

bluebird bio (BLUE)

2013 Year-End Results, Well-capitalized, with Programs on Track, Reiterate OUTPERFORM

- BLUE reported Q4:13 revenue of \$6.3M and a net loss of \$8.1M, in line with our \$6.3M revenue and \$7.5M loss estimates. The company ended the year with \$206.3M in cash, sufficient in management's view to last at least through 2015.
- As previously reported, the first patients have already been transplanted in the Phase II/III Starbeam study of Lenti-D in childhood cerebral adrenoleukodystrophy (CCALD) and the Phase I/II HGB-205 study of LentiGlobin in beta-thalassemia and sickle cell disease (SCD). We view the lack of news from these studies as a positive, as only a negative safety event would require a public announcement.
- Early this year, BLUE plans to begin enrolling up to 15 patients with beta thalassemia in the US Phase I/II Northstar (HGB-204) study, while an IND to explore the use of LentiGlobin for SCD in the US is expected to be filed in mid-14. Preliminary data from both the Northstar and HGB-205 LentiGlobin studies is expected to be presented in late 2014.
- We would also note BLUE has a preclinical chimeric antigen receptor-modified T cell (CAR-T) program that is not included in our valuation and would represent an upside to our target. Recent academic studies have demonstrated strong anti-tumor activity for CAR-T immunotherapy in hematologic malignancies. Celgene (CELG, Not Covered) has an option to exclusively license BLUE's CAR-T program.
- Reiterate OUTPERFORM and our \$40 price target. Our price target is derived from applying an 8X multiple to estimated 2020 revenues of \$1.36B for Lenti-D and LentiGlobin products, discounted 35% annually.

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.

March 6, 2014

Price
\$25.91

Rating
OUTPERFORM

12-Month Price Target
\$40

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Company Information

Shares Outst (M)	23.6
Market Cap (M)	\$612.1
52-Wk Range	\$17.03 - \$36.25
Book Value/sh	\$6.67
Cash/sh	\$9.18
Enterprise Value (M)	\$395.3
LT Debt/Cap %	0.0
Cash Burn (M)	\$30.2

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	2013A	2014E			2015E		
REV	ACTUAL	CURR.	PREV.	CONS.	CURR.	PREV.	CONS.
Q1 Mar	\$1.1A	\$6.3E		\$6.2E	\$5.94E	5.9E	5.9E
Q2 Jun	6.3A	6.3E		6.2E	6.3E		6.3E
Q3 Sep	6.4A	6.3E		6.2E	6.3E		6.3E
Q4 Dec	6.3A	6.3E		6.2E	6.3E		6.3E
Year*	\$20.2A	\$25.2E		\$24.9E	24.8E		25.2E
Change	5836%	25%			--		
EPS	2013A	2014E			2015E		
	ACTUAL	CURR.	PREV.	CONS.	CURR.	PREV.	CONS.
Q1 Mar	(\$0.39)A	(\$0.33)E	(\$0.32)E	(\$0.30)E	(\$0.44)E	(\$0.42)E	(\$0.42)E
Q2 Jun	(0.19)A	(0.34)E	(0.32)E	(0.31)E	(0.39)E	(\$0.38)E	(0.38)E
Q3 Sep	(0.26)A	(0.34)E	(0.33)E	(0.33)E	(0.40)E	(\$0.39)E	(0.39)E
Q4 Dec	(0.34)A	(0.34)E	(0.33)E	(0.37)E	(0.41)E	(\$0.40)E	(0.40)E
Year*	(\$1.15)A	(\$1.35)E	(\$1.30)E	(\$1.38)E	(1.64)E	(\$1.59)E	(1.45)E
P/E	--	--			--		
Change	36%	-17%			--		

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, β -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.

3/6/2014

Bluebird Bio, Inc.

Annual Financial Results & Projections

(\$ in thousands except per share data)

Ticker: BLUE (Nasdaq)

