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EQUITY RESEARCH
Company Report

July 26, 2016

Viking Therapeutics (VKTX - $ 1.32)

Healthcare/Biotechnology

Positive VK0214 in X-Linked Adrenoleukodystrophy (X-ALD) Preclinical Results Reported

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

VKTX reported this morning the positive VK0214 in X-ALD preclinical results: The drug rapidly reduced plasma very long chain fatty acid (VLCFA) levels by over 25% in treated mouse model compared with vehicle controls ($p < 0.01$).

- **Details.** VK0214 is an orally administrated and systemically available thyroid receptor beta (TRβ) agonist. The study was conducted at the Kennedy Krieger Institute and was designed to assess changes in VLCFA levels in the ABCD1 knockout mouse model. VK0214 treatment (once-daily) lowers plasma VLCFA levels after six weeks of treatment duration, and VLCFA reductions were observed as early as two weeks following initiation of dosing. Specifically, VK0214 treatment has reduced multiple VLCFAs, which include saturated C26, C24, C22, and C20 fatty acids relative to controls. As a reminder, X-ALD is a rare and often fatal metabolic disorder cause by mutations in ABCD1 (a peroxisomal transporter of VLCF), resulting in impaired transporter and such condition will derail patient's ability to metabolize VLCFA efficiently. VKTX is scheduled to report more detailed VK0214 in X-ALD preclinical data at an upcoming medical conference likely in 3Q16.
- **Implications.** VKTX initially plans to evaluate VK2809 and VK0214 as possible X-ALD therapy candidates and have determined that VK0214 is a more appropriate candidate potentially advancing into clinical study possibly in mid-2017. Our discussions with management also indicated that the progresses of VKTX's two leading clinical products, VK2809 (to start Phase II study for hypercholesterolemia and fatty liver disease in early 3Q16) and VK5211 (under Phase II study as treatment and prevention of lean body mass loss in patients who have undergone hip fracture surgery) remain on track with top-line results of VK5211 and VK2809 potentially available in 1Q17 and 1H17, respectively. The two data reporting events would be the major binary catalysts that could significantly impact on VKTX share value, 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. Outcomes 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 (07/26/2016)	$ 1.32
52–Week High (8/17/2015)	$ 7.75
52–Week Low (4/8/2016)	$ 1.06
Market Cap. (MM)	$ 25
Shares Out. (MM)	19

Earnings Estimates: (per share)

(Dec)	1Q	2Q	3Q	4Q	FY	P/E
FY-16E	-0.40A	-0.18	-0.21	-0.23	-0.89	N.A.
FY-15A	-1.40	-1.07	-0.53	-0.56	-3.68	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

Source: Laidlaw & Company estimates

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Anticipated milestones in 2016 and beyond

Product	Indication	Event	Timing	Importance
VK5211	Hip fracture	Report Phase IIa study results	**1Q17**	****
VK0214/VK2809	X-Linked Adrenoleukodystrophy (X-ALD)	Initiate Phase I POC study	**Mid-17**	***
		Potentially report Phase I study top-line results	**Late '17/ 2018**	****
VK2809	Cholesterolemia / NASH	Potentially start Phase II study	**3Q16**	***
		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

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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 ~$14MM cash, 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.

