Zacks Small-Cap Research
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Viking Therapeutics, Inc. (VKTX-NASDAQ)

VKTX: Presentation of Full Data Set for VK5211 Phase 2 Trial…

Based on our probability adjusted DCF model that takes into account potential future revenues of VK5211, VK2809, and VK0214, VKTX is valued at $28/share. This model is highly dependent upon continued clinical success of those compounds and will be adjusted accordingly based upon future clinical results.

Current Price (10/03/18)	$15.24
Valuation	**$28.00**

OUTLOOK

On Oct. 1, 2018, Viking Therapeutics, Inc. (VKTX) announced that results from the Phase 2 study of VK5211 in patients recovering from hip fracture were presented during an oral plenary session at ASBMR 2018 Annual Meeting. As previously announced, the study met the primary endpoint by demonstrating a statistically significant increase in lean body mass. In addition, there was a dose-dependent decrease in fat mass coupled with an increase in mean body weight. Lastly, in one of the study's secondary endpoints, there was a 22-meter increase in the 6-minute walk test for patients treated with the highest dose of VK5211 compared to those taking placebo. Viking continues to work on a partnership deal for advancing VK5211, and these results further increase our confidence that such a deal will be signed.

SUMMARY DATA

52-Week High	**$19.65**
52-Week Low	**$1.74**
One-Year Return (%)	**775.86**
Beta	**2.82**
Average Daily Volume (sh)	**7,492,145**
Shares Outstanding (mil)	**61**
Market Capitalization ($mil)	**$924**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**53**
Insider Ownership (%)	**4**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**N/A**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2018 Estimate	**-22.3**
P/E using 2019 Estimate	**-22.3**

Risk Level	**High**
Type of Stock	**Small-Growth**
Industry	**Med-Biomed/Gene**

ZACKS ESTIMATES

Revenue
(In millions of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2017	0 A	0 A	0 A	0 A	0 A
2018	0 A	0 A	0 E	0 E	0 E
2019					0 E
2020					0 E

Earnings per Share

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2017	-$0.23 A	- $0.21 A	-$0.22 A	-$0.14 A	-$0.79 A
2018	-$0.08 A	-$0.13 A	-$0.10 E	-$0.10 E	-$0.41 E
2019					-$0.39 E
2020					-$0.40 E

WHAT'S NEW

Business Update

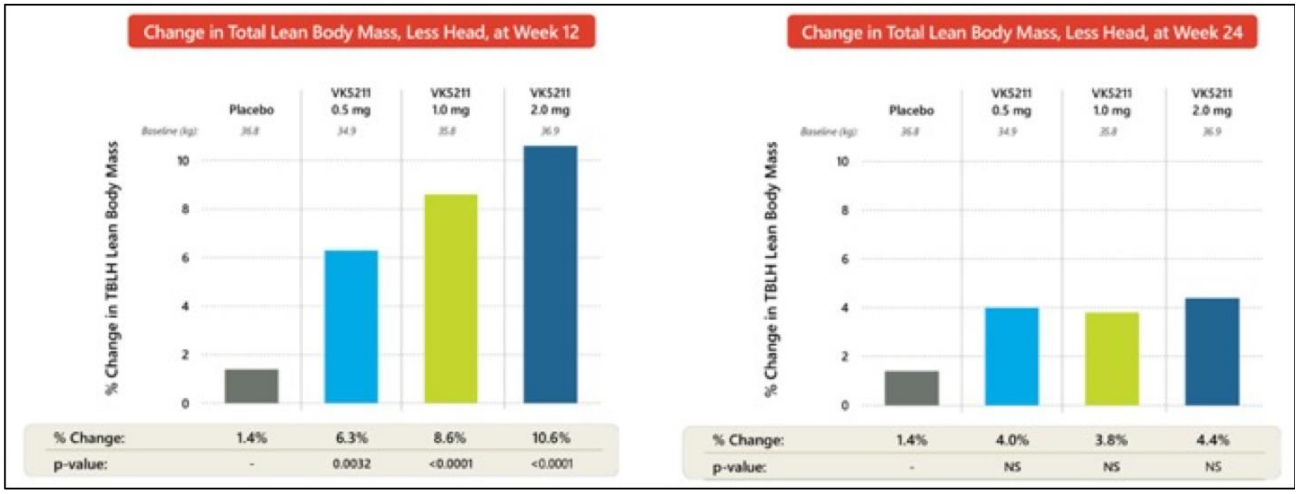
VK5211 Phase 2 Results Presented at ASBMR 2018 Annual Meeting

