter will equal 5% of the then outstanding repayment obligation, but never more than our share of the collaboration profits in the quarter unless we elect to reimburse Bayer HealthCare at a faster rate. As a result, we expect that, initially, a portion of our share of EYLEA profits outside the United States will be used to reimburse Bayer HealthCare for this repayment obligation.

Within the United States, we retain exclusive commercialization rights to EYLEA and are entitled to all profits from any such sales.

**PDGFR-beta** antibody outside the United States. In January 2014, we entered into an agreement with Bayer HealthCare governing the joint development and commercialization outside the United States of an antibody product candidate to PDGFR-beta, including in combination with EYLEA, for the treatment of ocular diseases or disorders. REGN2176-3, a combination product candidate comprised of an antibody to PDGFR-beta co-formulated with EYLEA, is being developed under the agreement. Under the agreement, we will conduct the initial development of the PDGFR-beta antibody through completion of the first proof-of-concept study, upon which Bayer HealthCare will have a right to opt-in to license and collaborate on further development and commercialization outside the United States.

In connection with the agreement, Bayer HealthCare made a \$25.5 million non-refundable upfront payment to us in January 2014, and is obligated to pay 25% of global development costs and 50% of development costs exclusively for the territory outside the United States under the initial development plan. In addition, Bayer HealthCare is obligated to reimburse us for 50% of development milestone payments to Sanofi related to our acquisition of rights to antibodies targeting the PDGF family of receptors in May 2013. In that regard, Bayer HealthCare made two \$2.5 million development milestone payments to us in the first quarter of 2014. Further, in connection with our initial development of the PDGFR-beta antibody through completion of the first proof-of-concept study, we are eligible to receive up to \$15.0 million in future development milestone payments from Bayer HealthCare, although certain of these development milestone payments could be reduced by half if Bayer HealthCare does not opt-in to the collaboration.

If Bayer HealthCare exercises its right to opt-in to the collaboration, they will obtain exclusive commercialization rights to the product outside the United States, continue to pay for 25% of global development costs and 50% of development costs exclusively for the territory outside the United States, pay a \$20.0 million opt-in payment to us, pay a \$20.0 million development milestone to us upon receipt of the first marketing approval in the European Union or Japan, share profits and losses from sales outside the United States equally with us, and be responsible for the payment of royalties on sales outside the United States to Sanofi.

Within the United States, we have exclusive commercialization rights and will retain all of the profits from sales. If Bayer HealthCare does not opt-in to the collaboration, we will have exclusive rights to develop and commercialize PDGFR-beta antibodies (except as a combination product with EYLEA) for use outside the United States.

We also have the right to opt-out of the collaboration upon completion of the first proof-of-concept study for the PDGFR-beta antibody. If we opt-out of the collaboration and Bayer HealthCare exercises its right to opt-in to the collaboration, Bayer HealthCare will obtain exclusive rights to the PDGFR-beta antibody (except as a combination product with EYLEA) outside of the United States, be responsible for all development costs outside of the United States, be responsible for all royalty and milestone payments to a third party, and will retain all of the profits from sales of the PDGFR-beta antibody outside of the United States.

Unless terminated earlier in accordance with its provisions, the agreement will continue to be in effect until such time as neither party or its respective affiliates or sublicensees is developing or commercializing a PDGFR-beta antibody in the specified field outside of the United States and such discontinuation is acknowledged as permanent by both us and Bayer HealthCare in writing.

#### Collaboration with Avalanche Biotechnologies, Inc.

In May 2014, we entered into a research collaboration and license agreement with Avalanche Biotechnologies, Inc. to discover, develop, and commercialize novel gene therapy products for the treatment of ophthalmologic diseases. In connection with the agreement, we made a \$2.0 million upfront payment and a \$6.0 million pre-payment of collaboration research costs, and are obligated to pay potential additional research costs, an aggregate amount of up to \$80.0 million per product upon meeting certain potential development and regulatory milestones (for products directed to as many as eight therapeutic targets, or up to an aggregate of \$640.0 million), and royalties on any future sales of such products. We also purchased an aggregate of \$5.0 million of Avalanche preferred stock. Under the agreement, we will collaborate with Avalanche to conduct research for the discovery of novel gene therapy vectors. Subsequent to the filing of an IND with the FDA for a product candidate, we may exercise our right to obtain exclusive worldwide rights to further research, develop, and commercialize such product candidates directed to the applicable therapeutic target. In addition, Avalanche has the option to share in development costs and profits for products directed toward up to two therapeutic targets of its choice.

In July 2014, Avalanche commenced an initial public offering (IPO) of its common stock and thereby triggered our obligation under the research collaboration and license agreement to purchase up to \$10.0 million of Avalanche common stock in a concurrent private placement. As part of the concurrent private placement, we purchased from Avalanche at the closing of its IPO 588,235 shares of Avalanche common stock for an aggregate purchase price of \$10.0 million. In addition, at the closing of its IPO, Avalanche preferred stock, including the Avalanche preferred stock held by us, automatically converted on a one-for-one basis into Avalanche common stock.

#### General

Developing and commercializing new medicines entails significant risk and expense. Before significant revenues from the commercialization of our antibody candidates or new indications for our marketed products can be realized, we (or our collaborators) must overcome a number of hurdles which include successfully completing research and development and obtaining regulatory approval from the FDA and regulatory authorities in other countries. In addition, the biotechnology and pharmaceutical industries are rapidly evolving and highly competitive, and new developments may render our products and technologies uncompetitive or obsolete.

Our ability to continue to generate profits and to generate positive cash flow from operations over the next several years depends significantly on our continued success in commercializing EYLEA. We expect to continue to incur substantial expenses related to our research and development activities, a significant portion of which we expect to be reimbursed by our collaborators. Also, our research and development activities outside our collaborations, the costs of which are not reimbursed, will expand and require additional resources. Our operating results may fluctuate from quarter to quarter and will depend on, among other factors, the net sales of our marketed products, the scope and progress of our research and development efforts, the timing of certain expenses, and the continuation of our collaborations with Sanofi and Bayer HealthCare, including our share of collaborators. We cannot predict whether or when new products or new indications for our marketed products will receive regulatory approval or, if any such approval is received, whether we will be able to successfully commercialize such product(s) and whether or when they may become profitable.

The planning, execution, and results of our clinical programs are significant factors that can affect our operating and financial results. In our clinical programs, key events in 2014 to date were, and plans for the next twelve months are, as follows:

#### <u>Trap-based Clinical Programs:</u>

2014 Events to Date	2014-2015 Plans (next 12 months)
EYLEA	
Ÿ Bayer HealthCare received regulatory approval for EYLEA in certain countries for the treatment of patients with wet AMD and	Ÿ Bayer HealthCare to file for China regulatory approval for the treatment of wet AMD
macular edema secondary to CRVO, and continued to pursue regulatory applications for marketing approval in additional countries	Ÿ Bayer HealthCare to file for additional ex-US regulatory approvals in DME, macular edema following BRVO, and mCNV
Ÿ Bayer HealthCare opted-in to the global development and commercialization outside the United States for the treatment of macular edema following BRVO	<ul> <li>Regulatory agency decisions on applications outside the United States for the treatment of DME and macular edema following BRVO</li> <li>File sBLA with the FDA for diabetic retinopathy in patients with DME</li> </ul>
Ÿ Reported positive two-year results from the Phase 3 VISTA-DME and VIVID-DME studies	
Ÿ Bayer HealthCare reported positive results from the VIVID-Japan study and submitted an application for marketing authorization of EYLEA for the treatment of DME in Japan	
Ÿ Supplemental BLA accepted for regulatory approval in the United States for the treatment of macular edema following RVO	
Ÿ Received positive week 52 results from the Phase 3 BRVO VIBRANT study	
Ÿ Reported positive results from the Phase 3 SIGHT study in wet AMD in China	
Ÿ Bayer HealthCare submitted regulatory applications seeking marketing authorization in the EU and Japan for EYLEA for the treatment of macular edema following BRVO	
Ÿ FDA approved EYLEA for the treatment of DME	
Ÿ Bayer HealthCare received regulatory approval for EYLEA in the EU for the treatment of visual impairment due to DME	
Ÿ Received Breakthrough Therapy Designation from the FDA for the treatment of diabetic retinopathy in patients with DME	
Ÿ Bayer HealthCare received regulatory approval for mCNV in Japan	
Ÿ FDA approved EYLEA for the treatment of macular edema following RVO (including macular edema following BRVO)	
ZALTRAP	
Ÿ Sanofi received regulatory approval in additional countries for ZALTRAP for patients with mCRC that is resistant to or has progressed following an oxaliplatin-containing regimen	Ÿ Regulatory agency decisions outside the United States on additional applications for ZALTRAP in the treatment of previously treated mCRC patients

#### Antibody-based Clinical Programs:

		2014 Events to Date		2014-2015 Plans (next 12 months)
Alirocumab (PCSK9 Antibody)	Ÿ	Initiated Phase 3 ODYSSEY CHOICE II trial	Ÿ	Continue enrollment of Phase 3 ODYSSEY OUTCOMES trial
	Ÿ	Completed patient enrollment in ODYSSEY CHOICE I and CHOICE II trials	Ÿ	Report results from additional Phase 3 ODYSSEY trials
	Ÿ	Initiated Phase 3 program in Japan	Ÿ	File for regulatory approvals in the U.S. and EU
	Ÿ	Reported positive topline results from nine Phase 3 ODYSSEY studies		
	Ÿ	Detailed positive results from four Phase 3 ODYSSEY trials presented at the ESC Congress 2014		
Sarilumab (IL-6R Antibody)	Ÿ	Obtained positive results from Phase 1b RA trial in Japan	Ÿ	Continue enrollment in Phase 3 SARIL-RA program
	Ÿ	Positive results from Phase 3 SARIL-RA- MOBILITY trial presented at EULAR 2014 conference	Ÿ	Complete patient enrollment in SARIL-NIU- SATURN Phase 2 study in non-infectious uveitis
	Ÿ	SARIL-RA-COMPARE Phase 3 study discontinued	Ÿ	Report results from additional Phase 3 trials
			Ÿ	Initiate additional clinical studies, including Phase 3 MONARCH study (head-to-head monotherapy study against adalimumab)
Dupilumab (IL-4R Antibody)	Ÿ	Reported positive Phase 2a data in atopic dermatitis	Ÿ	Continue enrollment of LIBERTY AD CHRONOS trial in atopic dermatitis
	Ÿ	Reported positive Phase 2b data in atopic dermatitis	Ÿ	Initiate additional Phase 3 trials in atopic dermatitis
	Ÿ	Completed patient enrollment of Phase 2b asthma trial	Ÿ	Report results from Phase 2b trial in asthma
	Ÿ	Completed patient enrollment of Phase 2a nasal polyposis trial		
	Ÿ	Reported positive Phase 2a data in CSwNP		
	Ÿ	Initiated LIBERTY AD CHRONOS Phase 3 trial in atopic dermatitis		
REGN1033 (GDF8 Antibody)	Ÿ	Completed patient enrollment in Phase 1 and Phase 2a studies		
REGN1908-1909 (target not disclosed)	Ÿ	Completed patient enrollment of First in Human study	Ÿ	Continue patient enrollment in Phase 2 study
	Ÿ	Initiated Phase 2 study		
Nesvacumab (Ang2 Antibody)	Ÿ	On partial clinical hold by the FDA for systemic use in oncology		
REGN1400 (ErbB3 Antibody)	Ÿ	Completed patient enrollment in Phase 1 study		
REGN1154 (target not disclosed)			Ÿ	Determine future development plan
REGN1500 (Angptl-3 Antibody)	Ÿ	Continued patient enrollment in Phase 1 study	Ÿ	Complete patient enrollment in Phase 1 study
	Ÿ	On partial clinical hold by the FDA	Ÿ	Initiate Phase 2 study
REGN1193 (target not disclosed)	Ÿ	Continued patient enrollment in Phase 1 study	Ÿ	Continue patient enrollment in Phase 1 study
Enoticumab (Dll4 Antibody)	Ÿ	Completed patient enrollment of Phase 1 expansion study		

#### Antibody-based Clinical Programs (continued):

	2014 Events to Date	2014-2015 Plans (next 12 months)
REGN2176-3 (PDGFR-beta Antibody in	Ÿ Initiated Phase 1 study	Ÿ Initiate Phase 2 study
combination with EYLEA)	Ÿ Completed patient enrollment of Phase 1 study	
REGN2222 (RSV)	Ÿ Initiated Phase 1 study	Ÿ Complete patient enrollment in Phase 1 study
REGN1979 (CD20 and CD3 Antibody)	Ÿ Initiated Phase 1 study	Ÿ Commence patient enrollment in Phase 1 study
REGN910-3 (Ang2 Antibody co- formulated with EYLEA)	Ÿ Initiated Phase 1 study	Ÿ Commence patient enrollment in Phase 1 study
Fasinumab (NGF Antibody)	Ÿ On partial clinical hold by the FDA	Ÿ Determine future development plan
REGN2009 (target not disclosed)	Ÿ Development discontinued	

#### **Results of Operations**

#### Three Months Ended September 30, 2014 and 2013

#### Net Income

Net income for the three months ended September 30, 2014 and 2013 consists of the following:

(In millions)	2014			2013		
Revenues	\$	725.8	\$	597.0		
Operating expenses		(543.1)		(360.2)		
Other income (expense)		(6.6)		(11.1)		
Income before income taxes		176.1		225.7		
Income tax expense		(96.4)		(84.4)		
Net income	\$	79.7	\$	141.3		

#### Revenues

Revenues for the three months ended September 30, 2014 and 2013 consist of the following:

(In millions)	2014	2013		
Net product sales	\$ 448.8	\$	367.1	
Collaboration revenue:				
Sanofi	132.9		134.4	
Bayer HealthCare	135.9		88.6	
Total collaboration revenue	 268.8		223.0	
Technology licensing and other revenue	8.2		6.9	
Total revenues	\$ 725.8	\$	597.0	

#### Net Product Sales

Net product sales consist of U.S. sales of EYLEA and ARCALYST. In November 2011, we received marketing approval from the FDA for EYLEA for the treatment of wet AMD, at which time EYLEA product sales commenced. In September 2012, we received marketing approval from the FDA for EYLEA for the treatment of macular edema following CRVO, and in July 2014, we received marketing approval from the FDA for EYLEA for the treatment of DME. For the three months ended September 30, 2014, EYLEA net product sales increased to \$445.0 million from \$363.1 million for the three months ended September 30, 2013 due to higher sales volume. For the three months ended September 30, 2014 and 2013, we also recognized ARCALYST net product sales of \$3.8 million and \$4.0 million, respectively.

For the three months ended September 30, 2014 and 2013, we recorded 72% and 75%, respectively, of our total gross product revenue from sales to Besse Medical, a subsidiary of AmerisourceBergen Corporation.

Revenue from product sales is recorded net of applicable provisions for rebates and chargebacks under governmental programs, distribution-related fees, prompt pay discounts, and other sales-related deductions. The following table summarizes the provisions, and credits/payments, for sales-related deductions for the three months ended September 30, 2014 and 2013.

(In millions)	 ites & jebacks	D	istribution- Related Fees	I	ner Sales- Related ductions	Total
Balance as of June 30, 2014	\$ 4.1	\$	20.4	\$	0.5	\$ 25.0
Provision related to current period sales	8.5		17.5		0.4	26.4
Credits/payments	(8.8)		(19.4)		(0.4)	(28.6)
Balance as of September 30, 2014	\$ 3.8	\$	18.5	\$	0.5	\$ 22.8
Balance as of June 30, 2013	\$ 4.1	\$	18.5	\$	0.5	\$ 23.1
Provision related to current period sales	7.1		17.0		0.4	24.5
Credits/payments	(7.1)		(15.3)		(0.4)	(22.8)
Balance as of September 30, 2013	\$ 4.1	\$	20.2	\$	0.5	\$ 24.8

#### Sanofi Collaboration Revenue

Sanofi collaboration revenue, as detailed below, consisted primarily of reimbursement for research and development expenses that we incurred, partly offset by sharing of pre-launch commercialization expenses, in connection with the companies' antibody collaboration.

Sanofi Collaboration Revenue	Three months ended September 30,				
(In millions)	2014			2013	
ZALTRAP:					
Regeneron's share of losses in connection with commercialization of ZALTRAP	\$	(1.0)	\$	(6.6)	
Reimbursement of Regeneron research and development expenses		1.3		1.3	
Other		0.7		2.7	
Total ZALTRAP		1.0		(2.6)	
Antibody:					
Reimbursement of Regeneron research and development expenses		140.5		133.1	
Regeneron's share of commercialization expenses		(12.8)		_	
Other		4.2		3.9	
Total Antibody		131.9		137.0	
Total Sanofi collaboration revenue	\$	132.9	\$	134.4	

Sanofi commenced sales of ZALTRAP for treatment, in combination with FOLFIRI, of patients with mCRC that is resistant to or has progressed following an oxaliplatin-containing regimen, in the United States in the third quarter of 2012 and in certain European and other countries in the first quarter of 2013. Regeneron's share of the loss in connection with commercialization of ZALTRAP, as shown in the table below, represents our 50% share of ZALTRAP net product sales less cost of goods sold and shared commercialization and other expenses.

<u>Regeneron's share of losses in connection with</u> <u>commercialization of ZALTRAP</u>	Three months ended September 30,				
(In millions)	2	2014		2013	
Net product sales recorded by Sanofi	\$	23.4	\$	17.8	
Regeneron's share of collaboration losses		(1.0)		(6.6)	

Our share of the loss in the third quarter of 2014 and 2013 represents our share of the costs of launching and commercializing ZALTRAP, partly offset by net product sales. Sanofi provides us with an estimate of our share of the profit or loss from commercialization of ZALTRAP for the most recent fiscal quarter; these estimates are reconciled to actual results in the subsequent fiscal quarter, and our portion of the profit or loss is adjusted accordingly, as necessary.

In the third quarter of 2014, Sanofi's reimbursement of our antibody research and development expenses consisted of \$47.9 million under our discovery agreement and \$92.6 million of development costs under our license agreement, compared to \$45.3 million and \$87.8 million, respectively, in the third quarter of 2013.

Effective in the second quarter of 2014, we and Sanofi began sharing pre-launch commercialization expenses related to alirocumab in accordance with the companies' antibody collaboration agreement.

Other Sanofi antibody revenue includes recognition of deferred revenue from an \$85.0 million up-front payment and other payments. As of September 30, 2014, \$54.6 million of the up-front and other payments was deferred and will be recognized as revenue in future periods.

#### Bayer HealthCare Collaboration Revenue

The collaboration revenue we earned from Bayer HealthCare, as detailed below, primarily consisted of recognition of our share of profits in connection with commercialization of EYLEA outside the United States, recognition of sales and substantive development milestones achieved, and reimbursement of other Regeneron EYLEA expenses.

Bayer HealthCare Collaboration Revenue			nded September 0,		
(In millions)		2014		2013	
EYLEA:					
Regeneron's net profit in connection with commercialization of EYLEA outside the United States	\$	85.4	\$	31.8	
Sales and substantive development milestones		30.0		45.0	
Cost-sharing of Regeneron EYLEA development expenses		4.4		3.7	
Other		12.7		8.1	
Total EYLEA		132.5		88.6	
PDGFR-beta antibody:					
Cost-sharing of REGN2176-3 development expenses		0.5		_	
Other		2.9		_	
Total PDGFR-beta antibody		3.4		_	
Total Bayer HealthCare collaboration revenue	\$	135.9	\$	88.6	

Bayer HealthCare commenced sales of EYLEA outside the United States for the treatment of wet AMD in the fourth quarter of 2012, for the treatment of macular edema secondary to CRVO in the fourth quarter of 2013, and for the treatment of visual impairment due to DME in the third quarter of 2014. Regeneron's net profit in connection with commercialization of EYLEA outside the United States is summarized below.

<u>Regeneron's Net Profit from EYLEA Sales Outside the</u> <u>United States</u>		Three months ended September 30,						
(In millions)		2014		2013				
Net product sales outside the United States	\$	277.0	\$	124.8				
Regeneron's share of collaboration profit from sales outside the United States		99.8		46.3				
Reimbursement of EYLEA development expenses incurred by Bayer HealthCare in accordance with Regeneron's payment obligation		(14.4)		(14.5)				
Regeneron's net profit in connection with		(14.4)		(14.5)				
commercialization of EYLEA outside the United States	\$	85.4	\$	31.8				

Bayer HealthCare records revenue from sales of EYLEA outside the United States. Bayer HealthCare provides us with an estimate of our share of the profit or loss, including the percentage of sales in Japan that we earned, from commercialization of EYLEA outside the United States for the most recent fiscal quarter; these estimates are reconciled to actual results in the subsequent fiscal quarter, and our portion of the profit or loss is adjusted accordingly, as necessary. In the third quarter of 2014 and 2013, our share of the profit we earned from commercialization of EYLEA outside the United States was partly offset by our contractual obligation to reimburse Bayer HealthCare for a portion of the agreed-upon development expenses previously incurred by Bayer HealthCare.

In the third quarter of 2014, we earned, and recorded as revenue, two \$15.0 million sales milestones from Bayer HealthCare upon total aggregate net sales of EYLEA outside the United States exceeding \$800 million and \$900 million, respectively, over a twelve-month period. In the third quarter of 2013, we earned, and recorded as revenue, two \$15.0 million sales milestone payments from Bayer HealthCare upon total aggregate net sales of EYLEA outside the United States exceeding \$200 million and \$300 million, respectively, over a twelve-month period. In addition, in the third quarter of 2013, we earned a \$15.0 million substantive development milestone payment from Bayer HealthCare upon receipt of marketing approval in the EU for EYLEA for the treatment of macular edema secondary to CRVO.

Other EYLEA revenue principally consists of (i) reimbursement of other Regeneron EYLEA expenses, primarily related to Bayer HealthCare's share of royalties payable to Genentech which commenced in May 2013 pursuant to the license and settlement agreement as described below under "Liquidity and Capital Resources - *License and Settlement Agreements with Genentech - EYLEA*", in connection with sales of EYLEA outside the United States, and (ii) recognition of deferred revenue related to EYLEA up-front and 2007 non-substantive milestone payments from Bayer HealthCare. As of September 30, 2014, \$15.8 million of the EYLEA up-front and 2007 milestone payments was deferred and will be recognized ratably as revenue in future periods.

