Vitae Pharmaceuticals (VTAE)

Q4/2014 Update; Cash Runway Covers Multiple Clinical Drivers and Two Proprietary Candidates in the Clinic by YE; Reiterate OUTPERFORM and $21 PT.

- **Q4/2014 Update.** Vitae reported $0.162MM/$8.7MM in revenues—in line with our $0.178MM/$8.7MM estimates. Reported GAAP EPS (loss) for Q4/2014 were $(0.40)/$(3.61). Vitae ended 2014 with about $65.3MM in cash & short-term investments, which does not include the $37.8MM raised in a follow-on offer in Q1 2015. Based on the cash in hand, we project runway into Mid-2017.
- **Vitae's partner Boehringer Ingelheim (BI) has decided to move forward with a structurally distinct BACE inhibitor, BI-1147560, for the treatment of Alzheimer's disease**. Following the voluntary clinical hold and clinical review of the Phase 1 trial of VTP-37948, BI has decided to move forward with a backup Phase 1 ready, structurally distinct, BACE inhibitor, BI-1147560, for the Alzheimer's disease program. The companies anticipate initiating Phase 1 by year-end 2015 and Vitae anticipates receiving a $7MM milestone payment with its initiation and we have included it in our Q4:15 revenues. While the adverse skin reactions observed in the Phase 1 trial were unexpected, management indicated the skin reactions seen with VTP-37948 were compound related—not seen with other BACE inhibitors. Due to the resulting delay, we have pushed out our potential launch by 6 months. We project BI-1147560 can potentially achieve WW peak sales of over $3.7BN for treating Alzheimer's disease.
- **NEXT: Topline results from the Phase 2 PoC trial for VTP-34072 in Type 2 diabetes (T2D) patients are expected in Q2**. The study assesses safety, tolerability and glucose lowering in 126 T2DM patients. We expect positive news is likely to support initiation of a larger Phase 2 trial.
- **We also anticipate the topline results from the single dose Phase 1 safety and PK trial of VTP-43742/Autoimmune in healthy volunteers by mid:15 and initiation and readout from the POC study in psoriasis patients in H2:15.**
- **We reiterate our OUTPERFORM rating and our price target of $21.** Our 12-month PT is a 365 day projection of our current fair value estimate calculated using 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	2013A	2014A			2015E		
REV (M)	ACTUAL	CURR.	PREV.	CONS.	CURR.	PREV.	CONS.
Q1 Mar	0.98A	1.16A		N/AA	0.16E		0.07E
Q2 Jun	0.98A	1.16A		N/AA	0.16E		0.07E
Q3 Sep	10.28A	6.18A		N/AA	0.16E		0.07E
Q4 Dec	10.28A	0.16A	0.18E	0.09E	7.16E		6.73E
Year*	**22.51A**	**8.67A**	**8.68E**	**8.68E**	**7.65E**		**5.20E**
Change	--	--			--		
	2013A	2014A			2015E		
EPS	ACTUAL	CURR.	PREV.	CONS.	CURR.	PREV.	CONS.
Q1 Mar	-0.66A	-0.47A		N/AA	-0.33E		-0.41E
Q2 Jun	-0.34A	-0.48A		N/AA	-0.34E		-0.43E
Q3 Sep	0.26A	-1.06A		N/AA	-0.36E		-0.45E
Q4 Dec	0.46A	-0.40A	-0.43E	-0.40E	-0.06E		-0.46E
Year*	**0.11A**	**-3.61A**	**-1.91E**	**-2.40E**	**-1.09E**		**-1.74E**
P/E	--	--			--		
Change	--	--			--		

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

April 1, 2015

Price
$11.89

Rating
OUTPERFORM

12-Month Price Target
$21

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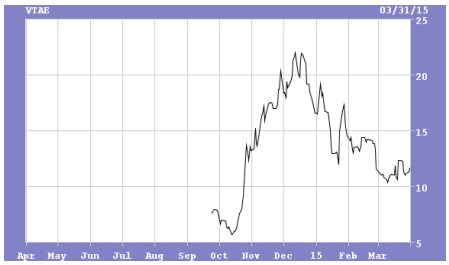
Company Information

Shares Outst (M)	21829
Market Cap (M)	$211
52-Wk Range	$5.41 - $23.35
Book Value/sh	$3.94
Cash/sh	$3.85
Enterprise Value (M)	$295
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 large market 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. With the completion of a follow-on in January of 2015, we project Vitae has $86.4MM 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 Q4/2014 financials conference call may be listened to 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)

