

Chimerix, Inc. (CMRX)

Overweight

4Q13 Results: Brincidofovir Advancing, New Indications Emerging

CONCLUSION

CMRX hosted its 4Q13 earning call on Friday. The company remains on-track for top-line data for brincidofovir in the SUPPRESS study in mid-2015, and is confident that getting patients enrolled even sooner after the transplant than was done in the successful Phase II study should further increase probability of success. We remain optimistic about the outcome of the trial plus the potential role of brincidofovir in a variety of settings other than stem cell transplant. We reiterate our OW rating and \$33 PT.

- **SUPPRESS update:** Enrollment should be complete by YE, with topline data by mid-2015. While some patients enrolled at the start were already a few weeks post-transplant, this appears to be a 'pent-up demand' effect. As the trial has continued, patients are being enrolled much sooner after transplant which should help it reach its goal. While it's not a core assumption, there is a scenario in which SUPPRESS demonstrates a strong enough result on other dsNDA viruses beyond CMV for CMRX to request a broader anti-viral label. CMRX will start a confirmatory study establishing the link between CMV reactivation and CMV disease by the time of submission. This should enable full approval (vs accelerated approval based on SUPPRESS).
- **Hint on pricing:** On the call, the company noted that the cost savings for an effective CMV prevention therapy could be \$30-60K/pt; we model \$40K.
- **Update on solid organ:** CMRX is planning a P3 trial of brincidofovir for prevention of CMV in renal transplant recipients; these data could be used as the study to support full approval. CMRX is looking to finalize study design with regulatory agencies by year-end. The company is also working with the FDA and the EMA to finalize development plans for pediatric HCT recipients by year-end.
- **Expanded access data makes 2014 a year to watch:** Over 400 patients have been treated with brincidofovir for a variety of indications. CMRX will be presenting results from this experience over the course of the year. We believe these results cumulatively will be important for helping appreciate the role of brincidofovir in CMV and beyond, which should help investors gain comfort with the SUPPRESS study but also begin appreciating that brincidofovir should have utility in other settings as well. Outside of the stem cell setting, diarrhea rates appear even less, which may be helpful for commercialization. One particular indication we've been focused on and which seems quite addressable is recurrent respiratory papillomatosis (RRP); CMRX noted some experience with the drug in this setting on its call. Also potential in JC virus (the cause of PML).

RISKS TO ACHIEVEMENT OF PRICE TARGET

SUPPRESS study may fail or safety concerns could limit brincidofovir's potential.

COMPANY DESCRIPTION

CMRX is an antiviral drug development company.

PRICE: US\$18.73

TARGET: US\$33.00

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

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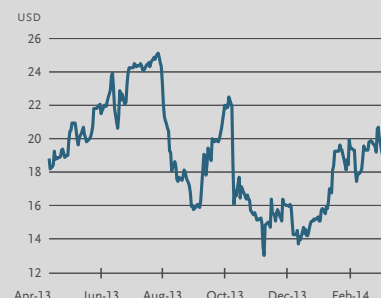
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Changes	Previous	Current
Rating	—	Overweight
Price Tgt	—	US\$33.00
FY13A Rev (mil)	US\$5.7	US\$4.4
FY14E Rev (mil)	—	US\$4.0
FY13A EPS	US\$(1.88)	US\$(3.65)
FY14E EPS	—	US\$(1.98)
52-Week High / Low	US\$27.00 / US\$12.96	
Shares Out (mil)	26.4	
Market Cap. (mil)	US\$494.5	
Avg Daily Vol (ooo)	191	
Book Value/Share	US\$3.73	
Net Cash Per Share	US\$4.16	
Debt to Total Capital	9%	
Yield	0.00%	
Fiscal Year End	Dec	

Price Performance - 1 Year



Source: Bloomberg

YEAR	REVENUE (US\$ m)						EARNINGS PER SHARE (US\$)					
	Mar	Jun	Sep	Dec	FY	FY RM	Mar	Jun	Sep	Dec	FY	FY P/E
2012A	3.1	6.2	0.0	0.0	33.7	14.7x	—	—	—	—	(0.81)	NM
2013A	1.8	0.8	0.9	0.9	4.4	112.4x	(22.58)	(0.91)	(0.26)	(0.31)	(3.65)	NM
2014E	1.0	1.0	1.0	1.0	4.0	123.6x	(0.47)	(0.51)	(0.50)	(0.50)	(1.98)	NM

