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Cerulean Pharma

Biotechnology

US Equity Research
20 March 2015

BUY
unchanged

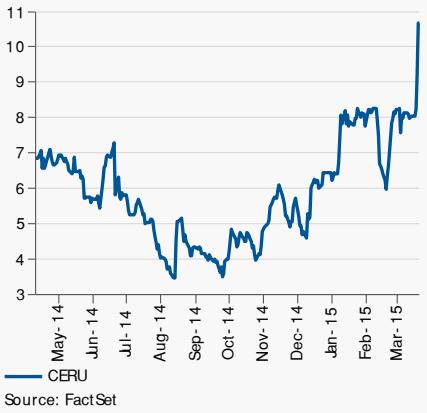
PRICE TARGET	US$15.00↑
from US$11.00	
Price (19-Mar)	US$10.66
Ticker	CERU-NASDAQ

52-Week Range (US$):	3.35 - 9.70
Avg Daily Vol (M) :	35.6
Shares Out. (M) :	20,124.6
Market Cap (US$M):	214,528

FYE Dec	2014A	2015E	2016E
Revenue (US$M)	0.1	0.0	0.0
EPS Adj&Dil (US$)	(1.60)↓	(2.13)↑	(1.82)
Previous	*(1.21)*	*(2.26)*	-

Quarterly Revenue	Q1	Q2	Q3	Q4
2014A	0.0	0.0	0.0	0.0
2015E	0.0	0.0	0.0	0.0
2016E	-	-	-	-

Quarterly EPS Adj&Dil	Q1	Q2	Q3	Q4
2014A	(3.70)	(0.44)	(0.28)	(0.37)
2015E	(0.62)	(0.51)	(0.54)	(0.49)
2016E	-	-	-	-



Source: FactSet

Cerulean is a development-stage oncology company developing novel cancer drugs using its tumor targeting platform.

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Raising Target Price

CRLX101 demonstrates positive data in relapsed RCC; raising PT to $15 from $11

CRLX101 positive in relapsed RCC, median PFS 9.9 mo

Updates on the complete 22 patients of CRLX101 + Avastin demonstrated a median PFS of 9.9 mo in 3rd/4th line RCC patients (standard of care ~3.5 mo with TKIs) and met the primary endpoint of 50% patients achieving at least a 4 mo PFS, a strong positive for the early compound. The combination therapy also demonstrated a 23% response rate vs. the minimum 2-4% responses with standard therapy without any unexpected toxicities. We find this data significant, especially since some of these patients were treated with prior mTOR inhibitors that already inhibit HIF-1a, but still had a response with CRLX101, possibly due to the sustained release payload of the NDC technology to cause a long term downregulation of HIF-1a vs. the transient inhibition by mTOR inhibitors. We await full data to be released at ASCO, as we will focus to see if the PFS is maintained, a key catalyst to the stock.

Phase 2 trial higher probability of success in RCC, data 2Q16

If CRLX101 + Avastin can maintain the 9.9 mon PFS, we believe the drug has high chance of achieving the primary endpoint of the phase 2 study, which is a 2.3 mo PFS improvement over physician's choice (since standard of care is ~3.5 month). Interesting, the company has pushed back the data readout for this trial to be 2Q16 vs. YE15 due to the strong data currently reported. We believe this is encouraging since it allows a more mature data readout and and gives the company a possible option to use the study as a registration trial, significantly accelerating approval.

CRLX101 shows early efficacy in ovarian and rectal cancer

CRLX101 + avastin demonstrated 1/9 PR and 8/9 SD in relapsed refractory ovarian cancer, a modest benefit to their 20% response target, though early. We remind investors that these ovarian patients are all platinum resistant, which has been shown to have only a 10-15% response rate to additional chemotherapy to begin with. Additionally, CRLX101 + chemoradiotherapy (CRT) demonstrated a 25% pathologic CR in neoadjuvant rectal cancer (standard of care 10-20%), with 7/8 pts achieving significant tumor regression as measured by AJCC scores. We expect continued updates on these indications, possibly by 2H15.

CRLX301 data by YE15 in solid tumors, interesting

We expect data for the phase 1/2a CRLX301 compound, and NDC with a docetaxel payload, in solid tumors by YE15. Preclinical studies show the compound delivers 10x more docetaxel to tumors than the commerical product.

Maintain BUY, raising PT to $15. We maintain our BUY rating and raise our PT to $15 based on positive data for CRLX101 in relapsed RCC. We raise of probability of approval to 40%, 50% and 45% in ovarian, RCC, and rectal cancer for CRLX101 from 30% for all indications.We adjust our 2015 EPS estimates based on the 4Q14 earnings call, and look forward to full data in RCC by ASCO 2015.