	2013A	2014A					2015E					2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
	FY:13A	Q1A	Q2A	Q3A	Q4A	FY:14A	Q1E	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	22,513	1,165	1,165	6,178	162	8,669	162	162	162	7,162	7,647	647	647	647	647	647	647	647	647	647	647
Total Revenues	$ 22,513	$ 1,165	$ 1,165	$ 6,178	$ 162	$ 8,669	$ 162	$ 162	$ 162	$ 7,162	$ 7,647	$ 647	$ 647	$ 647	$ 795	$ 11,349	$ 112,122	$ 400,971	$ 1,320,197	$ 2,805,417	$ 4,718,196
Total COGS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	1,070	11,148	40,032	131,955	280,477	471,755
Gross Margin	$ 22,513	$ 1,165	$ 1,165	$ 6,178	$ 162	$ 8,669	$ 162	$ 162	$ 162	$ 7,162	$ 7,647	$ 647	$ 647	$ 647	$ 780	$ 10,279	$ 100,975	$ 360,939	$ 1,188,242	$ 2,524,940	$ 4,246,441
Operating Expenses:																					
R&D	14,917	4,713	4,713	4,799	5,080	19,305	5,385	5,654	5,994	6,353	23,386	29,461	35,042	26,141	28,296	30,628	33,153	35,886	38,844	42,046	45,512
SG&A	5,406	1,315	1,315	3,096	2,189	7,915	2,191	2,194	2,196	2,198	8,779	9,126	9,567	14,948	29,774	42,141	43,852	45,633	47,486	49,414	51,420
Acquired in-process R&D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating Expenses	$ 20,322	$ 6,027	$ 6,027	$ 7,896	$ 7,269	$ 27,219	$ 7,576	$ 7,848	$ 8,189	$ 8,551	$ 32,165	$ 38,587	$ 44,609	$ 41,089	$ 58,070	$ 72,769	$ 77,005	$ 81,519	$ 86,330	$ 91,460	$ 96,932
Operating Income (Loss)	2,190	(4,863)	(4,863)	(1,718)	(7,108)	(18,550)	(7,415)	(7,686)	(8,028)	(1,390)	(24,518)	(37,940)	(43,963)	(40,442)	(57,290)	(62,490)	23,970	279,420	1,101,912	2,433,480	4,149,509
Other Income / (Expense), net	327	109	109	126	-	344	86	80	73	60	299	285	282	262	281	281	281	281	281	281	281
Interest Income	69	15	15	8	27	64	23	50	46	42	161	121	19	(86)	(204)	(364)	(449)	(293)	544	2,930	7,610
Interest (Expense)	(1,425)	(271)	(271)	(225)	(194)	(961)	3	2	1	0	5	0	0	0	0	0	0	0	0	0	0
Total other (expenses) income	(1,028)	(147)	(147)	(92)	(167)	(553)	112	132	119	102	466	406	301	196	78	(82)	(167)	(12)	826	3,211	7,892
Income Before Income Taxes	$ 1,162	$ (5,010)	$ (5,010)	$ (1,809)	$ (7,275)	$ (19,103)	$ (7,303)	$ (7,554)	$ (7,908)	$ (1,287)	$ (24,053)	$ (37,535)	$ (43,662)	$ (40,246)	$ (57,212)	$ (62,573)	$ 23,802	$ 279,408	$ 1,102,738	$ 2,436,691	$ 4,157,401
Deemed Dividend to preferred stockholders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(Provision)/benefit for Income Taxes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(8,086)	(108,969)	(430,068)	(950,310)	(1,621,386)
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	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)	$ 1,162	$ (5,010)	$ (5,010)	$ (1,809)	$ (7,275)	$ (19,103)	$ (7,303)	$ (7,554)	$ (7,908)	$ (1,287)	$ (24,053)	$ (37,535)	$ (43,662)	$ (40,246)	$ (57,212)	$ (62,573)	$ 15,716	$ 170,439	$ 672,670	$ 1,486,382	$ 2,536,014
Stock-based compensation	100	56	56	1,987	1,873	3,954	989	1,222	1,513	1,400	5,123	5,377	5,421	5,427	5,428	5,428	5,428	5,428	5,428	5,428	5,428
EPS	$ 0.12	$ (0.48)	$ (0.48)	$ (2.21)	$ (0.51)	$ (4.36)	$ (0.38)	$ (0.40)	$ (0.43)	$ (0.12)	$ (1.32)	$ (1.89)	$ (2.11)	$ (1.91)	$ (2.58)	$ (2.71)	$ 0.40	$ 6.29	$ 24.85	$ 53.94	$ 90.20
GAAP EPS	$ 0.11	$ (0.47)	$ (0.48)	$ (1.06)	$ (0.40)	$ (3.61)	$ (0.33)	$ (0.34)	$ (0.36)	$ (0.06)	$ (1.09)	$ (1.66)	$ (1.88)	$ (1.69)	$ (2.34)	$ (2.50)	$ 0.61	$ 6.49	$ 25.05	$ 54.14	$ 90.40
Weighted Average Shares Outstanding	10,674	10,578	10,482	1,712	18,114	5,291	21,829	21,979	22,129	22,279	22,054	22,654	23,254	23,854	24,454	25,054	25,654	26,254	26,854	27,454	28,054
Cash	$32,454	$19,264	$18,141	$67,807	$65,318	$65,318	$84,107	$76,743	$69,403	$66,360	$66,360	$29,003	($14,462)	($54,508)	($111,560)	($176,205)	($169,889)	($29,424)	$562,894	$1,931,524	$4,332,724
Cash Per Share	$3.04	$1.82	$1.73	$39.61	$3.61	$12.35	$3.85	$3.49	$3.14	$2.98	$3.01	$1.28	($0.62)	($2.29)	($4.56)	($7.03)	($6.62)	($1.12)	$20.96	$70.35	$154.44
Net Cash	$27,680	$14,460	$7,553	$58,311	$54,772	$54,772	$79,303	$73,259	$66,940	$65,516	$65,516	$29,003	($14,462)	($54,508)	($111,561)	($176,305)	($169,889)	($29,425)	$562,893	$1,931,524	$4,332,724
Net Cash Per Share	$2.59	$1.37	$0.72	$34.06	$3.02	$10.35	$3.63	$3.33	$3.02	$2.94	$2.97	$1.28	($0.62)	($2.29)	($4.56)	($7.03)	($6.62)	($1.12)	$20.96	$70.35	$154.44
Cash Burn (Generation)	$28,993					$3,936					$35,759	$74,157	$80,264	$76,846	$93,853	$101,445	$30,484	($103,665)	($555,518)	($1,331,830)	($2,364,400)

