Vitae Pharmaceuticals (VTAE)

Q1:15 Update: Cash Runway Through 2016 Covers Multiple Catalysts; Next in Q2: Preliminary T2D Phase 2 Results; Reiterate OUTPERFORM and $21 PT

- **Q1:15 financials were in-line.** Vitae reported $0.15MM in revenues--slightly above consensus of $0.09MM. Reported GAAP EPS (loss) for Q1 was $(0.47) vs. consensus estimate of $(0.35). Vitae ended Q1 with $88.7MM in cash & short-term investments, and guided for runway through 2016. We note that cash runway guidance does not include a potential $7MM milestone in Q4 from Boehringer Ingelheim (BI) for dosing the first patient in a Phase 1 trial for BI-1147560 (new BACE inhibitor for Alzheimer's disease).
- **NEXT in Q2: Initial Phase 2 proof-of-concept (POC) results testing VTP-34072 (11β-HSD-1 inhibitor) treatment of Type 2 diabetes (T2D).** BI plans to release top-line results from the metformin combination arm in Q2 while monotherapy results are expected in H2. Recall, this POC study is a four-week trial designed to assess safety, tolerability and blood glucose management of VTP-34072 in 126 T2D patients. Given the proof-of-concept trial's short duration, we believe a reduction in blood glucose may be sufficient for BI to move forward.
- **The Alzheimer's program restart is on track for 2015.** BI is expected to initiate a Phase 1 clinical trial of BI-1147560 for Alzheimer's disease by year-end.
- **We anticipate initial clinical data releases from Vitae's proprietary VTP-43742 / autoimmune program in 2015.** Results from a single ascending dose Phase 1 safety and pharmacokinetics (PK) study for VTP-43742 in healthy volunteers is expected around mid-year followed by a multiple ascending dose POC study for VTP-43742 treatment of psoriasis, with results expected in H2:15. The company is planning to develop VTP-43742 for a large market indication (e.g. psoriasis, multiple sclerosis, rheumatoid arthritis) as well as for a rare disease.
- **Vitae also plans to initiate clinical testing for their second proprietary candidate in 2015.** Initiation of a Phase 1 safety and PK trial for VTP-38543 in atopic dermatitis (eczema) is anticipated in H2:15.
- **We reiterate our OUTPERFORM rating and our price target of $21.** Our 12-month PT uses a sum-of-parts with each part calculated using a 30% annual discount from peak sales of each drug/disease to present day and applying a 1-10x multiple, depending on stage of development to reflect risk.

FYE Dec	2014A	2015E			2016E		
REV (M)	ACTUAL	CURR.	PREV.	CONS.	CURR.	PREV.	CONS.
Q1 Mar	$1.2A	$0.2A	0.16E	$0.1E	$0.2E		--
Q2 Jun	1.2A	0.2E	0.16E	0.1E	0.2E		--
Q3 Sep	6.2A	0.2E	0.16E	0.1E	0.2E		--
Q4 Dec	0.2A	7.2E	7.16E	3.6E	0.2E		--
Year*	**$8.7A**	**$7.6E**	**7.65E**	**$3.9E**	**$0.6E**		**$2.9E**
Change	--	--					
	2014A	**2015E**			**2016E**		
EPS	**ACTUAL**	**CURR.**	**PREV.**	**CONS.**	**CURR.**	**PREV.**	**CONS.**
Q1 Mar	($0.47)A	($0.47)A	-0.33E	($0.35)E	($0.53)E		--
Q2 Jun	(0.48)A	(0.47)E	-0.34E	(0.37)E	(0.56)E		--
Q3 Sep	(1.06)A	(0.49)E	-0.36E	(0.40)E	(0.58)E		--
Q4 Dec	(0.40)A	(0.19)E	-0.06E	(0.33)E	(0.61)E		--
Year*	**($3.61)A**	**($1.61)E**	**-1.09E**	**($1.44)E**	**($2.28)E**		**($1.66)E**
P/E	--	--					
Change	--	--					

Consensus estimates are from Thomson First Call.
** Numbers may not add up due to rounding.*