Cost-sharing of REGN2176-3 development expenses with Bayer HealthCare commenced in the first quarter of 2014 following the execution of the companies' PDGFR-beta antibody collaboration agreement as described above under "Collaboration with Bayer HealthCare - *PDGFR-beta antibody outside the United States*." Other PDGFR-beta antibody revenue consists of recognition of deferred revenue related to the PDGFR-beta up-front and non-substantive milestones received in the first quarter of 2014. As of September 30, 2014, \$22.8 million of the PDGFR-beta up-front and 2014 milestone payments was deferred and will be recognized ratably as revenue in future periods.

#### Technology Licensing and Other Revenue

In connection with the amendment and extension of our *VelocImmune* license agreement with Astellas, in August 2010, we received a \$165.0 million upfront payment, which was deferred upon receipt and is being recognized as revenue ratably over a seven-year period beginning in June 2011. In the third quarter of both 2014 and 2013, we recognized \$5.9 million of technology licensing and other revenue related to this agreement. As of September 30, 2014, \$86.9 million of the August 2010 technology licensing payment received from Astellas was deferred and will be recognized as revenue in future periods.

Under a June 2009 agreement with Novartis, we receive royalties on worldwide sales of Novartis' canakinumab. In the third quarter of 2014 and 2013, technology licensing and other revenue included \$1.9 million and \$1.0 million, respectively, of royalties from Novartis.

#### Expenses

Total operating expenses increased to \$543.1 million in the third quarter of 2014 from \$360.2 million in the third quarter of 2013. Our average headcount in the third quarter of 2014 increased to 2,714 from 2,217 in the same period in 2013, principally in connection with expanding our research and development, and commercialization activities.

Operating expenses in the third quarter of 2014 and 2013 included a total of \$73.9 million and \$45.8 million, respectively, of non-cash compensation expense related to employee stock option and restricted stock awards (Non-cash Compensation Expense). The increase in total Non-cash Compensation Expense in the third quarter of 2014 was primarily attributable to the higher fair market value of our Common Stock on the date of our annual employee option grants made in December 2013 compared to recent prior years.

#### Research and Development Expenses

Research and development expenses increased to \$337.7 million in the third quarter of 2014 from \$224.0 million in the same period of 2013. The following table summarizes the major categories of our research and development expenses for the three months ended September 30, 2014 and 2013:

	Th	ree months e				
<b>Research and Development Expenses*</b>		30,				Increase
(In millions)		2014		2013	(1	Decrease)
Payroll and benefits <sup>(1)</sup>	\$	99.2	\$	73.7	\$	25.5
Clinical trial expenses		46.7		42.4		4.3
Clinical manufacturing costs (2)		72.0		62.4		9.6
Research and other development costs		58.1		19.9		38.2
Occupancy and other operating costs		29.1		22.2		6.9
Cost-sharing of Bayer HealthCare and Sanofi						
development expenses <sup>(3)</sup>		32.6		3.4		29.2
Total research and development expenses	\$	337.7	\$	224.0	\$	113.7

\* Certain prior year amounts have been reclassified to conform to the current year's presentation.

<sup>(1)</sup> Includes Non-cash Compensation Expense of \$39.0 million for the three months ended September 30, 2014 and \$24.5 million for the three months ended September 30, 2013.

- (2) Represents the full cost of manufacturing drug for use in research, preclinical development, and clinical trials, as well as pre-launch commercial supplies which were not capitalized as inventory. Includes related payroll and benefits, Non-cash Compensation Expense, manufacturing materials and supplies, drug filling, packaging, and labeling costs, depreciation, and occupancy costs of our Rensselaer manufacturing facility. Also includes Non-cash Compensation Expense of \$7.1 million for the three months ended September 30, 2014 and \$3.7 million for the three months ended September 30, 2013.
- (3) Under our collaborations with Bayer HealthCare and Sanofi, in periods when Bayer HealthCare or Sanofi incurs certain development expenses, we also recognize, as additional research and development expense, the portion of our collaboration partners' development expenses that we are obligated to reimburse. Our collaboration partners provide us with estimated development expenses for the most recent fiscal quarter. Bayer HealthCare and Sanofi's estimates are reconciled to their actual expenses for such quarter in the subsequent fiscal quarter, and our portion of our collaboration partners' development expenses that we are obligated to reimburse is adjusted accordingly.

Payroll and benefits increased principally due to the increase in employee headcount and Non-cash Compensation Expense, as described above. Clinical trial expenses increased primarily due to higher costs for clinical studies of dupilumab and REGN1033, partly offset by lower costs for alirocumab and EYLEA. Clinical manufacturing costs increased primarily due to higher costs related to manufacturing drug supplies of alirocumab and early-stage antibody product candidates, partly offset by lower costs related to manufacturing drug supplies of sarilumab. Research and other development costs increased due primarily to our 50% share (\$33.8 million) of the cost of purchasing a FDA priority review voucher in the third quarter of 2014 as described above under "Late-Stage Antibody-based Clinical Programs - *Alirocumab*." Cost-sharing of Bayer HealthCare and Sanofi development expenses increased primarily due to our obligation to fund 20% of Sanofi's Phase 3 alirocumab and sarilumab development costs, which commenced during the fourth quarter of 2013.

We prepare estimates of research and development costs for projects in clinical development, which include direct costs and allocations of certain costs such as indirect labor, Non-cash Compensation Expense, and manufacturing and other costs related to activities that benefit multiple projects, and, under our collaborations with Bayer HealthCare and Sanofi, the portion of Bayer HealthCare and Sanofi's development expenses which they incur and we are obligated to reimburse. Our estimates of research and development costs for clinical development programs are shown below:

Project Costs	Three months ended September 30,					Increase
(In millions)		2014		2013		(Decrease)
EYLEA	\$	27.8	\$	31.6	\$	(3.8)
Alirocumab		105.1		38.7		66.4
Sarilumab		21.7		15.2		6.5
Dupilumab		36.2		26.1		10.1
Other antibody candidates in clinical development		65.4		27.7		37.7
Other research programs and unallocated costs		81.5		84.7		(3.2)
Total research and development expenses	\$	337.7	\$	224.0	\$	113.7

Drug development and approval in the United States is a multi-step process regulated by the FDA. The process begins with discovery and preclinical evaluation, leading up to the submission of an IND to the FDA which, if successful, allows the opportunity for study in humans, or clinical study, of the potential new drug. Clinical development typically involves three phases of study: Phases 1, 2, and 3. The most significant costs in clinical development are in Phase 3 clinical trials, as they tend to be the longest and largest studies in the drug development process. Following successful completion of Phase 3 clinical trials for a biological product, a BLA must be submitted to, and accepted by, the FDA, and the FDA must approve the BLA prior to commercialization of the drug. It is not uncommon for the FDA to request additional data following its review of a BLA, which can significantly increase the drug development timeline and expenses. We may elect either on our own, or at the request of the FDA, to conduct further studies that are referred to as Phase 3b and 4 studies. Phase 3b studies are initiated and either completed or substantially completed while the BLA is under FDA review. These studies are conducted under an IND. Phase 4 studies, also referred to as post-marketing studies, are studies that are initiated and conducted after the FDA has approved a product for marketing. In addition, as discovery research, preclinical development, and clinical programs progress, opportunities to expand development of drug candidates into new disease indications can emerge. We may elect to add such new disease indications to our development efforts (with the approval of our collaborator for joint development programs), thereby extending the period in which we will be developing a product.

There are numerous uncertainties associated with drug development, including uncertainties related to safety and efficacy data from each phase of drug development, uncertainties related to the enrollment and performance of clinical trials, changes in regulatory requirements, changes in the competitive landscape affecting a product candidate, and other risks and uncertainties described in Part II, Item 1A, "Risk Factors." The lengthy process of seeking FDA approvals, and subsequent compliance with applicable statutes and regulations, require the expenditure of substantial resources. Any failure by us to obtain, or delay in obtaining, regulatory approvals could materially adversely affect our business.

For these reasons and due to the variability in the costs necessary to develop a pharmaceutical product and the uncertainties related to future indications to be studied, the estimated cost and scope of the projects, and our ultimate ability to obtain governmental approval for commercialization, accurate and meaningful estimates of the total cost to bring our product candidates to market are not available. Similarly, we are currently unable to reasonably estimate if our product candidates in clinical development will generate material product revenues and net cash inflows.

#### Selling, General, and Administrative Expenses

Selling, general, and administrative expenses increased to \$149.7 million in the third quarter of 2014 from \$97.6 million in the third quarter of 2013 primarily due to a \$40.6 million incremental charge related to the Branded Prescription Drug Fee which was recorded in the third quarter of 2014. Under the provisions of the Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Reconciliation Act of 2010, a non-tax deductible annual fee (the Branded Prescription Drug Fee) is imposed on pharmaceutical manufacturers that sell branded prescription drugs to specified government programs. The legislation imposed an annual fee on companies for each calendar year beginning in 2011. This fee is allocated to companies based on their prior year market share of total branded prescription drug sales into these government programs. In July 2014, the Internal Revenue Service (IRS) issued final regulations that provide guidance on the Branded Prescription Drug Fee. The final regulations differ in some respects from the temporary regulations issued by the IRS in 2011, including that a company is liable for the fee based on its branded prescription drug sales in the current year, instead of the liability only being applicable upon the first qualifying branded prescription drug sale of the following fee year under the temporary regulations. As a result of the issuance of these final IRS regulations, we will record an estimate of the fee in the same period in which its qualifying branded prescription drug sales occur. Therefore, in the third quarter of 2014, an incremental charge was recorded to (i) recognize a liability for the estimated fee payable based on 2014 sales through the first nine months of 2014, and (ii) expense the remaining prepaid asset recorded under the previous accounting for the estimated fee payable based on 2013 sales.

In addition, selling, general, and administrative expenses increased due to higher Non-cash Compensation Expense principally for the reason described under "*Expenses*" above, higher headcount and related costs, and higher legal costs primarily resulting from patent enforcement, partly offset by lower contributions to a not-for-profit organization that assists patients with chronic disease conditions. Selling, general, and administrative expenses included \$26.9 million and \$17.1 million of Non-cash Compensation Expense in the third quarter of 2014 and 2013, respectively.

#### Cost of Goods Sold

Cost of goods sold was \$33.7 million in the third quarter of 2014 and \$28.3 million in the third quarter of 2013. Cost of goods sold, which primarily consists of royalties, as well as costs in connection with producing EYLEA and ARCALYST commercial supplies, increased principally due to the increase in U.S. EYLEA net product sales.

#### Cost of Collaboration Manufacturing

We manufacture commercial supplies of product for our collaborators. Cost of collaboration manufacturing increased to \$21.9 million in the third quarter of 2014 from \$10.3 million in the third quarter of 2013 primarily due to royalties payable in connection with higher sales of EYLEA outside the United States. Cost of collaboration manufacturing also includes costs in connection with producing commercial supplies for our collaborators. When the product is sold by our collaborators to third-party customers, our risk of inventory loss no longer exists, and we therefore recognize our related manufacturing costs for the sold product as cost of collaboration manufacturing.

#### **Other Income and Expense**

Interest expense in the third quarter of 2014 and 2013 primarily includes interest associated with our 1.875% convertible senior notes, including amortization of the note discount and debt issuance costs, and interest associated with our facility lease obligations.

#### **Income Taxes**

In the third quarter of 2014 and 2013, we recorded income tax expense of \$96.4 million and \$84.4 million, respectively. The effective tax rate was 54.7% and 37.4% for the third quarter of 2014 and 2013, respectively. The third quarter 2014 effective tax rate was negatively impacted by losses incurred in foreign jurisdictions with rates lower than the federal statutory rate, the incremental charge related to the non-tax deductible Branded Prescription Drug Fee (as described above), and expiration at the end of 2013 of the federal tax credit for increased research activities.

#### Nine Months Ended September 30, 2014 and 2013

#### Net Income

Net income for the nine months ended September 30, 2014 and 2013 consists of the following:

(In millions)	2014	2013		
Revenues	\$ 2,017.2	\$	1,494.3	
Operating expenses	(1,426.2)		(946.4)	
Other income (expense)	(36.6)		(32.7)	
Income before income taxes	 554.4		515.2	
Income tax expense	(316.6)		(187.6)	
Net income	\$ 237.8	\$	327.6	

#### Revenues

Revenues for the nine months ended September 30, 2014 and 2013 consist of the following:

(In millions)	2	2014	2013		
Net product sales	\$	1,229.2	\$	1,019.7	
Collaboration revenue:					
Sanofi		406.0		319.2	
Bayer HealthCare		358.5		134.6	
Total collaboration revenue		764.5		453.8	
Technology licensing and other revenue		23.5		20.8	
Total revenues	\$	2,017.2	\$	1,494.3	

#### Net Product Sales

Net product sales consist of U.S. sales of EYLEA and ARCALYST. For the nine months ended September 30, 2014, EYLEA net product sales increased to \$1,218.8 million from \$1,006.8 million for the nine months ended September 30, 2013 due to higher sales volume. For the nine months ended September 30, 2014 and 2013, we also recognized ARCALYST net product sales of \$10.4 million and \$12.9 million, respectively.

For the nine months ended September 30, 2014 and 2013, we recorded 75% and 76%, respectively, of our total gross product revenue from sales to Besse Medical, a subsidiary of AmerisourceBergen Corporation.

Revenue from product sales is recorded net of applicable provisions for rebates and chargebacks under governmental programs, distribution-related fees, prompt pay discounts, and other sales-related deductions. The following table summarizes the provisions, and credits/payments, for sales-related deductions for the nine months ended September 30, 2014 and 2013.

(In millions)	Rebates & Chargebacks	D	Distribution- Related Fees		Related Related		Other Sales- Related Deductions	Total
Balance as of December 31, 2013	\$ 4.4	\$	19.7	\$	0.5	\$ 24.6		
Provision related to current period sales	23.3		53.7		1.2	78.2		
Credits/payments	(23.9)		(54.9)		(1.2)	(80.0)		
Balance as of September 30, 2014	\$ 3.8	\$	18.5	\$	0.5	\$ 22.8		
Balance as of December 31, 2012	\$ 3.0	\$	15.3	\$	0.5	\$ 18.8		
Provision related to current period sales	18.2		46.4		0.9	65.5		
Credits/payments	(17.1)		(41.5)		(0.9)	(59.5)		
Balance as of September 30, 2013	\$ 4.1	\$	20.2	\$	0.5	\$ 24.8		

#### Sanofi Collaboration Revenue

Sanofi collaboration revenue, as detailed below, consisted primarily of reimbursement for research and development expenses that we incurred, partly offset by sharing of pre-launch commercialization expenses, in connection with the companies' antibody collaboration. In addition, Sanofi collaboration revenue for the nine months ended September 30, 2013 was reduced by two \$10.0 million up-front payments to Sanofi in connection with our acquisition from Sanofi of full exclusive rights to two families of novel antibodies, as described below.

Sanofi Collaboration Revenue		ended 30,		
(In millions)		2014		2013
ZALTRAP:				
Regeneron's share of losses in connection with commercialization of ZALTRAP	\$	(4.9)	\$	(22.6)
Reimbursement of Regeneron research and development expenses		3.7		5.5
Other		4.4		6.6
Total ZALTRAP		3.2		(10.5)
Antibody:				
Reimbursement of Regeneron research and development expenses		405.2		338.0
Regeneron's share of commercialization expenses		(17.1)		—
Up-front payments to Sanofi for acquisition of rights related to two antibodies		_		(20.0)
Other		14.7		11.7
Total Antibody		402.8		329.7
Total Sanofi collaboration revenue	\$	406.0	\$	319.2

Regeneron's share of the loss in connection with commercialization of ZALTRAP, as shown in the table below, represents our 50% share of ZALTRAP net product sales less cost of goods sold and shared commercialization and other expenses.

Regeneron's share of losses in connection with commercialization of ZALTRAP	Nine months ended September 30,					
(In millions)	2014			2013		
Net product sales recorded by Sanofi	\$	66.2	\$	50.5		
Regeneron's share of collaboration losses		(4.9)		(22.6)		

Our share of the loss in the first nine months of 2014 and 2013 represents our share of the costs of launching and commercializing ZALTRAP, partly offset by net product sales. Sanofi provides us with an estimate of our share of the profit or loss from commercialization of ZALTRAP for the most recent fiscal quarter; these estimates are reconciled to actual results in the subsequent fiscal quarter, and our portion of the profit or loss is adjusted accordingly, as necessary.

In the first nine months of 2014, Sanofi's reimbursement of our antibody research and development expenses consisted of \$131.0 million under our discovery agreement and \$274.2 million of development costs under our license agreement, compared to \$133.4 million and \$204.6 million, respectively, in the first nine months of 2013. The higher reimbursement of development costs in the first nine months of 2014, compared to the same period in 2013, was primarily due to increased development activities for dupilumab and REGN1033.

Effective in the second quarter of 2014, we and Sanofi began sharing pre-launch commercialization expenses related to alirocumab in accordance with the companies' antibody collaboration agreement.

In the second quarter of 2013, we acquired from Sanofi full exclusive rights to two families of novel antibodies invented at Regeneron and previously included in our antibody collaboration with Sanofi. Consequently, we made two \$10.0 million up-front payments to Sanofi in connection with acquiring from Sanofi full exclusive rights to (i) antibodies targeting the PDGF family of receptors and ligands in opthalmology and all other indications and (ii) antibodies targeting the Ang2 receptor and ligand in ophthalmology.

#### Bayer HealthCare Collaboration Revenue

The collaboration revenue we earned from Bayer HealthCare, as detailed below, primarily consisted of recognition of our share of profits in connection with commercialization of EYLEA outside the United States, recognition of sales and substantive development milestones achieved, cost-sharing of Regeneron development expenses, and reimbursement of other Regeneron EYLEA expenses.

Bayer HealthCare Collaboration Revenue	Nine months ended September 30,				
(In millions)	2014 2013			2013	
EYLEA:					
Regeneron's net profit in connection with commercialization of EYLEA outside the United States	\$	213.3	\$	57.2	
Sales and substantive development milestones		75.0		45.0	
Cost-sharing of Regeneron EYLEA development expenses	of Regeneron EYLEA development expenses			13.2	
Other		34.5		19.2	
Total EYLEA				134.6	
PDGFR-beta antibody:					
Cost-sharing of REGN2176-3 development expenses		1.7		_	
Other		7.8		—	
Total PDGFR-beta antibody	9.5		_		
Total Bayer HealthCare collaboration revenue	\$	358.5	\$	134.6	

Regeneron's net profit in connection with commercialization of EYLEA outside the United States is summarized below.

<u>Regeneron's Net Profit from EYLEA Sales Outside the</u> <u>United States</u>	Nine months ended September 30,					
(In millions)		2014		2013		
Net product sales outside the United States	\$	741.9	\$	288.3		
Regeneron's share of collaboration profit from sales outside the United States		256.8		100.1		
Reimbursement of EYLEA development expenses incurred by Bayer HealthCare in accordance with Regeneron's						
payment obligation		(43.5)		(42.9)		
Regeneron's net profit in connection with commercialization of EYLEA outside the United States	\$	213.3	\$	57.2		

Bayer HealthCare records revenue from sales of EYLEA outside the United States. Bayer HealthCare provides us with an estimate of our share of the profit or loss, including the percentage of sales in Japan that we earned, from commercialization of EYLEA outside the United States for the most recent fiscal quarter; these estimates are reconciled to actual results in the subsequent fiscal quarter, and our portion of the profit or loss is adjusted accordingly, as necessary. In the first nine months of 2014 and 2013, our share of the profit we earned from commercialization of EYLEA outside the United States was partly offset by our contractual obligation to reimburse Bayer HealthCare for a portion of the agreed-upon development expenses previously incurred by Bayer HealthCare.

In the first nine months of 2014, we earned, and recorded as revenue, five \$15.0 million sales milestones from Bayer HealthCare upon total aggregate net sales of EYLEA outside the United States exceeding \$500 million, \$600 million, \$700 million, \$800 million, and \$900 million, respectively, over a twelve-month period. In the third quarter of 2013, we earned, and recorded as revenue, two \$15.0 million sales milestone payments from Bayer HealthCare upon total aggregate net sales of EYLEA outside the United States exceeding \$200 million and \$300 million, respectively, over a twelve-month period. In addition, in the third

quarter of 2013, we earned a \$15.0 million substantive development milestone payment from Bayer HealthCare upon receipt of marketing approval in the EU for EYLEA for the treatment of macular edema secondary to CRVO.

Cost-sharing of our global EYLEA development expenses with Bayer HealthCare increased in the first nine months of 2014 compared to the same period in 2013. In January 2014, Bayer HealthCare decided to participate in the global development and commercialization of EYLEA outside the United States for the treatment of macular edema following BRVO. In connection with this decision, Bayer HealthCare reimbursed us \$15.7 million for a defined share of the EYLEA global development costs that we had incurred prior to February 2014 for the BRVO indication, which was recognized as Bayer HealthCare collaboration revenue in the first quarter of 2014. In addition, all future agreed upon global EYLEA development expenses incurred in connection with BRVO are being shared equally, and any future profits or losses on sales of EYLEA outside of the United States for the treatment of macular edema following BRVO will also be shared.

Other EYLEA revenue principally consists of (i) reimbursement of other Regeneron EYLEA expenses, primarily related to Bayer HealthCare's share of royalties payable to Genentech which commenced in May 2013 pursuant to the license and settlement agreement as described below under "Liquidity and Capital Resources - *License and Settlement Agreements with Genentech - EYLEA*", in connection with sales of EYLEA outside the United States, and (ii) recognition of deferred revenue related to EYLEA up-front and 2007 non-substantive milestone payments from Bayer HealthCare.

Cost-sharing of REGN2176-3 development expenses with Bayer HealthCare commenced in the first quarter of 2014 following the execution of the companies' PDGFR-beta antibody collaboration agreement as described above under "Collaboration with Bayer HealthCare - *PDGFR-beta antibody outside the United States*." Other PDGFR-beta antibody revenue consists of recognition of deferred revenue related to the PDGFR-beta up-front and non-substantive milestones received in the first quarter of 2014.

#### Technology Licensing and Other Revenue

In connection with the amendment and extension of our *VelocImmune* license agreement with Astellas, in August 2010, we received a \$165.0 million upfront payment, which was deferred upon receipt and is being recognized as revenue ratably over a seven-year period beginning in June 2011. In the first nine months of both 2014 and 2013, we recognized \$17.7 million of technology licensing and other revenue related to this agreement.

Under a June 2009 agreement with Novartis, we receive royalties on worldwide sales of Novartis' canakinumab. In the first nine months of 2014 and 2013, technology licensing and other revenue included \$5.4 million and \$3.1 million, respectively, of royalties from Novartis.

