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EQUITY RESEARCH
Company Report

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Viking Therapeutics (VKTX - $1.29)

Healthcare/Biotechnology

4Q16: Two Phase II Data Readouts Followed by Two Ultra Orphan Clinical Developments in 2017

Ticker:	**VKTX**
Rating:	**Buy**
Price Target:	**$10.00**

Yesterday after the market close, VKTX reported 4Q16 financial results with a net loss of ($3.6MM) vs. Laidlaw ($4.4MM) and the Street ($3.8MM) estimates. Net loss/share was ($0.18) vs. ($0.23) and ($0.20) for Laidlaw and the Street. VKTX ended 4Q16 with ~$13MM cash and with additional financial resources, sufficient to support operations into late 4Q17, in our opinion.

- **VK5211 in post hip fracture surgery Phase II updates.** The ongoing Phase II study (n=120) is expected to complete patient enrollment near-term. Top-line results could be available mid-2017 or early 3Q17. The primary endpoint is changes of lean body mass after 12 weeks of treatment. Secondary endpoints include functional performance assessments, QoL, daily living activities, safety and PK.
- **VK2809 program updates.** VKTX provided progress updates of VK2809 in the hypercholesterolemia and fatty liver disease Phase II trial (n=80). Patient enrollment was slower than anticipated due to multiple clinical developments competing for recruiting patients. Accordingly, we estimate the top-line results could be available in late 4Q17/early 1Q18. VKTX expects ~30 sites could be active by April 2017. Primary endpoint is potential LDL-C level reduction measured after 12 weeks of treatment and 4-week follow-up. Secondary endpoints include changes in liver fat content, triglycerides, and inflammatory markers. VKTX also plans to initiate an VK2809 in glycogen storage disease type Ia (GSD-Ia) Phase Ib trial, possibly in early 4Q17. The basis for this development is from a preclinical study in which VK2809 has shown rapid and substantial liver triglyceride (60%) and liver weight (30%) reductions. These are factors leading to symptoms like hepatic steatosis or hepatocellular carcinoma in GSD-Ia.
- **VK0214 in X-ALD updates.** A second preclinical study that evaluates the effects of prolonged exposure (>6 weeks treatment duration) of VK0214 on the impact of very long chain fatty acids (VLCFA) is ongoing. Initial data could be available in 2Q17, which could help VKTX to determine the next step for the development.
- **Focus on Phase II trials.** Overall, we believe major investor focus is on the readouts of the two Phase II trials: VK5211 in mid-2017 and VK2809 in late 2017; while quarterly earnings (or losses) is relatively unimportant.
- **Action.** We are reiterating our Buy rating and target price of $10. Our valuation is based on peer comparable, probability adjusted DCF and sum-of-the-parts analyses. Outcomes of the two POC clinical studies potentially available in 2017, if positive, could increase VKTX share value significantly, in our opinion.

Trading Data:

Last Price (3/21/2017)	$1.29
52–Week High (4/7/2016)	$2.89
52–Week Low (12/1/2016)	$0.90
Market Cap. (MM)	$30
Shares Out. (MM)	16.278

Earnings Estimates: (per share)

(Dec)	1Q	2Q	3Q	4Q	FY	P/E
FY-17E	-0.19	-0.18	-0.20	-0.20	-0.77	N.A.
FY-16A	-0.40	-0.22	-0.20	-0.18	-0.90	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

Source: Laidlaw & Company estimates

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Anticipated milestones in 2017 and beyond

Product	Indication	Event	Timing	Importance
VK5211	Hip fracture	Report Phase IIa study results	**Mid-17**	****
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 report Phase II study results	**4Q17/1Q18**	****
	Glycogen storage disease type Ia (GSD Ia).	Potentially start Phase II study	**4Q17**	***

