

## bluebird bio (BLUE)

### Q3:13 EPS: BLUE Beginning Pivotal Studies; Well-Capitalized, Reiterate OUTPERFORM

- BLUE announced Q3:13 EPS of (\$0.26), beating our (\$0.41) estimate on higher-than-expected revenue recognized from its Celgene collaboration. The company ended the quarter with \$216.8M in cash and cash equivalents, which management believes is sufficient to fund operations through at least YE:15.
- The company expects to transplant the first patient in the LentiGlobin study in beta-thalassemia by year end. Last month it was announced that the first patient was transplanted in the "Starbeam" (ALD-102) study of Lenti-D to treat childhood cerebral adrenoleukodystrophy (CCALD).
- In the absence of interim safety and efficacy updates, we would look at no news about the trials in the next few months as a net positive, since only a negative event would likely require an announcement.
- Reiterate OUTPERFORM rating and \$40 price target. Our price target of \$40 is derived from applying an 8X multiple to estimated 2020 revenues of \$1.36B for LENTI-D and LENTIGLOBIN products, discounted 35% annually. We do not include CAR-T (chimeric antigen receptor T-cells, partnered with Celgene (CELG, not covered) in our valuation.

Risks to the achievement of our price target include failure to gain approval for products in development, failure to achieve sales estimates for any marketed product and failure to achieve earnings estimates.

November 15, 2013

Price  
**\$20.02**

Rating  
**OUTPERFORM**

12-Month Price Target  
**\$40**

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#### Company Information

Shares Outst (M)	23.6
Market Cap (M)	\$472.9
52-Wk Range	\$N/A - \$N/A
Book Value/sh	\$-177.00
Cash/sh	\$9.18
Enterprise Value (M)	\$256.1
LT Debt/Cap %	0.0
Cash Burn (M)	\$21.2

#### Company Description

Bluebird bio is developing LENTI-D, a gene therapy in a Phase II/III trial for treating CCALD, and LENTIGLOBIN, a gene therapy in Phase I/II trials for treating beta-thalassemia and sickle cell disease. With Celgene, it is also developing CAR-T in oncology.



Source: Thomson Reuters

FYE Dec	2013E	2014E			2015E		
REV	ACTUAL	CURR.	PREV.	CONS.	CURR.	PREV.	CONS.
Q1 Mar	\$1.1A	\$6.3E	\$0.6E	\$4.6E	5.9E	--	N/AE
Q2 Jun	6.3A	6.3E	0.5E	3.0E	6.3E	--	N/AE
Q3 Sep	6.4A	6.3E	0.4E	3.0E	6.3E	--	N/AE
Q4 Dec	6.3E	6.3E	0.4E	3.0E	6.3E	--	N/AE
Year*	\$20.1E	\$25.2E	\$1.8E	\$22.2E	24.8E	--	22.1E
Change	5825%	25%			-1%		
	2013E	2014E			2015E		
EPS	ACTUAL	CURR.	PREV.	CONS.	CURR.	PREV.	CONS.
Q1 Mar	(\$0.39)A	(\$0.32)E	(\$0.55)E	(\$0.22)E	(\$0.42)E	--	N/AE
Q2 Jun	(0.19)A	(0.32)E	(0.56)E	(0.30)E	(\$0.38)E	--	N/AE
Q3 Sep	(0.26)A	(0.33)E	(0.57)E	(0.30)E	(\$0.39)E	--	N/AE
Q4 Dec	(0.32)E	(0.33)E	(0.57)E	(0.31)E	(\$0.40)E	--	N/AE
Year*	(\$1.13)E	(\$1.30)E	(\$2.24)E	(\$0.94)E	(\$1.59)E	--	(1.11)E
P/E	--	--			--		
Change	37%	-15%			-22%		

Consensus estimates are from Thomson First Call.

\* Numbers may not add up due to rounding.