#### Expenses

Total operating expenses increased to \$1,426.2 million in the first nine months of 2014 from \$946.4 million in the first nine months of 2013. Our average headcount in the first nine months of 2014 increased to 2,551 from 2,098 in the same period in 2013, principally in connection with expanding our research and development, and commercialization activities.

Operating expenses in the first nine months of 2014 and 2013 included a total of \$225.8 million and \$143.2 million respectively, of Non-cash Compensation Expense. The increase in total Non-cash Compensation Expense in the first nine months of 2014 was primarily attributable to the higher fair market value of our Common Stock on the date of our annual employee option grants made in December 2013 compared to recent prior years.

#### Research and Development Expenses

Research and development expenses increased to \$919.6 million in the first nine months of 2014 from \$591.8 million in the same period of 2013. The following table summarizes the major categories of our research and development expenses for the nine months ended September 30, 2014 and 2013:

Research and Development Expenses*	Nine months ended September 30,				Increase	
(In millions)	 2014 20			 (Decrease)		
Payroll and benefits <sup>(1)</sup>	\$ 288.6	\$	212.6	\$	76.0	
Clinical trial expenses	147.5		94.2		53.3	
Clinical manufacturing costs (2)	191.5		159.1		32.4	
Research and other development costs	110.4		51.0		59.4	
Occupancy and other operating costs	85.6		63.1		22.5	
Cost-sharing of Bayer HealthCare and Sanofi development expenses <sup>(3)</sup>	96.0		11.8		84.2	
Total research and development expenses	\$ 919.6	\$	591.8	\$	327.8	

\* Certain prior year amounts have been reclassified to conform to the current year's presentation.

<sup>(1)</sup> Includes Non-cash Compensation Expense of \$113.9 million for the nine months ended September 30, 2014 and \$72.9 million for the nine months ended September 30, 2013.

- <sup>(2)</sup> Represents the full cost of manufacturing drug for use in research, preclinical development, and clinical trials, as well as pre-launch commercial supplies that were not capitalized as inventory. Includes related payroll and benefits, Non-cash Compensation Expense, manufacturing materials and supplies, drug filling, packaging, and labeling costs, depreciation, and occupancy costs of our Rensselaer manufacturing facility. Also includes Non-cash Compensation Expense of \$19.3 million for the nine months ended September 30, 2014 and \$9.8 million for the nine months ended September 30, 2013.
- (3) Under our collaborations with Bayer HealthCare and Sanofi, in periods when Bayer HealthCare or Sanofi incurs certain development expenses, we also recognize, as additional research and development expense, the portion of our collaboration partners' development expenses that we are obligated to reimburse. Our collaboration partners provide us with estimated development expenses for the most recent fiscal quarter. Bayer HealthCare and Sanofi's estimates are reconciled to their actual expenses for such quarter in the subsequent fiscal quarter, and our portion of our collaboration partners' development expenses that we are obligated to reimburse is adjusted accordingly.

Payroll and benefits increased principally due to the increase in employee headcount and Non-cash Compensation Expense, as described above. Clinical trial expenses increased due primarily to higher costs for clinical studies of dupilumab, alirocumab, and REGN1033, partly offset by lower EYLEA-related costs. Clinical manufacturing costs increased primarily due to higher costs related to manufacturing drug supplies of alirocumab and dupilumab. Research and other development costs increased primarily due to our 50% share (\$33.8 million) of the cost of purchasing a FDA priority review voucher in the third quarter of 2014 as described above under "Late-Stage Antibody-based Clinical Programs - *Alirocumab*" and two \$5.0 million development milestone payments we made to Sanofi in the first quarter of 2014 in connection with our acquisition from Sanofi of full exclusive rights to antibodies targeting the PDGF family of receptors in May 2013. Occupancy and other operating costs increased principally in connection with our higher information technology and facility-related costs at our Tarrytown and Rensselaer, New York sites. Cost-sharing of Bayer HealthCare and Sanofi development expenses increased primarily due to our obligation to fund 20% of Sanofi's Phase 3 alirocumab and sarilumab development costs, which commenced during the fourth quarter of 2013.

We prepare estimates of research and development costs for projects in clinical development, which include direct costs and allocations of certain costs such as indirect labor, Non-cash Compensation Expense, and manufacturing and other costs related to activities that benefit multiple projects, and, under our collaborations with Bayer HealthCare and Sanofi, the portion of Bayer HealthCare and Sanofi's development expenses which they incur and we are obligated to reimburse. Our estimates of research and development costs for clinical development programs are shown below:

Project Costs	Nine	e months end		Increase		
(In millions)		2014	2013	(Decrease)		
EYLEA	\$	89.0	\$ 94.0	\$	(5.0)	
Alirocumab		222.5	96.8		125.7	
Sarilumab		65.4	26.8		38.6	
Dupilumab		118.7	59.0		59.7	
Other antibody candidates in clinical development		149.1	92.6		56.5	
Other research programs and unallocated costs		274.9	222.6		52.3	
Total research and development expenses	\$	919.6	\$ 591.8	\$	327.8	

For the reasons described above under "Research and Development Expenses" for the three months ended September 30, 2014 and 2013, and due to the variability in the costs necessary to develop a pharmaceutical product and the uncertainties related to future indications to be studied, the estimated cost and scope of the projects, and our ultimate ability to obtain governmental approval for commercialization, accurate and meaningful estimates of the total cost to bring our product candidates to market are not available. Similarly, we are currently unable to reasonably estimate if our product candidates in clinical development will generate material product revenues and net cash inflows.

#### Selling, General, and Administrative Expenses

Selling, general, and administrative expenses increased to \$361.0 million in the first nine months of 2014 from \$247.3 million in the first nine months of 2013 partly due to the \$40.6 million incremental charge related to the Branded Prescription Drug Fee which was recorded in the third quarter of 2014, as described under "*Three Months Ended September 30, 2014 and 2013 - Selling, General, and Administrative Expenses.*" In addition, selling, general, and administrative expenses increased due to higher Non-cash Compensation Expense principally for the reason described under "*Expenses*" above, higher headcount and headcount-related costs, higher legal costs primarily in connection with patent enforcement, partly offset by lower contributions to a not-for-profit organization that assists patients with chronic disease conditions. Selling, general, and administrative expenses included \$90.7 million and \$59.2 million of Non-cash Compensation Expense in the first nine months of 2014 and 2013, respectively.

#### Cost of Goods Sold

Cost of goods sold was \$91.1 million in the first nine months of 2014 and \$83.6 million in the first nine months of 2013. Cost of goods sold, which primarily consists of royalties, as well as costs in connection with producing EYLEA and ARCALYST commercial supplies, increased principally due to the increase in U.S. EYLEA net product sales. In addition, in the first nine months of 2014 and 2013, cost of goods sold included inventory write-downs and reserves totaling \$3.5 million and \$4.8 million, respectively.

#### Cost of Collaboration Manufacturing

We manufacture commercial supplies of product for our collaborators. Cost of collaboration manufacturing increased to \$54.5 million in the first nine months of 2014 from \$23.7 million in the first nine months of 2013 primarily due to royalties payable to Genentech, which commenced in May 2013 pursuant to the license and settlement agreement as described below under "Liquidity and Capital Resources - *License and Settlement Agreements with Genentech - EYLEA*", in connection with sales of EYLEA outside the United States. Cost of collaboration manufacturing also includes costs in connection with producing commercial supplies for our collaborators.

#### **Other Income and Expense**

Interest expense in the first nine months of 2014 and 2013 primarily includes interest associated with our 1.875% convertible senior notes, including amortization of the note discount and debt issuance costs, and interest associated with our facility lease obligations. In the second quarter of 2014, we recognized a \$10.8 million loss in connection with the conversion of \$61.1 million principal amount of the notes.

#### **Income Taxes**

In the first nine months of 2014 and 2013, we recorded income tax expense of \$316.6 million and \$187.7 million, respectively. The effective tax rate for the first nine months of 2014 was 57.1% and was negatively impacted by (i) losses incurred in foreign jurisdictions with rates lower than the federal statutory rate, (ii) expiration at the end of 2013 of the federal tax credit for increased research activities, (iii) the incremental charge related to the non-tax deductible Branded Prescription Drug Fee (as described above), and (iv) New York State tax legislation enacted in the first quarter of 2014. This tax legislation reduced the New York State income tax rate to zero percent for "qualified manufacturers", including Regeneron, effective in 2014; however, it also resulted in the reduction of our related deferred tax assets as a discrete item in the first quarter of 2014. As a result, this tax legislation caused a net increase in our effective tax rate by 2.2% for the first nine months of 2014.

The effective tax rate for the first nine months of 2013 was 36.4%, which included, as a discrete item, the impact of enacting The American Taxpayer Relief Act in January 2013. The American Taxpayer Relief Act included a provision to extend the income tax credit for increased research activities retroactively for the tax year ended December 31, 2012. As a result, our 2012 research tax credit reduced our effective tax rate for the first nine months of 2013 by 4.3%.

#### Liquidity and Capital Resources

#### Sources and Uses of Cash for the Nine Months Ended September 30, 2014 and 2013

At September 30, 2014, we had \$1,495.6 million in cash, cash equivalents, and marketable securities compared with \$1,083.9 million at December 31, 2013. EYLEA net trade accounts receivable were \$672.7 million at September 30, 2014 and \$785.8 million at December 31, 2013.

#### Cash Provided by Operating Activities

Net cash provided by operating activities was \$544.9 million in the first nine months of 2014. Our net income of \$237.9 million in the first nine months of 2014 included Non-cash Compensation Expense of \$225.8 million and depreciation and amortization of \$38.6 million. In addition, deferred tax assets at September 30, 2014 increased by \$50.5 million, compared to end-of-year 2013, primarily due to an increase in Non-cash Compensation Expense and a credit for alternative minimum tax paid, partly offset by the reduction of our deferred tax assets related to the recently enacted New York State tax legislation, which reduced our New York State income tax rate to zero percent effective in 2014.

At September 30, 2014, Sanofi, Bayer HealthCare, and trade accounts receivable decreased by \$27.7 million, compared to end-of-year 2013, primarily due to lower trade accounts receivable resulting from shortened payment terms to certain of our U.S. EYLEA customers effective January 2014, partly offset by higher amounts receivable from Bayer HealthCare in connection with the commercialization of EYLEA outside the United States. Inventories increased by \$50.9 million, compared to end-of-year 2013, primarily in connection with increased production of EYLEA commercial supplies. Our deferred revenue at September 30, 2014 increased by \$29.4 million, compared to end-of-year 2013, primarily due to (i) the receipt of a \$25.5 million upfront payment as well as two \$2.5 million non-substantive development milestone payments in the first quarter of 2014 in connection with our PDGFR-beta antibody collaboration agreement with Bayer HealthCare, and (ii) higher deferred revenue in connection with manufacturing commercial supplies of EYLEA for Bayer HealthCare, which is deferred until the product is sold by Bayer HealthCare to third-party customers. These increases were partly offset by amortization of a previously received and deferred \$165.0 million payment under our license agreement with Astellas and amortization of previously deferred payments under our Sanofi and Bayer HealthCare collaborations. Accounts payable, accrued expenses, and other liabilities increased by \$76.5 million at September 30, 2014, compared to end-of-year 2013, primarily due to higher accruals for sales-related charges, including the

impact of the Branded Prescription Drug Fee incremental charge as described above, and higher accruals related to various clinical studies and capital expenditures.

Net cash provided by operating activities was \$306.9 million in the first nine months of 2013. Our net income of \$327.6 million in the first nine months of 2013 included Non-cash Compensation Expense of \$143.2 million and depreciation and amortization of \$29.9 million. In addition, deferred tax assets at September 30, 2013 decreased by \$82.9 million, compared to end-of-year 2012, primarily due to utilization of these assets to offset income taxes payable for the first nine months of 2013.

At September 30, 2013, Sanofi, Bayer HealthCare, and trade accounts receivable increased by \$350.8 million, compared to end-of-year 2012, primarily due to higher trade accounts receivable in connection with EYLEA product sales and a higher receivable balance due from Bayer HealthCare in connection with the launch of EYLEA outside the United States. Inventories increased by \$36.7 million, compared to end-of-year 2012, primarily in connection with production of EYLEA commercial supplies. Our deferred revenue at September 30, 2013 decreased by \$20.8 million, compared to end-of-year 2012, primarily due to amortization of a previously deferred \$165.0 million payment under our license agreement with Astellas and amortization of previously deferred payments under our Sanofi and Bayer HealthCare collaborations, partly offset by costs of product manufactured and shipped to Sanofi and Bayer HealthCare for which recognition of revenue has been deferred. Accounts payable, accrued expenses, and other liabilities increased by \$94.9 million at September 30, 2013, compared to end-of-year 2012, primarily due to higher sales-related charges, deductions, and royalties related to EYLEA, higher payroll-related liabilities, and higher liabilities for capital expenditures.

#### Cash Used in Investing Activities

Net cash used in investing activities was \$477.4 million and \$245.5 million in the first nine months of 2014 and 2013, respectively. In the first nine months of 2014 and 2013, purchases of marketable securities exceeded sales or maturities by \$262.0 million and \$158.2 million, respectively. Capital expenditures of \$215.5 million and \$87.3 million, in the first nine months of 2014 and 2013, respectively, included costs in connection with expanding our Rensselaer, New York manufacturing facilities and tenant improvement and associated costs related to our leased facilities in Tarrytown, New York. In addition, capital expenditures in the first nine months of 2014 included costs in connection with the acquisition and renovations of our Limerick, Ireland manufacturing facility.

#### Cash Provided By (Used in) Financing Activities

Net cash provided by financing activities was \$43.5 million in the first nine months of 2014, and net cash used in financing activities was \$28.4 million in the first nine months of 2013. In the second quarter of 2014, \$61.1 million principal amount of our 1.875% convertible senior notes was surrendered for conversion. In accordance with the terms of the notes, we elected to settle these conversion obligations through a combination of cash, in an amount equal to the principal amount of the converted notes, and shares of our Common Stock in respect of any amounts due in excess thereof. Also during the second quarter of 2014, we entered into agreements to reduce the number of warrants held by each of the warrant holders in proportion to the amount of notes converted. Pursuant to the agreements, we paid an aggregate amount of \$143.0 million to the warrant holders to reduce the maximum number of shares of Common Stock issuable upon exercise of the warrants from 4,760,840 to 4,033,324 (subject to adjustment from time to time as provided in the applicable warrant agreements). Proceeds from issuances of Common Stock, in connection with exercises of employee stock options, were \$80.8 million in the first nine months of 2014 compared to \$166.4 million in the first nine months of 2013. Cash flows from financing activities also increased by \$343.5 million and \$97.8 million in the first nine months of 2014 and 2013, respectively, due to utilization of excess tax benefits in connection with stock option exercises, which offset cash tax obligations.

#### Fair Value of Marketable Securities

At September 30, 2014 and December 31, 2013, we held \$849.1 million and \$548.3 million, respectively, of marketable securities which consisted of debt securities issued by investment grade institutions as well as equity securities. Marketable securities as of September 30, 2014 included restricted marketable securities related to our investment in Avalanche common shares, which are subject to customary transfer restrictions until January 2015 under a lock-up agreement with the underwriters of Avalanche's IPO (described above under "Collaboration Agreements - Collaboration with Avalanche Biotechnologies, Inc.").

The composition of our portfolio of marketable securities on these dates was as follows:

		September	30, 2014	Decembe	er 31, 2013
<u>Investment type</u>	F	air Value	Percent	Fair Value	Percent
Unrestricted					
U.S. government and government agency obligations	\$	51.1	6%	\$ 107.5	20%
Corporate bonds		695.6	82%	369.2	68%
Commercial paper		—	—	24.0	4%
Municipal bonds		42.9	5%	36.9	7%
International government agency obligations		_		2.0	_
Certificates of deposit		_	_	7.5	1%
Equity securities		5.1	1%	1.2	—
Total unrestricted marketable securities		794.7	94%	548.3	100%
Restricted					
Equity securities		54.4	6%		_
Total marketable securities	\$	849.1	100%	\$ 548.3	100%

In addition, at September 30, 2014 and December 31, 2013, we had \$646.6 million and \$535.6 million, respectively, of cash and cash equivalents, primarily held in bank deposits and money market funds.

#### License and Settlement Agreements with Genentech - EYLEA

In December 2011, we entered into a Non-Exclusive License and Partial Settlement Agreement with Genentech (the Original Genentech Agreement) that covered making, using, and selling EYLEA in the United States for the prevention and treatment of human eye diseases and disorders in the United States, and ended the litigation relating to those matters. The Original Genentech Agreement provided for us to make payments to Genentech based on U.S. sales of EYLEA through May 7, 2016, the date the Davis-Smyth patents expire. Under the Original Genentech Agreement, we made a \$60.0 million milestone payment when cumulative U.S. sales reached \$400 million and are obligated to pay royalties of 4.75% on cumulative relevant sales of EYLEA between \$400 million and \$3 billion and 5.5% on cumulative relevant sales of EYLEA over \$3 billion.

In May 2013, we entered into an Amended and Restated Non-Exclusive License and Settlement Agreement with Genentech (the Amended Genentech Agreement), which amended the Original Genentech Agreement to include all sales of EYLEA worldwide and ended the litigation relating to those matters. Under the Amended Genentech Agreement, we received a worldwide non-exclusive license to the Davis-Smyth patents, and certain other patents, owned or co-owned by Genentech for the prevention or treatment of human eye diseases and eye disorders through administration of EYLEA to the eye. Under the Amended Genentech Agreement, we are obligated to make payments to Genentech based on sales of EYLEA in the United States and EYLEA manufactured in the United States and sold outside the United States through May 7, 2016 using the same milestone and royalty rates as in the Original Genentech Agreement. EYLEA is sold outside the United States by affiliates of Bayer HealthCare under our license and collaboration agreement. All payments to Genentech Agreement have been or will be made by Regeneron. Bayer HealthCare will share in all such payments based on the proportion of EYLEA sales outside the United States to worldwide EYLEA sales and determined consistent with the license and collaboration agreement.

#### Tarrytown, New York Lease

In April 2013, we entered into a new lease agreement for approximately 297,000 square feet of additional new laboratory and office space to be constructed in two new buildings (the Buildings), which are expected to be completed in the second half of 2015, at our current Tarrytown, New York location. The term of the lease, which is commencing in the second half of 2014, is approximately 15 years and contains three renewal options to extend the term of the lease by five years each. The lease provides for (i) monthly payments over its term, which will commence in the second half of 2015 and will be based on the landlord's costs of construction and tenant allowances, and (ii) additional charges for utilities, taxes, and operating expenses. Based upon various factors, including our involvement in the Buildings' construction and our responsibility for directly paying for a substantial portion of tenant improvements, we are deemed, in substance, to be the owner of the landlord's Buildings in accordance with the application of FASB authoritative guidance. Consequently, in addition to capitalizing the tenant improvements, we capitalize the landlord's costs of constructing these new facilities, offset by a corresponding facility lease obligation. We will allocate a portion of our future lease payments to the Buildings and the land on which the Buildings are being constructed. The land element of the lease is treated for accounting purposes as an operating lease.

#### **Capital Expenditures**

Our cash expenditures for property, plant, and equipment totaled \$215.5 million in the first nine months of 2014 and \$87.3 million in the first nine months of 2013 (as described above under "Sources and Uses of Cash for the Nine Months Ended September 30, 2014 and 2013 - Cash Provided by Operating Activities").

In May 2014, we entered into an agreement to acquire a 400,000 square foot facility in Limerick, Ireland for \$5.1 million. We are renovating this facility to accommodate and support our growth, primarily in connection with expanding our manufacturing capacity to support our global supply chain.

We expect to incur capital expenditures of approximately \$85 to \$135 million in the fourth quarter of 2014 primarily in connection with renovating our new Limerick facility, tenant improvements primarily related to the two new buildings under construction at our leased Tarrytown facilities, expanding, and renovating a portion of, our manufacturing facilities at our Rensselaer facility, and purchases of equipment.

#### **Funding Requirements**

We expect continued increases in our expenditures, particularly in connection with our research and development activities (including preclinical and clinical testing), capital expenditures, commercialization of EYLEA, and pre-commercialization costs related to our late-stage antibody product candidates. We believe that our existing capital resources, funds generated by anticipated EYLEA product sales, and funding for reimbursement of development costs that we are entitled to receive under our collaboration agreements will enable us to meet our projected operating needs for the foreseeable future. As described above, research and development expenses that we incur in connection with our antibodies collaboration are generally funded by Sanofi, except that following receipt of the first positive Phase 3 trial results for a co-developed antibody drug candidate, subsequent Phase 3 trial-related costs for that drug candidate are shared 80% by Sanofi and 20% by us. In addition, as described above, we and Bayer HealthCare share (i) agreed-upon development expenses that both companies incur in connection with our EYLEA collaboration, and (ii) development costs under the initial development plan in connection with our PDGFR-beta antibody collaboration.

Under our collaboration agreements with Sanofi and Bayer HealthCare, we and our collaborator will share profits and losses in connection with commercialization of drug products. Profits or losses under each collaboration are measured by calculating net sales less cost of goods sold and shared commercialization and other expenses. If the applicable collaboration becomes profitable, we have contingent contractual obligations to reimburse Sanofi and, in connection with EYLEA outside the United States, Bayer HealthCare for a defined percentage (generally 50%) of agreed-upon development expenses incurred by Sanofi and Bayer HealthCare, respectively. These reimbursements would be deducted each quarter, in accordance with a formula, from our share of the collaboration profits (and, for our ZALTRAP collaboration with Sanofi and our EYLEA collaboration with Bayer HealthCare, our percentage on product sales in Japan) otherwise payable to us, unless, in some cases, we elect to reimburse these expenses at a faster rate. In particular, as of December 31, 2013, our contingent reimbursement obligation to Sanofi for ZALTRAP was approximately \$443 million, while our contingent reimbursement obligation to Bayer HealthCare for EYLEA was approximately \$272 million. Therefore, we expect that, for the foreseeable future, our share of profits from sales of ZALTRAP, and a portion of our share of profits from sales of EYLEA outside the United States, will be used to reimburse our collaborators for these obligations.

In May 2013, we acquired from Sanofi full exclusive rights to antibodies targeting the PDGF family of receptors and ligands in ophthalmology and all other indications. With respect to PDGF antibodies, we made two \$5.0 million development milestone payments in the first quarter of 2014, and are obligated to pay up to \$30.0 million in potential additional development milestones as well as royalties on any future sales.