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Price
$13.38

Rating
OUTPERFORM

12-Month Price Target
$21

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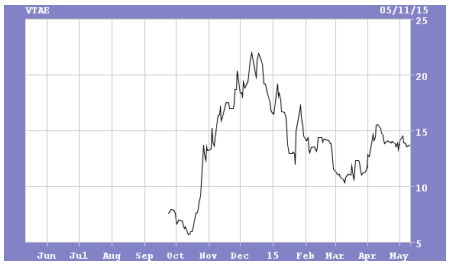
Company Information

Shares Outst (M)	20827
Market Cap (M)	$292
52-Wk Range	$5.41 - $23.35
Book Value/sh	$4.38
Cash/sh	$4.26
Enterprise Value (M)	$381
LT Debt/Cap %	0.0
User Input	0.0

Company Description

Vitae is a clinical stage emerging pharmaceutical company discovering and developing small molecule drug candidates to treat large market indications with unmet medical needs.



Source: Thomson Reuters

INVESTMENT THESIS *Vitae, located in Fort Washington, Pennsylvania, is a clinical-stage emerging pharmaceutical company focused on discovering and developing novel, small molecule drugs for diseases with significant unmet medical needs. The company's proprietary structure-based drug design platform called Contour® has provided multiple, high-quality product candidates which have attracted over $150 million in collaboration funding from big pharma. Vitae has two partnered product candidates in the clinic and several wholly-owned product candidates in preclinical development. The most advanced product candidates include VTP-34072, currently being tested in phase 2 for the treatment of type 2 diabetes and VTP-37948 which is in phase 1 for the treatment of Alzheimer's disease. Both products are being developed by Vitae's partner Boehringer Ingelheim GmbH (BI). Earlier-stage product candidates are currently unpartnered and include VTP-43742 for the treatment of autoimmune disorders, VTP-38443 for the treatment of acute coronary syndrome (ACS) and VTP-38543 for the treatment of atopic dermatitis (eczema). Vitae intends to develop and commercialize these programs and/or to strategically partner programs as appropriate. We have projected clinical development and potential regulatory approvals so that the first product could be launched in late 2019. We project the first full year of profitability in 2021 from revenues of about $119 million. As of the end of Q1:15, Vitae has $88.7MM in cash and cash equivalents, which we expect to provide cash runway covering transforming clinical data releases from multiple product candidates. On February 26 2015, Vitae announced that its partner Boehringer Ingelheim placed on temporary clinical hold its Phase 1 trial of VTP-37948 for the treatment of Alzheimer's disease. BI ultimately decided to discontinue development of VTP-37948 and move forward with a structurally distinct, Phase 1 ready BACE1 inhibitor, BI-1147560. We do not believe the switch in compounds is likely to have a material impact on the commercial opportunity for Vitae/BI's Alzheimer's disease program. We also anticipate upside potential from additional partnerships around their currently unpartnered product candidates and that Vitae's future clinical success could result in the company's acquisition.*

A replay of the Q1 financials conference call is available by webcast at http://ir.vitaepharma.com/

Figure 1: MODEL UPDATE

Vitae, Inc. (VTAE:NASDAQ) — **Wedbush Securities, Inc.**
Historical and Projected Income Statement — Liana Moussatos, PhD
(In thousands except per share data) — Kelechi Chikere, Ph.D.