Source: Company data, Wedbush Securities, Inc.

Q4/2014 Update Vitae reported $0.162MM/$8.7MM in revenues—in line with our $0.178MM/$8.7MM estimates. Reported GAAP EPS (loss) for Q4/2014 were $(0.40)/$(3.61). Vitae ended 2014 with about $65.3MM in cash & short-term investments, which does not include the $37.8MM raised in a recent (Q1) follow-on offering. Based on the cash in hand, we project runway into Mid-2017.

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

Timing	Milestones	Estimated Probability	Estimated Upside/Downside
Q2:15	**VTP-34072/T2D-META: PHASE 2 DATA RELEASE**	**60:40**	**±10-25%**
Q2:15	VTP-43742/ AUTOIMMUNE: INITIATE PHASE 1 in HEALTHLY VOLUNTEERS	--	--
Mid:15	**VTP-43742/ AUTOIMMUNE: PHASE 1 DATA RELEASE**	**50:50**	**± 0-15%**
H2:15	VTP-43742/ AUTOIMMUNE: INITIATE PHASE 1 POC	--	--
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/ADERM: PHASE 1 DATA RELEASE**	**50:50**	**± 0-15%**

Source: Company data, Wedbush Securities, Inc.

Vitae's partner Boehringer Ingelheim (BI) has decided to move forward with a structurally distinct BACE inhibitor, BI-1147560, for the treatment of Alzheimer's disease. Following the voluntary clinical hold and clinical review of the Phase 1 trial of VTP-37948, BI has decided to move forward with a backup Phase 1 ready, structurally distinct, BACE inhibitor, BI-1147560, for the Alzheimer's disease program. The companies anticipate initiating the Phase 1 trial by year-end 2015. We note Vitae anticipates receipt of a $7MM milestone payment with the initiation of the Phase 1. While the adverse skin reactions observed for VTP-37948 treatment in the Phase 1 trial were unexpected, management believes the skin reactions were compound related. However, as a result of the delay, we have pushed out our potential launch date by 6 months. We continue to project WW peak sales of over $3.7BN for a successful Alzheimer's treatment if approved.

NEXT: Topline results from the Phase 2 proof of concept trial of VTP-34072 in Type 2 diabetic (T2DM) patients are expected in Q2 2015. The study will assess the safety, tolerability and glucose lowering efficacy of VTP-34072 in 126 T2DM patients. We expect positive news is likely to support the initiation of a larger trial for VTP-34072 in T2DM.

