LAIDLAW & COMPANY
Est. 1842
London
New York
San Francisco
Stamford
Ft. Lauderdale

EQUITY RESEARCH
Company Report

December 7, 2015

Viking Therapeutics (VKTX - $ 2.89)

Healthcare/Biotechnology

Confirmatory Preclinical and Early Clinical VK5211 Data Presented at the SCWD Annual Meeting

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

Over the weekend, VKTX presented a poster at the 8th International Conference on Cachexia, Sarcopenia, and Muscle Wasting (SCWD) highlighting the pre-clinical and prior clinical data of VK5211.

- **Details.** The poster presentation highlighted several preclinical data from primate and rodent models for the safety and effectiveness of VK5211. The presentation also discussed data from a prior clinical study on healthy volunteers. From the primate study that used cynomolgus monkeys as a model, they reported that after 13 weeks of daily oral dosing of VK5211 (from 0.6 to 75mg/kg), three doses (3, 15 and 75mg/kg) exhibited statistically significant body weight gain over a placebo. The 15mg/kg dosing had the highest gain (1.5 kg). Further, 70% of the increased weight was retained after a 4-week recovery period. The effect was observed in both sexes, which in our opinion is promising, since most hip fracture patients of the ongoing Phase II study would be female. From a rat model, VK5211 demonstrated highly selective increased anabolic activity in muscles vs. prostate tissue. Given the objective of the ongoing Phase II trial is to strengthen the bone and muscle of patients, the drug's impact specifically on muscle and not on other tissues is important to demonstrate the potential effect and safety. The poster also presented prior clinical data of increased lean mass and leg press force in healthy male volunteers who had been dosed for 3 weeks with VK5211.

- **Implications.** We view data presented at the medical conference as positive for VKTX share value, even though most information is from pre-clinical studies and some have been reported earlier. The positive results are confirmatory for the potential effect and safety of VK5211, especially by comparing the primate and healthy volunteer clinical data. The VK5211 in post hip fracture surgery rehabilitation Phase II study is underway, and we estimate the top-line results could be available in 2H16 – a critical catalyst for VKTX shareholders, in our opinion.
- **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 rise significantly, in our opinion.

Trading Data:

Last Price (12/04/2015)	$ 2.89
52–Week High (5/5/2015)	$ 10.23
52–Week Low (12/4/2015)	$ 2.85
Market Cap. (MM)	$ 28
Shares Out. (MM)	10

Earnings Estimates: (per share)

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

Source: Laidlaw & Company estimates

Yale Jen, Ph.D.
Managing Director/Senior
Biotechnology Analyst
(212) 953-4978
yjen@laidlawltd.com

Anticipated milestones in 2015 and beyond

Product	Indication	Event	Timing	Importance
VK5211	Hip fracture	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	**1H17**	****

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

Source: Laidlaw & Company and company presentation

Yale Jen, Ph.D.
yjen@laidlawltd.com

Major Risks

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-β 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-β 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-β 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.

Yale Jen, Ph.D.
yjen@laidlawltd.com

Figure 1: Income Statement

Viking Therapeutics – Income Statement

($',000)	2012	2013	2014	1Q15	2Q15	3Q15	4Q15E	2015E	2016E	2017E	2018E	2019E	2020E	2021E
Revenue														
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)
Total Operating Expenses	(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)
Operating Incomes (losses)	(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)
Net Income (Loss)	(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
Margin Analysis (% of Sales/Revenue)														
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%
Financial Indicator Growth Analysis (YoY%)														
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%	10%
Operating Income (Losses)	NA	-8%	23118%	120%	NA	NA	-82%	-51%	58%	58%	28%	-150%	998%	160%
Pretax Income	NA	32%	14864%	2395%	NA	NA	-81%	-2%	-14%	53%	29%	-152%	971%	159%
Net Income	NA	32%	14864%	2395%	NA	NA	-81%	-2%	-14%	53%	29%	-133%	971%	159%
EPS	NA	-4%	7202%	1855%	NA	NA	-78%	-44%	-51%	32%	13%	-125%	971%	159%

Yale Jen, Ph.D. 212-953-4978

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

Yale Jen, Ph.D.
yjen@laidlawltd.com

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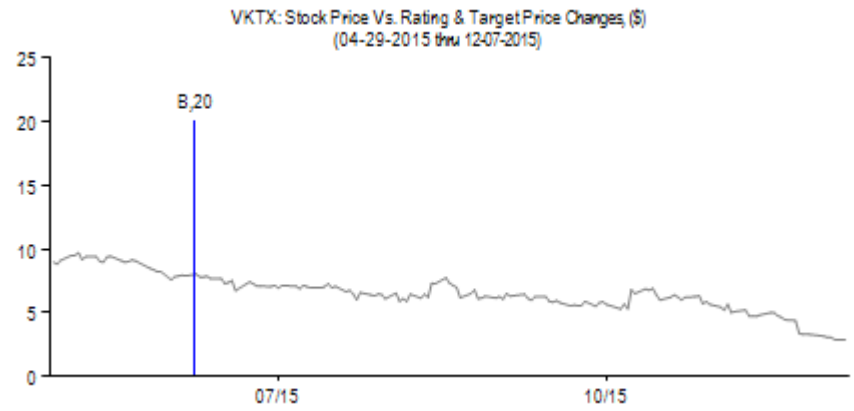
Rating and Price Target Change History



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

Source: Laidlaw & Company **Created by: Blue-Compass.net**

Laidlaw & Company Rating System*		% of Companies Under Coverage With This Rating	% of Companies for which Laidlaw & Company has performed services for in the last 12 months	
			Investment Banking	Brokerage
Strong Buy (SB)	Expected to significantly outperform the sector over 12 months.	0.00%	0.00%	0.00%
Buy (B)	Expected to outperform the sector average over 12 months.	62.50%	25.00%	3.13%
Hold (H)	Expected returns to be in line with the sector average over 12 months.	0.00%	0.00%	0.00%
Sell (S)	Returns expected to significantly underperform the sector average over 12 months.	0.00%	0.00%	0.00%

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Yale Jen, Ph.D.
yjen@laidlawltd.com

NOTES:

Yale Jen, Ph.D.
yjen@laidlawltd.com