On October 1, 2018, Viking Therapeutics, Inc. (VKTX) announced that results from the Phase 2 clinical trial of VK5211 in patients with hip fracture were presented at the 2018 American Society for Bone and Mineral Research (ASBMR) Annual Meeting. This was a multicenter, randomized, double blind, placebo controlled trial that enrolled a total of 108 subjects (83 women and 25 men) age ≥ 65 years of age who have suffered a hip fracture within the past three to seven weeks. Subjects were administered placebo or 0.5 mg, 1.0 mg, or 2.0 mg of VK5211 once-daily for 12 weeks (NCT02578095). The primary outcome of the trial was the change in lean body mass, less head, after 12 weeks of treatment. Secondary and exploratory endpoints included assessments of functional performance, quality-of-life, and activities of daily living. The following slide gives a breakdown of the demographics for the trial.

	Placebo	VK5211 0.5 mg	VK5211 1.0 mg	VK5211 2.0 mg
Randomized (n)	28	29	26	25
Age (yr)(± SD)	76.0 (6.1)	76.1 (6.1)	78.9 (6.9)	76.9 (7.8)
Gender (n)				
Male	9 (32.1%)	6 (20.7%)	4 (15.4%)	6 (24.0%)
Female	19 (67.9%)	23 (79.3%)	22 (84.6%)	19 (76.0%)
Race (n)				
White	27 (96.4%)	29 (100%)	24 (92.3%)	25 (100%)
Black	1 (3.6%)	0 (0%)	1 (3.8%)	0 (0%)
Asian	0 (0%)	0 (0%)	1 (3.8%)	0 (0%)
Ethnicity (n)				
Non-Hispanic/Latino	23 (82.1%)	25 (86.2%)	19 (73.1%)	14 (56.0%)
Hispanic/Latino	2 (7.1%)	2 (6.9%)	3 (11.5%)	4 (16.0%)
Not reported	3 (10.7%)	2 (6.9%)	4 (15.4%)	7 (28.0%)
BMI (kg/m^2)(± SD)	24.4 (4.1)	23.0 (3.1)	26.2 (4.6)	25.0 (4.8)
Osteoporosis (n)	3 (10.7%)	5 (17.2%)	3 (11.5%)	4 (16.0%)
Time from fracture (days)	48.3	47.4	54.2	49.5

