November 14, 2014

OUTPERFORM

Reason for report:

EARNINGS

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CERULEAN PHARMA INC.

3Q14 Recap - Pipeline Programs on Track

• **Bottom Line**: CERU announced 3Q14 financial results yesterday after the close and provided a pipeline update. Two key proof-of-concept data readouts from single arm CRLX101 combination studies are expected in 1Q15 from ovarian cancer and neoadjuvant rectal cancer trials respectively. The results will inform randomized/controlled Phase II go/no-go decisions. The randomized Phase II trial in renal cell cancer in combination with Avastin continues to enroll patients with data expected in late 2015. **We are maintaining our Outperform rating and are adjusting our estimates to account for 3Q15 results.**

• **Single arm CRLX101 Phase I/II data in neoadjuvant rectal expected in 1Q15**. Management expects to have data on ~10 patients in 1Q15 and is looking for at least 30% pathologic complete response (pCR) to launch larger Phase II trials. In the first cohort of 3 patients at the 12mg/m^2 CRLX101 dose, one patient had a pathologic complete response (pCR) and two patients showed pronounced tumor reduction with minimal residual disease. The second cohort is now being assessed at the single agent maximum tolerated CRLX101 dose of 15mg/m^2. Management notes that the combination has been well tolerated to date, with no dose-limiting toxicities reported in combination with Xeloda and radiation which we view positively

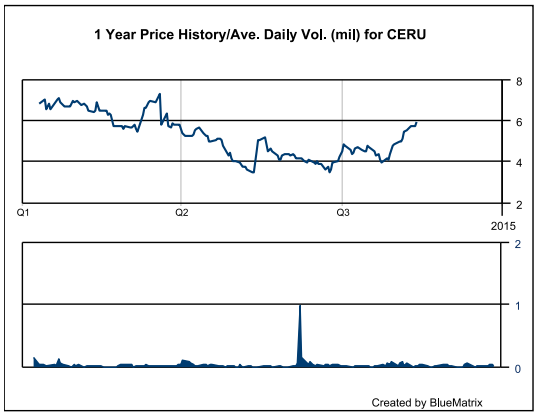
• **CRLX101 Avastin Phase II combination data in platinum-resistant ovarian cancer expected in 1Q15**. Mgmt expects to report data on ~10 patients in 1Q15, and has set a 20% Objective Response Rate (ORR) as the bar to advance the program into a randomized-controlled trial.

• **Data from the randomized Phase II trial evaluating CRLX101 in combination with Avastin in relapsed RCC is expected to be announced in 4Q15**. Recall, this trial will enroll 110 patients across 30 centers who have received at least two prior lines of therapy for metastatic RCC. Patients will be randomized to receive either CRLX101 plus Avastin or investigator's choice.

• **Phase I trial initiation with CERU's second candidate, CRLX301, is expected by YE14** for solid tumors with data expected in 4Q15.

• **CERU ended 3Q14 with $57.8M in cash and equivalents** and expects this will be sufficient to fund the ongoing randomized Phase II trial of CRLX101 in RCC, the Phase I trial of CRLX301, and the ongoing investigator-sponsored trials of CRLX101.

Key Stats:	**(NASDAQ:CERU)**
S&P 600 Health Care Index:	**1,369.99**
Price:	**$5.93**
Price Target:	$13.00
Methodology:	DCF analysis with 16% discount rate
52 Week High:	$8.06
52 Week Low:	$3.35
Shares Outstanding (mil):	20.1
Market Capitalization (mil):	$119.2
Cash Per Share:	$2.87
Dividend (ann):	$0.00
Dividend Yield:	0.0%



Dec Yr	1Q	2Q	3Q	4Q	FY Rev	1Q	2Q	3Q	4Q	FY EPS	P/E
2013A	--	--	--	--	0.0	--	--	--	--	($25.10)	NM
2014E - New	**0.0A**	**0.0A**	**0.0A**	**0.0**	**$0.1**	**($3.70)A**	**($0.44)A**	**($0.28)A**	**($0.42)**	**($1.68)**	**NM**
2014E - Old	0.0A	0.0A	0.0A	0.0	$0.1	($3.70)A	($0.44)A	($0.45)	($0.56)	($2.13)	NM
2015E - New	**--**	**--**	**--**	**--**	**0.0**	**--**	**--**	**--**	**--**	**($1.71)**	**NM**
2015E - Old	--	--	--	--	0.0	--	--	--	--	($1.73)	NM

Source: Company Information and Leerink Partners LLC Research
Revenues in MM.
GAAP EPS presented.

