

Vitae Pharmaceuticals, Inc. (VTAE)

3Q14 Earnings Results

MARKET DATA

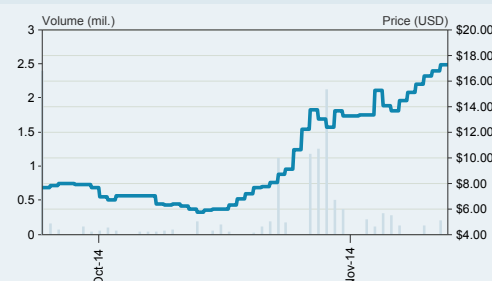
Price	\$17.21
52-Week Range:	\$5.41 - \$17.59
Shares Out. (M):	17.4
Market Cap (\$M):	\$299.5
Average Daily Vol. (000):	201.0
Cash (M):	\$68
Cash/Share:	\$3.90
Enterprise Value (M):	\$225
LT Debt (M):	\$2

Source: Thomson Reuters and JMP Securities LLC

FY DEC		2014E	2015E	2016E
Revenue (\$M)	1Q	--	\$0.0	--
	2Q	--	\$0.0	--
	3Q	\$6.2A	\$0.0	--
	4Q	\$0.0	\$20.0	--
	FY	\$8.5	\$20.0	\$0.0
EPS	1Q	--	(\$0.46)	--
	2Q	--	(\$0.49)	--
	3Q	(\$1.04)A	(\$0.52)	--
	4Q	(\$0.39)	(\$0.54)	--
	FY	(\$1.07)	(\$2.01)	(\$1.85)
Previous FY		(\$1.04)	(\$2.00)	(\$1.84)

Source: Company reports and JMP Securities LLC

STOCK PRICE PERFORMANCE



MARKET OUTPERFORM | Price: \$17.21 | Target Price: \$21.00

INVESTMENT HIGHLIGHTS

Vitae Pharmaceuticals reported 3Q14 earnings and outlined current and future milestones; reiterate our Market Outperform rating and increase our price target to \$21 from \$15 based on a synthesis of our discounted cash flow, comparable company, and sum-of-the-parts methodologies. We remind investors that as an early discovery and clinical stage company, VTAE's progress is primarily derived through the progression of its pipeline assets, both partnered and wholly owned, against developmental milestones and not necessarily through financial results. The company reported a net loss of \$1.79MM, or (\$1.04) EPS, greater than our estimate of \$0.90MM, or (\$0.05) EPS, primarily due to higher than expected G&A costs of \$3.1MM vs. our \$1.8MM estimate, primarily reflective of \$1.7MM in stock-based compensation, and differences in weighted average outstanding shares. R&D costs were in line with expectations (\$4.8MM versus estimate of \$4.9MM). We increase our price target based on the successful biomarker read-out of the Phase I trial for VTP-39748.

VT-39748 results a highlight of the third quarter. Results of the Phase I trial of a single-ascending dose of VT-39748 in 68 volunteers exhibited excellent safety and high potency inhibition of BACE-1, with concomitant encouraging decreases in A β levels in cerebrospinal fluid (CSF). Recall that the amyloid hypothesis is currently being pursued among major pharmaceutical companies looking to develop a functional treatment for Alzheimer's disease. Data in the scientific literature strongly suggests A β as the most strongly validated target in AD, confirmed by animal studies and human genetic data. Inhibitors developed to decrease β -amyloid by targeting β -secretase (BACE-1) have progressed considerably through the clinic. VT-39748 has demonstrated high biochemical potency against BACE1 (4nM IC₅₀). In this current trial, Vitae reported a greater than 80% reduction in CSF A β levels, on par with the effects seen in Phase I clinical trials for the Merck, AstraZeneca, or Eisai compounds.

Additionally VT-39748 was safe and well-tolerated across all doses tested in the separate single-ascending dose trial, with additional results expected in 2015 from a multiple-ascending dose trial. The company reported a drug half-life between 16 and 19 hours, compatible with once-daily dosing. The study also showed no maximum-tolerated dose (MTD), which permits a wide therapeutic index for the drug. BI has already initiated a 48-patient multiple-ascending dose (MAD) study in normal volunteers in both young and elderly healthy subjects (NCT02254161) to be conducted in Germany. The ten-day study is expected to examine the frequency of adverse events, with secondary endpoints of CSF amyloid concentrations and drug PK/PD measurements. We suspect data from the SAD study will be presented at a scientific conference during 2015.