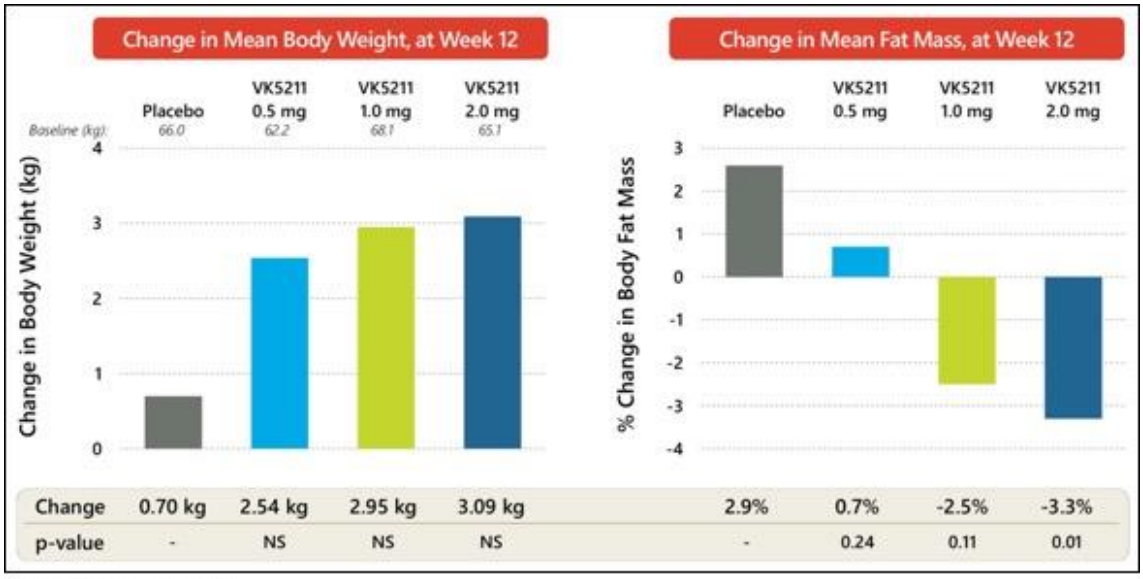
Source: Magaziner *et al.*, 2018

The company had previously reported that the study achieved the primary endpoint by demonstrating a statistically significant increase in lean body mass, less head, in those administered VK5211 compared to placebo (see below left). Additional data presented at the meeting included 24-week follow-up data after study subjects had been off treatment for 12 weeks (see below right). The data showed that increases in lean body mass, less head, for all subjects administered VK5211 remained above placebo even after treatment was stopped, demonstrating the potency of VK5211 activity.



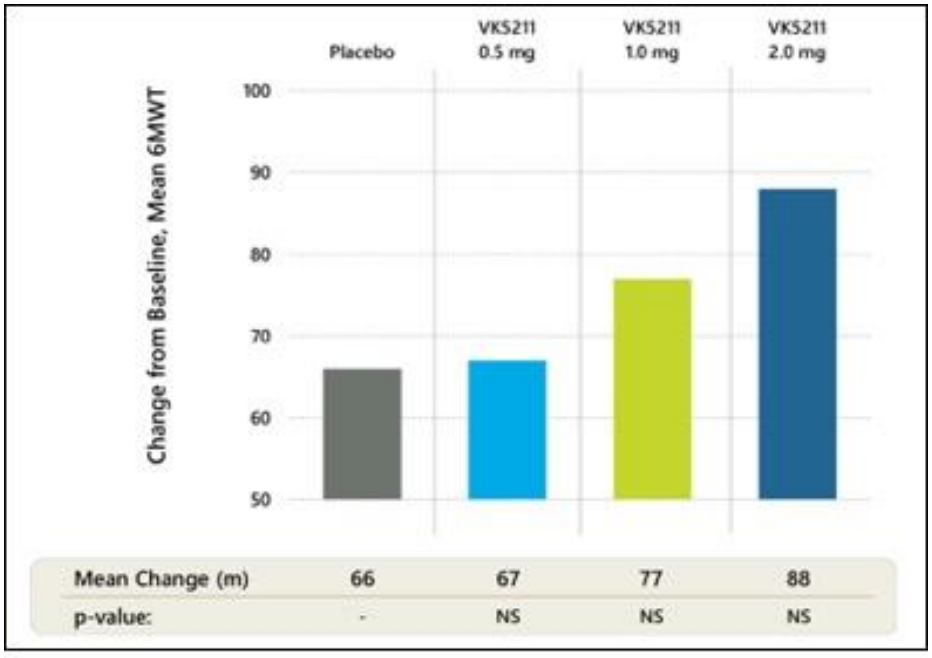
Source: Magaziner *et al.*, 2018

This increase in lean body mass, less head, was accompanied by a dose-dependent increase in body weight and a dose-dependent *decrease* in fat mass. This shift in body composition is an impressive result, as previous studies have shown that in the first year after a hip fracture, fat mass increases by up to 7% (Karlsson *et al*., 1996) while lean mass decreases by up to 11% (Fox *et al*., 2000). This is in comparison to healthy older females who lose approximately 1% of lean mass per year and gain approximately 1.7% in fat mass (Karlsson *et al*., 2000).



Source: Magaziner *et al*., 2018

Some of the new data presented at ASBMR showed that there were dose-dependent increases in the 6-minute walk test (6MWT) for those taking VK5211, with a greater than 20-meter improvement at the highest dose compared to placebo. As a reminder, this outcome was not powered to show statistical significance, however the dose-dependent increase is encouraging as the 6MWT could be a clinical outcome for a Phase 3 study.



