# PiperJaffray.

# Chimerix, Inc. (CMRX)

## **Overweight**

### Highlights From The 25th Annual Piper Jaffray Healthcare Conference

#### CONCLUSION

CMRX presented at our Annual Piper Jaffray Healthcare Conference today. The company's lead antiviral drug, brincidofovir, is being evaluated in the Phase III SUPPRESS study for CMV prevention in allogenic stem cell transplant patients. Today's dialog further increased our confidence in the outlook for this study. We expect enrollment updates during 2014 in anticipation of 2015 results. Equally if not more important will be clinical updates from the expanded access program which we believe could highlight the role of brincidofovir in other settings. We reiterate our Overweight rating and \$33 PT.

- SUPPRESS designed for success: The early initiation of brincidofovir prophylaxis in the Phase III trial should capture a majority of patients before CMV reactivates, which is an important feature of the Phase III trial that wasn't in Phase II. In the prior study, brincidofovir worked in patients with detectable CMV at baseline; it worked even better in those without detectable CMV.
- 2014 won't be boring: Because SUPPRESS isn't expected to read out until mid-2015, newsflow next year for this trial will primarily be enrollment updates, although given the enthusiasm amongst specialists for the drug there may be upside surprises to timelines. Additionally, CMRX has accumulated a wealth of data regarding the role of brincidofovir in other viral settings including active CMV disease, neonatal herpes encephalitis, PML, adenovirus and refractory warts. Brincidofovir has been used in >200 patients under an Emergency IND and an expanded access program in more than 200 patients encompassing a range of dsDNA virus indications. We expect publication of some of these experiences in 2014 to help us identify other settings for which brincidofovir is likely to be used. As well, these results could help enable CMRX achieve its objective of a label for brincidofovir that encompasses dsDNA viruses broadly, and not limited to the stem cell transplant setting.
- Now THAT's really interesting. We had not been aware of a progressive pox patient (after vaccination with ACAM2000) who developed resistance to ST-246 obtained from the Strategic National Stockpile (SNS) and for whom brincidofovir may have played an important role in disease resolution. The SNS holds \$1B worth of smallpox vaccine and SIGA has a 5-year \$433M contract for delivery of ST-246. We believe little to no value is ascribed for the potential for CMRX to land its own procurement contract for brincidofovir for smallpox treatment/prevention. Additional smallpox development updates are expected in 2014.

#### RISKS TO ACHIEVEMENT OF PRICE TARGET

Brincidofovir may fail to reach the primary endpoint in the SUPPRESS study or safety concerns could limit its approvability or commercial potential. CMRX may need additional cash to fund brincidofovir launch.

#### **COMPANY DESCRIPTION**

CMRX is a antiviral drug development company.

#### REVENUE (US\$ m) **EARNINGS PER SHARE (US\$)** YEAR Jun Sep Jun FY P/E 2012A 6.2 13.8x (0.81)NM 3.1 0.0 0.0 33.7 2013E 1.8A o.8A 0.9A 1.0 81.3x (22.58)A (o.91)A (o.26)A (0.35)(1.88)NM 5.7 2014E 115.9x (0.47)(0.51) (0.50) (0.50) (1.98)4.0

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#### PRICE: US\$15.93 TARGET: US\$33.00

DCF thru 2022; 11% disc rate & 13x term multiple

#### Joshua E. Schimmer, MD

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Changes	Previous	Current
Rating	_	Overweight
Price Tgt	_	US\$33.00
FY13E Rev (mil)	_	US\$5.7
FY14E Rev (mil)	_	US\$4.0
FY13E EPS	_	US\$(1.88)
FY14E EPS	_	US\$(1.98)
52-Week High / Low	US\$27.0	o / US\$12.96
Shares Out (mil)		29.1
Market Cap. (mil)		US\$463.6
Avg Daily Vol (000)		130
Book Value/Share		US\$3.97
Net Cash Per Share		US\$4.67
Debt to Total Capital		1%
Yield		0.00%
Fiscal Year End		Dec



Source: Bloomberg

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CMRX Key Milestones								
Program	Indication	Туре	Event	Expected Timing				
	CMV Prevention	Clinical Data	Phase III SUPPRESS Study results	Mid-2015				
	Smallpox	Clinical Event	Begin PK studies in healthy volunteers	4Q13				
	Smallpox	Clinical Data	Advance pivotal animal studies for BARDA	2014				
Brincidofovir	AdV Preemptive Therapy	Regulatory	Discuss path forward with FDA	1H14				
	CMV Prevention	Regulatory	Discuss path forward with EMEA	1H14				
	CMV/Transplant	Regulatory	Define full approval path forward with FDA	1H14				
	Solid organ Tx	Clinical Event	Define development path forward	2014				
	Pede setting	Clinical Event	Finalize pediatric formulation	1Q14				
CMX157	HIV	Clinical Data	Phase II results from MRK	2014?				

