

## Viking Therapeutics (VKTX - \$ 5.25)

### 3Q15: VK2809 in Hypercholesterolemia and Fatty Liver Disease Phase II Trial to Start in Late 4Q15

VKTX reported 3Q15 financial results this morning with a net loss of (\$4.7MM) or net loss per share of (\$0.53). The company ended 3Q15 with ~\$17.5MM of cash, sufficient to support its operations into 2017, in our opinion. Quarterly earnings performance, in our view, is not yet the key investment focus of VKTX share value; instead the focus is on progress on potential success of the lead assets of VK2809 and VK5211.

- **VK2809 in hypercholesterolemia and fatty liver disease Phase II study is on track to start in late 4Q15.** Based on promising prior data of significant fasting triglyceride (major fat component in the liver) reduction and thyroid-β agonist's novel mechanism of action, we are very encouraged that VK2809 could have potential for treating early stage NASH. The Phase II study is a randomized, double-blind, parallel group, placebo-controlled trial designed to evaluate the efficacy, safety and tolerability of VK2809 in ~ 100 patients with elevated LDL cholesterol and fatty liver disease. The primary endpoint is to measure LDL cholesterol reduction after 12 weeks of dosing, while secondary endpoints include changes in liver fat, insulin sensitivity, inflammatory markers, and other measures. The study is expected to be completed in 2H16 with top-line data possibly in 4Q16/1Q17.
- **VK5211 in post hip fracture surgery Phase II trial underway.** VKTX started the Phase II study in Oct. 2015 with top-line results anticipated in early 2H16. Given this is the first proof-of-concept (POC) trial to test efficacy and safety of VK5211 in elderly patients, a positive outcome could be an inflection point for VKTX share value. Near term, VKTX is scheduled to report primate pre-clinical data at the Society on Sarcopenia, Cachexia and Wasting Disorders (SCWD) meeting to be held in 4Q15 (Dec. 4-6).
- **X-linked adrenoleukodystrophy (X-ALD) therapy development update.** VKTX is scheduled to start a preclinical animal model study in 4Q15 evaluating VK2809 and VK0214 as possible candidates advancing into clinical study. Results are potentially available in 1H16.
- **Action.** We are reiterating our Buy rating and \$20 target price based on peer comparable, probability adjusted DCF and sum-of-the-parts analyses. Outcome of the POC clinical studies of the two leading assets could be available over the next 4 – 5 quarters. If the results are positive, VKTX share value could change significantly, in our opinion.

#### Earnings Estimates: (per share)

(Dec)	1Q	2Q	3Q	4Q	FY	P/E
<b>FY-15E</b>	-1.40A	-1.07A	-0.53A	-0.45	-2.92	N.A.
<b>FY-14A</b>	-0.07	3.88	-3.01	-2.01	-5.23	N.A.
<b>FY-13A</b>	0.00	-20.39	-5.57	-0.33	-0.07	N.A.
<b>FY-12A</b>	NA	NA	NA	NA	-0.07	N.A.

Source: Laidlaw & Company estimates

Healthcare/Biotechnology

Ticker: **VKTX**  
Rating: **Buy**  
Price Target: **\$ 20.00**

#### Trading Data:

Last Price (11/05/2015)	\$ 5.25
52-Week High (5/5/2015)	\$ 10.23
52-Week Low (9/30/2015)	\$ 5.00
Market Cap. (MM)	\$ 51
Shares Out. (MM)	10

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## Anticipated milestones in 2015 and beyond

Product	Indication	Event	Timing	Importance
VK5211	Hip fracture	Report pre-clinical primate data at Society on Sarcopenia, Cachexia and Wasting Disorders (SCWD) meeting	Dec. 4-6, 2015	***
		Report Phase IIa study results	2H16	****
VK0214/VK2809	X-Linked Adrenoleukodystrophy (X-ALD)	Initiate pre-clinical animal model study	4Q15	***
		Report pre-clinical animal model study results	1H16	***
		Initiate Phase I POC study	2H16	***
		Potentially report Phase I study top-line results	2017	****
VK2809	Cholesterolemia / NASH	Potentially start Phase II study	4Q15	***
		Potentially complete Phase II study	2H16	***
		Potentially report Phase II study results	4Q16/1H17	****

\*\*\*\* / \*\*\*\*\* Major catalyst event that could impact share price very significantly while \*\*\* event is more informative

Source: Laidlaw & Company and company presentation

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## Major Risks

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**Risks of clinical study failure could have a major impact on VKTX share value.** Despite promising aspects of the company's lead products, VK5211 in the post hip fracture surgery rehabilitation and thyroid- $\beta$  agonists (VK2809 / VK0214) in X-ALD, it remains too early to predict the safety and efficacy from the two upcoming Phase I and Phase II studies. Given that clinical validation or POC for these programs has not been established, it would be critical for these studies to demonstrate a positive outcome in order to increase the asset and shareholder value. Negative results of either clinical study could potentially impair their value and have a materially negative impact on shareholder value, especially since success of each study could illustrate the value of VK5211 in hip fracture rehabilitation and thyroid- $\beta$  agonists in X-ALD. Further, it remains too early to predict any potential future success of clinical trials should these programs further advance into next stage clinical stage development. In thyroid- $\beta$  agonists in X-ALD, although it is possible that the drug could reduce or eliminate VLCFA, it remains too early to forecast that the drug could slow and stop the progression of symptoms to provide clinical benefits.