The amount we need to fund operations will depend on various factors, including revenues from net product sales, the potential regulatory approval and commercialization of our product candidates and new indications for our marketed products, and the timing thereof, the status of competitive products, the success of our research and development programs, the potential future need to expand our professional and support staff and facilities, the status of patents and other intellectual property rights (and future litigation related thereto), the delay or failure of a clinical trial of any of our potential drug candidates, and the continuation, extent, and success of our collaborations with Sanofi and Bayer HealthCare. Clinical trial costs are dependent, among other things, on the size and duration of trials, fees charged for services provided by clinical trial investigators and other third parties, the costs for manufacturing the product candidate for use in the trials, and for supplies, laboratory tests, and other expenses. The amount of funding that will be required for our clinical programs depends upon the results of our research and preclinical programs and early-stage clinical trials, regulatory requirements, the duration and results of clinical trials underway and of additional clinical trials that we decide to initiate, and the various factors that affect the cost of each trial as described above.

Our commercialization costs over the next few years will depend on, among other things, whether or not new indications for our marketed products or our antibody product candidates in later stage clinical development receive regulatory approval, the market potential for such new indications or product candidates, and the commercialization terms of our collaboration agreements, if applicable (whereby some or all commercialization costs may be shared with our collaborators). Currently, we are required to pay royalties on sales of commercial products. In the future, if we are able to successfully develop, market, and sell EYLEA for other indications, or certain of our product candidates, we may be required to pay additional royalties or share the profits from such sales pursuant to our license or collaboration agreements. In addition, under the provisions of the PPACA and the Health Care and Education Reconciliation Act of 2010, the Branded Prescription Drug Fee is imposed on pharmaceutical manufacturers that sell branded prescription drugs to specified government programs. This fee is allocated to companies, including Regeneron, based on their market share of total branded prescription drug sales into these government programs.

As described above, in the first nine months of 2014 and 2013, we made cash payments of \$175.9 million and \$166.4 million, respectively, for employee tax obligations in connection with stock option exercises. Future cash requirements for such payments will depend on various factors, including the level of stock option grants and exercises and the sales prices of our Common Stock, and may continue to be substantial.

We expect that expenses related to the filing, prosecution, defense, and enforcement of patents and other intellectual property will be substantial.

As described above, in the second quarter of 2014, \$61.1 million principal amount of our 1.875% convertible senior notes were surrendered for conversion. In accordance with the terms of the notes, we elected to settle these conversion obligations through a combination of cash, in an amount equal to the principal amount of the converted notes, and shares of our Common Stock in respect of any amounts due in excess thereof. In addition, in October 2014, we received notification that an additional \$160.8 million principal amount of our convertible senior notes were surrendered for conversion, and settlement is anticipated during the fourth quarter of 2014. We elected to settle these conversion obligations through a combination of cash and shares (total payment will be based on the average of the volume-weighted-average prices of the Common Stock during the 40 trading-day cash settlement averaging period specified in the indenture governing the Notes). In connection with these note conversions, we exercised a proportionate amount of our convertible note hedges, for which we expect to receive shares of Common Stock equivalent to the number of shares we will be required to issue to settle the non-cash portion of the related note conversions. In future periods, other holders of these debt securities may surrender their notes for conversion.

We may also from time to time seek to repurchase or retire our outstanding convertible senior notes, or other outstanding securities, through cash purchases or exchanges for other securities, in open market purchases, privately negotiated transactions, or otherwise.

Due to the amounts of our net operating loss and tax credit carry-forwards available for tax purposes, which totaled \$450.4 million and \$120.1 million, respectively, at December 31, 2013, we expect to make payments of alternative minimum tax for which we will receive a credit against income taxes subsequent to 2014; however, we do not anticipate making significant payments for other cash income taxes in 2014.

In connection with our EYLEA collaboration with Bayer HealthCare, we are entitled to receive an additional \$15.0 million sales milestone based on total twelve-month sales of EYLEA outside the United States exceeding \$1 billion. In addition, in connection with a November 2013 agreement under which Bayer HealthCare obtained rights to use certain of our EYLEA clinical data for a regulatory filing, we are eligible to receive up to \$30.0 million in additional sales milestone payments if twelve-month sales of specific commercial supplies of EYLEA outside the United States achieve certain specified levels up to \$200 million.

In connection with our PDGFR-beta antibody agreement with Bayer HealthCare, we are eligible to receive up to \$15.0 million in future development milestone payments from Bayer HealthCare (representing 50% of the development milestone payments potentially due to Sanofi as described above), although certain of these development milestone payments could be reduced by half if Bayer HealthCare does not opt-in to the collaboration. Furthermore, if Bayer HealthCare exercises their right to opt-in to the collaboration, they will be obligated to pay a \$20.0 million opt-in payment to us, and pay a \$20.0 million development milestone to us upon receipt of the first marketing approval in the EU or Japan.

#### **Future Impact of Recently Issued Accounting Standards**

In May 2014, the Financial Accounting Standards Board (FASB) issued a new standard related to revenue recognition, *Revenue from Contracts with Customers*, which will replace existing revenue recognition guidance. The new standard requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. To achieve that core principle, an entity must identify the contract(s) with a customer, identify the performance obligations in the contract, determine the transaction price, allocate the transaction price to the performance obligations in the contract, determine the performance obligation. The new standard will be effective for interim and annual reporting periods beginning after December 15, 2016, and early adoption is not permitted. The standard allows for two transition methods - retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of initially applying the standard recognized at the date of initial adoption. We have not yet determined our method of transition and are evaluating the impact that this guidance will have on our financial statements.

#### ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our market risks, and the way we manage them, are summarized in Part II, Item 7A, "Quantitative and Qualitative Disclosures Around Market Risk" of our Annual Report on Form 10-K for the fiscal year ended December 31, 2013 (filed February 13, 2014). There have been no material changes to our market risks or to our management of such risks as of September 30, 2014.

#### **ITEM 4. CONTROLS AND PROCEDURES**

Our management, with the participation of our principal executive officer and principal financial officer, conducted an evaluation of the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act")), as of the end of the period covered by this report. Based on this evaluation, our principal executive officer and principal financial officer each concluded that, as of the end of such period, our disclosure controls and procedures were effective in ensuring that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported on a timely basis, and is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosures.

There has been no change in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended September 30, 2014 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**

From time to time, we are a party to legal proceedings in the course of our business, including those described in our Annual Report on Form 10-K for the year ended December 31, 2013 (filed February 13, 2014), our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2014 (filed May 8, 2014), and those described below. The outcome of any such proceedings, regardless of the merits, is inherently uncertain. For a description of risks relating to these and other legal proceedings we face, see Part II, Item 1A. Risk Factors, including the discussion under the headings entitled "Risks Related to Intellectual Property and Market Exclusivity," "Regulatory and Litigation Risks," and "Risks Related to Our Common Stock."

#### Proceedings Relating to '287 Patent and '018 Patent

Our European Patent No. 1,360,287 (the '287 Patent), which concerns genetically altered mice capable of producing chimeric antibodies that are part human and part mouse, is the subject of opposition proceedings in the European Patent Office (EPO) initiated by Kymab Ltd and Merus B.V. alleging lack of novelty, lack of inventive step, and insufficiency. As previously reported, we had sued Kymab and Merus for infringement of the '287 Patent in the English High Court of Justice, Chancery Division, Patents Court, in London and in the District Court of The Hague, respectively, and these proceedings are ongoing. On September 17, 2014, following an oral hearing held to evaluate the validity of the '287 Patent, the Opposition Division of the EPO revoked the '287 Patent in its entirety. The Opposition Division of the EPO has not yet issued its written decision setting forth the grounds for revocation. We filed an appeal with the EPO on September 18, 2014, which had the effect of reinstating the '287 Patent.

As previously reported, we had sued Ablexis, LLC for infringement of our U.S. Patent No. 8,502,018 (the '018 Patent) in the United States District Court for the Southern District of New York. The '018 Patent also concerns genetically altered mice capable of producing chimeric antibodies that are part human and part mouse. On October 31, 2014, we and Ablexis reached a confidential settlement and filed a joint stipulation dismissing the action with prejudice.

#### Proceedings Relating to PCSK9 Antibody (Alirocumab)

On October 17, 2014 and October 28, 2014, Amgen Inc. filed lawsuits against Regeneron, Sanofi, Aventisub LLC, and Aventis Pharmaceuticals, Inc. in the United States District Court for the District of Delaware seeking an injunction to prevent us and the other defendants from manufacturing, using, offering to sell, or selling within the United States (as well as importing into the United States) alirocumab, the antibody to PCSK9 for LDL cholesterol reduction we are jointly developing with Sanofi. In the complaints, Amgen asserts U.S. Patent Nos. 8,563,698, 8,829,165, and 8,859,741 and U.S. Patent Nos. 8,871,913 and 8,871,914, respectively. Amgen also seeks a judgment of patent infringement of the asserted patents, monetary damages (together with interest), costs and expenses of the lawsuits, and attorneys' fees.

#### **ITEM 1A. RISK FACTORS**

We operate in an environment that involves a number of significant risks and uncertainties. We caution you to read the following risk factors, which have affected, and/or in the future could affect, our business, prospects, operating results, and financial condition. The risks described below include forward-looking statements, and actual events and our actual results may differ materially from these forward-looking statements. Additional risks and uncertainties not currently known to us or that we currently deem immaterial may also impair our business, prospects, operating results, and financial condition. Furthermore, additional risks and uncertainties are described under other captions in this report and should also be considered by our investors.

#### **Risks Related to Commercialization of EYLEA**

## We are substantially dependent on the success of EYLEA. If we or Bayer HealthCare are unable to continue to commercialize EYLEA, our business, prospects, operating results, and financial condition will be materially harmed.

EYLEA net sales represent a substantial portion of our revenues and this concentration of our net sales in a single product makes us substantially dependent on that product. For the nine months ended September 30, 2014 and 2013, EYLEA net sales in the United States represented 60% and 67% of our total revenues, respectively. If we were to experience difficulty with the commercialization of EYLEA in the United States, if Bayer HealthCare were to experience any difficulty with the commercialization of EYLEA outside the United States, or if we and Bayer HealthCare are unable to maintain current marketing approvals of EYLEA, we may experience a reduction in revenue and may not be able to sustain profitability, and our business, prospects, operating results, and financial condition would be materially harmed. In addition, if Bayer HealthCare is unable to obtain approval of EYLEA in additional countries or in additional indications, our prospects would be materially harmed.

### We are subject to significant ongoing regulatory obligations and oversight with respect to EYLEA. If we fail to maintain regulatory compliance for EYLEA, we may lose marketing approval, which would materially harm our business, prospects, operating results, and financial condition.

EYLEA is currently available in the United States, EU, Japan, and certain other countries outside of the United States for treatment of wet AMD and macular edema following CRVO, and has been approved in the United States and the EU for the treatment of DME, and in the United States for the treatment of macular edema following RVO. We are subject to significant ongoing regulatory obligations and oversight with respect to EYLEA for its currently approved indications in the United States, EU, and other countries where the product is approved. If we fail to maintain regulatory compliance for EYLEA for its currently approved indications, we may lose marketing approval, which would materially harm our business, prospects, operating results, and financial condition. Failure to comply may also subject us to sanctions, product recalls, or withdrawals of previously approved marketing applications. See also "Risks Related to Manufacturing and Supply—If we fail to meet the stringent requirements of governmental regulation in the manufacture of drug products or product candidates, we could incur substantial remedial costs, delays in the development or approval of our product candidates or new indications for our marketed products and/or in their commercial launch if they obtain regulatory approval, and a reduction in sales" below.

## Serious complications or side effects in connection with the use of EYLEA could materially harm our business, prospects, operating results, and financial condition.

There are risks inherent in intravitreal injections, including intravitreal injections with EYLEA, such as intraocular inflammation, sterile and culture positive endophthalmitis, corneal decomposition, retinal detachment, retinal tear, and other side effects, all of which are reported from time to time to the FDA. Serious complications or serious, unexpected side effects in connection with the use of EYLEA could materially harm our business, prospects, operating results, and financial condition.

### Our regulatory approval for sales of EYLEA is limited to the treatment of wet AMD, macular edema following CRVO and RVO, and DME and is limited geographically. If approvals are not obtained for sales in other countries, sales and profits will be limited.

We and Bayer HealthCare have received regulatory approvals for sale of EYLEA for the treatment of wet AMD, macular edema following CRVO and RVO, and DME in certain countries throughout the world. If approvals for sales in other countries are not obtained, sales will be limited and our potential for profits will be limited. As a result, our business, prospects, operating results, and financial condition would be materially impacted.

## Our sales of EYLEA are dependent on the availability and extent of reimbursement from third-party payers, and changes to such reimbursement may materially harm our business, prospects, operating results, and financial condition.

Our sales in the United States of EYLEA are dependent, in part, on the availability and extent of reimbursement from third-party payers, including private payer healthcare and insurance programs and government programs such as Medicare and Medicaid. Sales of EYLEA in other countries are dependent, in part, on similar programs in those countries. In the United States, there is an increased focus from the federal government and others on analyzing the impact of various regulatory programs on the federal deficit, which could result in increased pressure on federal programs to reduce costs, including limiting federal healthcare expenditures. Economic pressure on state budgets may also have a similar impact. A reduction in the availability or extent of reimbursement from U.S. government programs could have a material adverse effect on the sales of EYLEA. Since EYLEA is too expensive for most patients to afford without health insurance coverage, if adequate coverage and reimbursement by third-party payers, including Medicare and Medicaid in the United States, is not available, our ability to successfully commercialize EYLEA will be materially adversely impacted. Our sales and potential profits and our business, prospects, operating results, and financial condition would be materially harmed. See also "Risks Related to Commercialization of Products.—*The successful commercialization of our marketed products, as well as our late-stage product candidates or new indications for our marketed products, if approved, will depend on obtaining coverage and reimbursement for use of these products from third-party payers, including Medicare and Medicaid in the United States, and these payers may not agree to cover or adequately reimburse for use of our products or may do so at levels that make our products uncompetitive and/or unprofitable, which would materially harm our business, prospects, operating results, and financial condition" below.* 

#### The commercial success of EYLEA is subject to strong competition.

The market for eye disease products is very competitive. Novartis and Genentech are collaborating on the commercialization and further development of a VEGF antibody fragment, Lucentis<sup>®</sup> (ranibizumab injection), for the treatment of wet AMD, macular edema following CRVO, DME, visual impairment due to mCNV, and other eye indications. Lucentis<sup>®</sup> was approved by the FDA in June 2006 for the treatment of wet AMD, in June 2010 for the treatment of macular edema following RVO (including CRVO and BRVO), and in August 2012 for the treatment of DME. Lucentis<sup>®</sup> was also approved by the European Medicines Agency for wet AMD in January 2007, for DME in January 2011, for the treatment of macular edema following RVO (including CRVO and BRVO) in June 2011, and for mCNV in July 2013. Competitors are also exploring the development of a biosimilar version of Lucentis<sup>®</sup>; in particular, Pfenex Inc. is developing PF582, which is currently in a Phase 1b/2a trial in patients with wet AMD. Other competitive or potentially competitive products include Allergan's Ozurdex<sup>®</sup> (dexamethasone intravitreal implant) (approved by the FDA in June 2009 for the treatment of macular edema following RVO and in September 2014 for the treatment of DME in patients who have been previously treated with a course of corticosteroids and did not have a clinically significant rise in intraocular pressure), both of which are intravitreal implants of corticosteroids.

Many other companies are working on the development of product candidates and extended delivery devices for the potential treatment of wet AMD, DME, and RVO, including those that act by blocking VEGF and VEGF receptors, as well as small interfering ribonucleic acids (siRNAs) that modulate gene expression. For example, in January 2012, Genentech submitted an IND for such an extended delivery device. Novartis is developing ESBA1008 (RTH258), a humanized monoclonal single-chain FV (scFv) antibody fragment targeting VEGF-A for wet AMD, and initiated Phase 2 trials comparing ESBA1008 and EYLEA in 2013. Allergan is developing an anti-VEGF-A DARPin<sup>®</sup> for wet AMD and related conditions and a Phase 2 trial has been completed. Additionally, companies are developing products (or combinations of products) to treat wet AMD that act by blocking VEGF and VEGF receptors, as well as other targets (for example, PDGF). Ophthotech Corporation is developing Fovista<sup>TM</sup>, an aptamer directed against platelet-derived growth factor subunit B (PDGF-B), as a product candidate intended to be used in combination with an anti-VEGF therapy in wet AMD. In 2013, Ophthotech initiated Phase 3 trials in AMD evaluating multiple combinations of Fovista<sup>TM</sup>, including Lucentis<sup>®</sup> + Fovista<sup>TM</sup>, Avastin<sup>®</sup> (bevacizumab) + Fovista<sup>TM</sup>, and EYLEA + Fovista<sup>TM</sup>. Genentech initiated a Phase 1 trial of a bi-specific antibody targeting both VEGF and Ang2 for wet AMD.

In addition, ophthalmologists are using with success off-label, third-party repackaged versions of Genentech's approved VEGF antagonist, Avastin®, for the treatment of wet AMD, DME, and RVO. The relatively low cost of therapy with repackaged Avastin<sup>®</sup> in patients with wet AMD presents a significant competitive challenge in this indication. Competitors (including Amgen) are also developing a biosimilar version of Avastin®. Long-term, controlled clinical trials comparing Lucentis® to Avastin® in the treatment of wet AMD are being conducted. One-year data from the Comparison of Age-Related Macular Degeneration Treatments Trial (CATT) were reported in April 2011 and indicated that Avastin<sup>®</sup> dosed monthly was non-inferior to Lucentis<sup>®</sup> dosed monthly in the primary efficacy endpoint of mean visual acuity gain at 52 weeks. Two-year data from CATT were reported in April 2012 and indicated that monthly Avastin<sup>®</sup> was non-inferior to monthly Lucentis<sup>®</sup> in mean visual acuity gain; as-needed dosing was not non-inferior to monthly dosing. Avastin<sup>®</sup> is also being evaluated in eye diseases in trials that have been initiated in the United Kingdom, Canada, Brazil, Mexico, Germany, Israel, and other countries. Furthermore, Lucentis<sup>®</sup> and off-label use of repackaged Avastin<sup>®</sup> present significant competitive challenges as doctors and patients have had significant experience using these medicines. Moreover, the reported results of the CATT study, combined with the relatively low cost of repackaged Avastin<sup>®</sup> in treating patients with wet AMD, may well exacerbate the competitive challenge which EYLEA faces in this or other eye indications for which it may be approved. Finally, ZALTRAP has not been manufactured and formulated for use in intravitreal injections, and while we believe that ZALTRAP would not be well tolerated if administered directly to the eye, there is a risk that third parties may attempt to repackage ZALTRAP for off-label use and sale for the treatment of wet AMD and other diseases of the eye, which would present a potential low-cost competitive threat to EYLEA for its approved indications. See also "Risks Related to Commercialization of Products—We may be unsuccessful in continuing the commercialization of our marketed products or in commercializing our product candidates or new indications for our marketed products, if approved, which would materially and adversely affect our business, profitability, and future prospects" below.

#### Our product sales could be reduced by imports from countries where our products are available at lower prices.

Our sales of products in the United States may be reduced if our products are imported into the United States from lower priced markets, whether legally or illegally. Under our arrangement with Bayer HealthCare, pricing and reimbursement for EYLEA outside the United States is the responsibility of Bayer HealthCare. Prices for EYLEA in territories outside the United States will be based on local market economics and competition and are likely to differ from country to country. In the United States, prices for pharmaceuticals are generally higher than in the bordering nations of Canada and Mexico and our sales of EYLEA in the United States may be reduced if EYLEA is marketed in those nations and imported into the United States. In addition, there have been proposals to legalize the import of pharmaceuticals from outside the United States. If such legislation were enacted, our future revenues could be reduced.

#### Risks Related to the Development and Approval of Our Product Candidates and New Indications for Our Marketed Products

## If we do not obtain and maintain regulatory approval for our products and product candidates or new indications for our marketed products, we will not be able to market or sell them, which would materially and negatively impact our business, prospects, operating results, and financial condition.

We cannot sell or market products without regulatory approval. If we do not maintain regulatory approval for our marketed products, and obtain regulatory approval for our product candidates, or new indications of our marketed products, including EYLEA for the treatment of ophthalmologic diseases other than those covered by its currently approved indications, the value of our company and our business, prospects, operating results, and financial condition will be materially harmed. Our product candidates may not receive regulatory approval. If we are unable to obtain regulatory approval for our product candidates, or if we are materially delayed in doing so, our business, prospects, operating results, and financial condition may be materially harmed. In addition, if we fail to maintain regulatory approval for EYLEA's currently approved indications, we may lose marketing approval and the ability to generate EYLEA product sales revenue, which would materially and negatively impact our business, prospects, operating results, and financial condition.

#### Obtaining and maintaining regulatory approval for drug products is costly, time-consuming, and highly uncertain.

In the United States, we must obtain and maintain approval from the FDA for each drug we intend to sell. Obtaining FDA approval is typically a lengthy and expensive process, and approval is highly uncertain. We cannot predict with certainty if or when we might submit for regulatory approval any of our product candidates currently under development. Any approvals we may obtain may not cover all of the clinical indications for which we are seeking approval. Also, an approval might contain significant limitations in the form of narrow indications, warnings, precautions, or contra-indications with respect to conditions of use. The FDA has substantial discretion in the approval process (including with respect to setting specific conditions for submission) and may either refuse to accept an application for substantive review or may form the opinion after review of an application that the application is insufficient to allow approval of a product candidate. If the FDA does not accept our application for review or approve our application. Depending on the extent of these or any other studies that might be required, approval of any applications that we submit may be delayed significantly, or we may be required to expend more resources. It is also possible that any such additional studies, if performed and completed, may not be considered sufficient by the FDA to make our applications approvable. If any of these outcomes occur, we may be forced to delay or abandon our applications for approval.

The FDA may also require us to conduct additional clinical trials after granting approval of a product. Its ability to do so has been enhanced by the Food and Drug Administration Amendments Act of 2007, pursuant to which the FDA has the explicit authority to require postmarket studies (also referred to as post-approval or Phase 4 studies), labeling changes based on new safety information, and compliance with FDA-approved risk evaluation and mitigation strategies. Post-approval studies, whether conducted by us or by others and whether mandated by regulatory agencies or voluntary, and other data about our marketed products (or data about products similar to our marketed products that implicate an entire class of products or are perceived to do so) may result in changes in product labeling, restrictions on use, product withdrawal or recall, loss of approval, or lower sales of our products.