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## Investment Thesis

Bluebird bio is a gene therapy company focused on the treatment of rare genetic diseases, with two product candidates currently in development. Recent technical advances in gene therapy have revived strong interest in its curative potential and bluebird bio has made significant strides in the clinic. LENTI-D, its lead clinical product, is in a pivotal Phase II/III trial in patients with childhood adrenoleukodystrophy (ALD). Its other product in clinical development, LENTIGLOBIN, is in two Phase I/II trials in patients with the inherited hemoglobin disorders,  $\beta$ -thalassemia and sickle cell disease. Bluebird is also collaborating with Celgene to discover, develop and commercialize genetically modified T-cells, also called chimeric antigen receptor (CAR) cells, for the targeted destruction of cancer cells.



David M. Nierengarten, Ph.D.

11/15/2013

## Bluebird Bio, Inc.

Annual Financial Results & Projections

(\$ in thousands except per share data)

Ticker: BLUE (Nasdaq)

	FY:12A	Q1	Q2	Q3	Q4	FY:13E	FY:14E	FY:15E	FY:16E	FY:17E	FY:18E
Revenue:											
Sales	0	0	0	0	0	0	0	0	0	116,154	115,864
Collaboration revenue	0	1,042	6,249	6,251	6,150	19,692	24,600	24,243	6,027	0	0
Grant, license fees and other revenue	340	85	85	134	150	454	600	600	1,050	1,200	1,200
<b>Total Revenues</b>	<b>\$340</b>	<b>\$1,127</b>	<b>\$6,334</b>	<b>\$6,385</b>	<b>\$6,300</b>	<b>\$20,146</b>	<b>\$25,200</b>	<b>\$24,843</b>	<b>\$7,077</b>	<b>\$117,354</b>	<b>\$117,064</b>
Cost and Expenses:											
Costs of goods sold	0	0	0	0	0	0	0	0	0	29,038	28,966
Research and Development	17,210	5,284	7,247	8,706	10,012	31,249	40,551	44,012	49,536	58,554	71,173
Sales, General and Administrative	6,846	2,324	3,281	3,836	3,989	13,430	16,158	22,876	35,214	47,159	47,104
Other operating expenses	0	0	0	0	0	0	0	0	0	0	0
<b>Total Costs and Expenses</b>	<b>\$24,056</b>	<b>\$7,608</b>	<b>\$10,528</b>	<b>\$12,542</b>	<b>\$14,001</b>	<b>\$44,679</b>	<b>\$56,709</b>	<b>\$66,888</b>	<b>\$84,749</b>	<b>\$134,752</b>	<b>\$147,243</b>
Operating Income (loss)	(23,716)	(6,481)	(4,194)	(6,157)	(7,701)	(24,533)	(31,509)	(42,045)	(77,672)	(17,398)	(30,179)
Net Interest Income (Expense)	5	3	7	11	217	238	721	711	656	784	677
Other income / (Expense)	41	(66)	(396)	33	0	(429)	0	0	0	0	0
Income Before Income Taxes	(23,670)	(6,544)	(4,583)	(6,113)	(7,485)	(24,725)	(30,788)	(41,334)	(77,016)	(16,614)	(29,502)
<b>Net Income</b>	<b>(\$23,671)</b>	<b>(\$6,544)</b>	<b>(\$4,583)</b>	<b>(\$6,113)</b>	<b>(\$7,485)</b>	<b>(\$24,725)</b>	<b>(\$30,788)</b>	<b>(\$41,334)</b>	<b>(\$77,016)</b>	<b>(\$16,614)</b>	<b>(\$29,502)</b>
GAAP Basic EPS with sFAS123	(1.81)	(0.39)	(0.19)	(0.26)	(0.32)	(1.13)	(1.30)	(1.60)	(2.81)	(0.56)	(1.00)
GAAP Diluted EPS with sFAS123	(1.81)	(0.39)	(0.19)	(0.26)	(0.32)	(1.13)	(1.30)	(1.60)	(2.81)	(0.56)	(1.00)
Shares outstanding	13,112	16,717	23,603	23,623	23,623	21,892	23,623	25,873	27,373	29,623	29,623
Fully diluted shares outstanding	13,112	16,717	26,921	26,946	26,946	24,383	26,946	29,196	30,696	32,946	32,946
Cash Burn	(22,849)	(5,883)	(2,926)	(5,522)	(6,894)	(21,225)	(28,426)	(38,747)	(74,279)	(13,652)	(26,540)
Cash Balance	67,011	131,836	228,847	216,791	201,040	201,040	144,921	192,877	215,723	179,144	148,748