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FOR DISCLOSURE AND FOOTNOTE INFORMATION, REFER TO JMP FACTS AND DISCLOSURES SECTION.

Phase II trial in Type-2 diabetes on track. VTAE will likely also report results from the Phase II clinical trial of VTP-34072 in 126 patients with type-2 diabetes in 1H2015. We are optimistic about this first-in-class inhibitor of 11 β -HSD1, whose improved pharmacokinetics and on-target pharmacodynamics differentiate it significantly from other unsuccessful 11 β -HSD1 inhibitors.

Autoimmune candidate therapy VTP-43742 advances toward the clinic. The company also outlined its goals to move forward with additional GLP toxicology, and CMC studies that will enable the filing of an IND and initiation of Phase I safety trials by 1H2015.

Changes to our model and price target increase. The magnitude of the reported decrease in amyloid beta in CSF places VTP-39748 on par with some of the most promising BACE inhibitors in development. The rapid implementation of the MAD trial also signals strong optimism on the part of BI for this candidate. We believe that the lack of a reported MTD and adverse event profile from the SAD trial bolsters confidence in the potential of Contour in generating safe clinical candidates with optimal pharmacokinetic and pharmacodynamic properties, significantly derisking assets generated from this platform. As such, we are reducing the discount rate on the VTP-37948 program from 40% to 35%, and on the VTP-34072 program from 35% to 30%. Changes to our valuation model are detailed in Figures 3-7.

Vitae is an early-stage drug discovery and development company that uses its proprietary CONTOUR structure-based drug design platform for the development of therapeutic candidates directed against validated targets that are difficult to drug. While Vitae's programs are early, we believe they are potentially first- or best-in-class for multi-blockbuster opportunities in Alzheimer's disease and type II diabetes. These programs, designated VTP-37948 and VTP-34072, have been validated scientifically and de-risked financially via separate business development agreements with German biopharmaceutical company, Boehringer Ingelheim (private). Multiple near-term value inflection points provide investors with significant upside in the first half of 2015, in our opinion.

FIGURE 1. Upcoming Catalysts

Timing	Program	Catalyst
1H15	VTP-34072 (HSD β -1)	Phase II clinical results expected in type-2 diabetes
1H15	VTP-43742 (ROR γ t)	Phase I clinical trial slated to begin in psoriasis
1H15	VTP-38543 (LXR β)	Phase I clinical trial slated to begin in atopic dermatitis
1H16	VTP-38443 (LXR β)	Phase I clinical trial slated to begin in acute coronary syndrome

Source: Company presentations

FIGURE 2. Actual versus Estimates

Vitae Pharmaceuticals (VTAE) Abridged Income Statement (\$ MM)	3Q14 Results		
	JMP Estimate	Actual	Variance (JMP vs. Actual)
Total Revenues	-	6.20	
License revenue	-	0.20	
Milestone revenue	-	6.00	
Operating Expenses	6.70	7.90	1.2
Research and development	4.90	4.80	(0.1)
General and administrative	1.80	3.10	1.3
Operating income (loss)	(6.70)	(1.70)	5.0
Other income (expense)	(0.20)	(0.09)	0.11
			0.00
Pretax income (loss)	(6.90)	(1.79)	5.11
Net income (loss)	(0.90)	(1.79)	(0.89)
EPS Calculations			
Basic EPS	\$ (0.05)	\$ (1.04)	\$ (0.99)
Diluted EPS	\$ (0.05)	\$ (1.04)	\$ (0.99)
Basic shares outstanding	17.357	1.712	(15.645)
Diluted shares outstanding	17.357	1.712	(15.645)