	2014A	2015E					2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
	FY:14A	Q1A	Q2E	Q3E	Q4E	FY:15E	FY:16E	FY:17E	FY:18E	FY:19E	FY:20E	FY:21E	FY:22E	FY:23E	FY:24E	FY:25E
Revenues:																
Product Sales/Royalties																
VTP-34072 (T2D)	-	-	-	-	-	-	-	-	-	148	3,660	13,480	46,402	116,557	205,678	293,353
BI-1147560 (Alz)	-	-	-	-	-	-	-	-	-	-	-	3,994	17,352	64,010	166,179	310,438
VTP-43742 (psoriasis)	-	-	-	-	-	-	-	-	-	-	1,060	13,087	37,802	77,183	113,533	133,809
VTP-43742 (RMS)	-	-	-	-	-	-	-	-	-	-	5,982	79,357	260,959	667,871	1,257,619	1,830,916
VTP-38443 (ACS)	-	-	-	-	-	-	-	-	-	-	-	847	19,569	57,995	123,877	193,097
VTP-38543 (Atopic Dermatitis)	-	-	-	-	-	-	-	-	-	-	-	711	4,134	11,320	22,387	34,042
	-	-	-	-	-	-	-	-								
Total Net Product Revenues	-	-	-	-	-	-	-	-	-	148	10,703	111,476	400,325	1,319,550	2,804,770	4,717,549
Collaborative Revenues	8,669	150	150	150	7,150	7,601	601	601	601	601	601	601	601	601	601	601
Total Revenues	$ 8,669	$ 150	$ 150	$ 150	$ 7,150	$ 7,601	$ 601	$ 601	$ 601	$ 749	$ 11,303	$ 112,077	$ 400,925	$ 1,320,151	$ 2,805,371	$ 4,718,150
Total COGS	-	-	-	-	-	-	-	-	-	15	1,070	11,148	40,032	131,955	280,477	471,755
Gross Margin	$ 8,669	$ 150	$ 150	$ 150	$ 7,150	$ 7,601	$ 601	$ 601	$ 601	$ 734	$ 10,233	$ 100,929	$ 360,893	$ 1,188,196	$ 2,524,894	$ 4,246,395
Operating Expenses:																
R&D	19,305	7,506	7,881	8,354	8,855	32,597	41,063	48,843	26,141	28,296	30,628	33,153	35,886	38,844	42,046	45,512
SG&A	7,915	2,111	2,113	2,115	2,117	8,457	8,792	9,216	14,948	29,774	42,141	43,852	45,633	47,486	49,414	51,420
Acquired in-process R&D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating Expenses	$ 27,219	$ 9,617	$ 9,994	$ 10,469	$ 10,973	$ 41,053	$ 49,855	$ 58,059	$ 41,089	$ 58,070	$ 72,769	$ 77,005	$ 81,519	$ 86,330	$ 91,460	$ 96,932
Operating Income (Loss)	(18,550)	(9,467)	(9,844)	(10,319)	(3,822)	(33,452)	(49,254)	(57,458)	(40,488)	(57,336)	(62,536)	23,924	279,374	1,101,866	2,433,434	4,149,463
Other Income / (Expense), net	344	(207)	7	(19)	(55)	(273)	(196)	(187)	(187)	(187)	(187)	(187)	(187)	(187)	(187)	(187)
Interest Income	64	74	52	45	41	212	98	(36)	(159)	(278)	(440)	(526)	(372)	465	2,849	7,529
Interest (Expense)	(961)	(108)	(108)	(108)	(108)	(431)	0	0	0	0	0	0	0	0	0	0
Total other (expenses) income	(553)	(240)	(49)	(81)	(122)	(492)	(97)	(223)	(346)	(465)	(627)	(713)	(558)	278	2,663	7,342
Income Before Income Taxes	$ (19,103)	$ (9,707)	$ (9,893)	$ (10,400)	$ (3,944)	$ (33,945)	$ (49,351)	$ (57,681)	$ (40,833)	$ (57,801)	$ (63,163)	$ 23,211	$ 278,816	$ 1,102,144	$ 2,436,097	$ 4,156,805
Deemed Dividend to preferred stockholders (Provision)/benefit for Income Taxes	-	-	-	-	-	-	-	-	-	-	-	(8,014)	(108,738)	(429,836)	(950,078)	(1,621,154)
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.3%	39.0%	39.0%	39.0%	39.0%
Net Income (Loss)	$ (19,103)	$ (9,707)	$ (9,893)	$ (10,400)	$ (3,944)	$ (33,945)	$ (49,351)	$ (57,681)	$ (40,833)	$ (57,801)	$ (63,163)	$ 15,197	$ 170,078	$ 672,308	$ 1,486,019	$ 2,535,651
Stock-based compensation	3,954	0	975	1,204	1,013	3,192	3,752	3,836	3,846	3,846	3,846	3,846	3,846	3,846	3,846	3,846
EPS	$ (4.36)	$ (0.47)	$ (0.52)	$ (0.55)	$ (0.23)	$ (1.76)	$ (2.45)	$ (2.76)	$ (1.96)	$ (2.63)	$ (2.79)	$ 0.46	$ 6.58	$ 25.86	$ 56.03	$ 93.59
GAAP EPS	$ (3.61)	$ (0.47)	$ (0.47)	$ (0.49)	$ (0.19)	$ (1.61)	$ (2.28)	$ (2.59)	$ (1.79)	$ (2.46)	$ (2.63)	$ 0.62	$ 6.74	$ 26.01	$ 56.18	$ 93.73
Weighted Average Shares Outstanding	5,291	20,827	20,977	21,127	21,277	21,052	21,652	22,252	22,852	23,452	24,052	24,652	25,252	25,852	26,452	27,052
Cash	$65,318	$88,693	$77,261	$67,025	$63,145	$63,145	$13,971	($43,513)	($84,146)	($141,787)	($207,022)	($201,225)	($61,122)	$530,834	$1,899,102	$4,299,939
Cash Per Share	$12.35	$4.26	$3.68	$3.17	$2.97	$3.00	$0.65	($1.96)	($3.68)	($6.05)	($8.61)	($8.16)	($2.42)	$20.53	$71.80	$158.95
Net Cash	$54,772	$83,889	$73,778	$64,861	$62,301	$62,301	$13,971	($43,513)	($84,147)	($141,788)	($207,022)	($201,226)	($61,122)	$530,833	$1,899,101	$4,299,938
Net Cash Per Share	$10.35	$4.03	$3.52	$3.07	$2.93	$2.96	$0.65	($1.96)	($3.68)	($6.05)	($8.61)	($8.16)	($2.42)	$20.53	$71.80	$158.95
Cash Burn (Generation)	$3,936					$38,973	$85,974	$94,284	$77,433	$94,441	$102,035	$31,003	($103,303)	($555,156)	($1,331,468)	($2,364,037)

