

Vitae Pharmaceuticals, Inc. (VTAE)

Overweight

Starts Phase I Multi-Dose Study of Wholly-Owned VTP-43742; Reiterate Overweight

CONCLUSION

Vitae has begun the multiple ascending dose trial of VTP-43742, in parallel with the ongoing single-dose study. Dose escalation will begin in healthy volunteers before enrolling psoriasis patients with proof-of-concept psoriasis data expected by YE:15. Topical LXR-beta agonist VTP-38543 for atopic dermatitis will begin Phase I trials this year. Boehringer Ingelheim's partnered diabetes drug, VTP-34072, failed in combination with metformin and BI elected to terminate the BACE inhibitor partnership following off-target tox in a multi-dose study earlier this year. While VTAE shares have come under pressure following these set-backs, we remain buyers for the company's wholly-owned pipeline in particular VTP-43742. Vitae ended 2Q:15 with \$80 million in cash. We reiterate our Overweight rating and \$16 price target.

- **RORyt Data this Year.** VTP-43742 is an inhibitor of RORyt, a key regulator in TH17 activation. Vitae is conducting Phase I single and has now commenced a parallel multiple ascending dose trial in healthy volunteers. We expect up to 60 moderate-to-severe psoriasis patients will be enrolled with top-line 4-week PASI efficacy data this year. Vitae has observed strong preclinical activity of VTP-43742 in a mouse multiple sclerosis model and plans to initiate two Phase II trials in 2016.
- **Atopic Dermatitis a Second Focus.** VTP-38543 is a topical LXR-beta agonist ready to begin Phase I trials this year with PoC data in 2016. In a mouse model of atopic dermatitis, VTP-38543 improved both breakdown of the dermal barrier and inflammatory disease processes on par with steroids. According to the NIH, atopic dermatitis affects up to 30% of Americans and more effective treatments are needed.
- **Better Clarity on BACE and Diabetes by YE:15.** Rights to the BACE inhibitor Alzheimer's disease program, including lead candidate VTP-36951, will return to Vitae on October 21st. The company will provide an update on its future plans by YE:15, although we anticipate Vitae may seek a new partner. BI partnered diabetes drug VTP-34072 failed to display efficacy in combination with metformin in a Phase II trial. BI will continue to run the monotherapy arms of the study, however our expectations are low and we have removed all value for the program.

RISKS TO ACHIEVEMENT OF PRICE TARGET

Risks include clinical, regulatory and commercial. Vitae may be unable to sign new partnerships and its 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\$8.40

Price as of the close August 10, 2015

TARGET: US\$16.00

Proj. EV of \$331M + mid-FY:16E net cash

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| Changes | Previous | Current |
|-----------------------|----------------------|------------|
| Rating | — | Overweight |
| Price Tgt | — | US\$16.00 |
| FY15E Rev (mil) | — | US\$0.7 |
| FY16E Rev (mil) | — | US\$1.0 |
| FY15E EPS | — | US\$(1.84) |
| FY16E EPS | — | US\$(1.95) |
| 52-Week High / Low | US\$23.35 / US\$5.41 | |
| Shares Out (mil) | 21.8 | |
| Market Cap. (mil) | US\$183.1 | |
| Total Assets (\$mil) | NA | |
| Avg Daily Vol (ooo) | 156 | |
| Book Value/Share | US\$3.50 | |
| Net Cash Per Share | US\$3.68 | |
| Debt to Total Capital | 0.0% | |
| 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 |
| 2014A | 1.2 | 1.2 | 6.2 | 0.2 | 8.7 | 21.0x | (8.24) | (8.57) | (1.06) | (0.40) | (3.61) | NM |
| 2015E | 0.2A | 0.2A | 0.2 | 0.2 | 0.7 | 261.6x | (0.47)A | (0.45)A | (0.45) | (0.48) | (1.84) | NM |
| 2016E | 0.3 | 0.3 | 0.3 | 0.3 | 1.0 | 183.1x | (0.46) | (0.49) | (0.48) | (0.51) | (1.95) | NM |

Vitae went public in Sept 2014.