According to the FDA policies under the Prescription Drug User Fee Act, the FDA system of review times for new drugs includes standard review and priority review. Standard review can be accomplished in a ten-month time frame from the time the application is filed by the FDA (filing date), which typically occurs approximately 60 days following submission of the application by the applicant. The FDA has stated the goal to act on 90% of standard new molecular entity (NME) New Drug Application (NDA) and original BLA submissions within 10 months of the filing date. A priority review designation is given to drugs that treat a serious condition and offer major advances in treatment, or provide a treatment where no adequate therapy exists, and may also be afforded to a human drug application based on a priority review voucher. The FDA has stated the goal to act on 90% of priority NME NDA and original BLA submissions within 6 months of the filing date. However, the FDA's review goals are subject to change and the duration of the FDA's review depends on a number of factors, including the number and types of other applications that are submitted to the FDA around the same time period or are pending. Even if any of our applications receives a priority review designation (including based on the rare pediatric disease priority review voucher, which we and Sanofi plan to use in connection with the contemplated BLA submission for alirocumab), we may not ultimately be able to obtain approval of our application within a time frame consistent with the FDA's stated review goals or at all, and such designation may not actually lead to a faster development or regulatory review or approval process.

Foreign governments also regulate the manufacturing, marketing and selling of drugs distributed in their country and approval in any country is similarly likely to be a lengthy and expensive process, and approval is highly uncertain. Foreign regulatory authorities often also have the authority to require post-approval studies, which involve various risks similar to those described above.

The FDA enforces Good Clinical Practices (GCPs) and other regulations through periodic inspections of trial sponsors, clinical research organizations (CROs), principal investigators, and trial sites. If we or any of the third parties conducting our clinical studies are determined to have failed to fully comply with GCPs, the study protocol or applicable regulations, the clinical data generated in those studies may be deemed unreliable. This could result in non-approval of our product candidates by the FDA, or we or the FDA may decide to conduct additional audits or require additional clinical studies, which would delay our development programs, require us to incur additional costs, and could substantially harm our business, prospects, operating results, and financial condition.

Before approving a new drug or biologic product, the FDA requires that the facilities at which the product will be manufactured or advanced through the supply chain be in compliance with current Good Manufacturing Practices, or cGMP, requirements and regulations governing the manufacture, shipment, and storage of the product. Manufacturing product candidates in compliance with these regulatory requirements is complex, time-consuming, and expensive. To be successful, our products must be manufactured in compliance with regulatory requirements, and at competitive costs. If we or any of our product collaborators, or third-party manufacturers, product packagers, labelers, or other parties performing steps in the supply chain are unable to maintain regulatory compliance, the FDA can impose regulatory sanctions, including, among other things, refusal to approve a pending application for a new drug or biologic product, or revocation of a pre-existing approval. As a result, our business, prospects, operating results, and financial condition may be materially harmed.

In addition to the FDA and other regulatory agency regulations in the United States, we are subject to a variety of foreign regulatory requirements governing human clinical trials, manufacturing, marketing and approval of drugs, and commercial sale and distribution of drugs in foreign countries. The foreign regulatory approval process and requirements include all of the risks associated with FDA approval as well as country specific regulations, and actions by a regulatory agency in a country or region with respect to a product candidate may have an impact on the approval process for that product candidate in another country or region. Whether or not we obtain FDA approval for a product in the United States, we must obtain approval of the product by the comparable regulatory authorities in foreign countries before we can conduct clinical trials of or market that product or any other product in those countries.

## Preclinical and clinical studies required for our product candidates and new indications of our marketed products are expensive and time-consuming, and their outcome is highly uncertain. If any such studies are delayed or yield unfavorable results, regulatory approval for our product candidates or new indications of our marketed products may be delayed or become unobtainable.

As described above, we must conduct extensive testing of our product candidates and new indications of our marketed products before we can obtain regulatory approval to market and sell them. We need to conduct both preclinical animal testing and human clinical trials. Conducting such studies is a lengthy, time-consuming, and expensive process. These tests and trials may not achieve favorable results for many reasons, including, among others, failure of the product candidate to demonstrate safety or efficacy, the development of serious or life-threatening adverse events (or side effects) caused by or connected with exposure to the product candidate, difficulty in enrolling and maintaining subjects in a clinical trial, lack of sufficient supplies of the product candidate or comparator drug, and the failure of clinical investigators, trial monitors, contractors, consultants, or trial subjects to comply with the trial plan, protocol, or applicable regulations related to Good Laboratory Practices (GLPs) or GCPs. A clinical trial may fail because it did not include and retain a sufficient number of patients to detect the endpoint being measured or reach statistical significance. A clinical trial may also fail because the dose(s) of the investigational drug included in the trial were either too low or too high to determine the optimal effect of the investigational drug in the disease setting.

We will need to reevaluate any drug candidate that does not test favorably and either conduct new studies, which are expensive and time consuming, or abandon that drug development program. If preclinical testing yields unfavorable results, product candidates may not advance to clinical trials. The failure of clinical trials to demonstrate the safety and effectiveness of our clinical candidates for the desired indication(s) would preclude the successful development of those candidates for such indication(s), in which event our business, prospects, operating results, and financial condition may be materially harmed.

#### Successful development of our current and future product candidates is uncertain.

Only a small minority of all research and development programs ultimately result in commercially successful drugs. Clinical trials may not demonstrate statistically sufficient effectiveness and safety to obtain the requisite regulatory approvals for these product candidates in these indications. Many companies in the biopharmaceutical industry, including our company, have suffered significant setbacks in clinical trials, even after promising results have been obtained in earlier trials. In a number of instances, we have terminated the development of product candidates due to a lack of or only modest effectiveness. For example, a randomized, double-blind Phase 3 trial (VENICE) that evaluated ZALTRAP as a first-line treatment for metastatic androgen-independent prostate cancer in combination with docetaxel/prednisone did not meet the pre-specified criterion of improvement in overall survival in April 2011. Moreover, even if we obtain positive results from preclinical testing or clinical trials, we may not achieve the same success in future trials, or the FDA and analogous foreign regulatory authorities may deem the results insufficient for an approval. For instance, based on the results of three Phase 3 studies, we submitted a supplemental BLA filing to the FDA seeking approval of ARCALYST for the prevention of gout flares in patients initiating uric acid-lowering drug therapy. In May 2012, the Arthritis Advisory Committee of the FDA voted to recommend against approval of ARCALYST for the prevention of gout flares in patients initiating uric acid-lowering drug therapy and, in July 2012, we received a Complete Response letter from the FDA requesting additional information, including clinical data, as well as additional CMC information related to a proposed new dosage form. We have discontinued development of ARCALYST for gout.

Many of our clinical trials are conducted under the oversight of Independent Data Monitoring Committees (IDMCs). These independent oversight bodies are made up of external experts who review the progress of ongoing clinical trials, including available safety and efficacy data, and make recommendations concerning a trial's continuation, modification, or termination based on interim, unblinded data. Any of our ongoing clinical trials may be discontinued or amended in response to recommendations made by responsible IDMCs based on their review of such interim trial results. For example, in September 2009, a Phase 3 trial that was evaluating ZALTRAP as a first-line treatment for metastatic pancreatic cancer in combination with gemcitabine was discontinued at the recommendation of an IDMC after a planned analysis of interim efficacy data determined that the trial would not meet its efficacy endpoint. The recommended termination of any of our ongoing late-stage clinical trials by an IDMC could negatively impact the future development of our product candidate(s), and our business, prospects, operating results, and financial condition may be materially harmed.

We are studying our antibody candidates in a wide variety of indications in clinical trials. Many of these trials are exploratory studies designed to evaluate the safety profile of these compounds and to identify what diseases and uses, if any, are best suited for these product candidates. These product candidates may not demonstrate the requisite efficacy and/or safety profile to support continued development for some or all of the indications that are being, or are planned to be, studied, which would diminish our clinical "pipeline" and could negatively affect our future prospects and the value of our company.

## Serious complications or side effects in connection with the use of our products and in clinical trials for our product candidates and new indications for our marketed products could cause our regulatory approvals to be revoked or limited or lead to delay or discontinuation of development of our product candidates or new indications for our marketed products, which could severely harm our business, prospects, operating results, and financial condition.

During the conduct of clinical trials, patients report changes in their health, including illnesses, injuries, and discomforts, to their study doctor. Often, it is not possible to determine whether or not the drug candidate being studied caused these conditions. Various illnesses, injuries, and discomforts have been reported from time-to-time during clinical trials of our product candidates and new indications for our marketed products. It is possible that as we test our drug candidates or new indications in larger, longer, and more extensive clinical programs, or as use of these drugs becomes more widespread if they receive regulatory approval, illnesses, injuries, and discomforts that were observed in earlier trials, as well as conditions that did not occur or went undetected in previous trials, will be reported by patients. Many times, side effects are only detectable after investigational drugs are tested in large-scale, Phase 3 clinical trials or, in some cases, after they are made available to patients after approval. If additional clinical experience indicates that any of our product candidates or new indications for our marketed products has many side effects or causes serious or life-threatening side effects, the development of the product candidate may be delayed or fail, or, if the product candidate has received regulatory approval, such approval may be revoked, which would severely harm our business, prospects, operating results, and financial condition.

EYLEA is being studied in diseases of the eye in addition to those covered by its currently approved indications. There are many potential safety concerns associated with significant blockade of VEGF that may limit our ability to further successfully develop and/or commercialize EYLEA and ZALTRAP. These serious and potentially life-threatening risks, based on clinical and preclinical experience of VEGF inhibitors, include bleeding, intestinal perforation, hypertension, proteinuria, congestive heart failure, heart attack, and stroke. In addition, patients given infusions of any protein, including ZALTRAP delivered through intravenous administration, may develop severe hypersensitivity reactions or infusion reactions. Other VEGF blockers have reported side effects that became evident only after large-scale trials or after marketing approval when large numbers of patients were treated. There are risks inherent in the intravitreal administration of drugs like EYLEA, which can cause injury to the eye and other complications. For example, in our Phase 3 trials of EYLEA in wet AMD, the most frequent ocular adverse events were conjunctival hemorrhage, macular degeneration, eye pain, retinal hemorrhage, and vitreous floaters. These and other complications or side effects could harm the development and/or commercialization of EYLEA or ZALTRAP.

We and Sanofi are conducting a global development program, currently in Phase 3, studying alirocumab, our PCSK9 antibody for the reduction of LDL cholesterol, as discussed above in Part I, Item 2. "Management's Discussion and Analysis of Financial Condition and Results of Operations - Late-Stage Antibody-based Clinical Programs." As part of this development program, we and Sanofi collect adverse events and report them to the FDA and foreign regulatory authorities. As recently reported, in nine Phase 3 ODYSSEY studies, the most common adverse events were nasopharyngitis and upper respiratory tract infection, which were generally balanced between treatment groups. Injection site reactions were more frequent in the alirocumab group compared to placebo. Serious adverse events and deaths were generally balanced between treatment groups as were other key adverse events, including musculoskeletal, neurocognitive, and liver-related events. We and Sanofi were advised by the FDA that it had become aware of neurocognitive adverse events in the PCSK9 inhibitor class. Neurocognitive adverse events have also been associated with the use of statins for lowering LDL cholesterol. The FDA had requested that we address the feasibility of incorporating neurocognitive testing into at least a subset of patients in our ODYSSEY OUTCOMES trial or other long-term Phase 3 trial(s). While we have reported, based on analyses conducted to date, that neurocognitive adverse events were generally balanced between treatment groups in our Phase 3 studies, if this or another adverse event signal is detected in future analyses or in subsequent data, the possible approval of alirocumab may be delayed or fail, or its commercial value diminished, which could severely harm our future prospects.

We have studied fasinumab in a variety of pain indications, including osteoarthritis of the knee. In December 2010, the FDA placed fasinumab on clinical hold after a case of rapidly progressive osteoarthritis leading to joint replacement was seen in another company's anti-NGF program due to the FDA's concern that this case was suggestive of a class effect. In December 2012, the FDA removed the clinical hold on fasinumab after reviewing our proposed Phase 3 program in osteoarthritis. However, shortly thereafter, fasinumab was placed on partial clinical hold as a result of preclinical data from other investigational agents targeting NGF in development. There are currently no trials with fasinumab that are either enrolling or treating patients. Discussions with the FDA about fasinumab are expected to continue.

### Our product candidates in development are recombinant proteins that could cause an immune response, resulting in the creation of harmful or neutralizing antibodies against the therapeutic protein.

In addition to the safety, efficacy, manufacturing, and regulatory hurdles faced by our product candidates, the administration of recombinant proteins frequently causes an immune response, resulting in the creation of antibodies against the therapeutic protein. The antibodies can have no effect or can totally neutralize the effectiveness of the protein, or require that higher doses be used to obtain a therapeutic effect. In some cases, the antibody can cross-react with the patient's own proteins, resulting in an "auto-immune" type disease. Whether antibodies will be created can often not be predicted from preclinical or clinical experiments, and their detection or appearance is often delayed, so neutralizing antibodies may be detected at a later date, in some cases even after pivotal clinical trials have been completed.

## We may be unable to formulate or manufacture our product candidates in a way that is suitable for clinical or commercial use, which would delay or prevent continued development of such candidates and/or receipt of regulatory approval or commercial sale, which could materially harm our business, prospects, operating results, and financial condition.

If we are unable to continue to develop suitable product formulations or manufacturing processes to support large-scale clinical testing of our product candidates, including our antibody candidates, we may be unable to supply necessary materials for our clinical trials, which would delay or prevent the development of our product candidates. Similarly, if we are unable, directly or through our collaborators or third parties, to supply sufficient quantities of our products or develop formulations of our product candidates suitable for commercial use, we will be unable to obtain regulatory approval for those product candidates.

#### **Risks Related to Intellectual Property and Market Exclusivity**

## If we cannot protect the confidentiality of our trade secrets or our patents are insufficient to protect our proprietary rights, our business and competitive position will be harmed.

Our business requires using sensitive and proprietary technology and other information that we protect as trade secrets. We seek to prevent improper disclosure of these trade secrets through confidentiality agreements. If our trade secrets are improperly disclosed, by our own employees, our collaborators or otherwise, it would help our competitors and adversely affect our business. We will be able to protect our proprietary rights only to the extent that our proprietary technologies and other information are covered by valid and enforceable patents or are effectively maintained as trade secrets. The patent position of biotechnology companies, including our company, involves complex legal and factual questions and, therefore, enforceability cannot be predicted with certainty. Our patents may be challenged, invalidated, held to be unenforceable, or circumvented. Patent applications filed outside the United States may be challenged by other parties, for example, by filing an opposition. Such opposition proceedings are increasingly common in the EU and are costly to defend. For example, our European Patent No. 1,360,287 has been the subject of opposition proceedings in the European Patent Office, as described in Part II, Item 1. "Legal Proceedings" of this report. We have pending patent applications in the United States Patent and Trademark Office, the European Patent Office, and the patent offices of other foreign jurisdictions, and it is likely that we will need to defend patents from challenges by others from time to time in the future. Certain of our U.S. patents may also be challenged by parties who file a request for post-grant review under the America Invents Act of 2011. We expect that post-grant review proceedings will become common in the United States and will be costly to defend. Our patent rights may not provide us with a proprietary position or competitive advantages against competitors. Furthermore, even if the outcome is favorable to us, the enforcement of our intellectual property rights can be ext

## We may be restricted in our development, manufacturing, and/or commercialization activities by patents or other proprietary rights of others, and could be subject to damage awards if we are found to have infringed such patents or rights.

Our commercial success depends significantly on our ability to operate without infringing the patents and other proprietary rights of others. Other parties may allege that they own blocking patents to our products in clinical development or even to products that have received regulatory approval and are being or have been commercialized, either because they claim to hold proprietary rights to the composition of a product or the way it is manufactured or the way it is used. Moreover, other parties may allege that they have blocking patents to antibody products made using our *VelocImmune* technology, either because of the way the antibodies are discovered or produced or because of a proprietary composition covering an antibody or the antibody's target.

We have been in the past, are currently, and may in the future be involved in patent litigation and other proceedings involving our patents. For example, we are currently parties to patent infringement proceedings relating to our European Patent No. 1,360,287 and our U.S. Patent No. 8,502,018, both of which concern genetically altered mice capable of producing chimeric antibodies that are part human and part mouse, as described in Part I, Item 3. "Legal Proceedings" of our Annual Report on Form 10-K for the year ended December 31, 2013, Part II, Item 1. "Legal Proceedings" of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2014, and Part II, Item 1. "Legal Proceedings" of this report. In addition, we are currently parties to patent infringement proceedings initiated by Amgen against us and Sanofi relating to alirocumab, the antibody to PCSK9 for LDL cholesterol reduction we are jointly developing with Sanofi, as described in Part II, Item 1. "Legal Proceedings" of this report. We

are aware of additional patents and pending applications owned by others that claim antibodies to PCSK9 and methods of treating hypercholesterolemia with such antibodies. We are also aware of patents and pending applications owned by others that respectively claim antibodies to IL-6R and IL-4R and methods of treating rheumatoid arthritis and uveitis and atopic dermatitis and asthma with such antibodies. In addition to alirocumab, our late-stage antibody-based pipeline includes sarilumab, an antibody to IL-6R, for the treatment of rheumatoid arthritis and non-infectious uveitis; and dupilumab, an antibody to IL-4R, for the treatment of rheumatoid arthritis and non-infectious uveitis; and dupilumab, an antibody to IL-4R, for the treatment of atopic dermatitis, asthma, and nasal polyposis. Although we do not believe that any of our late-stage antibody product candidates infringes any valid claim in these patents or patent applications, these other parties could initiate a lawsuit for patent infringement and assert their patents are valid and cover our late-stage antibody product candidates, similar to the patent infringement proceedings initiated by Amgen referred to above. We are also aware of a U.S. patent jointly owned by Genentech and City of Hope relating to the production of recombinant antibodies in host cells. We currently produce our antibody product candidates using recombinant antibodies from host cells and may choose to produce additional antibody product candidates in firm manner. None of ARCALYST, ZALTRAP, or EYLEA is a recombinant antibody. If any of our antibody product candidates and are unable to obtain a license from Genentech, should one be available. Genentech has licensed this patent to valid claims in the Genentech has licensed and preserve a license for any of our antibody product candidates and are unable to obtain a license or commercially reasonable terms or at all, we may be restricted in our ability to make recombinant antibodies in, or to import them into, the United States. Further,

Patent holders could assert claims against us for damages and seek to prevent us from manufacturing, selling, or developing our drug candidates, and a court may find that we are infringing validly issued patents of others. In the event that the manufacture, use, or sale of any of our drug candidates, or our other late-stage product candidates, infringes on the patents or violates other proprietary rights of others, we may be prevented from pursuing product development, manufacturing, and commercialization of those drugs and may be required to pay costly damages. In addition, in the event that we assert our patent rights against other parties that we believe are infringing our patent rights, such parties may challenge the validity of our patents and we may become the target of litigation, which may result in an outcome that is unfavorable to us. Any of these adverse developments may materially harm our business, prospects, operating results, and financial condition. In any event, legal disputes are likely to be costly and time consuming to defend.

We seek to obtain licenses to patents when, in our judgment, such licenses are needed or advisable. If any licenses are required, we may not be able to obtain such licenses on commercially reasonable terms, if at all. The failure to obtain any such license could prevent us from developing or commercializing any one or more of our product candidates, which could severely harm our business.

## Loss or limitation of patent rights, and new regulatory pathways for biosimilar competition, could reduce the duration of market exclusivity for our products.

In the pharmaceutical and biotechnology industries, the majority of an innovative product's commercial value is usually realized during the period in which it has market exclusivity. In the United States and some other countries, when market exclusivity expires and generic versions of a product are approved and marketed, there usually are very substantial and rapid declines in the product's sales.

If our late-stage product candidates or other clinical candidates are approved for marketing in the United States or elsewhere, market exclusivity for those products will generally be based upon patent rights and/or certain regulatory forms of exclusivity. As described above under "*If we cannot protect the confidentiality of our trade secrets or our patents are insufficient to protect our proprietary rights, our business and competitive position will be harmed,*" the scope and enforceability of our patent rights may vary from country to country. The failure to obtain patent and other intellectual property rights, or limitations on the use, or the loss, of such rights could materially harm us. Absent patent protection or regulatory exclusivity for our products, it is possible, both in the United States and elsewhere, that generic and/or biosimilar versions of those products may be approved and marketed, which would likely result in substantial and rapid reductions in revenues from sales of those products.

Under the federal Patient Protection and Affordable Care Act, or PPACA, enacted in 2010, there is now a new, abbreviated path in the United States for regulatory approval of biosimilar versions of biological products. The PPACA provides a regulatory mechanism that allows for FDA approval of biologic drugs that are similar to (but not generic copies of) innovative drugs on the basis of less extensive data than is required by a full BLA. Under this new regulation, an application for approval of a biosimilar may be filed four years after approval of the innovator product. However, qualified innovative biological products will receive 12 years of regulatory exclusivity, meaning that the FDA may not approve a biosimilar version until 12 years after the innovative biological product was first approved by the FDA. However, the term of regulatory exclusivity may not remain at 12 years in the United States and could be shortened.

The increased likelihood of biosimilar competition has increased the risk of loss of innovators' market exclusivity. Due to this risk, and uncertainties regarding patent protection, if our late-stage product candidates or other clinical candidates are approved

for marketing, it is not possible to predict the length of market exclusivity for a particular product with certainty based solely on the expiration of the relevant patent(s) or the current forms of regulatory exclusivity. It is also not possible to predict changes in United States regulatory law that might reduce biological product regulatory exclusivity. The loss of market exclusivity for a product would likely materially and negatively affect revenues from product sales of that product and thus our financial results and condition.

#### **Risks Related to Manufacturing and Supply**

## We rely on limited internal and contracted manufacturing and supply chain capacity, which could result in our being unable to continue to successfully commercialize EYLEA, to commercialize our other product candidates or other indications for our marketed products if they receive regulatory approval, and to advance our clinical pipeline.

