

# Vitae Pharmaceuticals, Inc. (VTAE)

Overweight

BI Partnered BACE Inhibitor Put on Voluntary Partial Hold; Maintain Overweight

## CONCLUSION

After the close, Vitae announced that partner Boehringer Ingelheim (BI) has put BI-1181181 on a voluntary partial clinical hold after some patients developed "skin reactions". BI-1181181 is an orally available Beta secretase (BACE) inhibitor in Phase I development for Alzheimer's disease. The news sent Vitae shares lower in after hours trading. BI is conducting the Phase Ib multi-dose escalation trial and is working to resolve the issue. If necessary the partners can fall back on a different, structurally distinct, clinically ready BACE inhibitor. Partner BI is also conducting Phase II trials of VTP-34072 in diabetes with data in 1H:15. Vitae plans to file an IND on VTP-43742 in 1H:15 with initial proof-of-concept psoriasis data expected by year-end. We estimate Vitae holds pro forma cash of \$101.6 million. We reiterate our Overweight rating and \$23 price target.

- **Phase I Beta-Secretase Program on Hold.** BI has placed BI-1181181, a BACE inhibitor to treat Alzheimer's disease, on a voluntary partial hold after some patients developed "skin reactions" in the on-going Phase Ib multi-dose escalation trial. It is not clear how severe or wide spread the reactions are, however if BI is unable to resolve the clinical issue, the partners may move forward with a clinically ready, structurally distinct BACE inhibitor.
- **Phase II Diabetes Data in 1H:15.** VTP-34072 is an oral small molecule inhibitor of 11β-HSD1 that reduces cortisol to treat Type II diabetes. BI is conducting a 4-week Phase II trial in 126 diabetics with safety and glucose lowering data expected in 1H:15. We forecast a safe and novel diabetes drug could achieve blockbuster sales.
- **Exciting Autoimmune Program Entering the Clinic.** Vitae's lead wholly-owned program is an inhibitor of RORγt, a key regulator in TH17 activation. TH17 cells produce multiple downstream pro-inflammatory cytokines including IL-17 and IL-21, which are implicated in multiple autoimmune diseases. Vitae intends to file an IND on VTP-43742 in 1H:15 with initial proof-of-concept psoriasis data expected by year-end. Vitae then plans to initiate two Phase II trials, one large and one orphan autoimmune disease, in 2016.

## RISKS TO ACHIEVEMENT OF PRICE TARGET

Risks include clinical, regulatory and commercial. Vitae's deals with BI may falter or drugs may fail in the clinic. Vitae may be unable to file new INDs. Vitae will likely need to raise additional capital.

## COMPANY DESCRIPTION

Vitae is a structure-based small molecule drug discovery company.

PRICE: US\$13.28

TARGET: US\$23.00

Proj. EV of \$469M + YE:15E net cash

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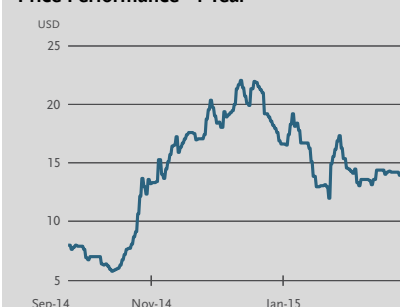
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Changes	Previous	Current
Rating	—	Overweight
Price Tgt	—	US\$23.00
FY14E Rev (mil)	—	US\$8.7
FY15E Rev (mil)	—	US\$0.8
FY14E EPS	—	US\$(3.47)
FY15E EPS	—	US\$(1.48)
<hr/>		
52-Week High / Low	US\$23.35 / US\$5.41	
Shares Out (mil)	21.0	
<i>Incl. recent 3M share offering w/o over allotment</i>		
Market Cap. (mil)	US\$278.9	
Avg Daily Vol (ooo)	193	
Book Value/Share	NA	
Net Cash Per Share	US\$4.54	
<i>Incl. net proceeds from recent offering less notes payable</i>		
Debt to Total Capital	9%	
<i>\$6.2M in notes payable as of Sept 30</i>		
Div (ann)	NA	
Fiscal Year End	Dec	

## Price Performance - 1 Year



Source: Bloomberg

YEAR	REVENUE (US\$ m)						EARNINGS PER SHARE (US\$)					
	Mar	Jun	Sep	Dec	FY	FY RM	Mar	Jun	Sep	Dec	FY	FY P/E
2013A	—	—	—	—	22.5	12.4x	—	—	—	—	0.12	NM
2014E	1.2A	1.2A	6.2A	0.2	8.7	32.1x	(8.37)A	(8.37)A	(1.06)A	(0.35)	(3.47)	NM
2015E	0.2	0.2	0.2	0.2	0.8	348.6x	(0.34)	(0.36)	(0.38)	(0.40)	(1.48)	NM

1Q:14 and 2Q:14 quarterly results not yet provided, so 6-mos reported results divided in half to arrive at 1Q:14 and 2Q:14 est.