Source: JMP Securities LLC, Company filings

FIGURE 3. Changes to Our Model

Vitae Pharmaceuticals (VTAE) (\$ MM)	4Q14E		FY 2014E		FY 2015E		FY 2016E	
	Old	New	Old	New	Old	New	Old	New
License revenue	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0
Milestone revenue	0.0	0.0	6.0	6.0	20.0	20.0	0.0	0.0
Other								
Total Revenues	6.0	6.2	6.0	8.53	20.0	20.00	6.0	-
COGS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross Profit	-	0.0	8.33	8.53	-	-	-	-
Operating Expenses	7.0	7.0	25.8	26.9	34.6	34.6	39.6	8.4
Research and development	5.0	5.0	19.3	19.2	23.8	23.8	26.7	5.8
General and administrative	2.0	2.0	6.4	7.7	10.8	10.8	13.0	2.6
Operating income (loss)	(7.0)	(7.0)	(17.4)	(18.4)	(34.6)	(34.6)	(39.6)	(8.4)
Other income (expense)	(0.2)	0.2	(0.9)	(0.20)	(0.8)	(0.19)	0.0	(0.20)
Interest income	(0.2)	(0.2)	(0.9)	(0.97)	(0.8)	(0.20)	-	(0.20)
Pretax income	(7.2)	(6.8)	(18.4)	(18.6)	(35.4)	(34.8)	(39.6)	(8.6)
Net income	(7.2)	(6.8)	(18.1)	(18.6)	(35.4)	(8.0)	(39.6)	(8.6)
Basic EPS	(\$0.41)	\$ (0.39)	(\$1.04)	\$ (1.07)	(\$2.00)	\$ (2.01)	(\$1.84)	\$ (1.85)
Diluted EPS	(\$0.41)	\$ (0.39)	(\$1.04)	\$ (1.07)	(\$2.00)	\$ (2.01)	(\$1.84)	\$ (1.85)
Basic shares outstanding	17.44	17.40	17.40	17.40	17.66	17.49	21.51	17.57
Diluted shares outstanding	17.44	17.40	17.40	17.40	17.79	17.49	21.51	17.57

Source: JMP Securities LLC

FIGURE 4. Price Target Synthesis

Synthesis of Valuation Approaches	
Approach	Valuation
DCF Analysis	\$ 21.39
SOTP	20.81
Price Target	\$ 21.00

Source: JMP Securities LLC

FIGURE 5. Sum-of-the-Parts Valuation

NPV Sum-of-the-Parts			
	WW	US	Ex-US
Diabetes VTP-37948	\$ 6.95	\$ 6.01	\$ 0.94
Alzheimer's VTP-34072	\$ 8.82	\$ 2.53	\$ 6.30
Milestones	\$ 1.70		
Cash and Equivs on Hand	\$ 3.34		
Total NPV	\$ 20.81	\$ 8.54	\$ 7.23

Source: JMP Securities LLC

FIGURE 6. Sum-of-the-Parts Valuation (continued)