**Product may not be approved or reach anticipated sales.** Although Viking's current pipeline products have exhibited the potential to generate positive clinical outcomes from current and future trials; it remains too early to project whether any of these products would be approved by regulatory agencies. Even if the products were to enter the market, sales could be significantly below projections due to the specific product label under approval, physician consensus for prescribing the drug, changes of treatment paradigms, entrance of competitors, and possibly the changes in pricing flexibility and payer reimbursement. A revenue outlook below expectations could also negatively affect VKTX shareholder value.

**Positive relationship with Ligand is important.** Given that Viking is substantially dependent on technologies and drug candidates licensed from Ligand for further development, it would be important for the company to maintain a positive relationship with Ligand. If Viking loses the right to license these technologies and drug candidates or the Master License Agreement with Ligand is terminated for any reason, VKTX's ability to develop existing and new drug candidates would be harmed.

**Additional financings could dilute shareholder value.** Although the company currently has ~\$23MM cash after recent IPO financing, VKTX could need more financial resources going forward if they want to expand and further develop its pipeline. Should the product not receive FDA approval, or product revenue does not reach expectations; the company might need to issue new equity to raise additional cash. Under such a scenario, the share value of existing shareholders could be diluted.

**Limited trading liquidity limits shareholder options.** Given VKTX shares only entered the public market recently; daily trading volume and name recognition are relatively modest. With relatively illiquid trading volume, shareholders wanting to increase or reduce their positions in a volatile stock market may face constraints.