	FY:12A	FY:13A	Q1	Q2	Q3	Q4	FY:14E	FY:15E	FY:16E	FY:17E	FY:18E	FY:19E	FY:20E
Revenue:													
Sales	0	0	0	0	0	0	0	0	0	116,154	115,864	692,511	1,355,330
Collaboration revenue	0	19,792	6,150	6,150	6,150	6,150	24,600	24,243	6,027	0	0	0	0
Grant, license fees and other revenue	340	389	150	150	150	150	600	600	1,050	1,200	1,200	1,200	1,200
Total Revenues	\$340	\$20,181	\$6,300	\$6,300	\$6,300	\$6,300	\$25,200	\$24,843	\$7,077	\$117,354	\$117,064	\$693,711	\$1,356,530
Cost and Expenses:													
Costs of goods sold	0	0	0	0	0	0	0	0	0	29,038	28,966	173,128	338,833
Research and Development	17,210	31,002	9,814	9,863	9,912	9,962	39,551	42,927	48,314	57,110	69,418	84,378	102,562
Sales, General and Administrative	6,846	14,126	4,708	4,732	4,756	4,779	18,975	25,998	40,078	50,594	50,538	160,101	286,037
Other operating expenses	0	0	0	0	0	0	0	0	0	0	0	0	8,000
Total Costs and Expenses	\$24,056	\$45,128	\$14,522	\$14,595	\$14,668	\$14,741	\$58,526	\$68,925	\$88,392	\$136,742	\$148,922	\$417,607	\$735,431
Operating Income (loss)	(23,716)	(24,947)	(8,222)	(8,295)	(8,368)	(8,441)	(33,326)	(44,082)	(81,315)	(19,388)	(31,858)	276,104	621,099
Net Interest Income (Expense)	5	29	206	187	173	158	724	702	639	754	638	726	6,058
Other income / (Expense)	41	(403)	0	0	0	0	0	0	0	0	0	0	0
Income Before Income Taxes	(23,670)	(25,321)	(8,016)	(8,108)	(8,195)	(8,283)	(32,602)	(43,379)	(80,676)	(18,635)	(31,220)	276,830	627,157
Net Income	(\$23,671)	(\$25,321)	(\$8,016)	(\$8,108)	(\$8,195)	(\$8,283)	(\$32,602)	(\$43,379)	(\$80,676)	(\$18,635)	(\$31,220)	\$262,988	\$445,651
GAAP Basic EPS with sFAS123	(1.81)	(1.15)	(0.33)	(0.34)	(0.34)	(0.34)	(1.35)	(1.64)	(2.89)	(0.62)	(1.03)	8.70	14.72
GAAP Diluted EPS with sFAS123	(1.81)	(1.15)	(0.33)	(0.34)	(0.34)	(0.34)	(1.35)	(1.64)	(2.89)	(0.62)	(1.03)	7.88	13.34
Shares outstanding	13,112	21,986	24,170	24,170	24,170	24,170	24,170	26,420	27,920	30,170	30,170	30,232	30,270
Fully diluted shares outstanding	13,112	24,396	27,303	27,303	27,303	27,303	27,303	29,553	31,053	33,303	33,303	33,365	33,403
Cash Burn	(22,849)	(18,821)	(7,412)	(7,503)	(7,591)	(7,679)	(30,185)	(40,737)	(77,884)	(15,618)	(28,203)	266,011	448,678
Cash Balance	67,011	206,279	187,173	172,657	158,100	143,490	143,490	189,454	209,502	170,089	137,962	351,164	764,529

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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Neutral: 43%	Neutral: 2%
Underperform: 3%	Underperform: 0%

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Company	Disclosure
bluebird bio	1,3,4,5

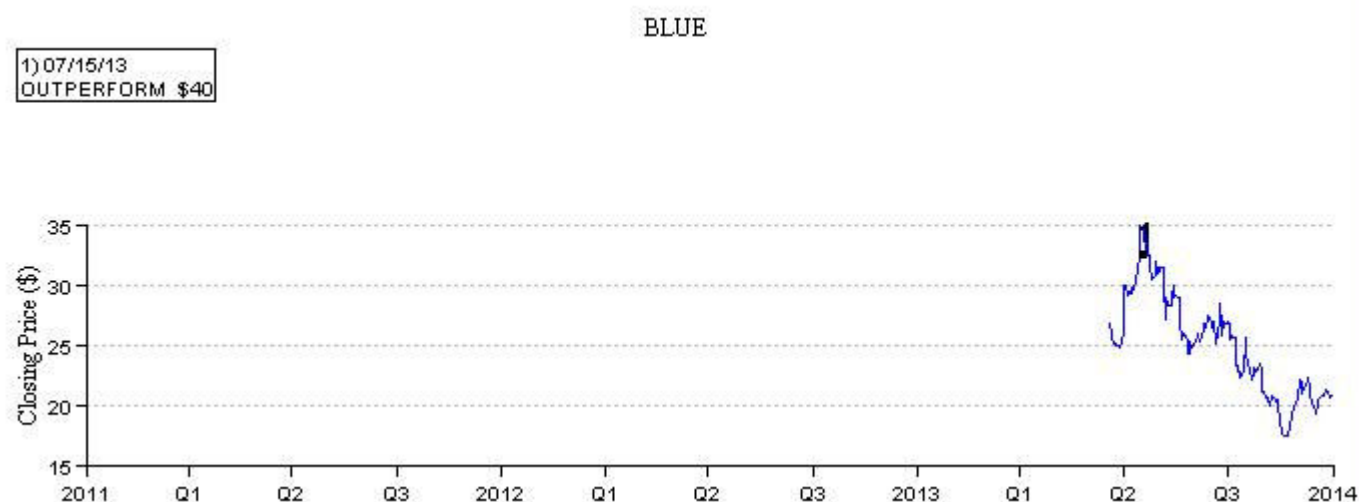
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