We also anticipate the topline results from the single dose Phase 1 safety and PK trial of VTP-43742/Autoimmune in healthy volunteers by mid:15 and initiation and readout from the POC study in psoriasis patients in H2:15. Vitae reiterated its plans to file an IND and initiate a Phase 1 study of VTP-43742 in healthy volunteers in Q2:15. We anticipate readout from the trial around mid-2015. If positive we expect the initiation and readout of a Phase 1 POC study in psoriasis patients in H2:15. We believe this study is likely to assess overall clinical improvement for skin manifestations of psoriasis as well as biomarkers from skin biopsies. Management anticipates positive data in psoriasis could lead to the initiation of a larger Phase 2 trial (psoriasis, multiple sclerosis, rheumatoid arthritis or another large market indication) and one small Phase 2 trial in a rare disease.

Figure 2: 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%	$246,835	$11.31
VTP-37948 (WW)	Alzheimer's Disease	8,730,000	$5,226	$3,738,358	2026	$867,924	10%	3	3/2/2021	30%	$183,520	$8.41
VTP-43742 (WW)	Psoriasis	609,167	$4,978	$369,925	2027	$144,635	11%	2	11/4/2020	30%	$20,296	$0.93
VTP-43742 (WW)	MS	857,143	$49,683	$4,405,808	2025	$1,830,916	8%	2	11/4/2020	30%	$130,341	$5.97
VTP-38443 (WW)	ACS	600,000	$30,500	$754,409	2028	$274,449	4%	1	12/4/2021	30%	$9,000	$0.41
VTP-38543 (WW)	Atopic Dermatitis	1,235,000	$4,978	$148,850	2028	$50,055	2%	1	8/4/2021	30%	$1,738	$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		$20.64	$450,650	83%	
2: passed preclinical	7: Phase 3 data						Total Pipeline Value		$27.11	$591,730	141%	
3: IND filing/stable mature product	8: regulatory review						Current Cash		$4.65	$83,834		
4: Phase 1 data	9: approved						Current Stockprice:		$11.26	$202,944		
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 is a 365 day projection of our current fair value estimate calculated using 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.

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. In January of 2015 Vitae completed a follow-on raising ~ $38.6MM in cash and cash equivalents. With the addition of cash from the follow-on, we project the company has $86.4MM in cash, providing cash runway into 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., 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/DisclosureQ414.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.
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Rating Distribution (as of December 31, 2014)	**Investment Banking Relationships (as of December 31, 2014)**
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Wedbush Equity Research Disclosures as of April 1, 2015

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

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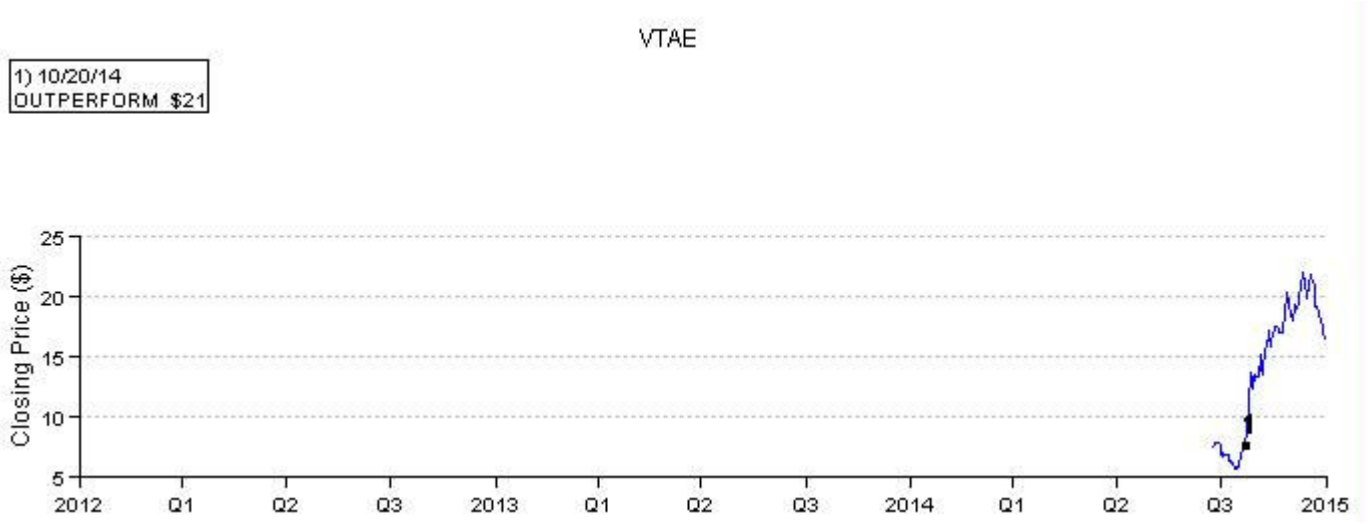

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Please access the attached hyperlink for WS' Coverage Universe: http://www.wedbush.com/services/cmg/equities-division/research/equity-research Applicable disclosure information is also available upon request by contacting Ellen Kang in the Research 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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