Source: Company data, Wedbush Securities, Inc.

Figure 2: MILESTONES (*our estimates; **Bloomberg estimates)

Timing	Milestones	Estimated Probability	Estimated Upside/Downside
Q2:15	**VTP-34072/T2D-META: PHASE 2 TOP-LINE DATA RELEASE (METFORMIN ARM)**	**60:40**	**±10-20%**
Q2:15	VTP-43742/ AUTOIMMUNE: INITIATE PHASE 1 in HEALTHY VOLUNTEERS	--	--
Mid:15	**VTP-43742/ AUTOIMMUNE: PHASE 1 DATA RELEASE**	**50:50**	**± 0-15%**
H2:15	**VTP-34072/T2D-META: PHASE 2 DATA RELEASE (MONOTHERAPY ARM)**	**60:40**	**±0-15%**
H2:15	**VTP-43742/ AUTOIMMUNE: PHASE 1 POC DATA RELEASE IN PSORIASIS**	**50:50**	**± 5-20%**
2015*	**BI-1147560(BACE) INITIATE PHASE 1 CLINICAL TRIAL**	**60:40**	**±5-15%**
H1:16*	**VTP-38543/ATOPIC DERMATITIS: PHASE 1 DATA RELEASE**	**50:50**	**± 0-15%**

Source: Company data, Wedbush Securities, Inc.

Figure 3: VALUATION

Vitae Product Pipeline Valuation		Eligible #	Pricing	Gross Sales		Net Revs	Peak		Estimated / Actual	Discount	Estimate	Fair Value
Product	Indication	Patients	$/Patient	($000)	Year	($000)	Penetration	Multiple	Launch	Rate	Fair Value	per Share
VTP-34072 (WW)	Diabetes / Metabolic Syndrome	67,152,070	$1,952	$2,428,129	2025	$615,346	2%	4	12/4/2019	30%	$254,400	$11.65
BI-1147560 (WW)	Alzheimer's Disease	8,730,000	$5,226	$3,738,358	2026	$867,924	10%	3	3/2/2021	30%	$189,145	$8.66
VTP-43742 (WW)	Psoriasis	609,167	$4,978	$369,925	2027	$144,635	11%	2	11/4/2020	30%	$20,918	$0.96
VTP-43742 (WW)	MS	857,143	$49,683	$4,405,808	2025	$1,830,916	8%	2	11/4/2020	30%	$134,336	$6.15
VTP-38443 (WW)	ACS	600,000	$30,500	$754,409	2028	$274,449	4%	1	12/4/2021	30%	$9,276	$0.42
VTP-38543 (WW)	Atopic Dermatitis	1,235,000	$4,978	$148,850	2028	$50,055	2%	1	8/4/2021	30%	$1,791	$0.08

