Vitae Pharmaceuticals, Inc. (VTAE)

Boehringer Ingelheim Returns Alzheimer's Program

MARKET PERFORM | Price: $10.38 | Target Price: N/A

MARKET DATA

Price	$10.38
52-Week Range:	$5.41 - $23.35
Shares Out. (M):	21.8
Market Cap ($M):	$226.3
Average Daily Vol. (000):	126.0
Cash (M):	$79
Cash/Share:	$3.60
Enterprise Value (M):	$260
Float (M):	20.4
LT Debt (M):	$0

Source: Thomson Reuters and JMP Securities LLC

FY DEC		2014A	2015E	2016E
Revenue ($M)	1Q	--	$0.2A	--
	2Q	--	$0.0	--
	3Q	$6.2	$0.0	--
	4Q	$0.2	$7.0	--
	FY	**$8.7**	**$7.0**	**$0.0**
EPS	1Q	--	($0.47)A	--
	2Q	--	($0.50)	--
	3Q	($1.04)	($0.52)	--
	4Q	($0.40)	($0.22)	--
	FY	**($3.61)**	**($1.70)**	**($2.14)**

Source: Company reports and JMP Securities LLC

STOCK PRICE PERFORMANCE

INVESTMENT HIGHLIGHTS

Vitae Pharmaceuticals announced that partner will return BACE inhibitor program; reiterate our Market Perform rating. This morning, Vitae announced that partner Boehringer Ingelheim (BI, NC) will return asset BI 1147560 that was expected to enter Phase I safety and tolerability studies for development in Alzheimer's disease sometime in the second half of 2015. According to management, the return of the program was a strategic decision and came as a surprise to the clinical teams at both BI and VTAE. While the compound has yet to enter human testing, the company reports that up to a 90% decrease in CSF amyloid was observed in preclinical models, on par with other clinical candidates. The company indicated that it will assess development options in light of today's unexpected news, but it continues to advance its wholly owned compounds including VTP-43742, a RORγt modulator for the treatment of autoimmune disease including psoriasis, and VTP-38543, a LXRβ modulator for the treatment of atopic dermatitis. We continue to maintain our Market Perform rating and look for more clarity on the upcoming 2Q15 earnings call to revisit our earnings projections.

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. The CONTOUR platform continues to develop small molecules with class defining biochemical efficacy, and readouts expected at year end and in 1H16 for several important pipeline assets, including VTP-43742 safety data in 2H15 and efficacy data in psoriasis at EOY and results from Phase I studies of BI 1147560 in 1H16.

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FIGURE 1. Upcoming Catalysts

Timing	Program	Catalyst
mid-15	VTP-43742 (RORγt)	Complete Phase I proof-of-concept safety and PK trial in healthy volunteers
2H15	VTP-34072	Phase II top-line results expected in type-2 diabetes monotherapy
2H15	VTP-43742 (RORγt)	Initiation of a multiple ascending dose Phase I in psoriatic patients
2H15	VTP-43742 (RORγt)	Completion of multiple ascending dose Phase I in psoriatic patients
2H15	VTP-38543 (LXRβ)	Initiate Phase I safety and PK trial clinical trial
2016	VTP-38543 (LXRβ)	Results from Phase I trial in atopic dermatitis
2016	VTP-38443 (LXRβ)	File IND/ Initiate Phase I clinical trial in acute coronary syndrome
2016	VTP-43742 (RORγt)	Initiate Phase II trial (large indication)
2016	VTP-43742 (RORγt)	Initiate Phase II trial (rare/orphan indication)