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CMRX Key Milestones				
Program	Indication	Type	Event	Expected Timing
Brincidofovir	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
	AdV Preemptive Therapy	Regulatory	Discuss path forward with FDA	1H14
	CMV Prevention in Renal Transplant Patients	Regulatory	Finalize Phase 3 confirmatory study design with FDA and EMA	2014
	Pediatric Settings	Clinical Event	Finalize development plan with FDA and EMA	2014
CMX157	HIV	Clinical Data	Phase II results from MRK	2014?

Source: PJC and Company reports

Discounted Cash Flow (DCF) and Equity Valuation (\$ '000):	
Assumed Discount Rate (%)	11.0%
Discounted Net Cash Flow (2014-'22)	\$179
Terminal Growth Rate (%)	3.0%
Implied Terminal Year FCF Multiple	12.9x
NPV of FCF	\$1,236
Terminal value as % of total	85.5%
Shares Outstanding 2018E (million)	41
Cash balance	110.0
Price Target	\$33
Current Price	\$18.90
Mkt Cap, Current Share Count	\$499
Implied Mkt Cap, Price Target	\$862
Implied Multiple on 2020 Rev	1.8x

Source: Company Reports and Piper Jaffray.

CMRX Price Target Sensitivity Analysis					
Discount Rate					
Terminal Growth		10.0%	11.0%	12.0%	13.0%
	1.0%	\$32	\$27	\$23	\$20
	2.0%	\$35	\$30	\$25	\$22
	3.0%	\$40	\$33	\$27	\$23
	4.0%	\$45	\$37	\$30	\$25
	5.0%	\$53	\$42	\$34	\$28
EPS growth rate in 2022:		19.1%			

Source: Company Reports and Piper Jaffray.

CMRX Potential Upside From Current Levels					
Discount Rate					
Terminal Growth		10.0%	11.0%	12.0%	13.0%
	1.0%	69%	43%	23%	7%
	2.0%	87%	56%	33%	14%
	3.0%	109%	73%	45%	23%
	4.0%	140%	94%	60%	34%
	5.0%	182%	121%	79%	48%

Source: Company Reports and Piper Jaffray.

Chimerix Quarterly P&L	2012A	1Q13A	2Q13A	3Q13A	4Q13A	2013A	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	0.0	0.0	0.0	0.0	0.0	0.0
Contract/grant revenue	16.3	1.8	0.8	0.9	0.9	4.4	1.0	1.0	1.0	1.0	4.0
Total Revenue	\$33.7	\$1.8	\$0.8	\$0.9	\$0.9	\$4.4	\$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	6.3	24.7	11.0	12.0	12.0	12.0	47.0
SG&A	8.7	1.8	2.2	2.0	2.6	8.3	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	8.9	33.0	13.5	14.5	14.5	14.5	57.0
Stock-based compensation	1.4	0.3	2.3	0.3	2.0	3.1	2.0	2.0	2.0	2.0	8.0
Operating Income (GAAP)	(2.8)	(6.5)	(7.7)	(6.4)	(8.0)	(28.6)	(12.5)	(13.5)	(13.5)	(13.5)	(53.0)
Operating Income (non-GAAP)	(1.4)	(6.3)	(5.3)	(6.2)	(6.0)	(25.5)	(10.5)	(11.5)	(11.5)	(11.5)	(45.0)
Interest income (expense)	(0.8)	(0.4)	(0.4)	(0.3)	(0.2)	(1.2)	0.0	0.0	0.0	0.0	0.0
FV warrant liability adjustment	(0.8)	(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)	(8.2)	(36.4)	(12.5)	(13.5)	(13.5)	(13.5)	(53.0)
non-GAAP Income Before Taxes	(3.0)	(8.8)	(10.1)	(6.4)	(6.2)	(33.4)	(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)	(8.2)	(70.6)	(12.5)	(13.5)	(13.5)	(13.5)	(53.0)
Net Income as Reported/ non-GAAP	(3.0)	(34.4)	(18.7)	(6.4)	(6.2)	(65.7)	(10.5)	(11.5)	(11.5)	(11.5)	(45.0)
Diluted EPS (non-GAAP)	(\$0.56)	(\$22.40)	(\$0.81)	(\$0.25)	(\$0.23)	(\$3.40)	(\$0.39)	(\$0.43)	(\$0.43)	(\$0.43)	(\$1.68)
Diluted EPS (as reported/GAAP)	(\$0.81)	(\$22.58)	(\$0.91)	(\$0.26)	(\$0.31)	(\$3.65)	(\$0.47)	(\$0.51)	(\$0.50)	(\$0.50)	(\$1.98)
Shares outstanding	5.4	1.5	23.1	25.9	26.4	19.3	26.6	26.7	26.8	26.9	26.8