## Analyst Biography

David is an Analyst covering stocks in the Biotechnology/Biopharmaceuticals/BioDefense sector. His prior sell-side research experience at Robert W. Baird & Co. covered biotechnology companies of all market capitalizations, with a focus on oncology and rare diseases.

David received his B.S. (Biochemistry) from the University of Wisconsin-Madison and Ph.D. (Molecular and Cell Biology) from the University of California-Berkeley.

**David's Edge:** David's early stage venture capital investing experience gives him a balanced perspective on developmental-stage biotechnology companies and their ultimate risk/reward potential. His experience on the other side of that equation in a clinical-stage, venture backed biotechnology company provides him with insights into corporate operations. The combination of experiences creates a focus on value creation in this event-driven space.

## Analyst Certification

I, David M. Nierengarten, Ph.D., Gregory R. Wade, Ph.D., Christopher N. Marai, Ph.D., certify that the views expressed in this report accurately reflect my personal opinion and that I have not and will not, directly or indirectly, receive compensation or other payments in connection with my specific recommendations or views contained in this report.

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The Investment Ratings are based on the expected performance of a stock (based on anticipated total return to price target) relative to the other stocks in the analyst's coverage universe (or the analyst's team coverage).\*

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Outperform: 55%	Outperform: 14%
Neutral: 41%	Neutral: 2%
Underperform: 4%	Underperform: 0%

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Company	Disclosure
bluebird bio	1,3,5

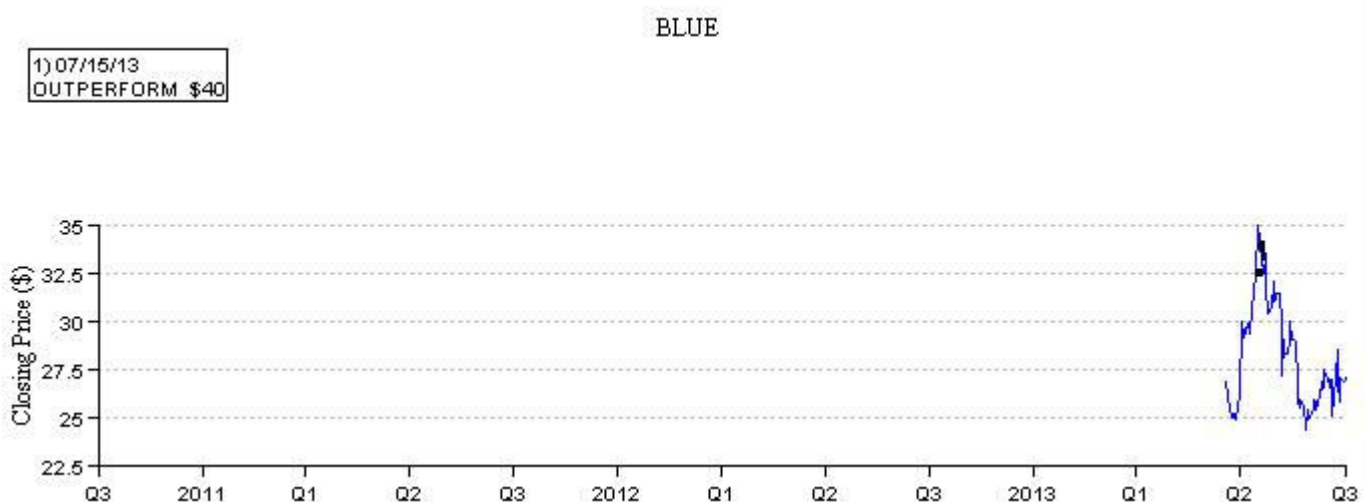
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