VTP-37948, Diabetes NPV	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
US Sales (\$MM)					-	174	567	823	1,342	1,946	3,175	3,453
Royalty rate					13%	13%	13%	13%	13%	13%	13%	13%
Royalty to VTAE					0.0	21.7	70.9	102.8	167.7	243.3	396.8	431.6
Contribution Margin					100%	100%	72%	68%	58%	48%	42%	38%
Operating Margin					0.0	21.7	51.1	69.9	97.3	116.8	166.7	164.0
Terminal Value												585.7
Discount Period					4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
PV of CF to VTAE					0.0	5.9	10.6	11.1	11.9	11.0	12.1	41.8
Discount Rate		30%										
Terminal Growth		2%										
NPV		\$ 104.43										
# Shares outstanding (mm)		17.4										
Incremental price per share		\$ 6.01										
Ex-US Sales (\$MM)					\$0	\$0	\$34	\$154	\$276	\$389	\$484	\$585
Royalty rate					13%	13%	13%	13%	13%	13%	13%	13%
Royalty to VTAE					0.0	0.0	4.2	19.2	34.5	48.6	60.5	73.2
Contribution Margin					100%	100%	72%	68%	58%	48%	42%	38%
Operating Margin					0.0	0.0	3.1	13.1	20.0	23.3	25.4	27.8
Terminal Value												99.3
Discount Period					4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
PV of CF to VTAE					0.0	0.0	0.6	2.1	2.4	2.2	1.8	7.1
Discount Rate		30%										
Terminal Growth		2%										
NPV		\$ 16.30										
# Shares outstanding (mm)		17.4										
Incremental price per share		\$ 0.94										
VTP-34072, Alzheimer's NPV	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
US Sales (\$MM)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 297	\$ 614	\$ 951	\$ 1,474	\$ 1,862	\$ 2,274
Royalty rate						13%	13%	13%	13%	13%	13%	13%
Royalty to VTAE						0.0	37.1	76.7	118.9	184.3	232.7	284.2
Contribution Margin					100%	100%	72%	68%	58%	48%	42%	38%
Operating Margin					0.0	0.0	26.7	52.2	69.0	88.5	97.7	108.0
Terminal Value												327.3
Discount Period					4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
PV of CF to VTAE					0.0	0.0	4.4	6.4	6.3	5.9	4.9	16.0
Discount Rate		35%										
Terminal Growth		2%										
NPV		\$ 43.89										
# Shares outstanding (mm)		17.4										
Incremental price per share		\$ 2.53										
Ex-US Sales (\$MM)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 740	\$ 1,530	\$ 2,370	\$ 3,674	\$ 4,640	\$ 5,666
Royalty rate						13%	13%	13%	13%	13%	13%	13%
Royalty to VTAE						0.0	92.6	191.2	296.3	459.2	579.9	708.3
Contribution Margin					100%	100%	72%	68%	58%	48%	42%	38%
Operating Margin					0.0	0.0	66.6	130.0	171.9	220.4	243.6	269.2
Terminal Value												815.6
Discount Period					4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
PV of CF to VTAE						0.0	11.0	15.9	15.6	14.8	12.1	40.0
Discount Rate		35%										
Terminal Growth		2%										
NPV		\$ 109.37										
# Shares outstanding (mm)		17.4										
Incremental price per share		\$ 6.30										
Milestone Revenue	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Milestone Payments (\$MM)	\$ -	\$ 10.00	\$ -	\$ 26.00	\$ -	\$ 20.00	\$ 60.00	\$ -	\$ -	\$ -	\$ -	\$ 60.00
Contribution Margin	100%	95%	100%	95%	100%	100%	72%	68%	58%	48%	42%	38%
Operating Margin	0.0	9.5	0.0	24.7	0.0	20.0	43.2	0.0	0.0	0.0	0.0	22.8
Discount Period	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
PV of CF to VTAE	0.0	7.0	0.0	10.0	0.0	4.5	7.1	0.0	0.0	0.0	0.0	0.8
Discount Rate		33%										
Terminal Growth		0%										
NPV		\$ 29.51										
# Shares outstanding (mm)		17.4										
Incremental price per share		\$ 1.70										

Source: JMP Securities LLC

FIGURE 7. Discounted Cash Flow Valuation

Vitae Pharmaceuticals (VTAE)												
Discounted Cash Flow Model	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Total Revenues												
US Sales					-	21.7	108.1	179.6	286.7	427.5	629.5	715.8
Ex-US Sales					-	-	126.5	262.1	443.1	637.6	790.0	962.2
Milestones	6.0	20.0	-	46.0	70.0	20.0	60.0	50.0	145.0	75.0	-	107.0
Total Revenues	\$ 20.0	\$ -	\$ 46.0	\$ 70.0	\$ 41.7	\$ 294.5	\$ 491.7	\$ 874.8	\$ 1,140.2	\$ 1,419.6	\$ 1,785.0	
Gross Profit	0.0	20.0	0.0	46.0	70.0	41.7	294.5	491.7	874.8	1,140.2	1,419.6	1,785.0
R&D expense	19.2	23.8	26.7	29.3	58.6	65.7	82.1	105.1	120.9	139.0	159.8	183.8
<i>R&D as a % of revenue</i>					84%	157%	28%	21%	14%	12%	11%	10%
SG&A expense	7.7	10.8	13.0	19.4	26.2	30.2	37.7	60.4	84.5	118.3	159.7	215.6
<i>SG&A as a % of revenue</i>					37%	72%	13%	12%	10%	10%	11%	12%
Total operating expenses	26.9	34.6	39.6	48.8	84.9	95.9	119.8	165.4	205.4	257.3	319.5	399.4
<i>% Margin</i>					121%	230%	41%	34%	23%	23%	23%	22%
Operating income (EBIT)	(26.9)	(14.6)	(39.6)	(2.8)	(14.9)	(54.1)	174.7	326.2	669.4	882.9	1,100.0	1,385.5
Taxes	0.0	0.0	0.0	0.0	0.0	0.0	45.9	97.9	234.3	309.0	385.0	484.9
<i>Tax rate</i>	0%	0%	0%	0%	0%	0%	26%	30%	35%	35%	35%	35%
After tax operating income	(26.9)	(14.6)	(39.6)	(2.8)	(14.9)	(54.1)	128.9	228.3	435.1	573.9	715.0	900.6
Discount year	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00
Discount factor	1.0	1.3	1.8	2.4	3.1	4.2	5.5	7.3	9.8	13.0	17.3	23.0
PV	(26.9)	(11.0)	(22.4)	(1.2)	(4.8)	(13.0)	23.3	31.1	44.6	44.2	41.4	39.2
Residual value of cash flow	\$315									Terminal Value	170.9	
+Cash and Cash equivalents	58											
Company value	373											
-Long-term debt on 6/30/2014	2											
Value of equity	\$372											
Fully diluted shares outstanding on 06/30/14	17.37											
Price/share	\$21.39											
Discount Rate	33.0%											
Terminal growth rate	10%											