***** / ***** 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	2Q16	3Q16	4Q16	2016	1Q17E	2Q17E	3Q17E	4Q17E	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)	(2,371)	(2,105)	(2,647)	(9,000)	(2,753)	(2,877)	(3,050)	(3,568)	(12,249)	(17,026)	(18,558)	(20,043)	(21,446)
General and administrative	(89)	(1,245)	(5,030)	(1,390)	(1,206)	(1,159)	(1,090)	(4,846)	(1,123)	(1,145)	(1,191)	(1,239)	(4,698)	(4,933)	(5,179)	(5,438)	(5,710)
Marketing and sales															(31,000)	(54,250)	(59,675)
Total Operating Expenses	(101)	(23,468)	(11,996)	(3,267)	(3,577)	(3,264)	(3,738)	(13,846)	(3,876)	(4,022)	(4,241)	(4,807)	(16,947)	(21,959)	(54,738)	(79,731)	(86,831)
Operating Incomes (losses)	(101)	(23,468)	(11,996)	(3,267)	(3,577)	(3,264)	(3,738)	(13,846)	(3,876)	(4,022)	(4,241)	(4,807)	(16,947)	(21,959)	34,251	217,797	539,667
Change in fair value of accrued license fees	0	(1,822)	(9,382)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Change in fair value of debt conversion features	21	(391)	(1,043)	97	412	(65)	620	1,064	(100)	200	(130)	220	190	(500)	(500)	(500)	(500)
Amortization of debt discount	18	558	(894)	(401)	(525)	(431)	(431)	(1,788)	(432)	(432)	(432)	(432)	(1,728)	(1,728)	(1,728)	(1,728)	(1,728)
Amortization of financing costs						(46)	(93)	(139)	(45)	(45)	(45)	(45)	(180)				
Interest expense	6	71	(89)	(15)	(2)	(2)	(3)	(22)	(3)	(3)	(3)	(3)	(12)	(12)	(12)	(12)	(12)
Total other (income) expenses	45	(1,584)	(11,408)	(320)	(115)	(543)	93	(885)	(580)	(280)	(610)	(260)	(1,730)	(2,240)	(2,240)	(2,240)	(2,240)
Loss before tax	(146)	(21,884)	(23,404)	(3,587)	(3,692)	(3,807)	(3,645)	(14,731)	(4,456)	(4,302)	(4,851)	(5,067)	(18,677)	(19,719)	36,491	220,037	541,907
Tax	0	0	0	-	-	-	-	0	-	-	-	-	0	0	(13,502)	(81,414)	(200,506)
Net Income (Loss)	(146)	(21,884)	(23,404)	(3,587)	(3,692)	(3,807)	(3,645)	(14,731)	(4,456)	(4,302)	(4,851)	(5,067)	(18,677)	(19,719)	22,990	138,623	341,402
Unrealized gain on securities				7	(7)	1	(1)	0	1	1	1	1	4				
Net Income (Loss) Applicable to Common Shareholders	(146)	(21,884)	(23,404)	(3,580)	(3,699)	(3,807)	(3,645)	(14,731)	(4,456)	(4,302)	(4,851)	(5,067)	(18,677)	(19,719)	22,990	138,623	341,402
Net Earnings (Losses) Per Share—Basic	($0.07)	($5.23)	($3.68)	($0.40)	($0.22)	($0.20)	($0.18)	($0.90)	($0.19)	($0.18)	($0.20)	($0.20)	($0.77)	($0.75)	$0.74	$4.43	$10.91
Net Earnings (Losses) Per Share—Diluted	($0.07)	($5.23)	($3.68)	($0.40)	($0.22)	($0.20)	($0.18)	($0.90)	($0.19)	($0.18)	($0.20)	($0.20)	($0.77)	($0.75)	$0.74	$4.43	$10.91
Shares outstanding—basic	2,043	4,187	6,356	9,016	17,105	18,992	19,930	16,278	23,825	24,125	24,425	24,725	24,275	26,275	31,275	31,278	31,280
Shares outstanding—diluted	2,043	4,187	6,356	9,016	17,105	18,992	19,930	16,278	23,825	24,125	24,425	24,725	24,275	26,275	31,275	31,278	31,280
Margin Analysis (% of Sales/Revenue)																	
Costs of goods															12%	12%	12%
R&D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-21%	-7%	-3%
SG&A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-6%	-2%	-1%
Operating Income (loss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38%	73%	86%
Net Income	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26%	47%	54%
Financial Indicator Growth Analysis (YoY%)																	
Total Revenue	-100%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	234%	111%
R&D	-83%	191264%	-69%	1251%	115%	-16%	-18%	29%	47%	21%	45%	35%	36%	39%	9%	8%	7%
SG&A	119%	1292%	304%	332%	-21%	-35%	-22%	-4%	-19%	-5%	3%	14%	-3%	5%	5%	5%	5%
Marketing and sales																75%	10%
Operating Income (Losses)	-8%	23118%	-49%	609%	36%	-24%	-19%	15%	19%	12%	30%	29%	22%	30%	-256%	536%	148%
Pretax Income	32%	14864%	7%	-37%	-53%	-20%	-28%	-37%	24%	17%	27%	39%	27%	6%	-285%	503%	146%
Net Income	32%	14864%	7%	-37%	-53%	-19%	-28%	-37%	24%	16%	27%	39%	27%	6%	-217%	503%	146%
EPS	-4%	7202%	-30%	-72%	-80%	-62%	-68%	-75%	-53%	-18%	-1%	12%	-15%	-2%	-198%	503%	146%

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

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Additional information available upon request.

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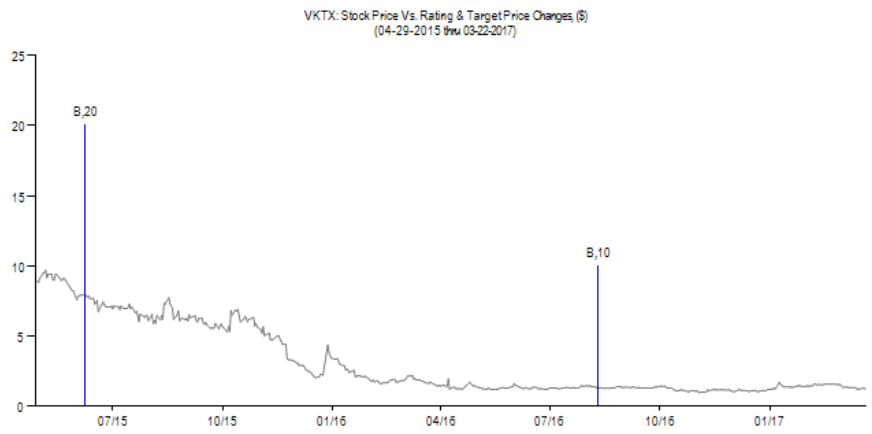
Rating and Price Target Change History



3 Year Rating Change History

Date	Rating	Closing Price ($)
06/08/2...	Buy (B)	8.02

3 Year Price Change History

Date	Target Price ($)	Closing Price, ($)
06/08/2...	20.00	8.02
08/11/2...	10.00	1.27

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.	2.44%	2.44%	0.00%
Buy (B)	Expected to outperform the sector average over 12 months.	60.98%	26.83%	2.44%
Hold (H)	Expected returns to be in line with the sector average over 12 months.	2.44%	0.00%	0.00%
Sell (S)	Returns expected to significantly underperform the sector average over 12 months.	4.88%	0.00%	0.00%

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