Source: PJC and Company reports

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\$ '000):
11.0%
\$179
3.0%
12.9x
\$1,236
85.5%
41
128.5
\$33
\$15.10
\$436
\$955
2.0x

	CMRX Price Target Sensitivity Analysis								
	Discount Rate								
		10.0%	11.0%	12.0%	13.0%				
	1.0%	\$32	\$28	\$24	\$21				
<u>_</u> _	2.0%	\$36	\$30	\$26	\$22				
erminal	3.0%	\$40	\$33	\$28	\$24				
o Fr	4.0%	\$46	\$37	\$31	\$26				
JE G	5.0%	\$54	\$42	\$34	\$28				
EPS growth	rate in 2022:		19.1%						

Source: Company Reports and Piper Jaffray.

	CMRX Potential Upside From Current Levels								
	Discount Rate								
		10.0%	11.0%	12.0%	13.0%				
	1.0%	115%	83%	57%	36%				
<u>_</u> _	2.0%	137%	99%	69%	46%				
rminal	3.0%	165%	119%	84%	57%				
E S	4.0%	203%	145%	103%	71%				
Ę Ū	5.0%	256%	180%	127%	88%				

Source: Company Reports and Piper Jaffray.

Chimerix Quarterly P&L	2012A	1Q13A	2Q13A	3Q13A	4Q13E	2013E	1Q14E	2Q14E	3Q14E	4Q14E	2014E
Total Product Revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Collaboration/license/royalty revenue	17.4	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0
Contract/grant revenue	16.3	1.8	0.8	0.9	1.0	4.5	1.0	1.0	1.0	1.0	4.0
Total Revenue	\$33.7	\$1.8	\$0.8	\$0.9	\$1.0	\$5.7	\$1.0	\$1.0	\$1.0	\$1.0	\$4.0
Operating Expenses:											
COGS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R&D	27.8	6.5	6.3	5.3	8.0	26.1	11.0	12.0	12.0	12.0	47.0
SG&A	8.7	1.8	2.2	2.0	3.0	9.0	2.5	2.5	2.5	2.5	10.0
Other Operating Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Operating Expenses	36.5	8.3	8.5	7.3	11.0	35.1	13.5	14.5	14.5	14.5	57.0
Stock-based compensation	1.4	0.3	2.3	0.3	2.0	4.9	2.0	2.0	2.0	2.0	8.0
Operating Income (GAAP)	(2.8)	(6.5)	(7.7)	(6.4)	(10.0)	(29.4)	(12.5)	(13.5)	(13.5)	(13.5)	(53.0)
Operating Income (non-GAAP)	(1.4)	(6.3)	(5.3)	(6.2)	(8.0)	(24.6)	(10.5)	(11.5)	(11.5)	(11.5)	(45.0)
Interest income (expense)	(8.0)	(0.4)	(0.4)	(0.3)	(0.2)	(1.2)	0.0	0.0	0.0	0.0	0.0
FV warrant liability adjustment	(8.0)	(2.2)	(4.4)	0.0	0.0	(6.6)	0.0	0.0	0.0	0.0	0.0
Other income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GAAP Income Before Taxes	(4.4)	(9.1)	(12.5)	(6.7)	(10.2)	(37.3)	(12.5)	(13.5)	(13.5)	(13.5)	(53.0)
non-GAAP Income Before Taxes	(3.0)	(8.8)	(10.1)	(6.4)	(8.2)	(32.4)	(10.5)	(11.5)	(11.5)	(11.5)	(45.0)
Taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net Income as Reported/GAAP	(4.4)	(34.6)	(21.0)	(6.7)	(10.2)	(37.3)	(12.5)	(13.5)	(13.5)	(13.5)	(53.0)
Net Income as Reported/ non-GAAP	(3.0)	(34.4)	(18.7)	(6.4)	(8.2)	(32.4)	(10.5)	(11.5)	(11.5)	(11.5)	(45.0)
Diluted EPS (non-GAAP)	(\$0.56)	(\$22.40)	(\$0.81)	(\$0.25)	(\$0.28)	(\$1.63)	(\$0.39)	(\$0.43)	(\$0.43)	(\$0.43)	(\$1.68)
Diluted EPS (as reported/GAAP)	(\$0.81)	(\$22.58)	(\$0.91)	(\$0.26)	(\$0.35)	(\$1.88)	(\$0.47)	(\$0.51)	(\$0.50)	(\$0.50)	(\$1.98)
Shares outstanding	5.4	1.5	23.1	25.9	28.9	19.8	26.6	26.7	26.8	26.9	26.8
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Source: Company reports, PJC analyst estimates