Source: JMP Securities LLC

Company Description

Vitae is a biotechnology company focused on leveraging a discovery and development platform for the advancement of small molecule drugs to treat important unmet clinical diseases. Utilizing the company's proprietary Contour structure based discovery platform, Vitae is able to rapidly discover novel lead molecules with desired target efficacy and biological stability that supports significant derisking at very early stages of drug development. Vitae has initially focused its development on two targets that treat large patient markets: type-2 diabetes and Alzheimer's disease. The company's most advanced clinical asset is VTP-34072, an inhibitor of 11- β HSD1, a preclinically validated target in diabetes and metabolic disease that is currently in Phase II clinical trials. Data is expected from this trial in the first half of 2015. The second asset, VTP-37948, is an inhibitor of BACE-1, a target of high interest in the treatment of Alzheimer's disease, and has entered Phase I clinical trials with expected biomarker and data read-outs by the end of 2014. Both of these clinical candidates target large markets and have been partnered since discovery for further development by Boehringer Ingelheim GmbH, resulting in significant upfront and milestone payments totaling \$152.4MM. The company has also used its platform to develop preclinical candidate inhibitors against difficult-to-target pathways in autoimmune disease, cardiovascular disease, and dermatological conditions. These wholly owned assets include VTP-43742, a ROR γ t inhibitor strongly implicated in autoimmune diseases such as multiple sclerosis, psoriasis, and rheumatoid arthritis. Additionally, the company has developed VTP-38443 for the treatment of acute coronary syndrome, and VTP-38543 for the treatment of atopic dermatitis, both of which stimulate the LXR β receptor. Vitae is also developing an as-yet unnamed program to develop preclinical compounds for immunoncology applications.

Investment Risks

Clinical and regulatory. If either VTP-34072 in diabetes or VTP-37948 in Alzheimer's is not able to meet any of its primary outcomes or suffer from safety and tolerability issues, Vitae and Boehringer Ingelheim (BI) may choose to end development in any of its current indications. Additionally, if the FDA and EMEA do not approve VTP-34072 or VTP-37948, Vitae stock price would likely suffer.

Partnering. Vitae has partnered with (BI) in the development of VTP-34072 in diabetes and VTP-37948 in Alzheimer's. BI is responsible for the continued clinical and commercial development of both candidates and may decide to end development for one or more indications. If it were necessary for Vitae to develop and market any of its programs due to the loss or inability to retain a partner, it may be difficult to develop an internal commercial structure. Management has limited experience in commercial and marketing activities.

Competitive. The diabetes market is crowded and saturated with low-cost generic manufacturers of metformin and sulfonylureas. It may be difficult for BI and Vitae to garner significant market share. The high bar for safety and efficacy differentiation for the diabetes primary care market may limit adoption. VTP-37948 is not the only BACE-1 inhibitor in development and will not be a first-in-class therapy if Merck/Ligand are successful in bringing their drug to market. It may be difficult to compete in a market dominated by these therapies.