Figure 1: Cerulean Income statement

(000's) [FY - DEC]	2013A	Mar-14A	Jun-14A	Sep-14A	Dec-14A	2014A	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E	2018E	2019E	2020E
Revenues																
Rectal													-	-	24,257	123,603
RCC													-	-	19,397	65,914
Ovarian													-	55,214	182,988	332,844
Total													-	55,214	226,643	522,362
Income Statement	**2013A**	**Mar-14A**	**Jun-14A**	**Sep-14A**	**Dec-14A**	**2014A**	**1Q15E**	**2Q15E**	**3Q15E**	**4Q15E**	**2015E**	**2016E**	**2017E**	**2018E**	**2019E**	**2020E**
Revenues																
Total Revenue	6	47	33	-	-	80							-	55,214	226,643	522,362
COGS													-	8,282	33,996	78,354
Gross Profit	6	47	33	-	-	80							-	46,932	192,646	444,007
Operating Expenses																
Research and development	9,700	1,495	2,648	2,928	4,701	11,772	10,000	12,000	13,000	11,667	46,667	49,000	51,450	54,023	48,620	48,620
General and administrative	6,166	1,510	2,029	2,441	2,607	8,587	3,000	3,200	3,400	3,600	13,200	14,520	15,972	24,972	33,972	42,972
Total Operating Expense	15,866	3,005	4,677	5,369	7,308	20,359	13,000	15,200	16,400	15,267	59,867	63,520	67,422	78,995	82,592	91,592
EBITDA																
Operating income	(15,860)	(2,958)	(4,644)	(5,369)	(7,308)	(20,279)	(13,000)	(15,200)	(16,400)	(15,267)	(59,867)	(63,520)	(67,422)	(32,062)	110,054	352,415
Investment income, net																
Interest Income	2	1	2	2	4	9										
Interest Expense	(1,487)	(461)	(268)	(191)	(163)	(1,083)	-	-	-	-	-	-	-	-	-	-
Loss on extinguishment of debt			(2,493)		-	(2,493)										
Decrease in value of pref stock warran	202	504			-	504										
Pre-tax income (GAAP)	(17,143)	(2,914)	(7,403)	(5,558)	(7,467)	(23,342)	(13,000)	(15,200)	(16,400)	(15,267)	(59,867)	(63,520)	(67,422)	(32,062)	110,054	352,415
Pre-tax income (non-GAAP)																
Taxes (GAAP)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40,720	130,394
Tax rate (GAAP)	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%
Net Income (GAAP)	(17,143)	(2,914)	(7,403)	(5,558)	(7,467)	(23,342)	(13,000)	(15,200)	(16,400)	(15,267)	(59,867)	(63,520)	(67,422)	(32,062)	69,334	222,022
GAAP adjustments																
Adjusted Net Income	-															
GAAP EPS (diluted)	**($0.90)**	**($3.70)**	**($0.44)**	**($0.28)**	**($0.37)**	**($1.60)**	**($0.62)**	**($0.51)**	**($0.54)**	**($0.49)**	**($2.13)**	**($1.82)**	**($1.66)**	**($0.72)**	**$1.48**	**$4.53**
Basic shares outstanding		19	19	19	19	19	19	19	20	20	20	20	20	20	20	20
Diluted shares outstanding		787	16,884	20,125	20,399	14,549	21,011	29,641	30,530	31,446	28,157	34,950	40,697	44,497	46,721	49,057

Source: Company Reports, Canaccord Genuity estimates

Figure 2: Cerulean Valuation

	Peak Sales	Year	Current Value	Probability Adjustment	Value Per Share
Ovarian	$333	2020	$439	40%	$9
RCC	$136	2021	$101	50%	$3
Rectal	$191	2021	$169	45%	$4
Total			**$709**	**30%**	**$15**

Risk Free Rate	2%
Beta	1.3
Risk Premium	9%
Discount Rate	13.4%

Shares outstanding (M's) 20

Source: Company Reports, Canaccord Genuity estimates

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Target Price / Valuation Methodology:

Cerulean Pharma - CERU

We have a $15 price target based on a sum-of-the-parts probability-adjusted NPV analysis.