Joshua Schimmer: 212-284-9322

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<b>Brincidofovir Revenue Model</b>	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E
(\$ in millions, except per share amounts)									
Market Model, Brincidofovir									
U.S. stem cell transplants	20,300	20,600	20,900	21,150	21,400	21,650	21,900	22,150	22,400
% allogeneic	40%	40%	40%	40%	40%	40%	40%	40%	40%
U.S. allogeneic STCs	8120	8240	8360	8460	8560	8660	8760	8860	8960
% adult	75%	75%	<i>75%</i>	<i>75%</i>	<i>75%</i>	74%	74%	73%	73%
U.S. adult allogeneic STCs	6090	6180	6270	6345	6420	6408	6482	6468	6541
% at risk for CMV reactivation	70%	70%	70%	70%	70%	70%	70%	70%	70%
U.S. adult high CMV risk allogeneic STCs	4263	4326	4389	4442	4494	4486	4538	4527	4579
Brincidofovir penetration	0%	0%	0%	0%	15%	30%	45%	55%	<i>5</i> 5%
U.S. Brincidofovir patients, adult allogeneic SCT	0	0	0	0	674	1346	2042	2490	2518
Price/regimen	\$40	\$40	\$40	\$40	\$41	\$42	\$43	\$45	\$47
Revenue, adult allogeneic SCT, U.S.	\$0	\$0	\$0	\$0	\$28	\$56	\$88	\$112	\$118
Pediatric allogeneic SCT, U.S.	2030	2060	2090	2115	2140	2252	2278	2392	2419
Brincidofovir penetration	0%	0%	0%	0%	15%	25%	35%	45%	55%
U.S. patients, pede allogeneic SCT	0	0	0	0	321	563	797	1076	1331
Revenue, Pede allogeneic SCT, U.S.	\$0	\$0	\$0	\$0	\$13	\$23	\$35	\$48	\$62
Other dsDNA prophylaxis/treatment settings	\$0	\$0	\$0	\$0	\$0	\$10	\$20	\$40	\$60
U.S. Brincidofovir Revenue	\$0	\$0	\$0	\$0	\$41	\$89	\$143	\$201	\$240
Ex-U.S. Brincidofovir Revenue	\$0	\$0	\$0	\$0	\$35	\$70	\$140	\$180	\$220

Source: PJC analyst estimates

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Chimerix P&L	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E
Total Product Revenue	0.0	0.0	0.0	0.0	75.6	159.4	282.9	380.5	460.2
Collaboration/license/royalty revenue	17.4	1.2	0.0	0.0	0.0	10.0	5.0	5.0	5.0
Contract/grant revenue	16.3	4.5	4.0	5.0	5.0	8.0	8.0	5.0	5.0
Total Revenue	\$33.7	\$5.7	\$4.0	\$5.0	80.6	177.4	295.9	390.5	470.2
Operating Expenses:									
COGS	0.0	0.0	0.0	0.0	7.6	15.9	28.3	38.1	46.0
R&D	27.8	26.1	47.0	45.0	70.0	90.0	95.0	100.0	105.0
SG&A	8.7	9.0	10.0	17.0	85.0	120.0	130.0	140.0	150.0
Other Operating Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Operating Expenses	36.5	35.1	57.0	62.0	162.6	225.9	253.3	278.1	301.0
Stock-based compensation	1.4	4.9	8.0	10.0	12.0	13.0	14.0	15.0	16.0
Operating Income (GAAP)	(2.8)	(29.4)	(53.0)	(57.0)	(82.0)	(48.5)	42.6	112.5	169.2
Operating Income (non-GAAP)	(1.4)	(24.6)	(45.0)	(47.0)	(70.0)	(35.5)	56.6	127.5	185.2
Interest income (expense)	(0.8)	(1.2)	0.0	0.5	(1.0)	0.0	1.0	3.0	6.0
FV warrant liability adjustment	(0.8)	(6.6)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GAAP Income Before Taxes	(4.4)	(37.3)	(53.0)	(56.5)	(83.0)	(48.5)	43.6	115.5	175.2
non-GAAP Income Before Taxes	(3.0)	(32.4)	(45.0)	(46.5)	(71.0)	(35.5)	57.6	130.5	191.2
Taxes	0.0	0.0	0.0	0.0	0.0	0.0	14.4	38.1	57.8
Tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.0%	33.0%	33.0%
Net Income as Reported/GAAP	(4.4)	(37.3)	(53.0)	(56.5)	(83.0)	(48.5)	29.2	77.4	117.4
Net Income as Reported/ non-GAAP	(3.0)	(32.4)	(45.0)	(46.5)	(71.0)	(35.5)	43.2	92.4	133.4
Diluted EPS (non-GAAP)	(\$0.56)	(\$1.63)	(\$1.68)	(\$1.36)	(\$2.01)	(\$0.93)	\$1.05	\$2.19	\$3.08
Y/Y	N/M	N/M	N/M	N/M	N/M	N/M	N/M	108.7%	41.0%
Diluted EPS (as reported/GAAP)	(\$0.81)	(\$1.88)	(\$1.98)	(\$1.65)	(\$2.35)	(\$1.27)	\$0.71	\$1.83	\$2.71
Shares outstanding	5.4	19.8	26.8	34.3	35.3	38.3	41.3	42.3	43.3