Our manufacturing facility would be inadequate to produce the active pharmaceutical ingredients of (a) EYLEA, ZALTRAP, and ARCALYST, and (b) our antibody product candidates in sufficient clinical quantities if our clinical pipeline advances as planned. In addition to expanding our internal capacity, we intend to rely on our corporate collaborators, as well as contract manufacturers, to produce commercial quantities of drug material needed for commercialization of our products to the extent such quantities are not manufactured at our own facility. As we increase our production in anticipation of potential regulatory approval for our late-stage antibody product candidates, our current manufacturing capacity will likely not be sufficient, and we may depend on our collaborators or contract manufacturers, to produce adequate quantities of drug material for both commercial and clinical purposes. We rely entirely on other parties and our collaborators for filling and finishing services. Generally, in order for other parties to perform any step in the manufacturing and supply chain, we must transfer technology to the other party, which can be time consuming and may not be successfully accomplished without considerable cost and expense, or at all. We will have to depend on these other parties to perform effectively on a timely basis and to comply with regulatory requirements. If for any reason they are unable to do so, and as a result we are unable to directly or through other parties manufacture and supply sufficient commercial and clinical quantities of our products on acceptable terms, or if we should encounter delays or other difficulties in our relationships with our corporate collaborators, contract manufacturers, or other parties involved in our supply chain which adversely affect the timely manufacture and supply of our products or products or product candidates, our business, prospects, operating results, and financial condition may be materially harmed.

## Expanding our manufacturing capacity will be costly and we may be unsuccessful in doing so in a timely manner, which could delay or prevent the launch and successful commercialization of our marketed products and late-stage product candidates or other indications for our marketed products if they are approved for marketing and could jeopardize our current and future clinical development programs.

We have commenced construction of additional manufacturing space at our Rensselaer, New York site to increase our manufacturing capacity. In addition, we have acquired and are renovating a 400,000 square foot facility in Limerick, Ireland to expand our manufacturing capacity to support our global supply chain. In the future, we may lease, operate, purchase, or construct additional facilities to conduct expanded manufacturing activities. Expanding our manufacturing capacity to supply commercial quantities of the active pharmaceutical ingredients for our marketed products and our late-stage product candidates if they are approved for marketing, and to supply clinical drug material to support the continued growth of our clinical programs, will require substantial additional expenditures and various regulatory approvals and permits. In addition, the Limerick, Ireland facility remains subject to securing certain permits from the local government, and there is no guarantee that we will be able to obtain the remaining required permits in the contemplated timeframe, or at all. Further, we will need to hire and train significant numbers of employees and managerial personnel to staff our expanding manufacturing and supply chain operations. Start-up costs can be large, and scale-up entails significant risks related to process development and manufacturing yields. In addition, we may face difficulties or delays in developing or acquiring the necessary production equipment and technology to manufacture sufficient quantities of our product candidates at reasonable costs and in compliance with applicable regulatory requirements. The FDA and analogous foreign regulatory authorities must determine that our existing and any expanded manufacturing facilities comply, or continue to comply, with cGMP requirements for both clinical and commercial production and license them, or continue to license them, accordingly, and such facilities must also comply with applicable environmental, safety, and other governmental permitting requirements. We may not successfully expand or establish sufficient manufacturing capabilities or manufacture our products economically or in compliance with cGMPs and other regulatory requirements, and we and our collaborators may not be able to build or procure additional capacity in the required timeframe to meet commercial demand for our late-stage product candidates if they receive regulatory approval, and to continue to meet the requirements of our clinical programs. This would interfere with our efforts to successfully commercialize EYLEA, ZALTRAP, and ARCALYST and could also delay or require us to discontinue one or more of our clinical development programs. As a result, our business, prospects, operating results, and financial condition could be materially harmed.

## Our ability to manufacture our products may be impaired if any of our manufacturing activities, or the activities of third parties involved in our manufacture and supply chain, are found to infringe patents of others.

Our ability to continue to manufacture EYLEA, ZALTRAP, and ARCALYST in our Rensselaer, New York facilities and, in the future, our ability to manufacture our marketed products at additional facilities, or to utilize third parties to produce our products, to supply raw materials or other products, or to perform fill/finish services or other steps in our manufacture and supply chain, depends on our and their ability to operate without infringing the patents or other intellectual property rights of others. Other parties may allege that our manufacturing activities, or the activities of third parties involved in our manufacture and supply chain, infringe patents or other intellectual property rights. A judicial decision in favor of one or more parties making such allegations could preclude the manufacture of our products to which those intellectual property rights apply, which could materially harm our business, prospects, operating results, and financial condition.

## If sales of EYLEA and ZALTRAP do not meet the levels currently expected, or if the launch of new indications for EYLEA or of any of our product candidates is delayed or unsuccessful, we may face costs related to excess inventory or unused capacity at our manufacturing facilities and at the facilities of third parties.

We have large-scale manufacturing operations in Rensselaer, New York. We use our facilities to produce bulk product of EYLEA for its currently approved indications, bulk product of ZALTRAP for the treatment of patients with mCRC that is resistant to or has progressed following an oxaliplatincontaining regimen, bulk product of ARCALYST for the treatment of CAPS, and clinical and preclinical candidates for ourselves and our collaborations. We also plan to use such facilities to produce bulk product for commercial supply of new indications of our marketed products and new product candidates if they are approved for marketing. If our clinical candidates are discontinued or their clinical development is delayed, if the launch of new indications for our marketed products or new product candidates is delayed or does not occur, or if such products are launched and the launch is unsuccessful or the product is subsequently recalled or marketing approval is rescinded, we may have to absorb one hundred percent of related overhead costs and inefficiencies, as well as similar costs of third-party contract manufacturers performing services for us. In addition, if we experience excess inventory, it may be necessary to write down or even write off such excess inventory, which could adversely affect our operating results.

## Third-party service or supply failures, or other failures, business interruptions, or other disasters affecting our manufacturing facilities in Rensselaer, New York or the facilities of any other party participating in the supply chain, would adversely affect our ability to supply our products.

We currently manufacture all of our bulk drug materials at our manufacturing facilities in Rensselaer, New York. We would be unable to manufacture these materials if our Rensselaer facilities were to cease production due to regulatory requirements or actions, business interruptions, labor shortages or disputes, contaminations, fire, natural disasters, acts of war or terrorism, or other problems.

Many of our products and product candidates are very difficult to manufacture. As our products and product candidates are biologics, they require processing steps that are more difficult than those required for most chemical pharmaceuticals. Accordingly, multiple steps are needed to control the manufacturing processes. Problems with these manufacturing processes, even minor deviations from the normal process or from the materials used in the manufacturing process (which may not be detectable by us in a timely manner), could lead to product defects or manufacturing failures, resulting in lot failures, product recalls, product liability claims, and insufficient inventory. Also, the complexity of our manufacturing process may make it difficult, time-consuming, and expensive to transfer our technology to our corporate collaborators or contract manufacturers.

Also, certain raw materials or other products necessary for the manufacture and formulation of EYLEA, ZALTRAP, ARCALYST, and our product candidates, some of which are difficult to source, are provided by single-source unaffiliated third-party suppliers. In addition, we rely on certain third parties to perform filling, finishing, distribution, laboratory testing, and other services related to the manufacture of EYLEA, ZALTRAP, ARCALYST, and our product candidates, and to supply various raw materials and other products. We would be unable to obtain these raw materials, other products, or services for an indeterminate period of time if any of these third parties were to cease or interrupt production or otherwise fail to supply these materials, products, or services to us for any reason, including due to regulatory requirements or actions (including recalls), adverse financial developments at or affecting the supplier, failure by the supplier to comply with cGMPs, contamination, business interruptions, or labor shortages or disputes. In any such circumstances, we may not be able to engage a backup or alternative supplier or service provider in a timely manner or at all. This, in turn, could materially and adversely affect our ability to manufacture or supply EYLEA, ZALTRAP, ARCALYST, and our product candidates, which could materially and adversely affect our business and future prospects.

Certain of the raw materials required in the manufacture and the formulation of our product candidates may be derived from biological sources, including mammalian tissues, bovine serum, and human serum albumin. There are certain European regulatory

restrictions on using these biological source materials. If we are required to substitute for these sources to comply with European regulatory requirements, our clinical development activities may be delayed or interrupted.

## If we fail to meet the stringent requirements of governmental regulation in the manufacture of drug products or product candidates, we could incur substantial remedial costs, delays in the development or approval of our product candidates or new indications for our marketed products and/or in their commercial launch if they obtain regulatory approval, and a reduction in sales.

We and our third-party providers are required to maintain compliance with cGMPs, and are subject to inspections by the FDA or comparable agencies in other jurisdictions to confirm such compliance. Changes of suppliers or modifications of methods of manufacturing may require amending our application(s) to the FDA or such comparable foreign agencies and acceptance of the change by the FDA or such comparable foreign agencies prior to release of product(s). Because we produce multiple products and product candidates at our facility in Rensselaer, New York, including EYLEA, ZALTRAP, and ARCALYST, there are increased risks associated with cGMP compliance. Our inability, or the inability of our third-party fill/finish or other service providers, to demonstrate ongoing cGMP compliance could require us to engage in lengthy and expensive remediation efforts, withdraw or recall product, halt or interrupt clinical trials, and/or interrupt commercial supply of any marketed products. Any delay, interruption, or other issue that arises in the manufacture, fill/finish, packaging, or storage of any drug product or product candidate as a result of a failure of our facilities or the facilities or operations of third parties to pass any regulatory agency inspection or maintain cGMP compliance could significantly impair our ability to develop, obtain approval for, and successfully commercialize our products, which would substantially harm our business, prospects, operating results, and financial condition. Any finding of non-compliance could also increase our costs, cause us to delay the development of our product candidates, result in delay in our obtaining, or our not obtaining, regulatory approval of product candidates or new indications for our marketed products, and cause us to lose revenue from any marketed products, which could be seriously detrimental to our business, prospects, operating results, and cause us to lose revenue from any marketed products, which could be seriously detrimental to our business, prospects, operat

#### **Risks Related to Commercialization of Products**

### We may be unsuccessful in continuing the commercialization of our marketed products or in commercializing our product candidates or new indications for our marketed products, if approved, which would materially and adversely affect our business, profitability, and future prospects.

Even if clinical trials demonstrate the safety and effectiveness of any of our product candidates for a specific disease and the necessary regulatory approvals are obtained, the commercial success of any of our product candidates or new indications for our marketed products will depend upon, among other things, their acceptance by patients, the medical community, and third-party payers and on our and our collaborators' ability to successfully manufacture, market and distribute those products in substantial commercial quantities or to establish and manage the required infrastructure to do so, including large-scale information technology systems and a large-scale distribution network. Establishing and maintaining sales, marketing, and distribution capabilities are expensive and time-consuming. Even if we obtain regulatory approval for our product candidates or new indications, if they are not successfully commercialized, we will not be able to recover the significant investment we have made in developing such products and our business, prospects, operating results, and financial condition would be severely harmed.

The commercial success of our products may also be adversely affected by guidelines or recommendations to healthcare providers, administrators, payers, and patient communities that result in decreased use of our products. Such guidelines or recommendations may be published not only by governmental agencies, but also professional societies, practice management groups, private foundations, and other interested parties.

Our product candidates are delivered either by intravenous infusion or by intravitreal or subcutaneous injections, which are generally less well received by patients than tablet or capsule delivery and this could adversely affect the commercial success of those products if they receive marketing approval.

Currently, we have three marketed products, EYLEA, ZALTRAP, and ARCALYST. While we have established our own sales and marketing organization for EYLEA in the United States for its currently approved indications, we have limited commercialization experience and we have no sales, marketing, commercial, or distribution capabilities outside the United States. In addition, EYLEA faces intense competition from Lucentis<sup>®</sup> and from off-label use of repackaged Avastin<sup>®</sup>, both of which have been on the market for a number of years and, potentially, from new competitive products currently in clinical development. We expect that the continued commercial success of EYLEA will depend on many factors, including the following:

• effectiveness of the commercial strategy in and outside the United States for the marketing of EYLEA, including pricing strategy and the continued effectiveness of efforts to obtain, and the timing of obtaining, adequate third-party reimbursements;



- maintaining and successfully monitoring commercial manufacturing arrangements for EYLEA with third parties who perform fill/finish or other steps in the manufacture of EYLEA to ensure that they meet our standards and those of regulatory authorities, including the FDA, which extensively regulate and monitor pharmaceutical manufacturing facilities;
- our ability to meet the demand for commercial supplies of EYLEA;
- our ability to effectively communicate to the marketplace the benefits of the dosing regimen of EYLEA as compared to the dosing regimen of Lucentis<sup>®</sup>, and the willingness of retinal specialists and patients to switch from Lucentis<sup>®</sup> or off-label use of repackaged Avastin<sup>®</sup> to EYLEA;
- the ability of patients, retinal specialists, and other providers to obtain and maintain sufficient coverage and reimbursement from third-party payers, including Medicare and Medicaid in the United States and other government and private payers in the United States and foreign jurisdictions;
- our ability to maintain sales of EYLEA in the face of competitive products, including those currently in clinical development; and
- the effect of existing and new health care laws and regulations currently being implemented in the United States, including reporting and disclosure requirements of such laws and regulations and the potential impact of such requirements on physician prescription practices.

Under the terms of our license and collaboration agreement with Bayer HealthCare, we rely on Bayer HealthCare for sales, marketing, and distribution of EYLEA in countries outside the United States. If we and Bayer HealthCare are unsuccessful in continuing to commercialize EYLEA, our ability to sustain profitability would be materially impaired. In addition, if we or our collaborators are unable to successfully commercialize new product candidates or new indications for our marketed product, our future prospects would be materially impaired.

## Our marketed products are subject to significant competition, and our product candidates or new indications for our marketed products, if any are approved for marketing, may face significant competition.

There is substantial competition in the biotechnology and pharmaceutical industries from biotechnology, pharmaceutical, and chemical companies. Many of our competitors have substantially greater research, preclinical and clinical product development and manufacturing capabilities, as well as financial, marketing, and human resources, than we do. Our smaller competitors may also enhance their competitive position if they acquire or discover patentable inventions, form collaborative arrangements, or merge with large pharmaceutical companies. Even if we achieve commercialization of our product candidates, our competitors have achieved, and may continue to achieve, product commercialization before our products are approved for marketing and sale.

As previously noted, Genentech has an approved VEGF antagonist, Avastin<sup>®</sup>, on the market for treating certain cancers, and many different pharmaceutical and biotechnology companies are working to develop competing VEGF antagonists, including Novartis, Amgen Inc., Imclone LLC/Eli Lilly, Pfizer Inc., AstraZeneca, and GlaxoSmithKline. Some of these molecules may offer competitive advantages over our molecule. Each of Pfizer, Onyx Pharmaceuticals (a subsidiary of Amgen), together with its partner Bayer HealthCare, and GlaxoSmithKline are marketing and selling oral medications that target tumor cell growth and new vasculature formation that fuels the growth of tumors. In January 2012, Roche announced that a Phase 3 trial of Avastin<sup>®</sup> (bevacizumab) had met the primary endpoint of overall survival in mCRC in patients who had previously received Avastin<sup>®</sup> with standard chemotherapy. The positive results of this trial in a similar patient population could impact the potential commercial opportunity for ZALTRAP in mCRC. It will be difficult for ZALTRAP to compete against Avastin<sup>®</sup> and the FDA-approved kinase inhibitors, because doctors and patients will have significant experience using these medicines. In addition, an oral medication may be considerably less expensive for patients than a biologic medication, providing a competitive advantage to companies that market such products.

The market for eye disease products is very competitive, as described in greater detail above under "Risks Related to Commercialization of EYLEA-*The commercial success of EYLEA is subject to strong competition*."

Our earlier stage clinical candidates in development are all fully human monoclonal antibodies, which were generated using our *VelocImmune* technology. Our antibody generation technologies and earlier-stage clinical candidates face competition from many pharmaceutical and biotechnology companies using various technologies.

We are aware of several pharmaceutical and biotechnology companies actively engaged in the research and development of antibody products against targets that are also the targets of our early- and late-stage product candidates. For example, Pfizer (in partnership with Eli Lilly), Johnson & Johnson, and AbbVie are developing antibody product candidates against NGF. Genentech/Roche is marketing an antibody against IL-6R (tocilizumab) for the treatment of rheumatoid arthritis, and several other companies, including Johnson & Johnson (in partnership with GlaxoSmithKline), Alder Biopharmaceuticals, Ablynx (in partnership with AbbVie), and Pfizer have antibodies against IL-6 or IL-6R in clinical development. Several companies, including Amgen, Pfizer, and Eli Lilly, have development programs for antibodies against PCSK9. Amgen's PCSK9 program appears to be the most advanced of the competitors, having already submitted a BLA with the FDA and a marketing authorization application with the EMA, and

may obtain marketing approval in one or more countries before our PCSK9 antibody is approved. Alnylam, in partnership with The Medicines Company, has a clinical program underway with an RNAi molecule against PCSK9. In addition, there are therapeutic products targeting PCSK9 operating through other mechanisms of action in development, including an oral product. Oral products that lower LDL-C, if approved, may also be competitive with PCSK9 inhibitors, including alirocumab (if approved). Certain late-stage inhibitors of cholesterylester transfer protein (CETP), such as Merck's anacetrapib and Eli Lilly's evacetrapib, lower LDL-C and may be launched with supporting data from outcomes trials prior to the completion of our own outcomes trial for alirocumab. Another oral agent that lowers LDL-C and that may potentially compete with alirocumab, if approved, is Esperion's ETC-1002. A number of companies are developing antibodies that, if approved, may compete with dupilumab, our IL-4R antibody, if it is approved, including Roche (an antibody against IL-13), Teva (an antibody against IL-5), AstraZeneca (antibodies against IL-5R and IL-13), Novartis (a combination antibody against IL-4 and IL-13), and Amgen (in partnership with AstraZeneca) (an antibody against thymic stromal lymphopoietin, or TSLP). Further, Amgen, Genentech, and AstraZeneca have development programs underway for antibodies against Ang2 for indications in oncology. Celgene (in partnership with OncoMed Pharmaceuticals, Inc.) and AstraZeneca have antibodies that target Dll4 in clinical development. For muscle-wasting conditions, Pfizer, Eli Lilly, Bristol-Myers Squibb, and Atara Biotherapeutics have anti-GDF8 monoclonal antibodies in development, and Novartis has a competing antibody targeting ActRIIB.

If any of these or other competitors announces a successful clinical study involving a product that may be competitive with one of our product candidates or the grant of marketing approval by a regulatory agency for a competitive product, such developments may have an adverse effect on our business or future prospects. In addition, the first product to reach the market in a therapeutic area is often at a significant competitive advantage relative to later entrants to the market. Accordingly, the relative speed with which we, or our collaborators, can develop our products candidates, complete the clinical trials and approval processes, and, if such product candidates are approved for marketing and sale, supply commercial quantities to the market is expected to continue to be an important competitive factor. Due to the uncertainties associated with developing biopharmaceutical products, we may not be the first to obtain marketing approval for a product against any particular target, which may have a material adverse effect on our business or future prospects.

# The successful commercialization of our marketed products, as well as our late-stage product candidates or new indications for our marketed products, if approved, will depend on obtaining coverage and reimbursement for use of these products from third-party payers, including Medicare and Medicaid in the United States, and these payers may not agree to cover or adequately reimburse for use of our products or may do so at levels that make our products uncompetitive and/or unprofitable, which would materially harm our business, prospects, operating results, and financial condition.

Our future revenues and profitability will be adversely affected in a material manner if United States and foreign governmental payers, private third-party insurers and payers, and other third-party payers, including Medicare and Medicaid, do not defray or reimburse the cost of our products to the patients. If these entities do not provide coverage and reimbursement with respect to our products or provide an insufficient level of coverage and reimbursement, our products may be too costly for many patients to afford them, and physicians may not prescribe them. Many third-party payers cover only selected drugs, making drugs that are not preferred by such payers more expensive for patients, and require prior authorization or failure on another type of treatment before coverage on higher-priced drugs, as our product candidates are likely to be.

Government and other third-party payers are challenging the prices charged for healthcare products and increasingly limiting, and attempting to limit, both coverage and level of reimbursement for prescription drugs. In March 2010, the PPACA and a related reconciliation bill were enacted in the United States. This legislation imposes cost containment measures that are likely to adversely affect the amount of reimbursement for our future products. The full effects of this legislation are unknown at this time and will not be known until regulations and guidance are issued by CMS and other federal and state agencies. Further, in September 2011 the Office of Inspector General (OIG) of the Department of Health and Human Services issued a report entitled "Review of Medicare Part B Avastin and Lucentis Treatments for Age-Related Macular Degeneration" in which the OIG details possible savings to the Medicare program by using off-label, repackaged Avastin<sup>®</sup> rather than Lucentis<sup>®</sup> for the treatment of wet AMD. Some states are also considering legislation that would control the prices of drugs, and state Medicaid programs are increasingly requesting manufacturers to pay supplemental rebates and requiring prior authorization by the state program for use of any drug for which supplemental rebates are not being paid. It is likely that federal and state legislatures and health agencies will continue to focus on additional health care reform in the future that will impose additional constraints on prices and reimbursements for our products.

Since EYLEA for its currently approved indications, and ZALTRAP for the treatment of patients with mCRC that is resistant to or has progressed following an oxaliplatin-containing regimen, will likely continue to be too expensive for most patients to afford without health insurance coverage, if these products are unable to obtain adequate coverage and reimbursement by third-party payers, including Medicare and Medicaid in the United States, our ability to successfully commercialize these products would be materially adversely impacted. Third-party payers, including Medicare and Medicaid in the United States, may not cover

and/or reimburse for these products at levels required for us to successfully commercialize these products. Any limitation imposed by third-party payers on the use of our products if they are approved for marketing, or any action or decision by CMS or analogous foreign agencies or authorities which for any reason denies coverage or reimbursement for our products or provides coverage or reimbursement at levels that harm our products' competitiveness or leads to lower prices for those products, will have a material negative effect on our ability to sustain profitability. In certain foreign countries, pricing, coverage, and level of reimbursement of prescription drugs are subject to governmental control, and we and our collaborators may be unable to obtain coverage, pricing, and/or reimbursement on terms that are favorable to us or necessary for us or our collaborators to successfully commercialize our products in those countries. In some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing and reimbursement vary widely from country to country, and may take into account the clinical effectiveness, cost, and service impact of existing, new, and emerging drugs and treatments. For example, the EU provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price 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. Our results of operations may suffer if we or our collaborators are unable to market our products in foreign countries or if coverage and reimbursement for our products in foreign countries is limited or delayed.

### We are dependent upon a small number of customers for a significant portion of our revenue, and the loss of or significant reduction in sales to these customers would adversely affect our results of operations.