Source: Company Presentations

FIGURE 2. Income Statement

Vitae Pharmaceuticals (VTAE)	2015E				2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Income Statement ($MM)	1Q15A	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Total Product Sales and Royalties					0.0	0.0	0.0	0.0	0.0	0.0	38.4	196.3	345.8	536.1	751.1
Collaborative Revenue	0.2														
Milestone Revenue		0.0	0.0	7.0	7.0	0.0	10.0	26.0	0.0	20.0	60.0	80.0	75.0	0.0	60.0
Total Revenue	0.2	0.0	0.0	7.0	7.0	0.0	10.0	26.0	0.0	20.0	98.4	276.3	420.8	536.1	811.1
Cost of Goods Sold						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross Profit	0.2	0.0	0.0	7.0	7.2	0.0	10.0	26.0	0.0	20.0	98.4	276.3	420.8	536.1	811.1
Operating Expenses:															
Research and Development	7.5	7.9	8.3	8.7	32.4	42.5	53.1	61.1	67.2	84.0	107.5	123.7	142.2	163.5	188.1
% Growth	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*67.6%*	*85.0%*	*25.0%*	*15.0%*	*10.0%*	*25.0%*	*28.0%*	*15.0%*	*15.0%*	*15.0%*	*15.0%*
% Total US Net Sales								*#DIV/0!*	*#DIV/0!*	*#DIV/0!*	*15%*	*63%*	*41%*	*31%*	*25%*
General and administrative	2.1	2.6	2.8	3.0	10.5	13.0	19.5	26.3	30.3	37.8	60.5	84.8	118.7	160.2	216.3
% Growth					*20.0%*	*20.0%*	*50.0%*	*35.0%*	*15.0%*	*25.0%*	*60.0%*	*40.0%*	*40.0%*	*35.0%*	*35.0%*
% Total US Net Sales								*#DIV/0!*	*#DIV/0!*	*#DIV/0!*	*158%*	*43%*	*34%*	*30%*	*29%*
Total operating expenses	9.6	10.5	11.1	11.7	42.9	55.5	72.6	87.4	97.5	121.8	168.1	208.4	260.9	323.7	404.3
Operating income (loss)	(9.5)	(10.5)	(11.1)	(4.7)	(35.7)	(55.5)	(62.6)	(61.4)	(97.5)	(101.8)	(69.7)	67.9	160.0	212.3	406.7
Other income (expense):															
Interest income	0.1	0.1	0.1	0.1	0.0	0.0	0.7	0.0	(0.6)	(1.5)	(2.3)	(2.8)	(2.4)	(1.4)	0.0
Interest expense	(0.11)				(0.11)										
Loss on debt extinguishment	(0.21)				(0.21)										
Other income					-										
Total other income, net	(0.2)	0.1	0.1	0.1	(0.3)	0.0	0.7	0.0	(0.6)	(1.5)	(2.3)	(2.8)	(2.4)	(1.4)	0.0
Pretax income (loss)	(9.7)	(10.4)	(11.0)	(4.6)	(35.8)	(55.5)	(62.0)	(61.4)	(98.0)	(103.4)	(72.0)	65.1	157.6	210.9	406.7
Income tax benefit (provision)					0.0	0.0	0.0	0.0	0.0	27.1	21.6	(22.8)	(55.2)	(73.8)	(142.4)
Tax Rate					*0%*	*0%*	*0%*	*0%*	*0%*	*26%*	*30%*	*35%*	*35%*	*35%*	*35%*
Comprehensive income (loss)	(9.7)	(10.4)	(11.0)	(4.6)	(35.8)	(55.5)	(62.0)	(61.4)	(98.0)	(76.3)	(50.4)	42.3	102.4	137.1	264.4
Accretion of redeemable convertible preferred stock															
Net income (loss) attributable to common stockholder	(9.7)	(10.4)	(11.0)	(4.6)	(35.8)	(55.5)	(62.0)	(61.4)	(98.0)	(76.3)	(50.4)	42.3	102.4	137	264
Basic EPS to common stockholder	$ (0.47)	$ (0.50)	$ (0.52)	$ (0.22)	$ (1.70)	$ (2.14)	$ (2.36)	$ (2.31)	$ (3.65)	$ (2.8)	$ (1.8)	$ 1.5	$ 3.6	$ 4.8	$ 9.2
Diluted EPS to common stockholder	$ (0.47)	$ (0.50)	$ (0.52)	$ (0.22)	$ (1.70)	$ (2.14)	$ (2.36)	$ (2.31)	$ (3.65)	$ (2.8)	$ (1.8)	$ 1.5	$ 3.6	$ 4.7	$ 9.0
Basic shares outstanding	20.8	20.9	21.0	21.1	21.0	25.9	26.2	26.5	26.8	27.2	27.5	27.8	28.1	28.5	28.8
Diluted shares outstanding	20.8	20.9	21.0	21.1	21.0	25.9	26.2	26.5	26.8	27.2	27.5	28.4	28.7	29.1	29.4

Source: JMP Securities LLC and Company Reports

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 support 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 second half of 2015.

The second asset, BI 1147560, is an inhibitor of BACE-1, a target of high interest in the treatment of Alzheimer's disease that will enter Phase I clinical trials with expected biomarker and data read-outs by the beginning of 2016. 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-γt 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 LXRβ receptor. Vitae is also developing an as-yet unnamed program to develop preclinical compounds for immune-oncology applications.

Investment Risks

Potential risks to our investment thesis and price target include, but are not limited to:

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's stock price would likely suffer.

Partnering. Vitae has partnered with (BI) in the development of VTP-34072 in diabetes and BI 1147560 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. BI 1147560 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. 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.

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Market Outperform (MO): JMP Securities expects the stock price to outperform relevant market indices over the next 12 months.
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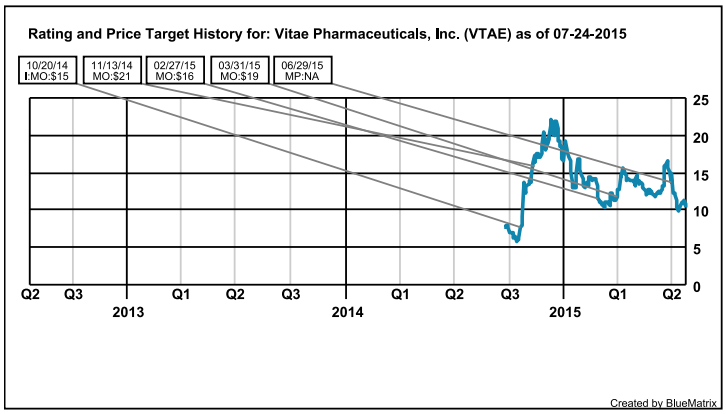
JMP Rating	Regulatory Equivalent	# Co's Under Coverage	*% of Total*	Regulatory Equivalent	# Co's Under Coverage	*% of Total*	# Co's Receiving IB Services in Past 12 Months	*% of Co's With This Rating*
MARKET OUTPERFORM	Buy	289	*62.69%*	Buy	289	*62.69%*	86	*29.76%*
MARKET PERFORM	Hold	143	*31.02%*	Hold	143	*31.02%*	16	*11.19%*
MARKET UNDERPERFORM	Sell	8	*1.74%*	Sell	8	*1.74%*	0	*0%*
COVERAGE IN TRANSITION		21	*4.56%*		21	*4.56%*	4	*19.05%*
TOTAL:		461	*100%*		461	*100%*	106	*22.99%*

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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