

Chimerix, Inc. (CMRX)

Overweight

Biopharma: Top Pick For 2014

CONCLUSION

Brincidofovir is an elegant approach to an antiviral problem. With the addition of a lipid conjugate, CMRX transformed cidofovir from a highly toxic I.V. drug into the well-tolerated & oral brincidofovir, which has potent activity against a range of viruses. Brincidofovir is being evaluated in the Phase III SUPPRESS study for prevention of CMV (cytomegalovirus) reactivation in patients undergoing allogeneic stem cell transplantation (SCT), a procedure which leaves patients transiently immunocompromised and vulnerable to infections. Positive results from the Phase II study bode well for SUPPRESS, with data expected in mid-2015. But over the course of 2014, we expect meaningful catalysts to highlight brincidofovir's ability to address a much broader market opportunity. Overweight rated CMRX is a Top Pick for 2014 with a \$33 PT.

- **SUPPRESS designed for success.** The Phase II study of brincidofovir for prevention of CMV reactivation in SCT patients showed a >50% reduction in risk versus placebo. The Phase III study has been further optimized with earlier onset of therapy and a dose-management strategy to deal with side effects (diarrhea). Given specialist enthusiasm, we believe enrollment timelines may be swift.
- **2014 won't be boring:** 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 with over 400 patients treated in expanded access programs. Publication of some of these experiences in 2014 are likely 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 more broadly. We believe the allogeneic stem cell transplant market supports a \$250M U.S. opportunity, but sales could approach \$1B globally if one were to factor in additional applications of the drug.
- **And a Biodefense opportunity, too.** Brincidofovir has activity against pox virus and is likely a contender for the government's Strategic National Stockpile (SNS). The only smallpox treatment being delivered to the SNS is ST-246, which has a 5-year \$433M contract even though the only patient ever treated with the drug for active vaccinia developed resistance. Look for progress on this front in 2014.
- **Valuation metrics:** Our \$33 PT is derived from a DCF of FCF which assumes brincidofovir revenue of \$635M in 2022 and uses an 11% discount rate. The target represents a 10x multiple on our 2020 EPS estimate of \$3.08.

RISKS TO ACHIEVEMENT OF PRICE TARGET

Brincidofovir may fail to reach the primary endpoint in the SUPPRESS study or safety concerns could limit its potential.

COMPANY DESCRIPTION

CMRX is an antiviral drug development company.

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	12.0x	—	—	—	—	(0.81)	NM
2013E	1.8A	0.8A	0.9A	1.0	5.7	71.2x	(22.58)A	(0.91)A	(0.26)A	(0.35)	(1.88)	NM
2014E	1.0	1.0	1.0	1.0	4.0	101.5x	(0.47)	(0.51)	(0.50)	(0.50)	(1.98)	NM

Piper Jaffray does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decisions. This report should be read in conjunction with important disclosure information, including an attestation under Regulation Analyst certification, found on pages 8 - 9 of this report or at the following site: <http://www.piperjaffray.com/researchdisclosures>.

PRICE: US\$13.95

TARGET: US\$33.00

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

Joshua E. Schimmer, MD

Sr Research Analyst, Piper Jaffray & Co.

212 284-9322, joshua.e.schimmer@pjc.com

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\$27.00 / US\$12.96
Shares Out (mil)	29.1
Market Cap. (mil)	US\$405.9
Avg Daily Vol (000)	129
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

Price Performance - 1 Year



Source: Bloomberg

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	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

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	128.5
Price Target	\$33
Current Price	\$15.10
Mkt Cap, Current Share Count	\$436
Implied Mkt Cap, Price Target	\$955
Implied Multiple on 2020 Rev	2.0x

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	\$28	\$24	\$21
	2.0%	\$36	\$30	\$26	\$22
	3.0%	\$40	\$33	\$28	\$24
	4.0%	\$46	\$37	\$31	\$26
	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					
Terminal Growth		10.0%	11.0%	12.0%	13.0%
	1.0%	115%	83%	57%	36%
	2.0%	137%	99%	69%	46%
	3.0%	165%	119%	84%	57%
	4.0%	203%	145%	103%	71%
	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)	(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)	(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

Source: Company reports, PJC analyst estimates

Joshua Schimmer: 212-284-9322

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

Proprietary to Piper Jaffray & Co. November 26, 2013

Brincidofovir Revenue Model	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 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