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

8/4/15

| | <u>1QA</u> | <u>2QA</u> | <u>3QA</u> | <u>4QA</u> | <u>2014A</u> | <u>1QA</u> | <u>2QE</u> | <u>3QE</u> | <u>4QE</u> | <u>2015E</u> | <u>1QE</u> | <u>2QE</u> | <u>3QE</u> | <u>4QE</u> | <u>2016E</u> |
|------------------------------------|------------------|------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Revenues: | | | | | | | | | | | | | | | |
| Collaborative Revenue | \$1,173 | \$1,155 | \$6,178 | \$162 | \$8,669 | \$150 | \$162 | \$200 | \$200 | \$712 | \$250 | \$250 | \$250 | \$250 | \$1,000 |
| Product Sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Revenues | \$1,173 | \$1,155 | \$6,178 | \$162 | \$8,669 | \$150 | \$162 | \$200 | \$200 | \$712 | \$250 | \$250 | \$250 | \$250 | \$1,000 |
| Operating Expenses: | | | | | | | | | | | | | | | |
| Research and Development | 4,548 | 4,877 | 4,799 | 5,080 | 19,305 | 7,506 | 7,773 | 8,000 | 8,500 | 31,779 | 8,500 | 9,000 | 9,000 | 9,500 | 36,000 |
| General and Administrative | 1,260 | 1,368 | 3,096 | 2,189 | 7,914 | 2,111 | 2,259 | 2,250 | 2,500 | 9,120 | 2,250 | 2,500 | 2,500 | 2,750 | 10,000 |
| Total Operating Expenses | \$5,808 | \$6,246 | \$7,896 | \$7,269 | \$27,219 | \$9,617 | \$10,032 | \$10,250 | \$11,000 | \$40,899 | \$10,750 | \$11,500 | \$11,500 | \$12,250 | \$46,000 |
| Operating Income/(Loss) | (\$4,634) | (\$5,090) | (\$1,718) | (\$7,108) | (\$18,550) | (\$9,467) | (\$9,871) | (\$10,050) | (\$10,800) | (\$40,187) | (\$10,500) | (\$11,250) | (\$11,250) | (\$12,000) | (\$45,000) |
| Operating Margin | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| Interest income, Net | (268) | (244) | (217) | (167) | (897) | (34) | 108 | 0 | 0 | 74 | 0 | 0 | 0 | 0 | 0 |
| Other Income | 13 | 204 | 126 | 0 | 343 | (207) | 1 | 0 | 0 | (205) | 0 | 0 | 0 | 0 | 0 |
| PreTax Income/(Loss) | (\$4,889) | (\$5,130) | (\$1,809) | (\$7,275) | (\$19,103) | (\$9,707) | (\$9,761) | (\$10,050) | (\$10,800) | (\$40,318) | (\$10,500) | (\$11,250) | (\$11,250) | (\$12,000) | (\$45,000) |
| PreTex Margin | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| Income Tax Benefit (Expense) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <i>Tax Rate</i> | 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% |
| Net Income/(Loss) | (\$4,889) | (\$5,130) | (\$1,809) | (\$7,275) | (\$19,103) | (\$9,707) | (\$9,761) | (\$10,050) | (\$10,800) | (\$40,318) | (\$10,500) | (\$11,250) | (\$11,250) | (\$12,000) | (\$45,000) |
| Net Margin | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| Net Income/(Loss) per Share | (\$8.24) | (\$8.57) | (\$1.06) | (\$0.40) | (\$3.61) | (\$0.47) | (\$0.45) | (\$0.45) | (\$0.48) | (\$1.84) | (\$0.46) | (\$0.49) | (\$0.48) | (\$0.51) | (\$1.95) |
| Shares Outstanding | 593 | 599 | 1,712 | 18,114 | 5,291 | 20,827 | 21,838 | 22,250 | 22,500 | 21,854 | 22,750 | 23,000 | 23,250 | 23,500 | 23,125 |

Source: Company reports and Piper Jaffray estimates

Current disclosure information for this company can be found at <http://www.piperjaffray.com/researchdisclosures>.

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Legend:

I: Initiating Coverage
R: Resuming Coverage
T: Transferring Coverage
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 |
| BUY [OW] | 426 | 59.92 | 105 | 24.65 |
| HOLD [N] | 267 | 37.55 | 13 | 4.87 |
| SELL [UW] | 18 | 2.53 | 0 | 0.00 |

Note: Distribution of Ratings/IB Services shows the number of companies currently in each rating category from which Piper Jaffray and its affiliates received compensation for investment banking services within the past 12 months. FINRA rules require disclosure of which ratings most closely correspond with "buy," "hold," and "sell" recommendations. Piper Jaffray ratings are not the equivalent of buy, hold or sell, but instead represent recommended relative weightings. Nevertheless, Overweight corresponds most closely with buy, Neutral with hold and Underweight with sell. See Stock Rating definitions below.

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

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