Vitae went public in Sept 2014.

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Vitae Pharmaceuticals, Inc.

**Vitae Pharmaceuticals**  
**Quarterly Earnings Estimates**  
(\$ in thousands except per share)

1/29/15

	2012A	2013A	1QA <sup>1</sup>	2QA <sup>1</sup>	3QA	4QE	2014E	1QE	2QE	3QE	4QE	2015E
<b>Revenues:</b>												
Collaborative Revenue	\$22,348	\$22,513	\$1,164	\$1,164	\$6,178	\$200	\$8,707	\$200	\$200	\$200	\$200	\$800
Product Sales	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Revenues</b>	<b>\$22,348</b>	<b>\$22,513</b>	<b>\$1,164</b>	<b>\$1,164</b>	<b>\$6,178</b>	<b>\$200</b>	<b>\$8,707</b>	<b>\$200</b>	<b>\$200</b>	<b>\$200</b>	<b>\$200</b>	<b>\$800</b>
<b>Operating Expenses:</b>												
Research and Development	15,927	14,917	4,713	4,713	4,799	5,000	19,225	5,500	6,000	6,500	7,000	25,000
General and Administrative	4,915	5,406	1,314	1,314	3,096	1,500	7,225	1,750	2,000	2,000	2,250	8,000
<b>Total Operating Expenses</b>	<b>\$20,842</b>	<b>\$20,323</b>	<b>\$6,027</b>	<b>\$6,027</b>	<b>\$7,896</b>	<b>\$6,500</b>	<b>\$26,449</b>	<b>\$7,250</b>	<b>\$8,000</b>	<b>\$8,500</b>	<b>\$9,250</b>	<b>\$33,000</b>
<b>Operating Income/(Loss)</b>	<b>\$1,506</b>	<b>\$2,190</b>	<b>(\$4,862)</b>	<b>(\$4,862)</b>	<b>(\$1,718)</b>	<b>(\$6,300)</b>	<b>(\$17,742)</b>	<b>(\$7,050)</b>	<b>(\$7,800)</b>	<b>(\$8,300)</b>	<b>(\$9,050)</b>	<b>(\$32,200)</b>
<b>Operating Margin</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>
Interest income, Net	(1,526)	(1,355)	(256)	(256)	(217)	0	(730)	0	0	0	0	0
Other Income	243	327	109	109	126	0	343	0	0	0	0	0
<b>PreTax Income/(Loss)</b>	<b>\$223</b>	<b>\$1,162</b>	<b>(\$5,010)</b>	<b>(\$5,010)</b>	<b>(\$1,809)</b>	<b>(\$6,300)</b>	<b>(\$18,128)</b>	<b>(\$7,050)</b>	<b>(\$7,800)</b>	<b>(\$8,300)</b>	<b>(\$9,050)</b>	<b>(\$32,200)</b>
<b>PreTex Margin</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>
Income Tax Benefit (Expense)	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%	0.0%
<b>Net Income/(Loss)</b>	<b>\$223</b>	<b>\$1,162</b>	<b>(\$5,010)</b>	<b>(\$5,010)</b>	<b>(\$1,809)</b>	<b>(\$6,300)</b>	<b>(\$18,128)</b>	<b>(\$7,050)</b>	<b>(\$7,800)</b>	<b>(\$8,300)</b>	<b>(\$9,050)</b>	<b>(\$32,200)</b>
<b>Net Margin</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>	<b>NM</b>
<b>Net Income/(Loss) per Share</b>	<b>\$0.41</b>	<b>\$0.12</b>	<b>(\$8.37)</b>	<b>(\$8.37)</b>	<b>(\$1.06)</b>	<b>(\$0.35)</b>	<b>(\$3.47)</b>	<b>(\$0.34)</b>	<b>(\$0.36)</b>	<b>(\$0.38)</b>	<b>(\$0.40)</b>	<b>(\$1.48)</b>
Shares Outstanding	542	10,099	599	599	1,712	18,000	5,227	20,500	21,750	22,000	22,500	21,688

Source: Company reports and Piper Jaffray estimates

1. 1Q:14 and 2Q:14 quarterly results not yet reported, so 6-month results divided in half to arrive at 1Q:14 and 2Q:14 quarterly estimates.

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### Legend:

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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
<b>BUY [OW]</b>	376	59.78	101	26.86
<b>HOLD [N]</b>	237	37.68	18	7.59
<b>SELL [UW]</b>	16	2.54	0	0.00

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### Analyst Certification — Edward A. Tenthoff, Sr Research Analyst — Benjamin J. Adler, Ph.D., Research Analyst

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