Figure 1: Income Statement

Viking Therapeutics – Income Statement														
(\$',000)	2012	2013	2014	1Q15	2Q15	3Q15	4Q15E	2015E	2016E	2017E	2018E	2019E	2020E	2021E
<b>Revenue</b>														
Product revenue	0.0	0.0	0.0	-	-	-	-	0	0	0	0	88,989	297,528	626,498
Other revenue	0.2	0.0	0.0	-	-	-	-	0	0	0	0	0	0	0
Total revenue	0.2	0.0	0.0	-	-	-	-	0	0	0	0	88,989	297,528	626,498
Costs of goods												10,679	35,703	75,180
Gross sales												78,310	261,825	551,318
Research and development	(69)	(12)	(22,223)	(139)	(1,101)	(2,508)	(2,509)	(6,256)	(11,261)	(19,482)	(27,080)	(29,517)	(31,878)	(34,110)
General and administrative	(41)	(89)	(1,245)	(322)	(1,526)	(1,781)	(1,638)	(5,267)	(6,900)	(9,246)	(9,708)	(10,193)	(10,703)	(11,238)
Marketing and sales												(31,000)	(54,250)	(59,675)
<b>Total Operating Expenses</b>	(110)	(101)	(23,468)	(461)	(2,627)	4,288	(4,147)	(11,523)	(18,161)	(28,728)	(36,788)	(70,710)	(96,831)	(105,023)
<b>Operating Incomes (losses)</b>	(109)	(101)	(23,468)	(461)	(2,627)	4,288	(4,147)	(11,523)	(18,161)	(28,728)	(36,788)	18,279	200,697	521,475
Change in fair value of accrued license fees	0	0	(1,822)	4,961	4,421	0	0	9,382	0	0	0	0	0	0
Change in fair value of debt conversion features	0	21	(391)	83	546	(197)	100	532	(200)	(500)	(500)	(500)	(500)	(500)
Amortization of debt discount	0	18	558	172	241	(241)	(241)	(69)	480	0	0	0	0	0
Interest expense	1	6	71	35	30	(10)	(10)	44	22	0	0	0	0	0
Total other (income) expenses	1	45	(1,584)	5,250	5,238	(448)	(151)	9,889	302	(500)	(500)	(500)	(500)	(500)
Loss before tax	(111)	(146)	(21,884)	(5,711)	(7,865)	4,737	(3,996)	(21,413)	(18,463)	(28,228)	(36,288)	18,779	201,197	521,975
Tax	0	0	0	-	-	-	-	0	0	0	0	(6,948)	(74,443)	(193,131)
<b>Net Income (Loss)</b>	(111)	(146)	(21,884)	(5,711)	(7,865)	(4,737)	(3,996)	(21,413)	(18,463)	(28,228)	(36,288)	11,830	126,754	328,844
Net Income (Loss) Applicable to Common Shareholders	(111)	(146)	(21,884)	(5,711)	(7,865)	(4,729)	(3,996)	(21,413)	(18,463)	(28,228)	(36,288)	11,830	126,754	328,844
Net Earnings (Losses) Per Share—Basic	(\$0.07)	(\$0.07)	(\$5.23)	(\$1.40)	(\$1.07)	(\$0.53)	(\$0.45)	(\$2.92)	(\$1.43)	(\$1.89)	(\$2.14)	\$0.54	\$5.77	\$14.98
Net Earnings (Losses) Per Share—Diluted	(\$0.07)	(\$0.07)	(\$5.23)	(\$1.40)	(\$1.07)	(\$0.53)	(\$0.45)	(\$2.92)	(\$1.43)	(\$1.89)	(\$2.14)	\$0.54	\$5.77	\$14.98
Shares outstanding—basic	1,483	2,043	4,187	4,074	7,332	8,947	8,949	7,326	12,949	14,949	16,949	21,949	21,952	21,954
Shares outstanding—diluted	1,483	2,043	4,187	4,074	7,332	8,947	8,949	7,326	12,949	14,949	16,949	21,949	21,952	21,954
<b>Margin Analysis (% of Sales/Revenue)</b>														
Costs of goods												12%	12%	12%
R&D	-33433%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-33%	-11%	-5%
SG&A	-19791%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-11%	-4%	-2%
Operating Income (loss)	-53124%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21%	67%	83%
Pretax	-537.9223	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21%	68%	83%
Tax Rate										0%	37%	37%	37%	37%
Net Income	-53792%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13%	43%	52%
<b>Financial Indicator Growth Analysis (YoY%)</b>														
Total Revenue	NA	-100%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	234%	111%
R&D	NA	-83%	191264%	178%	NA	NA	-89%	-72%	80%	73%	39%	9%	8%	7%
SG&A	NA	119%	1292%	102%	NA	NA	72%	323%	31%	34%	5%	5%	5%	5%
Marketing and sales					NA	NA								75%
Operating Income (Losses)	NA	-8%	23118%	120%	NA	NA	-82%	-51%	58%	58%	28%	-150%	98%	160%
Pretax Income	NA	32%	14864%	2395%	NA	NA	-81%	-2%	-14%	53%	29%	-152%	97%	159%
Net Income	NA	32%	14864%	2395%	NA	NA	-81%	-2%	-14%	53%	29%	-133%	97%	159%
EPS	NA	-4%	7202%	1855%	NA	NA	-78%	-44%	-51%	32%	13%	-125%	97%	159%

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Source: Bloomberg LP; Company reports; Laidlaw &amp; Company estimates

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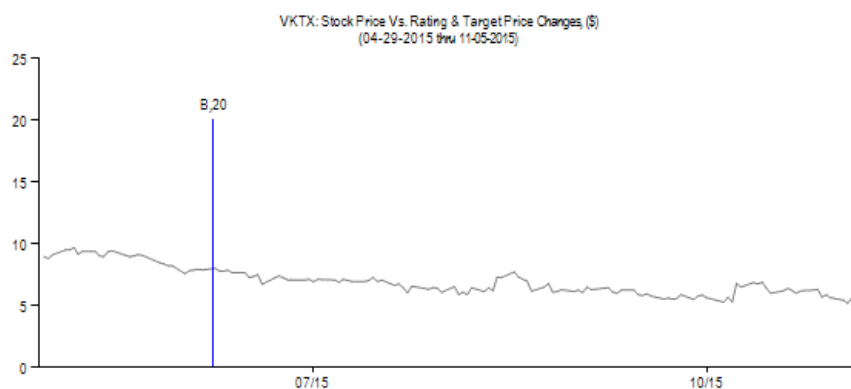
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Source: Laidlaw &amp; Company

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**3 Year Rating Change History**

Date	Rating	Closing Price (\$)
06/08/2015	Buy (B)	8.02

**3 Year Price Change History**

Date	Target Price (\$)	Closing Price, (\$)
06/08/2015	20.00	8.02

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			Investment Banking	Brokerage
<b>Strong Buy (SB)</b>	Expected to significantly outperform the sector over 12 months.	0.00%	0.00%	0.00%
<b>Buy (B)</b>	Expected to outperform the sector average over 12 months.	75.00%	28.13%	6.25%
<b>Hold (H)</b>	Expected returns to be in line with the sector average over 12 months.	3.13%	0.00%	0.00%
<b>Sell (S)</b>	Returns expected to significantly underperform the sector average over 12 months.	0.00%	0.00%	0.00%

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