Risks to achieving Target Price / Valuation:

Cerulean Pharma - CERU

Cerluean's lead drug CRLX101 may fail in any or all three currently ongoing clinical programs, resulting in downside to our price target and the current stock price. In addition, clinical studies may be successful but not meet investor expectations, also resulting in downside to our price target and the stock price. Even assuming clinical success for CRLX101, FDA approval could require more clinical data than originally anticipated, resulting in delayed revenue timelines, potentially pressuring the share price. In addition, CRLX101 may be deemed efficacious, but could generate unexpected toxicity, resulting in reduced market share and lower revenues than expected, even if FDA approval is attained. We view the use of CRLX101 in combination with Avastin for the treatment of ovarian cancer as potentially risky because Avastin has not been FDA approved for the treatment of ovarian cancer. While Avastin is approved in the EU for the treatment of ovarian cancer there have been issues with regards to safety in certain cancer indications, including ovarian. Specifically, adverse events and safety data may be skewed significantly higher as a result of the effects of Avastin, rather than from CRLX101. US studies of Avastin in ovarian cancer resulted in some bowel perforations and deaths, which might limit the overall safety profile for CRLX101+Avastin in platinum resistant ovarian cancer in the clinic, resulting in downside to our price target and the stock price. Although data readouts are expected throughout 2014 and 2015, critical randomized data are unlikely to be available until 2H15, a timeline which may be too long for certain investors, creating potential downside pressure on the stock. In addition, if timelines for any data readouts during 2014 and 2015 are delayed, investors could become skeptical regarding the results, also creating downward pressure on the stock and potential downside to our price target. The oncology space is highly competitive, and other companies could generate data potentially limiting the commercial opportunity for Cerulean, resulting in downside to our revenue estimates and price target. Specifically, although we view recent data from Merrimack as a positive, some investors may believe that the drug will compete directly with CRLX101, limiting upside for Cerulean. Also, other companies are developing "reformulated" chemotherapy drugs including Sorrento, Nektar, Celgene, and others. Specifically, Nektar is also developing a reformulated, long-acting PEGylated formulation of irinotecan, which investors may also view as a threat to CRLX101 market share going forward, pressuring the stock.

Distribution of Ratings:

Global Stock Ratings (as of 03/20/15)

Rating	Coverage Universe		IB Clients
	#	%	%
Buy	571	57.91%	33.45%
Hold	326	33.06%	17.48%
Sell	40	4.06%	0%
Speculative Buy	49	4.97%	57.14%
	986*	100.0%	

*Total includes stocks that are Under Review

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BUY: The stock is expected to generate risk-adjusted returns of over 10% during the next 12 months.

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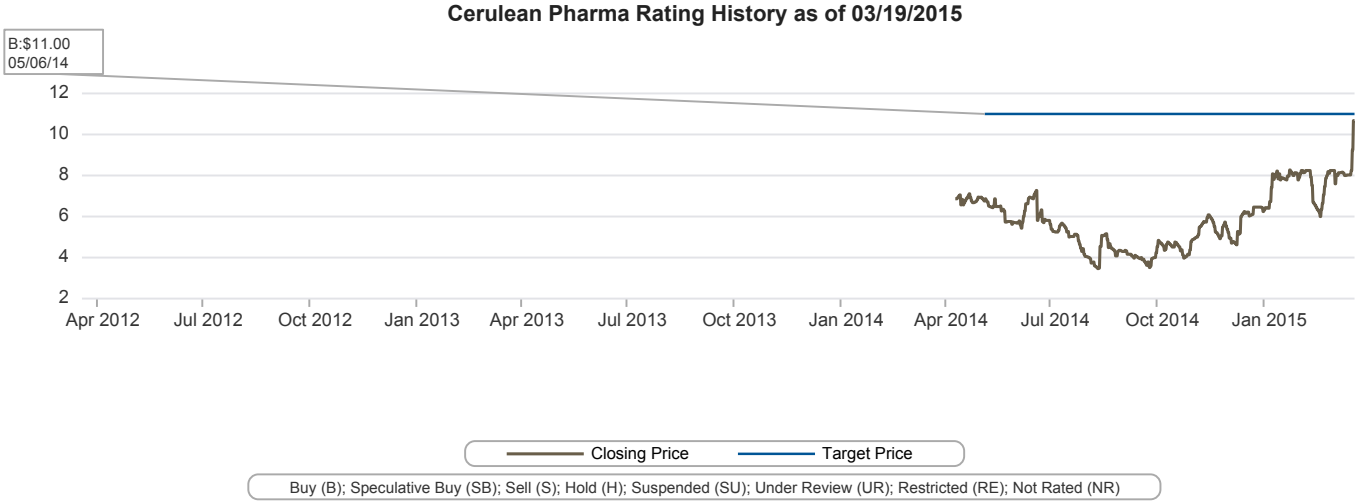
Cerulean Pharma Rating History as of 03/19/2015



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