We use multiples to account for clinical and regulatory risk at various stages of development.												
									Stock	MktCap ($000)	Upside	
1: in preclinical testing	6: in Phase 3						12-month Price Target		$21.28	$464,463	59%	
2: passed preclinical	7: Phase 3 data						Total Pipeline Value		$27.94	$609,866	109%	
3: IND filing/stable mature product	8: regulatory review						Current Cash		$4.06	$88,693		
4: Phase 1 data	9: approved						Current Stockprice:		$13.38	$292,083		
5: Phase 2 data	10: launched											

Source: Company data, Wedbush Securities, Inc.

We reiterate our OUTPERFORM rating and 12-month price target of $21. Our 12-month PT uses a sum-of-parts with each part calculated using a 30% annual discount from peak sales of each drug/disease to present day and applying a 1-10x multiple, depending on stage of development to reflect risk.

RISKS TO THE ATTAINMENT OF OUR 12-MONTH PRICE TARGET

Clinical Risks: Despite producing high-quality product candidates and encouraging initial clinical and preclinical data, Vitae has not completed phase-3 testing with any product candidate and, in general, the majority of clinical candidates fail. Vitae with BI are also developing a treatment for Alzheimer's disease in which the vast majority of clinical candidates have failed. Vitae is also dependent on BI for the proper development of their two lead product candidates VTP-34072 and VTP-37948. Both Vitae and BI use third parties to conduct preclinical and clinical testing which we view as higher risk as we believe third parties may be less motivated to reduce execution risk. Near-term clinical risks including data releases from the two lead programs are the highest risks to our price target at this time, in our view. On February 26, 2015, Vitae announced that its partner Boehringer Ingelheim (BI) placed a temporary clinical hold on its Phase 1 trial of VTP-37948/ BACE1 inhibitor due the observation of skin reactions in some patients. In March 2015, Vitae announced that BI decided to move forward with a Phase 1 ready, structurally distinct BACE inhibitor, BI-1147560. Although management has stated that BI-1147560 is comparable to VTP-43742 in preclinical efficacy and safety/tolerability profile, we remain cautious that there is the risk that lower than expected efficacy and safety and tolerability issues may come up in clinical testing. Additionally, we believe there is additional clinical risk in 2015 as BI is expected to make a go/no go decision on whether to continue development of VTP-34072 for type 2 diabetes based on results from the ongoing proof-of-concept trial.

Regulatory Risks: Despite Vitae's management having big pharma experience, Vitae has not achieved regulatory approval for any product candidate.

Manufacturing Risks: On one hand, we view manufacturing risk to be lower for small molecule drug candidates versus biologics and oligonucleotides; however, Vitae relies on third parties for the manufacture of their product candidates for preclinical, clinical, and

potential commercial manufacture and we view third parties as less motivated, in general. Also, if Vitae succeeds at obtaining regulatory approval for a product candidate, the current purchase order supply arrangements will need to be augmented with long-term supply arrangements. Vitae intends to also work with additional manufacturers to provide active pharmaceutical ingredients (APIs) and fill-and-finish services prior to pursuing regulatory approval. BI is responsible for the manufacture of API and fill-and-finish services for both 11β-HSD1 and BACE. We note that BI observed manufacturing issue(s) with BI-1147560 in preclinical testing which contributed to BI decision to move forward with VTP-37948. Although management has stated that the manufacturing issue(s) have been resolved, we remain cautious that issue(s) or related issues may resurface.

Commercial Risks: For their unpartnered programs, Vitae anticipates retaining US commercial rights in specialty markets and establish regional partnerships to commercialize outside the United States. At this time, Vitae does not have a sales force or marketing capabilities. For the two lead programs, Vitae expects BI to commercialize these products with their sales and marketing group.