INVESTMENT THESIS

We rate Cerulean Pharma (CERU) Outperform with a $13/share price target representing a $260M market capitalization. CERU is an oncology-focused company developing anti-cancer drugs based on its proprietary nanoparticle drug delivery platform. CERU's lead product CRLX101 has an attractive mechanism of action in our view that could overcome several limitations of approved agents. Based on our analysis we believe CRLX101 is active and CERU's development rationale is strong. Three major catalysts by 2H15 could validate CRLX101's therapeutic potential. We believe CRLX101 could address a $1Bn US opportunity in 2030E and apply a 25% probability of success.

VALUATION

We estimate a $13 per share price target in 12 months for CERU, reflecting a $260M market capitalization based on a discounted cash flow analysis. We use a 16% WACC as the discount rate, which we view as appropriate for CERU. We use probability weighted revenue assumptions. We model ~$1.0Bn peak US CRLX101 sales in 2030E across three lead indications in 3rd line renal cell cancer, platinum-resistant ovarian cancer, and neoadjuvant rectal cancer.

RISKS TO VALUATION

CERU faces significant clinical and regulatory risks since its main value driver is currently in multiple early stage investigator-sponsored clinical trials. Like many other developmental stage Biopharma companies, CERU faces manufacturing, competitive, commercial, regulatory, and safety risks, as well as risks to its intellectual property. Specifically, CERU faces regulator uncertainty on whether pCR will be accepted by the FDA as an approvable endpoint for a potential future neoadjuvant rectal cancer trial. CERU also faces financial risk and may need to raise dilutive capital near term. We expect the company's current cash balance to be sufficient to fund operations until late 2015.

CERU P&L (in $MM)	2012A	2013A	1Q14A	2Q14A	3Q14A	4Q14E	2014E	2015E	2016E
Product revenue	-	-	-	-	-	-	-	-	-
Other revenue	0.6	0.0	0.0	0.0	-	-	0.1	-	-
Total Revenue	**0.6**	**0.0**	**0.0**	**0.0**	**-**	**-**	**0.1**	**-**	**-**
COGS	-	-	-	-	-	-	-	-	-
R&D Expense	15.8	9.7	1.5	2.6	2.9	5.0	12.1	35.0	55.0
SG&A Expense	6.4	6.2	1.5	2.0	2.4	3.5	9.5	10.4	11.5
Total Operating Expenses	22.2	15.9	3.0	4.7	5.4	8.5	21.6	45.4	66.5
Operating income (Loss)	(21.6)	(15.9)	(3.0)	(4.6)	(5.4)	(8.5)	(21.5)	(45.4)	(66.5)
Total other income (expense) - net	(0.5)	(1.3)	0.0	(2.8)	(0.2)	(0.1)	(3.0)	(0.3)	-
EBT	(22.1)	(17.1)	(2.9)	(7.4)	(5.6)	(8.6)	(24.5)	(45.7)	(66.5)
Tax	-	-	-	-	-	-	-	-	-
Net income (loss)	(22.1)	(17.1)	(2.9)	(7.4)	(5.6)	(8.6)	(24.5)	(45.7)	(66.5)
Accretion of redeemable convertible preferred stock	(0.1)	-	-	-	-	-	-	-	-
Net loss attributable to common shareholders	**(22.2)**	**(17.1)**	**(2.9)**	**(7.4)**	**(5.6)**	**(8.6)**	**(24.5)**	**(45.7)**	**(66.5)**
EPS - diluted	(36.4)	(25.1)	(3.70)	(0.44)	(0.28)	(0.42)	(1.68)	(1.71)	(2.48)
Common shares outstanding - diluted	0.6	0.7	0.8	16.9	20.1	20.6	14.6	26.8	26.8