Source: Company reports, PJC analyst estimates

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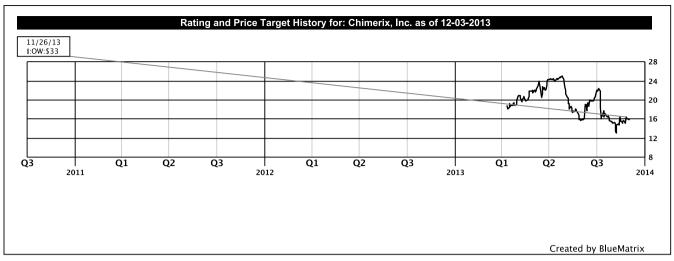
Chimerix Cash Flow Statement	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E
Cash Flows from Operating Activities:									
Net income	(4)	(37)	(53)	(57)	(83)	(49)	29	77	117
Depreciation	0	0	0	1	1	1	1	1	2
Use of NOLs	0	0	0	0	0	0	15	39	0
Non-cash interest expense	0	0	0	1	0	0	0	0	0
Amortization/accretion of invest.	0	0	0	0	0	0	0	0	0
Share-based comp	1	5	8	10	12	13	14	15	16
Deferred lease obligation	0	0	0	0	0	0	0	0	0
FV measure of warrant liability	1	7	0	0	0	0	0	0	0
Change in NWC	(0)	(1)	0	(10)	(15)	5	10	0	0
Net Cash Provided by Operating Activities	(2)	(26.2)	(45.0)	(55.3)	(85.2)	(29.6)	69.3	132.5	135.4
Cash Flows from Investing Activities:									
PP&E	(0)	(0)	0	(1)	(2)	(2)	(2)	(2)	(2)
Other	0	0	0	0	0	0	0	0	0
Free Cash Flow	(2)	(26)	(45)	(56)	(87)	(32)	67	130	133
Cash Flows from Financing Activities:									
Issuance preferred stock/warrants	0	0	0	0	0	0	0	0	0
Exercise of options	0	0	0	0	0	0	0	0	0
Loan payable proceeds/repayment	12	(5)	0	(5)	(8)	0	0	0	0
Debt discount	(0)	0	0	0	0	0	0	0	0
Stock offering/financing costs	(0)	148	0	150	0	50	0	0	0
Net Cash Used in Financing Activities	12	143	0	145	(8)	50	0	0	0
Cash/equivalents	30	140	95	184	89	107	175	305	439
Debt		12	12	12	12				

Source: Company reports, PJC analyst estimates

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#### IMPORTANT RESEARCH DISCLOSURES



Notes: The boxes on the Rating and Price Target History chart above indicate the date of the Research Note, the rating, and the price target. Each box represents a date on which an analyst made a change to a rating or price target, except for the first box, which may only represent the first Note written during the past three years.

Legend:

I: Initiating Coverage

R: Resuming Coverage

T: Transferring Coverage

D: Discontinuing Coverage

S: Suspending Coverage

OW: Overweight

N: Neutral

UW: Underweight NA: Not Available UR: Under Review

Distribution of Ratings/IB Services Piper Jaffray									
		IB Serv./Past 12							
Rating	Count	Percent	Count	Percent					
BUY [OW]	348	58.49	73	20.98					
HOLD [N]	224	37.65	16	7.14					
SELL [UW]	23	3.87	1	4.35					

Note: Distribution of Ratings/IB Services shows the number of companies currently in each rating category from which Piper Jaffray and its affiliates received compensation for investment banking services within the past 12 months. FINRA rules require disclosure of which ratings most closely correspond with "buy," "hold," and "sell" recommendations. Piper Jaffray ratings are not the equivalent of buy, hold or sell, but instead represent recommended relative weightings. Nevertheless, Overweight corresponds most closely with buy, Neutral with hold and Underweight with sell. See Stock Rating definitions below.

#### Analyst Certification — Joshua E. Schimmer, MD, Sr Research Analyst

The views expressed in this report accurately reflect my personal views about the subject company and the subject security. In addition, no part of my compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this report.

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- Overweight (OW): Anticipated to outperform relative to the median of the group of stocks covered by the analyst.
- Neutral (N): Anticipated to perform in line relative to the median of the group of stocks covered by the analyst.
- Underweight (UW): Anticipated to underperform relative to the median of the group of stocks covered by the analyst.

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