Financial. Vitae currently derives revenue from research and development funding and from license or collaboration agreements. The company sold ~6,875,000 shares in September 2014, raising net proceeds of ~\$51.15MM. As a result, the company is projected to finish 3Q14 with ~\$53.5MM in cash, equivalents, and marketable securities. We expect this funding to be able to carry it through to 2016. Like most non-profitable biotechnology companies, VTAE will likely need to seek additional financing, exposing current investors to dilutive risk.

JMP FACTS AND DISCLOSURES

Analyst Certification:

The research analyst(s) who prepared this report does/do hereby certify that the views presented in this report are in accordance with my/our personal views on the securities and issuers discussed in this report. As mandated by SEC Regulation AC no part of my/our compensation was, is or will be directly or indirectly related to the specific views or recommendations expressed herein. This certification is made under the obligations set forth in SEC Regulation AC. Any other person or entity may not use it for any other purpose. This certification is made based on my/our analysis on the date of this report's publication. I/We assume no obligation to update this certification to reflect any facts, circumstances or events that may subsequently come to my/our attention. Signed Michael G. King

JMP Securities Disclosures:

JMP Securities currently makes a market in the security of Vitae Pharmaceuticals, Inc.

JMP Securities was manager or co-manager of a public offering of securities for Vitae Pharmaceuticals, Inc. (VTAE) in the past 12 months, and received compensation for doing so.

JMP Securities expects to receive OR intends to seek compensation for investment banking services from Vitae Pharmaceuticals, Inc. in the next 3 months.

JMP Securities Investment Opinion Definitions:

Market Outperform (MO): JMP Securities expects the stock price to outperform relevant market indices over the next 12 months.

Market Perform (MP): JMP Securities expects the stock price to perform in line with relevant market indices over the next 12 months.

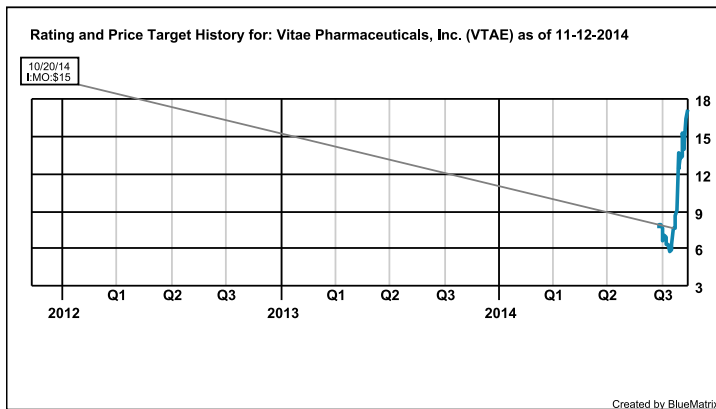
Market Underperform (MU): JMP Securities expects the stock price to underperform relevant market indices over the next 12 months.

JMP Securities Research Ratings and Investment Banking Services: (as of November 13, 2014)

JMP Rating	Regulatory Equivalent	# Co's Under Coverage	% of Total	# Co's Receiving IB Services in Past 12 Months				
				Regulatory Equivalent	# Co's Under Coverage	% of Total	% of Co's With This Rating	
MARKET OUTPERFORM	Buy	285	61.03%	Buy	285	61.03%	104	36.49%
MARKET PERFORM	Hold	141	30.19%	Hold	141	30.19%	15	10.64%
MARKET UNDERPERFORM	Sell	2	0.43%	Sell	2	0.43%	0	0%
COVERAGE IN TRANSITION		36	7.71%		36	7.71%	0	0%
TOTAL:		467	100%		467	100%	121	25.91%

Stock Price Chart of Rating and Target Price Changes:

Note: First annotation denotes initiation of coverage or 3 years, whichever is shorter. If no target price is listed, then the target price is N/A. In accordance with NASD Rule 2711, the chart(s) below reflect(s) price range and any changes to the rating or price target as of the end of the most recent calendar quarter. The action reflected in this note is not annotated in the stock price chart. Source: JMP Securities.



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