CERU BS & CFS (in $MM)	2012A	2013A	1Q14A	2Q14A	3Q14A	4Q14E	2014E	2015E	2016E
Cash & equivalents	16.7	5.5	8.5	64.3	57.8	49.1	49.1	84.2	23.5
Debt	9.1	15.1	23.2	4.7	3.9	3.3	3.3	-	-

Source: SEC Filings and Leerink Partners Estimates

Change in Cash	1.4	(11.2)	3.0	55.8	(6.5)	(8.7)	43.6	35.1	(60.7)
Cash from operations	**(21.0)**	**(16.6)**	**(3.7)**	**(4.2)**	**(5.6)**	**(7.9)**	**(21.3)**	**(41.6)**	**(60.7)**
Net income (loss)	(22.2)	(17.1)	(2.9)	(7.4)	(5.6)	(8.6)	(24.5)	(45.7)	(66.5)
Share based comp	0.5	0.6	0.1	0.2	0.3	0.7	1.3	3.6	5.3
Non-cash interest expense	0.1	0.6	0.1	0.1	0.1	-	0.3	-	-
D&A	0.3	0.2	0.0	0.0	0.0	0.1	0.2	0.5	0.5
Other (Change in WC)	0.2	(0.9)	(1.1)	2.8	(0.4)	-	1.4	-	-
Cash from investing	**(0.2)**	**(0.0)**	**(0.0)**	**0.0**	**(0.1)**	**-**	**(0.1)**	**-**	**-**
Capex	(0.2)	(0.0)	(0.0)	(0.0)	(0.0)	-	(0.1)	-	-
Acquisitions	-	-	-	-	-	-	-	-	-
Other	-	-	0.0	0.0	(0.0)	-	-	-	-
Cash from financing	**22.5**	**5.4**	**6.7**	**60.0**	**(0.8)**	**(0.8)**	**65.0**	**76.6**	**-**
Equity issue (buyback)	12.9	0.0	0.0	60.0	0.0	-	60.0	80.0	-
Debt issue (principal payment)	9.6	5.4	7.7	(1.0)	(0.9)	(0.8)	5.0	(3.4)	-
Other	(0.0)	-	(1.1)	1.1	(0.0)	-	0.0	-	-

Source: SEC Filings and Leerink Partners Estimates

CRLX-101

Indication	Trial	Event	Timing
3rd/4th line mRCC	Phase I Avastin combination IST	Final data (ORR, PFS)	ASCO 2015
	Phase II randomized Avastin combination	**ORR data**	**4Q15**
Platinum-resistant OC	Phase II Avastin combination IST	Single arm ORR data	1Q15
		Final data (ORR, PFS)	**3Q15**
	Phase II/III randomized Avasting combination	Initiate Phase II/III	2015
Neoadjuvant rectal cancer	Phase I/II CRT/Xeloda combination IST	Single arm pCR data	1Q15
	Phase II randomized CRT/Xeloda combination	Initiate Phase II	1Q15
		pCR data	**4Q15**
		End-of-Phase II FDA meeting	1Q16
	Phase III randomized CRT/Xeloda combination	Initiate Phase III	2016
HER2- gastric cancer	Phase II PD single agent IST	trial ongoing	
2nd line SCLC	Phase II randomized single agent IST vs. topotecan	trial ongoing	

CRLX-301

Indication	Trial	Event	Timing
Solid tumors	Phase I	Initiate trial	4Q14
		Phase I data	4Q15

Source: Leerink Partners Estimates and Company Filings

Disclosures Appendix

Analyst Certification

I, Michael Schmidt, Ph.D., certify that the views expressed in this report accurately reflect my views and that no part of my compensation was, is, or will be directly related to the specific recommendation or views contained in this report.