Competition Risks: Vitae's product candidates, if approved, will compete with currently marketed treatments and potentially with product candidates currently in development focusing on the same mechanism of action which include: 1) 11β-HSD1 competition from Bristol-Myers Squibb, Eli Lilly & Co., and Roche Holding AG, which are also testing their inhibitors in clinical trials; 2) BACE competition from Merck & Co., AstraZeneca PLC and Eisai Co., Ltd. in collaboration with Biogen Idec which are studying BACE inhibitors in clinical trials; 3) RORγt competition from potentially multiple companies which are actively assessing RORγt inhibitors in preclinical studies; and 4) LXRβ competition from Bristol-Myers Squibb, which is testing an LXRβ inhibitor in cardiovascular clinical trials and Alexar Therapeutics, Inc., which is developing an LXRβ inhibitor for dermatologic conditions.

Intellectual Property Risks: Due to the nature of Vitae's business model, we consider intellectual property risks to be low as the company discovers its own product candidates and has composition-of-matter protection to 2030 and beyond.

Financial Risks: Vitae is a development-stage emerging pharmaceutical company and, despite receiving substantial partnership income from Boehringer Ingelheim, they have no product sales or royalty income and are unlikely to before late 2019. Vitae ended Q1:15 with $88.7MM in cash and cash equivalents. Management guided to runway through 2016 and we project that with the addition of $7MM from an anticipated milestone in Q4:15 from BI, we project Vitae has cash runway through Q1 2017.

Analyst Biography

Ms. Moussatos is a Managing Director, Equity Research responsible for the coverage of stocks in the Emerging Pharmaceuticals sector. Liana joined Wedbush from Pacific Growth Equities where she was a Senior Research Analyst. Prior to that she came from UBS Global Asset Management where she was Director and Portfolio Manager of the UBS Global Biotech Funds for five years. Previously Liana was with Bristol-Meyers Squibb where she was a manager in University and Government Licensing External Science and Technology and she also worked with Sloan-Kettering Cancer Institute in the Office of Industrial Affairs and the National Cancer Institute in the Office of Technology Development.

Liana received a B.S. in Entomology and a M.S. in Zoology and Biochemistry from Clemson University and a Ph.D. in Plant Pathology from the University of California Davis and completed a postdoctoral research fellowship in Cellular and Molecular Physiology at the Yale School of Medicine.

Liana's Edge: Liana's industry and buy-side experience provide depth in her understanding of what investors need to know along with her 13 years experience in following healthcare stocks. Her pipeline valuation includes all drug candidates / disease indications in active development and provides investors with a stock value for each program.

Analyst Certification
I, Liana Moussatos, Ph.D., Kelechi Chikere, Ph.D., certify that the views expressed in this report accurately reflect my personal opinion and that I have not and will not, directly or indirectly, receive compensation or other payments in connection with my specific recommendations or views contained in this report.

Disclosure information regarding historical ratings and price targets is available at http://www.wedbush.com/ResearchDisclosure/DisclosureQ115.pdf

Investment Rating System:
Outperform: Expect the total return of the stock to outperform relative to the median total return of the analyst's (or the analyst's team) coverage universe over the next 6-12 months.
Neutral: Expect the total return of the stock to perform in-line with the median total return of the analyst's (or the analyst's team) coverage universe over the next 6-12 months.
Underperform: Expect the total return of the stock to underperform relative to the median total return of the analyst's (or the analyst's team) coverage universe over the next 6-12 months.

The Investment Ratings are based on the expected performance of a stock (based on anticipated total return to price target) relative to the other stocks in the analyst's coverage universe (or the analyst's team coverage).*

Rating Distribution (as of March 31, 2015)	**Investment Banking Relationships (as of March 31, 2015)**
Outperform:55% Neutral: 43% Underperform: 2%	Outperform:31% Neutral: 3% Underperform: 0%

The Distribution of Ratings is required by FINRA rules; however, WS' stock ratings of Outperform, Neutral, and Underperform most closely conform to Buy, Hold, and Sell, respectively. Please note, however, the definitions are not the same as WS' stock ratings are on a relative basis.