We sell EYLEA in the United States to three distributors and several specialty pharmacies. Under this distribution model, the distributors and specialty pharmacies generally take physical delivery of product and generally sell the product directly to healthcare providers. For the nine months ended September 30, 2014 and 2013, we recorded 75% and 76%, respectively, of our total gross product revenue from sales to a single distributor, Besse Medical, a subsidiary of AmerisourceBergen Corporation. We expect this significant customer concentration to continue for the foreseeable future. Our ability to generate and grow sales of EYLEA will depend, in part, on the extent to which our distributors and specialty pharmacies are able to provide adequate distribution of EYLEA to healthcare providers. Although we believe we can find additional distributors, if necessary, our revenue during any period of disruption could suffer and we might incur additional costs. In addition, these customers are responsible for a significant portion of our net trade accounts receivable balances. 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 adversely affect our results of operations.

#### **Regulatory and Litigation Risks**

### If the testing or use of our products harms people, or is perceived to harm them even when such harm is unrelated to our products, we could be subject to costly and damaging product liability claims.

The testing, manufacturing, marketing, and sale of drugs for use in people expose us to product liability risk. Any informed consent or waivers obtained from people who enroll in our clinical trials may not protect us from liability or the cost of litigation. We may also be subject to claims by patients who use our approved products, or our product candidates if those product candidates receive regulatory approval and become commercially available, that they have been injured by a side effect associated with the drug. Even in a circumstance in which we do not believe that an adverse event is related to our products or product candidates, the related investigation may be time consuming or inconclusive and may have a negative impact on our reputation or business. We may face product liability claims and be found responsible even if injury arises from the acts or omissions of third parties who provide fill/finish or other services. Our product liability insurance may not cover all potential liabilities or may not completely cover any liability arising from any such litigation. Moreover, in the future we may not have access to liability insurance or be able to maintain our insurance on acceptable terms.

#### If we market and sell approved products in a way that violates federal or state healthcare laws, we may be subject to 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, payments or other remuneration to induce or reward someone to purchase, prescribe, endorse, or recommend a product that is reimbursed under federal or state healthcare programs. If we provide payments or other remuneration to a healthcare professional to induce the prescribing of our products, we could face liability under state and federal anti-kickback laws.

Federal false claims laws prohibit 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 prosecuted under these laws 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; reporting to pricing services inflated average wholesale prices that were then used by federal programs to set reimbursement rates; engaging in promotion for uses that the FDA has not approved, known as off-label uses, that caused claims to be submitted to Medicaid for non-covered off-label uses, and submitting inflated best price information to the Medicaid Rebate program. 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 it is determined that we have not violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which would harm our business, prospects, operating results, and financial condition. Because of the breadth of these laws and the narrowness of the safe harbors, it is possible that some of our business activities could be challenged under one or more of such laws.

In recent years, several states and localities, including California, the District of Columbia, Massachusetts, 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 requirements are being considered in other states. In addition, as part of the PPACA, the federal government recently enacted provisions imposing reporting and disclosure requirements on pharmaceutical manufacturers for any "transfers of value" made or distributed to prescribers and other healthcare providers. These statutory provisions and related regulations (commonly known as the "Sunshine Act") require pharmaceutical manufacturers to report annually to the Secretary of the U.S. Department of Health and Human Services payments or other transfers of value made to physicians or teaching hospitals. In February 2013, regulations were released that contain detailed guidance regarding the information that must be collected and reported. We started to be required to collect information regarding such payments in August 2013 and submitted our 2013 Reporting Entity and Payment Aggregate Data in June 2014, as required by the Sunshine Act. Over the next several years, we will need to dedicate significant resources to enhance our systems and processes in order to comply with these regulations. The PPACA also includes various provisions designed to strengthen significantly fraud and abuse enforcement, such as increased funding for enforcement efforts and the lowering of the intent requirement of the federal anti-kickback statute and criminal health care fraud statute such that a person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. Many of these requirements and standards are new and uncertain, and the penalties for failure to comply with these requirements may be unclear. If we are found not to be in full compliance with these laws, we could face enforcement actions, fines, and other penalties, and could receive adverse publicity, which would harm our business, prospects, operating results, and financial condition.

## Risks from the improper conduct of employees, agents, contractors, or collaborators could adversely affect our reputation and our business, prospects, operating results, and financial condition.

We cannot ensure that our compliance controls, policies, and procedures will in every instance protect us from acts committed by our employees, agents, contractors, or collaborators that would violate the laws or regulations of the jurisdictions in which we operate, including, without limitation, healthcare, employment, foreign corrupt practices, environmental, competition, and patient privacy and other privacy laws and regulations. Such improper actions could subject us to civil or criminal investigations, and monetary and injunctive penalties, and could adversely impact our ability to conduct business, operating results, and reputation.

In particular, our business activities outside of the United States are subject to the Foreign Corrupt Practices Act, or FCPA, and similar anti-bribery or anticorruption laws, regulations or rules of other countries in which we operate, including the U.K. Bribery Act. The FCPA generally prohibits offering, promising, giving, or authorizing others to give anything of value, either directly or indirectly, to a non-U.S. government official in order to influence official action, or otherwise obtain or retain business. The FCPA also requires public companies to make and keep books and records that accurately and fairly reflect the transactions of the corporation and to devise and maintain an adequate system of internal accounting controls. Our business is heavily regulated and therefore involves significant interaction with public officials, including officials of non-U.S. governments. Additionally, in many other countries, the health care providers who prescribe pharmaceuticals are employed by their government, and the purchasers of pharmaceuticals are government entities; therefore, our dealings with these prescribers and purchasers are subject to regulation under the FCPA. Recently the Securities and Exchange Commission, or SEC, and Department of Justice have increased their FCPA enforcement activities with respect to pharmaceutical companies. There is no certainty that all of our employees, agents, contractors, or collaborators, or those of our affiliates, will comply with all applicable laws and regulations, particularly given the high level of complexity of these laws. Violations of these laws and regulations could result in fines, criminal sanctions against us, our officers, or our employees, requirements to obtain export licenses, cessation of business activities in sanctioned countries, implementation of compliance programs, and prohibitions on the conduct of our business. Any such violations could include prohibitions on our ability to offer our products in one or more countries and could materially dama

# Our operations may involve hazardous materials and are subject to environmental, health, and safety laws and regulations. Compliance with these laws and regulations is costly, and we may incur substantial liability arising from our activities involving the use of hazardous materials.

As a biopharmaceutical company with significant research and development and manufacturing operations, we are subject to extensive environmental, health, and safety laws and regulations, including those governing the use of hazardous materials. Our research and development and manufacturing activities involve the controlled use of chemicals, infectious agents (such as viruses, bacteria, and fungi), radioactive compounds, and other hazardous materials. The cost of compliance with environmental, health, and safety regulations is substantial. If an accident involving these materials or an environmental discharge were to occur, we could be held liable for any resulting damages, or face regulatory actions, which could exceed our resources or insurance coverage.

# Our business is subject to increasingly complex corporate governance, public disclosure, and accounting requirements and regulations that could adversely affect our business, operating results, and financial condition.

We are subject to changing rules and regulations of various federal and state governmental authorities as well as the stock exchange on which our Common Stock is listed. These entities, including the SEC and The NASDAQ Stock Market LLC, have issued a significant number of new and increasingly complex requirements and regulations over the course of the last several years and continue to develop additional requirements and regulations in response to laws enacted by Congress, including the Sarbanes-Oxley Act of 2002 and, most recently, the Dodd-Frank Wall Street Reform and Protection Act, or the Dodd-Frank Act. There are significant corporate governance and executive compensation-related provisions in the Dodd-Frank Act that expressly authorized or required the SEC to adopt additional rules in these areas, a number of which have yet to be fully implemented. Our efforts to comply with these requirements and regulations have resulted in, and are likely to continue to result in, an increase in expenses and a diversion of management's time from other business activities.

## Changes in laws and regulations affecting the healthcare industry could adversely affect our business.

All aspects of our business, including research and development, manufacturing, marketing, pricing, sales, litigation, and intellectual property rights, are subject to extensive legislation and regulation. Changes in applicable federal and state laws and agency regulations could have a materially negative impact on our business. These include:

- changes in the FDA and foreign regulatory processes for new therapeutics that may delay or prevent the approval of any of our current or future product candidates;
- new laws, regulations, or judicial decisions related to healthcare availability or the payment for healthcare products and services, including
  prescription drugs, that would make it more difficult for us to market and sell products once they are approved by the FDA or foreign regulatory
  agencies;
- changes in FDA and foreign regulations that may require additional safety monitoring prior to or after the introduction of new products to market, which could materially increase our costs of doing business; and
- changes in FDA and foreign cGMPs that may make it more difficult and costly for us to maintain regulatory compliance and/or manufacture our marketed product and product candidates in accordance with cGMPs.

As described above, the PPACA and potential regulations thereunder easing the entry of competing follow-on biologics into the marketplace, other new legislation or implementation of existing statutory provisions on importation of lower-cost competing drugs from other jurisdictions, and legislation on comparative effectiveness research are examples of previously enacted and possible future changes in laws that could adversely affect our business.

### Risks associated with our operations outside of the United States could adversely affect our business.

We have operations and conduct business outside the United States and we plan to expand these activities. Consequently, we are, and will continue to be, subject to risks related to operating in foreign countries, which include:

- unfamiliar foreign laws or regulatory requirements or unexpected changes to those laws or requirements;
- other laws and regulatory requirements to which our business activities abroad are subject, such as the FCPA and the U.K. Bribery Act (discussed in
  greater detail above under "Risks from the improper conduct of employees, agents, contractors, or collaborators could adversely affect our
  reputation and our business, prospects, operating results, and financial condition");
- changes in the political or economic condition of a specific country or region;
- fluctuations in the value of foreign currency versus the U.S. dollar and the cost of currency exchange;
- our ability to deploy overseas funds in an efficient manner;
- tariffs, trade protection measures, import or export licensing requirements, trade embargoes, and other trade barriers;
- difficulties in attracting and retaining qualified personnel; and
- cultural differences in the conduct of business.

### We may incur additional tax liabilities related to our operations.

We are subject to income tax in the United States and various foreign jurisdictions. Significant judgment is required in determining our worldwide tax liabilities, and our effective tax rate is derived from a combination of the applicable statutory rates in the various jurisdictions in which we operate. We record liabilities that involve significant management judgment for uncertain tax positions. The IRS or other domestic or foreign taxing authorities may disagree with our interpretation of tax law as applied to the operations of Regeneron and its subsidiaries or with the positions we may take with respect to particular tax issues on our tax returns. Consequently, our reported effective tax rate and our after-tax cash flows may be materially and adversely affected by tax assessments or judgments in excess of accrued amounts we have estimated in preparing our financial statements. Further, our effective tax rate may also be adversely affected by numerous other factors, including changes in the mix of our profitability from country to country, the availability of the U.S. research and development tax credit, and changes in tax laws and regulations.

#### We face potential liability related to the privacy of health information we obtain from research institutions and our collaborators.

Most health care providers, including research institutions from which we or our collaborators obtain patient information, are subject to privacy and security regulations promulgated under the Health Insurance Portability and Accountability Act of 1996 (HIPAA), as amended by the Health Information Technology for Economic and Clinical Health Act. For example, as part of our human genetics initiative, our wholly-owned subsidiary, Regeneron Genetics Center LLC, is collaborating with the Geisinger Health System, which is subject to such regulations, and may enter into collaboration arrangements with additional institutions in the future. Regeneron is not a HIPAA-covered entity and our clinical research efforts are not directly regulated by HIPAA, so we are not subject to civil penalties under HIPAA. However, any person may be prosecuted under HIPAA's criminal provisions either directly or under aiding-andabetting or conspiracy principles. Consequently, depending on the facts and circumstances, we could face substantial criminal penalties if we knowingly receive individually identifiable health information from a HIPAA-covered health care provider or research institution that has not satisfied HIPAA's requirements for disclosure of individually identifiable health information. In addition, international data protection laws, including the EU Data Protection Directive and member state implementing legislation, may apply to some or all of the clinical data obtained from our collaborators outside of the U.S. Failure by those collaborators to comply with the strict rules on the transfer of personal data outside of the EU into the U.S. may result in the imposition of criminal and administrative sanctions on such collaborators, which could adversely affect our business. Furthermore, certain health privacy laws, data breach notification laws, consumer protection laws, and genetic testing laws may apply directly to our operations and/or those of our collaborators and may impose restrictions on our collection, use, and dissemination of individuals' health information. Moreover, patients about whom we or our collaborators obtain information, as well as the providers who share this information with us, may have statutory or contractual rights that limit our ability to use and disclose the information. Claims that we have violated individuals' privacy rights or breached our contractual obligations, even if we are not found liable, could be expensive and time-consuming to defend and could result in adverse publicity that could harm our business.

If we or any collaborators fail to comply with applicable federal, state, or local regulatory requirements, we could be subject to a range of regulatory actions that could affect our or any collaborators' ability to commercialize our products and could harm or prevent sales of any affected products that we are able to commercialize, or could substantially increase the costs and expenses of commercializing and marketing our products. Any threatened or actual government enforcement action could also generate adverse publicity and require that we devote substantial resources that could otherwise be used in other aspects of our business.

#### Increasing use of social media could give rise to liability, breaches of data security, or reputational damage.

We and our employees are increasingly utilizing social media tools as a means of communication both internally and externally. Despite our efforts to monitor evolving social media communication guidelines and comply with applicable rules, there is risk that the use of social media by us or our employees to communicate about our products or business may cause us to be found in violation of applicable requirements. In addition, our employees may knowingly or inadvertently make use of social media in ways that may not comply with our social media policy or other legal or contractual requirements, which may give rise to liability, lead to the loss of trade secrets or other intellectual property, or result in public exposure of personal information of our employees, clinical trial patients, customers, and others. Furthermore, negative posts or comments about us or our products in social media could seriously damage our reputation, brand image, and goodwill. Any of these events could have a material adverse effect on our business, prospects, operating results, and financial condition and could adversely affect the price of our Common Stock.

### **Risks Related to Our Reliance on Third Parties**

# If our antibody collaboration with Sanofi is terminated, our business, prospects, operating results, and financial condition, and our ability to discover, develop, manufacture, and commercialize our pipeline of product candidates in the time expected, or at all, would be materially harmed.

We rely heavily on funding from Sanofi to support our target discovery and antibody research and development programs. Sanofi has committed to pay up to \$160 million per year, or a total of \$1.28 billion, between 2010 and 2017 to fund our efforts to identify and validate drug discovery targets and preclinically develop fully human monoclonal antibodies against such targets. Sanofi also initially funds almost all of the development expenses incurred by both companies in connection with the clinical development of antibodies that Sanofi elects to co-develop with us. We rely on Sanofi to fund these activities. In addition, with respect to those antibodies that Sanofi elects to co-develop with us, such as sarilumab, alirocumab, dupilumab, nesvacumab, REGN1033, and REGN2222, we rely on Sanofi to lead much of the clinical development efforts and assist with obtaining regulatory approval, particularly outside the United States. We also rely on Sanofi to lead the commercialization efforts to support all of the antibody products that are co-developed by Sanofi and us if they receive regulatory approval. If Sanofi does not elect to co-develop the antibodies that we discover or opts out of their development, unless we enter into a partnership agreement with another party, we would be required to fund and oversee on our own the clinical trials, any regulatory responsibilities, and the ensuing commercialization efforts to support those antibody products. For example, Sanofi has elected not to continue co-development of fasinumab and enoticumab, and decided not to opt in to the REGN1154, REGN 1193, REGN1500, and other programs. If Sanofi terminates the antibody collaboration or fails to comply with its payment obligations thereunder, our business, prospects, operating results, and financial condition would be materially harmed. We would be required to either expend substantially more resources than we have anticipated to support our research and development efforts, which could require us to seek additional funding that might not be available on favorable terms or at all, or materially cut back on such activities. Even though none of the antibodies from this collaboration may ever be successfully developed and commercialized, if Sanofi does not perform its obligations with respect to antibodies that it elects to co-develop, our ability to develop, manufacture, and commercialize these antibody product candidates will be significantly adversely affected.

# If our collaboration with Sanofi for ZALTRAP is terminated, or Sanofi materially breaches its obligations thereunder, our business, prospects, operating results, and financial condition, and our ability to develop and commercialize ZALTRAP, would be materially harmed.

We rely heavily on Sanofi to lead much of the development of ZALTRAP and the commercialization of ZALTRAP. If Sanofi fails to perform its obligations in a timely manner, or at all, our ability to develop and commercialize ZALTRAP in previously-treated mCRC will be significantly adversely affected. Sanofi has the right to terminate its collaboration agreement with us at any time upon twelve months' advance notice. If Sanofi were to terminate its collaboration agreement with us, we would not have the resources or skills to replace those of our collaborator, which we would have to develop or outsource at substantial additional costs to us. In particular, we have limited commercial capabilities outside the United States and would have to develop or outsource these capabilities. Termination of the Sanofi collaboration agreement for ZALTRAP would create substantial new and additional risks to the successful development and commercialization of ZALTRAP.

# If our collaboration with Bayer HealthCare for EYLEA is terminated, or Bayer HealthCare materially breaches its obligations thereunder, our business, prospects, operating results, and financial condition, and our ability to continue to develop EYLEA and commercialize EYLEA outside the United States in the time expected, or at all, would be materially harmed.

We rely heavily on Bayer HealthCare to assist with the development, and the commercialization outside the United States, of EYLEA. Under our agreement with them, Bayer HealthCare is required to fund approximately half of the development expenses incurred by both companies in connection with the global EYLEA development program. As the EYLEA program continues, we will continue to rely on Bayer HealthCare to assist with funding the EYLEA development program, continue to lead the development of EYLEA outside the United States, obtain regulatory approval outside the United States, and provide all sales, marketing, and commercial support for the product outside the United States. In particular, Bayer HealthCare has responsibility for selling EYLEA outside the United States using its sales force and, in Japan, in cooperation with Santen Pharmaceuticals Co. Ltd. pursuant to a Co-Promotion and Distribution Agreement with Bayer HealthCare's Japanese affiliate. EYLEA is currently available in the United States, EU, and certain other countries outside of the United States for treatment of wet AMD, macular edema following CRVO (RVO in the United States), and DME. We cannot assure you that additional regulatory approvals will be received for EYLEA outside the United States or that EYLEA will be successfully commercialized outside the United States. If Bayer HealthCare and, in Japan, Santen do not perform their obligations in a timely manner, or at all, our ability to develop, manufacture, and commercialize EYLEA outside the United States will be significantly adversely affected. Bayer HealthCare has the right to terminate its collaboration agreement with us at any time upon six or twelve months' advance notice, depending on the circumstances giving rise to termination. If Bayer HealthCare were to terminate its collaboration agreement with us, we would not have the resources or skills to replace those of our partner, which could require us to seek additional funding or another collaboration that might not be available on favorable terms or at all, and could cause significant delays in the development and/or commercialization of EYLEA outside the United States and result in substantial additional costs to us. We have limited commercial capabilities outside the United States and would have to develop or outsource these capabilities. Termination of the Bayer HealthCare collaboration agreement would create substantial new and additional risks to the successful development and commercialization of EYLEA, particularly outside the United States.

# Our collaborators and service providers may fail to perform adequately in their efforts to support the development, manufacture, and commercialization of our drug candidates and current and future products.

We depend upon third-party collaborators, including Sanofi, Bayer HealthCare, and service providers such as CROs, outside testing laboratories, clinical investigator sites, and third-party manufacturers, fill/finish, and product packagers and labelers, to assist us in the manufacture and preclinical and clinical development of our product candidates. We also depend, or will depend, on some of these third parties in connection with the commercialization of EYLEA for its currently approved indications, ZALTRAP for the treatment of patients with mCRC, ARCALYST for the treatment of CAPS, and our late-stage product candidates and new indications for our marketed products if they are approved for marketing. If any of our existing collaborators or service providers breaches or terminates its agreement with us or does not perform its development or manufacturing services under an agreement in a timely manner or in compliance with applicable GMPs, GLPs, or GCP Standards, we could experience additional costs, delays, and difficulties in the manufacture or development of, or in obtaining approval by regulatory authorities for, or successfully commercializing our product candidates.

We rely on third-party service providers to support the distribution of EYLEA in the United States and for many other related activities in connection with the commercialization of this marketed product. Despite our arrangements with them, these third parties may not perform adequately. If these service providers do not perform their services adequately, our sales of EYLEA will suffer.

#### **Risk Related to Employees**

# We are dependent on our key personnel and if we cannot recruit and retain leaders in our research, development, manufacturing, and commercial organizations, our business will be harmed.

We are highly dependent on certain of our executive officers, other key members of our senior management team, and our Chairman. If we are not able to retain (or for any other reason lose the services of) any of these persons, our business may suffer. In particular, we depend on the services of P. Roy Vagelos, M.D., the Chairman of our board of directors; Leonard S. Schleifer, M.D., Ph.D., our President and Chief Executive Officer; George D. Yancopoulos, M.D., Ph.D., President, Regeneron Laboratories and our Chief Scientific Officer; and Neil Stahl, Ph.D., our Senior Vice President, Research and Development Sciences. As we continue to commercialize EYLEA, we are also highly dependent on the expertise and services of members of our senior management leading these commercialization efforts. There is intense competition in the biotechnology industry for qualified scientists and managerial personnel in the development, manufacture, and commercialization of drugs. We may not be able to continue to attract and retain the qualified personnel necessary to continue to advance our business and achieve our strategic objectives.

# **Information Technology Risks**

### Significant disruptions of information technology systems or breaches of data security could adversely affect our business.

Our business is increasingly dependent on critical, complex, and interdependent information technology systems, including Internet-based systems, to support business processes as well as internal and external communications. The size and complexity of our computer systems make us potentially vulnerable to IT system breakdowns, malicious intrusion, and computer viruses, which may result in the impairment of production and key business processes.

In addition, our systems are potentially vulnerable to data security breaches—whether by employees or others—which may expose sensitive data to unauthorized persons. Such data security breaches could lead to the loss of trade secrets or other intellectual property, or could lead to the public exposure of personal information (including sensitive personal information) of our employees, clinical trial patients, customers, and others.

Such disruptions and breaches of security could result in legal proceedings, liability under laws that protect the privacy of personal information, disruptions to our operations, and damage to our reputation, which could have a material adverse effect on our business, prospects, operating results, and financial condition.

# Risks Related to Our Financial Results, Liquidity, and Need for Additional Financing

# We have a history of operating losses and have only recently achieved profitability. If we cannot sustain profitability, our business, prospects, operating results, and financial condition would be materially harmed.