Valuation

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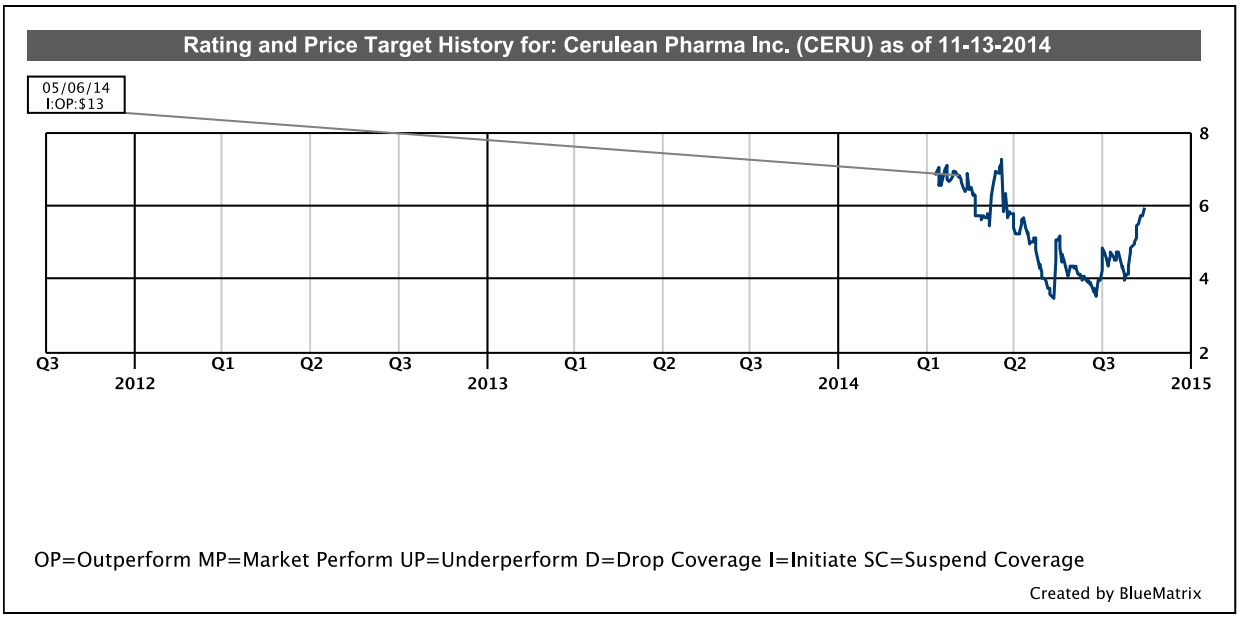

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Distribution of Ratings/Investment Banking Services (IB) as of 09/30/14				
			IB Serv./Past 12 Mos.	
Rating	Count	Percent	Count	Percent
BUY [OP]	138	69.30	51	37.00
HOLD [MP]	61	30.70	2	3.30
SELL [UP]	0	0.00	0	0.00

Explanation of Ratings

Outperform (Buy): We expect this stock to outperform its benchmark over the next 12 months.
Market Perform (Hold/Neutral): We expect this stock to perform in line with its benchmark over the next 12 months.
Underperform (Sell): We expect this stock to underperform its benchmark over the next 12 months.The degree of outperformance or underperformance required to warrant an Outperform or an Underperform rating should be commensurate with the risk profile of the company.
For the purposes of these definitions the relevant benchmark will be the S&P 600® Health Care Index for issuers with a market capitalization of less than $2 billion and the S&P 500® Health Care Index for issuers with a market capitalization over $2 billion.

Important Disclosures

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In the past 12 months, the Firm has received compensation for providing investment banking services to Cerulean Pharma Inc. .

Leerink Partners LLC makes a market in Cerulean Pharma Inc.

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Leerink Partners LLC has acted as the manager for a public offering of Cerulean Pharma Inc. in the past 12 months.

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