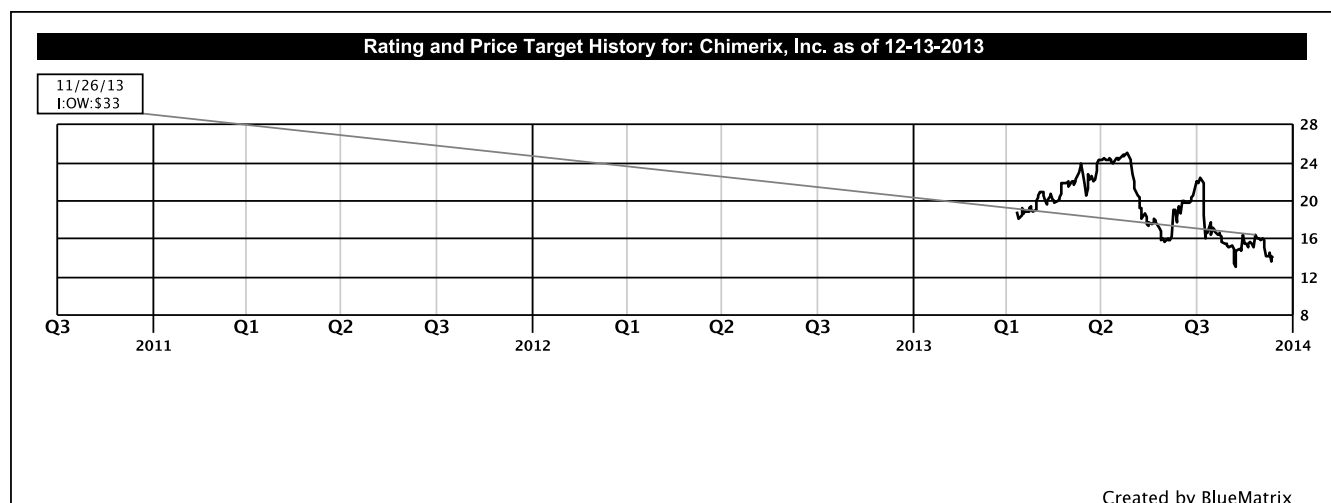
Chimerix P&L	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E
Total Product Revenue	0.0	0.0	0.0	0.0	75.6	159.4	282.9	380.5	460.2
Collaboration/license/royalty revenue	17.4	1.2	0.0	0.0	0.0	10.0	5.0	5.0	5.0
Contract/grant revenue	16.3	4.5	4.0	5.0	5.0	8.0	8.0	5.0	5.0
Total Revenue	\$33.7	\$5.7	\$4.0	\$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

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, PJIC analyst estimates

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				
Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [OW]	347	58.32	74	21.33
HOLD [N]	225	37.82	16	7.11
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.

Research Disclosures

Piper Jaffray usually provides bids and offers for the securities of Chimerix, Inc. and will, from time to time, buy and sell Chimerix, Inc. securities on a principal basis.

Piper Jaffray research analysts receive compensation that is based, in part, on overall firm revenues, which include investment banking revenues.

Rating Definitions

Stock Ratings: Piper Jaffray ratings are indicators of expected total return (price appreciation plus dividend) within the next 12 months. At times analysts may specify a different investment horizon or may include additional investment time horizons for specific stocks. Stock performance is measured relative to the group of stocks covered by each analyst. Lists of the stocks covered by each are available at www.piperjaffray.com/researchdisclosures. Stock ratings and/or stock coverage may be suspended from time to time in the event that there is no active analyst opinion or analyst coverage, but the opinion or coverage is expected to resume. Research reports and ratings should not be relied upon as individual investment advice. As always, an investor's decision to buy or sell a security must depend on individual circumstances, including existing holdings, time horizons and risk tolerance. Piper Jaffray sales and trading personnel may provide written or oral commentary, trade ideas, or other information about a particular stock to clients or internal trading desks reflecting different opinions than those expressed by the research analyst. In addition, Piper Jaffray technical research products are based on different methodologies and may contradict the opinions contained in fundamental research reports.

- **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.

Other Important Information

The material regarding the subject company is based on data obtained from sources we deem to be reliable; it is not guaranteed as to accuracy and does not purport to be complete. This report is solely for informational purposes and is not intended to be used as the primary basis of investment decisions. Piper Jaffray has not assessed the suitability of the subject company for any person. Because of individual client requirements, it is not, and it should not be construed as, advice designed to meet the particular investment needs of any investor. This report is not an offer or the solicitation of an offer to sell or buy any security. Unless otherwise noted, the price of a security mentioned in this report is the market closing price as of the end of the prior business day. Piper Jaffray does not maintain a predetermined schedule for publication of research and will not necessarily update this report. Piper Jaffray policy generally prohibits research analysts from sending draft research reports to subject companies; however, it should be presumed that the analyst(s) who authored this report has had discussions with the subject company to ensure factual accuracy prior to publication, and has had assistance from the company in conducting diligence, including visits to company sites and meetings with company management and other representatives.

Notice to customers: This material is not directed to, or intended for distribution to or use by, any person or entity if Piper Jaffray is prohibited or restricted by any legislation or regulation in any jurisdiction from making it available to such person or entity. Customers in any of the jurisdictions where Piper Jaffray and its affiliates do business who wish to effect a transaction in the securities discussed in this report should contact their local Piper Jaffray representative. **Europe:** This material is for the use of intended recipients only and only for distribution to professional and institutional investors, i.e. persons who are authorised persons or exempted persons within the meaning of the Financial Services and Markets Act 2000 of the United Kingdom, or persons who have been categorised by Piper Jaffray Ltd. as professional clients under the rules of the Financial Conduct Authority. **United States:** This report is distributed in the United States by Piper Jaffray & Co., member SIPC, FINRA and NYSE, Inc., which accepts responsibility for its contents. The securities described in this report may not have been registered under the U.S. Securities Act of 1933 and, in such case, may not be offered or sold in the United States or to U.S. persons unless they have been so registered, or an exemption from the registration requirements is available.

This report is produced for the use of Piper Jaffray customers and may not be reproduced, re-distributed or passed to any other person or published in whole or in part for any purpose without the prior consent of Piper Jaffray & Co. Additional information is available upon request.

Copyright 2013 Piper Jaffray. All rights reserved.