Beginning in the first quarter of 2012, we reported profitability; prior to that, we generally incurred net losses. If we cannot sustain profitability, we may be unable to continue our operations. In the absence of substantial revenue from the sale of products on an ongoing basis, including our sales of EYLEA, and our share of the profits from Bayer HealthCare's sales of EYLEA outside the United States, or from other sources, the amount, timing, nature, or source of which cannot be predicted, we may incur substantial losses again as we conduct our research and development activities, commercialize our approved products, and prepare for possible commercialization of our other product candidates and new indications of our marketed products.

# We may need additional funding in the future, which may not be available to us, and which may force us to delay, reduce or eliminate our product development programs or commercialization efforts.

We expend substantial resources for research and development, including costs associated with clinical testing of our product candidates and new indications of our marketed products, the commercialization of products, and capital expenditures. We believe our existing capital resources, together with funds generated by current and anticipated EYLEA net product sales and funding we are entitled to receive under our collaboration agreements, will enable us to meet our anticipated operating needs for the foreseeable future. However, one or more of our collaboration agreements may terminate, our revenues may fall short of our projections or be delayed, or our expenses may increase, any of which could result in our capital being consumed significantly faster than anticipated. In addition, our expenses may increase for many reasons, including expenses in connection with the ongoing marketing of EYLEA and the potential commercial launches of our late-stage product candidates and new indications for our marketed products, manufacturing scale-up, expenses related to clinical trials testing of antibody product candidates we are developing on our own (without Sanofi), and expenses related to the requirement, following receipt of the first positive Phase 3 trial results for a co-developed drug candidate, for us to fund 20% of Phase 3 clinical trial costs for any of our antibody product candidates being developed in collaboration with Sanofi.

We cannot be certain that our existing capital resources and our current and anticipated revenues will be sufficient to meet our operating needs. We may require additional financing in the future and we may not be able to raise additional funds on acceptable terms or at all. Our ability to obtain additional financing could be adversely affected if there is a significant decline in the demand for our products or other significantly unfavorable changes in economic conditions. Volatility in the financial markets could increase borrowing costs or affect our ability to raise capital. If additional financing is necessary and we are able to obtain it through the sale of equity securities, such sales will likely be dilutive to our shareholders. Debt financing arrangements may require us to pledge certain assets or enter into covenants that would restrict our business activities or our ability to incur further indebtedness and may be at interest rates and contain other terms that are not favorable to our shareholders. Should we require and be unable to raise sufficient funds (i) to complete the development of our product candidates, (ii) to successfully commercialize our late-stage product candidates or new indications for our marketed products if they obtain regulatory approval, and (iii) to continue our manufacturing and marketing of EYLEA, we may face delay, reduction, or elimination of our research and development or preclinical or clinical programs and our commercialization activities, which would significantly limit our potential to generate revenue.

# Changes in foreign currency exchange rates could have a material adverse effect on our operating results.

Our revenue from outside of the United States will increase as our products, whether marketed by us or our collaborators, gain marketing approval in such jurisdictions. Our primary foreign currency exposure relates to movements in the Japanese yen, euro, British pound sterling, and Australian dollar. If the U.S. dollar weakens against a specific foreign currency, our revenues will increase, having a positive impact on net income, but our overall expenses will increase, having a negative impact. Likewise, if the U.S. dollar strengthens against a specific foreign currency, our revenues will decrease, having a negative impact. Therefore, significant changes in foreign exchange rates can impact our operating results and the financial condition of our company.

# Our investments are subject to risks and other external factors that may result in losses or affect the liquidity of these investments.

As of September 30, 2014, we had \$646.6 million in cash and cash equivalents and \$849.1 million in marketable securities. Our investments consist primarily of fixed-income securities, including investment-grade corporate bonds, direct obligations of the U.S. government and its agencies, and other debt securities guaranteed by the U.S. government. These investments are subject to external factors that may adversely affect their market value or liquidity, such as interest rate, liquidity, market, and issuer credit risks, including actual or anticipated changes in credit ratings. If our investments suffer market price declines that are other than temporary, their value could be impaired, which may have an adverse effect on our financial condition and operating results.

# **Risks Related to Our Common Stock**

# Our stock price is extremely volatile.

There has been significant volatility in our stock price and generally in the market prices of biotechnology companies' securities. Various factors and events may have a significant impact on the market price of our Common Stock. These factors include, by way of example:

- fluctuations in our operating results, in particular net product sales of EYLEA and, to a lesser degree, sales of ZALTRAP;
- if any of our product candidates or our new indications for our marketed products receive regulatory approval, net product sales of, and profits from, these product candidates and new indications;
- market acceptance of, and fluctuations in market share for, our marketed products, especially EYLEA;
- whether our net products sales and net profits underperform, meet, or exceed the expectations of investors or analysts;
- announcement of actions by the FDA or foreign regulatory authorities or their respective advisory committees regarding our, or our collaborators', or our competitors', currently pending or future application(s) for regulatory approval of product candidate(s) or new indications for marketed products;
- announcement of submission of an application for regulatory approval of one or more of our, or our competitors', product candidates or new indications for marketed products;
- progress, delays, or results in clinical trials of our or our competitors' product candidates or new indications for marketed products;
- announcement of technological innovations or product candidates by us or competitors;
- claims by others that our products or technologies infringe their patents;
- challenges by others to our patents in the European Patent Office and in the U.S. Patent and Trademark Office;
- public concern as to the safety or effectiveness of any of our marketed products or product candidates or new indications for our marketed products;
- pricing or reimbursement actions, decisions, or recommendations by government authorities, insurers, or other organizations affecting the coverage, reimbursement, or use of any of our marketed products or competitors' products;
- our ability to raise additional capital as needed on favorable terms;
- developments in our relationships with collaborative partners or key customers;
- developments in the biotechnology industry or in government regulation of healthcare, including those relating to compounding;
- large sales of our Common Stock by our executive officers, directors, or significant shareholders;
- changes in tax rates, laws, or interpretation of tax laws;
- arrivals and departures of key personnel;
- general market conditions; and
- the perception by the investment community or our shareholders of any of the foregoing factors.

The trading price of our Common Stock has been, and could continue to be, subject to wide fluctuations in response to these and other factors, including the sale or attempted sale of a large amount of our Common Stock in the market. As discussed in greater detail under "*Future sales of our Common Stock by our significant shareholders or us may depress our stock price and impair our ability to raise funds in new share offerings*" below, a large percentage of our Common Stock is owned by a small

number of our principal shareholders, and our largest shareholder, Sanofi, has been increasing its ownership of our Common Stock. As a result, the public float of our Common Stock (i.e., the portion of our Common Stock held by public investors, as opposed to the Common Stock held by our directors, officers, and principal shareholders) is low relative to many large public companies. As our Common Stock is less liquid than the stock of companies with broader public ownership, its trading price may fluctuate significantly more than the stock market as a whole. These factors may exacerbate the volatility in the trading price of our Common Stock and may negatively impact your ability to liquidate your investment in Regeneron at the time you wish at a price you consider satisfactory. Broad market fluctuations may also adversely affect the market price of our Common Stock. In the past, securities class action litigation has often been initiated against companies following periods of volatility in their stock price. This type of litigation could result in substantial costs and divert our management's attention and resources, and could also require us to make substantial payments to satisfy judgments or to settle litigation, which may harm our business, prospects, operating results, and financial condition.

# Future sales of our Common Stock by our significant shareholders or us may depress our stock price and impair our ability to raise funds in new share offerings.

A small number of our shareholders beneficially own a substantial amount of our Common Stock. As of October 16, 2014, our five largest shareholders plus Dr. Schleifer, our Chief Executive Officer, beneficially owned approximately 48.0% of our outstanding shares of Common Stock, assuming, in the case of our Chief Executive Officer, the conversion of his Class A Stock into Common Stock and the exercise of all options held by him which are exercisable within 60 days of October 16, 2014. As of October 16, 2014, Sanofi beneficially owned 22,657,685 shares of our Common Stock, representing approximately 22.7% of the shares of Common Stock then outstanding. Under our January 2014 amended and restated investor agreement with Sanofi, Sanofi has three demand rights to require us to use all reasonable efforts to conduct a registered underwritten offering with respect to shares of our Common Stock held by Sanofi from time to time; however, shares of our Common Stock held by Sanofi from time to time may not be sold until the later of (i) December 20, 2020 and (ii) the expiration of our discovery and preclinical development agreement with Sanofi relating to our antibody collaboration (as amended) if the agreement is extended beyond December 20, 2020. These restrictions on dispositions are subject to earlier termination upon the occurrence of certain events, such as the consummation of a change-of-control transaction involving us or a dissolution or liquidation of our company. In February 2013, we received from Sanofi a notification under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 that it intends to acquire additional Common Stock through open market purchases and direct purchases from shareholders. In July 2014, Sanofi disclosed in an amendment to its Schedule 13D filed with the SEC its intention to purchase additional shares of our Common Stock to progressively increase its beneficial ownership in 2014 and 2015 up to the maximum allowed under the "standstill" provisions of our amended and restated investor agreement with Sanofi, or 30% of our Class A Stock and Common Stock (taken together). If Sanofi, our other significant shareholders, or we sell substantial amounts of our Common Stock in the public market, or there is a perception that such sales may occur, the market price of our Common Stock could fall. Sales of Common Stock by our significant shareholders, including Sanofi, also might make it more difficult for us to raise funds by selling equity-related securities in the future at a time and price that we deem appropriate.

#### Our existing shareholders may be able to exert significant influence over matters requiring shareholder approval and over our management.

Holders of Class A Stock, who are generally the shareholders who purchased their stock from us before our initial public offering, are entitled to ten votes per share, while holders of Common Stock are entitled to one vote per share. As of October 16, 2014, holders of Class A Stock held 16.5% of the combined voting power of all shares of Common Stock and Class A Stock then outstanding. These shareholders, if acting together, would be in a position to significantly influence the election of our directors and the vote on certain corporate transactions that require majority or supermajority approval of the combined classes, including mergers and other business combinations. This may result in our taking corporate actions that other shareholders may not consider to be in their best interest and may affect the price of our Common Stock. As of October 16, 2014:

- our current executive officers and directors beneficially owned 10.2% of our outstanding shares of Common Stock, assuming conversion of their Class A Stock into Common Stock and the exercise of all options held by such persons which are exercisable within 60 days of October 16, 2014, and 22.1% of the combined voting power of our outstanding shares of Common Stock and Class A Stock, assuming the exercise of all options held by such persons which are exercisable within 60 days of October 16, 2014; and
- our five largest shareholders plus Dr. Schleifer, our Chief Executive Officer, beneficially owned approximately 48.0% of our outstanding shares of Common Stock, assuming, in the case of our Chief Executive Officer, the conversion of his Class A Stock into Common Stock and the exercise of all options held by him which are exercisable within 60 days of October 16, 2014. In addition, these five shareholders plus our Chief Executive Officer held approximately 53.7% of the combined voting power of our outstanding shares of Common Stock and Class A Stock, assuming the exercise of all options held by our Chief Executive Officer which are exercisable within 60 days of October 16, 2014.



Pursuant to the January 2014 amended and restated investor agreement with us, Sanofi has agreed to vote its shares as recommended by our board of directors, except that it may elect to vote proportionally with the votes cast by all of our other shareholders with respect to certain change-of-control transactions and to vote in its sole discretion with respect to liquidation or dissolution of our company, stock issuances equal to or exceeding 20% of the then outstanding shares or voting rights of Common Stock and Class A Stock (taken together), and new equity compensation plans or amendments if not materially consistent with our historical equity compensation practices.

In addition, upon Sanofi reaching 20% ownership of our then outstanding shares of Class A Stock and Common Stock (taken together), we are required under the amended and restated investor agreement to appoint an individual agreed upon by us and Sanofi to our board of directors. Subject to certain exceptions, we are required to use our reasonable efforts (including recommending that our shareholders vote in favor) to cause the election of this designee at our annual shareholder meetings for so long as Sanofi maintains an equity interest in us that is the lower of (i) the highest percentage ownership Sanofi attains following its acquisition of 20% of our then outstanding shares of Class A Stock and Common Stock (taken together) and (ii) 25% of our then outstanding shares of Class A Stock and Common Stock (taken together). This designee is required to be "independent" of our company, as determined under NASDAQ rules, and not to be a current or former officer, director, employee, or paid consultant of Sanofi. In April 2014, Sanofi notified us that it had reached the 20% ownership threshold and designated Robert A. Ingram as its designee. On April 4, 2014, following recommendation of the Corporate Governance and Compliance Committee, the board of directors elected Mr. Ingram as a director and a member of the Compensation Committee.

# The convertible note hedges and warrant transactions we entered into in connection with our convertible senior notes issuance may affect the trading price of our Common Stock.

In connection with our offering of our 1.875% convertible senior notes due October 1, 2016, we entered into convertible note hedge transactions with four financial institutions (the hedge counterparties), the purpose of which was to reduce the potential dilution to our Common Stock and/or offset potential cash payments in excess of the principal amount of the notes (as applicable) upon conversion of the notes. In the event that the hedge counterparties fail to deliver shares to us or potential cash payments (as applicable) as required under the convertible note hedge documents, we would not receive the benefit of such transactions. Separately, we also entered into warrant transactions with the hedge counterparties. The warrant transactions could separately have a dilutive effect from the issuance of Common Stock pursuant to the warrants.

In connection with hedging these transactions, the hedge counterparties and/or their affiliates may enter into various derivative transactions with respect to our Common Stock, and may enter into, or may unwind, various derivative transactions and/or purchase or sell our Common Stock or other securities of ours in secondary market transactions prior to maturity of the notes (and are likely to do so during any conversion period related to any conversion of the notes). These activities could have the effect of increasing or preventing a decline in, or could have a negative effect on, the value of our Common Stock and could have the effect of increasing or preventing a decline in the value of our Common Stock during any cash settlement averaging period related to a conversion of the notes.

In addition, we intend to exercise options under the convertible note hedge transactions whenever notes are converted. In order to unwind their hedge position with respect to the options we exercise, the hedge counterparties and/or their affiliates may sell shares of our Common Stock or other securities in secondary market transactions or unwind various derivative transactions with respect to our Common Stock during the cash settlement averaging period for the converted notes. The effect, if any, of any of these transactions and activities on the trading price of our Common Stock or the notes will depend in part on market conditions and cannot be ascertained at this time, but any of these activities could adversely affect the value of our Common Stock and the value of the notes. The derivative transactions that the hedge counterparties and/or their affiliates expect to enter into to hedge these transactions may include cash-settled equity swaps referenced to our Common Stock. In certain circumstances, the hedge counterparties and/or their affiliates may have derivative positions that, when combined with the hedge counterparties' and their affiliates' ownership of our Common Stock, if any, would give them economic exposure to the return on a significant number of shares of our Common Stock.

The anti-takeover effects of provisions of our charter, by-laws, and of New York corporate law, as well as the contractual provisions in our investor and collaboration agreements and certain provisions of our compensation plans and agreements and our convertible senior notes and related warrant and hedge transactions, could deter, delay, or prevent an acquisition or other "change in control" of us and could adversely affect the price of our Common Stock.

Our restated certificate of incorporation, our by-laws, and the New York Business Corporation Law contain various provisions that could have the effect of delaying or preventing a change in control of our company or our management that shareholders may consider favorable or beneficial. Some of these provisions could discourage proxy contests and make it more difficult for shareholders to elect directors and take other corporate actions. These provisions could also limit the price that investors might be willing to pay in the future for shares of our Common Stock. These provisions include:

- authorization to issue "blank check" preferred stock, which is preferred stock that can be created and issued by the board of directors without prior shareholder approval, with rights senior to those of our Common Stock and Class A Stock;
- a staggered board of directors, so that it would take three successive annual meetings to replace all of our directors;
- a requirement that removal of directors may only be effected for cause and only upon the affirmative vote of at least eighty percent (80%) of the
  outstanding shares entitled to vote for directors, as well as a requirement that any vacancy on the board of directors may be filled only by the
  remaining directors;
- a provision whereby any action required or permitted to be taken at any meeting of shareholders may be taken without a meeting, only if, prior to such action, all of our shareholders consent, the effect of which is to require that shareholder action may only be taken at a duly convened meeting;
- a requirement that any shareholder seeking to bring business before an annual meeting of shareholders must provide timely notice of this intention in writing and meet various other requirements; and
- under the New York Business Corporation Law, in addition to certain restrictions which may apply to "business combinations" involving our company and an "interested shareholder", a plan of merger or consolidation of our company must be approved by two-thirds of the votes of all outstanding shares entitled to vote thereon. See the risk factor above captioned "Our existing shareholders may be able to exert significant influence over matters requiring shareholder approval and over our management."

Pursuant to the January 2014 amended and restated investor agreement between us and Sanofi, Sanofi is bound by certain "standstill" provisions, which contractually prohibit Sanofi from seeking to directly or indirectly exert control of our company or acquiring more than 30% of our Class A Stock and Common Stock (taken together). This prohibition will remain in place until the earliest of (i) the later of the fifth anniversaries of the expiration or earlier termination of our license and collaboration agreement with Sanofi relating to our antibody collaboration or our ZALTRAP collaboration agreement with Sanofi, each as amended; (ii) our announcement recommending acceptance by our shareholders of a tender offer or exchange offer that, if consummated, would constitute a change of control involving us; (iii) the public announcement of any definitive agreement providing for a change of control involving us; (iv) the date of any issuance of shares of Common Stock by us that would result in another party's having more than 10% of the voting power of our then outstanding Class A Stock and Common Stock (taken together) unless such party enters into a standstill agreement containing certain terms substantially similar to the standstill obligations of Sanofi; or (v) other specified events, such as a liquidation or dissolution of our company.

Similarly, under our 2014 PDGFR-beta license and collaboration agreement with Bayer HealthCare, Bayer HealthCare is prohibited from seeking to influence the control of our company or acquiring more than 20% of our then outstanding Class A Stock and Common Stock (taken together). This prohibition will remain in place until the earliest of (i) the fifth anniversary of the expiration or earlier termination of the agreement; (ii) the public announcement of a tender offer, exchange offer, or other proposal that would constitute a change of control of our company; (iii) the acquisition (other than by Dr. Schleifer or his affiliates) of more than 20% of the voting power of our then outstanding Class A Stock and Common Stock (taken together); (iv) the issuance of shares of capital stock to another party (other than to an underwriter in a public offering) that would result in such party's having more than 7% of the voting power of our then outstanding Class A Stock and Stock (taken together); (iv) the issuance of shares of capital stock to another party (other than to an underwriter in a public offering) that would result in such party's having more than 7% of the voting power of our then outstanding Class A Stock and Common Stock (taken together) unless such third party enters into a standstill agreement containing terms substantially similar to the standstill obligations of Bayer HealthCare; (v) other specified events, such as a liquidation or dissolution of our company.

The holders of our convertible senior notes have fundamental change purchase rights, which require us to purchase all or a portion of their notes upon the occurrence of a fundamental change, as defined in the indenture governing the notes. In addition, the indenture contains provisions requiring an increase to the conversion rate for conversions in connection with make-whole fundamental changes. These rights and provisions may in certain circumstances delay or prevent a takeover of us and the removal of incumbent management that might otherwise be beneficial to investors. In addition, upon the occurrence of certain extraordinary events, the hedge transactions would be exercised upon the conversion of notes, and the warrant transactions may be terminated. It is possible that the proceeds we receive upon the exercise of the convertible note hedge transactions would be significantly lower than the amounts we would be required to pay upon termination of the warrant transactions. Such differences may result in the acquisition of us being on terms less favorable to our shareholders than it would otherwise be.

In addition, our Change in Control Severance Plan and the employment agreement with our Chief Executive Officer provide for severance benefits in the event of termination as a result of a change in control of our company. Also, stock options issued under our Second Amended and Restated 2000 Long-Term Incentive Plan and our 2014 Long-Term Incentive Plan may become fully vested in connection with a "change in control" of our company, as defined in the plans. Further, under the amended and restated investor agreement between us and Sanofi, we are required under certain circumstances to appoint an individual agreed upon by us and Sanofi to our board of directors, as described above under "*Our existing shareholders may be able to exert significant influence over matters requiring shareholder approval and over our management.*" These contractual provisions may also have the effect of deterring, delaying, or preventing an acquisition or other change in control.

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

In August 2014, we settled the conversion of \$0.002 million principal amount of our 1.875% convertible senior notes through the payment of \$0.002 million in cash (equal to the principal amount of the converted notes) and issuance of 17 shares of our Common Stock to the holder(s) of the notes surrendered for conversion. We had issued and sold the notes in October 2011 in a private placement in reliance on the exemption from registration provided by Section 4(2) of the Securities Act of 1933, as amended. In connection with this conversion, we exercised a proportionate amount of our convertible note hedges, as a result of which we received from our hedge counterparties 16 shares of our Common Stock.

#### **ITEM 6. EXHIBITS**

(a) Exhibits

<u>Exhibit</u>	Development
<u>Number</u>	Description
31.1	Certification of Principal Executive Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934.
31.2	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934.
32	Certification of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350.
101	Interactive Data File
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Document
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

# **SIGNATURE**

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

# REGENERON PHARMACEUTICALS, INC.

Date: November 4, 2014

By: <u>/s/ Robert E. Landry</u>

Robert E. Landry Senior Vice President, Finance and Chief Financial Officer (Duly Authorized Officer)

# Certification of Principal Executive Officer Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

### I, Leonard S. Schleifer, certify that:

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

Date: November 4, 2014

<u>/s/ Leonard S. Schleifer</u> Leonard S. Schleifer, M.D., Ph.D. President and Chief Executive Officer (Principal Executive Officer)

# Certification of Principal Financial Officer Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

### I, Robert E. Landry, certify that:

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

Date: November 4, 2014

<u>/s/ Robert E. Landry</u> Robert E. Landry Senior Vice President, Finance and Chief Financial Officer (Principal Financial Officer)

### Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Quarterly Report of Regeneron Pharmaceuticals, Inc. (the "Company") on Form 10-Q for the quarterly period ended September 30, 2014 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Leonard S. Schleifer, M.D., Ph.D., as Principal Executive Officer of the Company, and Robert E. Landry, as Principal Financial Officer of the Company, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of his knowledge, 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.

<u>/s/ Leonard S. Schleifer</u> Leonard S. Schleifer, M.D., Ph.D. President and Chief Executive Officer (Principal Executive Officer) November 4, 2014

<u>/s/ Robert E. Landry</u> Robert E. Landry Senior Vice President, Finance and Chief Financial Officer (Principal Financial Officer) November 4, 2014