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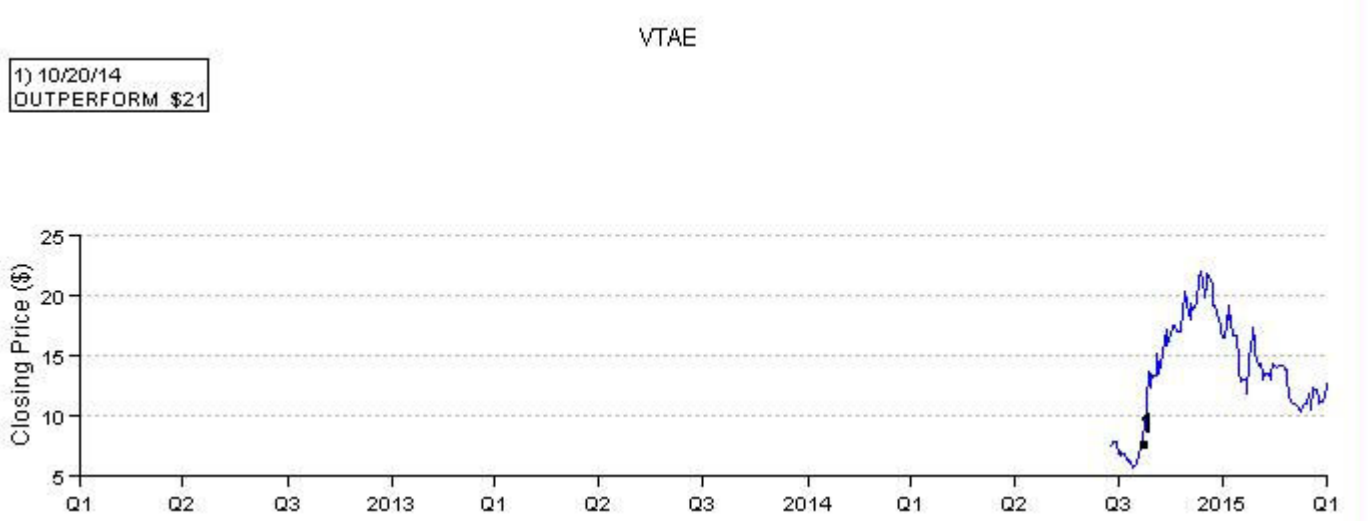
Wedbush Equity Research Disclosures as of May 13, 2015

Company	Disclosure
Vitae Pharmaceuticals	1,3,4,5,7

Research Disclosure Legend
1. WS makes a market in the securities of the subject company.
2. WS managed a public offering of securities within the last 12 months.
3. WS co-managed a public offering of securities within the last 12 months.
4. WS has received compensation for investment banking services within the last 12 months.
5. WS provided investment banking services within the last 12 months.
6. WS is acting as financial advisor.
7. WS expects to receive compensation for investment banking services within the next 3 months.
8. WS provided non-investment banking securities-related services within the past 12 months.

9. WS has received compensation for products and services other than investment banking services within the past 12 months.
10. The research analyst, a member of the research analyst's household, any associate of the research analyst, or any individual directly involved in the preparation of this report has a long position in the common stocks.
11. WS or one of its affiliates beneficially own 1% or more of the common equity securities.
12. The analyst maintains Contingent Value Rights that enables him/her to receive payments of cash upon the company's meeting certain clinical and regulatory milestones.

Price Charts
Wedbush disclosure price charts are updated within the first fifteen days of each new calendar quarter per FINRA regulations. Price charts for companies initiated upon in the current quarter, and rating and target price changes occurring in the current quarter, will not be displayed until the following quarter. Additional information on recommended securities is available on request.



* WS changed its rating system from (Strong Buy/Buy/Hold/Sell) to (Outperform/ Neutral/Underperform) on July 14, 2009.
Please access the attached hyperlink for WS' Coverage Universe: http://www.wedbush.com/services/cmg/equities-division/research/equity-research Applicable disclosure information is also available upon request by contacting Ellen Kang in the Research Department at (213) 688-4529, by email to ellen.kang@wedbush.com, or the Business Conduct Department at (213) 688-8090. You may also submit a written request to the following: Business Conduct Department, 1000 Wilshire Blvd., Los Angeles, CA 90017.

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