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Figure 1: Income Statement

Viking Therapeutics – Income Statement

($',000)	2013	2014	2015	1Q16	2Q16E	3Q16E	4Q16E	2016E	2017E	2018E	2019E	2020E	2021E
Revenue													
Product revenue	0.0	0.0	0	-	-	-	-	0	0	0	88,989	297,528	626,498
Other revenue	0.0	0.0	0	-	-	-	-	0	0	0	0	0	0
Total revenue	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	(12)	(22,223)	(6,967)	(1,877)	(2,384)	(2,932)	(3,372)	(10,566)	(18,279)	(25,407)	(27,694)	(29,910)	(32,003)
General and administrative	(89)	(1,245)	(5,030)	(1,390)	(1,529)	(1,652)	(1,767)	(6,338)	(8,493)	(8,918)	(9,364)	(9,832)	(10,324)
Marketing and sales											(31,000)	(54,250)	(59,675)
Total Operating Expenses	(101)	(23,468)	(11,996)	(3,267)	(3,913)	(4,584)	(5,139)	(16,904)	(26,772)	(34,325)	(68,058)	(93,992)	(102,002)
Operating Incomes (losses)	(101)	(23,468)	(11,996)	(3,267)	(3,913)	(4,584)	(5,139)	(16,904)	(26,772)	(34,325)	20,931	203,537	524,496
Change in fair value of accrued license fees	0	(1,822)	(9,382)	0	0	0	0	0	0	0	0	0	0
Change in fair value of debt conversion features	21	(391)	(1,043)	97	(100)	(100)	(100)	(203)	(500)	(500)	(500)	(500)	(500)
Amortization of debt discount	18	558	(894)	(401)	(401)	(401)	(401)	(1,603)	0	0	0	0	0
Interest expense	6	71	(89)	(15)	(15)	(15)	(15)	(62)	0	0	0	0	0
Total other (income) expenses	45	(1,584)	(11,408)	(320)	(516)	(516)	(516)	(1,868)	(500)	(500)	(500)	(500)	(500)
Loss before tax	(146)	(21,884)	(23,404)	(2,948)	(3,397)	(4,068)	(4,623)	(15,036)	(26,272)	(33,825)	21,431	204,037	524,996
Tax	0	0	0	-	-	-	-	0	0	0	(7,929)	(75,494)	(194,249)
Net Income (Loss)	(146)	(21,884)	(23,404)	(3,587)	(3,397)	(4,068)	(4,623)	(15,036)	(26,272)	(33,825)	13,501	128,543	330,748
Unrealized gain on securities				7									
Net Income (Loss) Applicable to Common Shareholders	(146)	(21,884)	(23,404)	(3,580)	(3,397)	(4,068)	(4,623)	(15,036)	(26,272)	(33,825)	13,501	128,543	330,748
Net Earnings (Losses) Per Share—Basic	($0.07)	($5.23)	($3.68)	($0.40)	($0.18)	($0.21)	($0.23)	($0.89)	($1.39)	($1.62)	$0.52	$4.97	$12.78
Net Earnings (Losses) Per Share—Diluted	($0.07)	($5.23)	($3.68)	($0.40)	($0.18)	($0.21)	($0.23)	($0.89)	($1.39)	($1.62)	$0.52	$4.97	$12.78
Shares outstanding—basic	2,043	4,187	6,356	9,016	19,269	19,469	19,769	16,881	18,881	20,881	25,881	25,884	25,886
Shares outstanding—diluted	2,043	4,187	6,356	9,016	19,269	19,469	19,769	16,881	18,881	20,881	25,881	25,884	25,886
Margin Analysis (% of Sales/Revenue)													
Costs of goods											12%	12%	12%
R&D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-31%	-10%	-5%
SG&A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-11%	-3%	-2%
Operating Income (loss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24%	68%	84%
Net Income	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15%	43%	53%
Financial Indicator Growth Analysis (YoY%)													
Total Revenue	-100%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	234%	111%
R&D	-83%	191264%	-69%	1251%	117%	17%	5%	52%	73%	39%	9%	8%	7%
SG&A	119%	1292%	304%	332%	0%	-7%	26%	26%	34%	5%	5%	5%	5%
Marketing and sales												75%	10%
Operating Income (Losses)	-8%	23118%	-49%	609%	49%	7%	11%	41%	58%	28%	-161%	872%	158%
Pretax Income	32%	14864%	7%	-48%	-57%	-14%	-9%	-36%	75%	29%	-163%	852%	157%
Net Income	32%	14864%	7%	-37%	-57%	-14%	-9%	-36%	75%	29%	-140%	852%	157%
EPS	-4%	7202%	-30%	-72%	-84%	-60%	-59%	-76%	56%	16%	-132%	852%	157%

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

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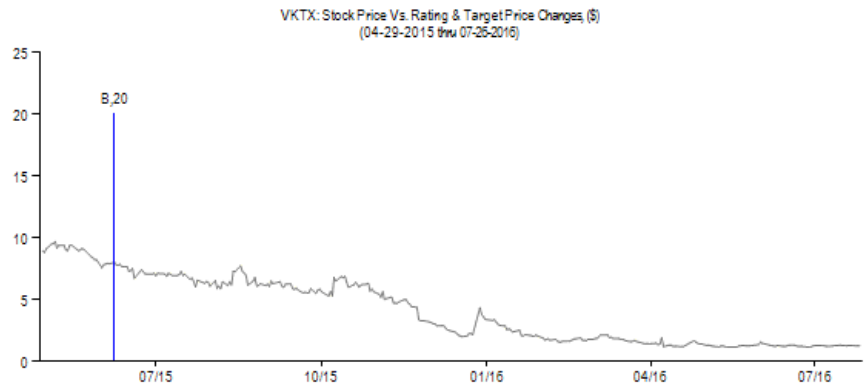
Rating and Price Target Change History



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.	64.86%	27.03%	2.70%
Hold (H)	Expected returns to be in line with the sector average over 12 months.	2.70%	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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