Source: Company reports, PJC analyst estimates

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Current disclosure information for this company can be found at <http://www.piperjaffray.com/researchdisclosures>.

Proprietary to Piper Jaffray & Co. March 7, 2014

Brincidofovir Revenue Model	2012A	2013A	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 SCTs	8120	8240	8360	8460	8560	8660	8760	8860	8960
% adult	75%	75%	75%	75%	75%	74%	74%	73%	73%
U.S. adult allogeneic SCTs	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 SCTs	4263	4326	4389	4442	4494	4486	4538	4527	4579
Brincidofovir penetration	0%	0%	0%	0%	15%	30%	45%	55%	55%
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

Chimerix P&L	2012A	2013A	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	0.0	0.0	0.0	0.0	10.0	5.0	5.0	5.0
Contract/grant revenue	16.3	4.4	4.0	5.0	5.0	8.0	8.0	5.0	5.0
Total Revenue	\$33.7	\$4.4	\$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	24.7	47.0	45.0	70.0	90.0	95.0	100.0	105.0
SG&A	8.7	8.3	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	33.0	57.0	62.0	162.6	225.9	253.3	278.1	301.0
Stock-based compensation	1.4	3.1	8.0	10.0	12.0	13.0	14.0	15.0	16.0
Operating Income (GAAP)	(2.8)	(28.6)	(53.0)	(57.0)	(82.0)	(48.5)	42.6	112.5	169.2
Operating Income (non-GAAP)	(1.4)	(25.5)	(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)	(36.4)	(53.0)	(56.5)	(83.0)	(48.5)	43.6	115.5	175.2
non-GAAP Income Before Taxes	(3.0)	(33.4)	(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)	(70.6)	(53.0)	(56.5)	(83.0)	(48.5)	29.2	77.4	117.4
Net Income as Reported/ non-GAAP	(3.0)	(65.7)	(45.0)	(46.5)	(71.0)	(35.5)	43.2	92.4	133.4
Diluted EPS (non-GAAP)	(\$0.56)	(\$3.40)	(\$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)	(\$3.65)	(\$1.98)	(\$1.65)	(\$2.35)	(\$1.27)	\$0.71	\$1.83	\$2.71
Shares outstanding	5.4	19.3	26.8	34.3	35.3	38.3	41.3	42.3	43.3

Source: Company reports, PJC analyst estimates

Chimerix Cash Flow Statement	2012A	2013A	2014E	2015E	2016E	2017E	2018E	2019E	2020E
Cash Flows from Operating Activities:									
Net income	(4)	(36)	(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	3	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)	(25.6)	(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	(4)	10	0	0	0	0	0	0	0
Free Cash Flow	(6)	(16)	(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	3	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)	108	0	150	0	50	0	0	0
Net Cash Used in Financing Activities	12	106	0	145	(8)	50	0	0	0
Cash/equivalents	20	110	65	154	59	77	144	275	408
Debt		10	12	12	12				

Source: Company reports, PJIC analyst estimates

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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				
Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [OW]	353	59.53	82	23.23
HOLD [N]	220	37.10	22	10.00
SELL [UW]	20	3.37	0	0.00

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Analyst Certification — Joshua E. Schimmer, MD, Sr Research Analyst — Jerry Yang, Ph.D., Research Analyst

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