Source: Magaziner *et al*., 2018

The following slide gives an overview of the adverse event profile for VK5211. Importantly, there were no drug-related serious adverse events reported, no significant differences in the rates of adverse events when comparing VK5211 and placebo, and there were no dose-dependent differences in the number of adverse events when comparing the different VK5211 groups.

	Placebo	VK5211 0.5 mg	VK5211 1.0 mg	VK5211 2.0 mg
Randomized (n)	28	29	26	25
# of TEAEs	31	21	18	38
Number (%) of subjects with at least one reported:				
TEAE	10 (35.7)	11 (37.9)	8 (30.8)	16 (64.0)
Serious TEAE	4 (14.3)	2 (6.9)	3 (11.5)	5 (20.0)
Drug-related TEAE	0 (0.0)	1 (3.4)	0 (0.0)	1 (4.0)
Drug-related serious TEAE	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
TEAEs leading to discontinuation	3 (10.7)	1 (3.4)	1 (3.8)	3 (12.0)

Source: Magaziner et al., 2018

In addition to there being no drug-related serious adverse events reported, there were also no clinically meaningful changes in such markers as red blood cell count, hemoglobin, or serum lipids, as shown in the following table.

Mean % change from baseline in lab values to Week 12 (EOT)	Placebo	VK5211 0.5 mg	VK5211 1.0 mg	VK5211 2.0 mg
Randomized (n)	28	29	26	25
RBC	9%	8%	7%	11%
Hemoglobin	7%	3%	0%	2%
Total cholesterol	2%	-11%	2%	-1%
Triglycerides	-9%	-19%	-8%	-12%
Glucose	1%	-11%	-20%	-13%

Source: Magaziner et al., 2018

Conclusion

The data presented on the Phase 2 trial of VK5211 further increases our confidence in the company's ability to find a suitable partner to continue development of the drug into Phase 3. VK5211 treatment results in impressive changes in body composition that is in stark contrast to what typically occurs in a hip fracture patient population. In addition, the 6MWT results showed a favorable trend toward treatment. Based on these results we have increased the probability of approval for VK5211 to 70% and increased potential peak worldwide sales to $2 billion. This has increased our valuation for Viking to $28 per share. Following the big jump in the stock price after release of the VK2809 Phase 2 data the stock has pulled back somewhat. We would look for any weakness in the stock as a buying opportunity as we consider Viking one of our top picks among small-cap biotech stocks.

PROJECTED FINANCIALS

Viking Therapeutics, Inc.
Income Statement

Viking Therapeutics, Inc.	2017 A	Q1 A	Q2 A	Q3 E	Q4 E	2018 E	2019 E	2020 E
VK5211 (Hip Fracture)	$0	$0	$0	$0	$0	$0	$0	$0
YOY Growth	-	-	-	-	-	-	-	-
VK2809 (Hypercholesterolemia)	$0	$0	$0	$0	$0	$0	$0	$0
YOY Growth	-	-	-	-	-	-	-	-
VK0214 (ALD)	$0	$0	$0	$0	$0	$0	$0	$0
YOY Growth	-	-	-	-	-	-	-	-
Grants & Collaborative Revenue	$0	$0	$0	$0	$0	$0	$0	$0
YOY Growth	-	-	-	-	-	-	-	-
Total Revenues	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
YOY Growth	-	-	-	-	-	-	-	-
Cost of Sales	$0	$0	$0	$0	$0	$0	$0	$0
Product Gross Margin	-	-	-	-	-	-	-	-
Research & Development	$13.7	$3.0	$5.2	$4.2	$4.5	$17.0	$18.0	$20.0
General & Administrative	$5.3	$1.8	$1.7	$1.6	$1.6	$6.7	$6.5	$7.0
Other Expenses	$0	$0	$0	$0	$0	$0	$0	$0
Operating Income	($19.1)	($4.8)	($6.93)	($5.8)	($6.1)	($23.6)	($24.5)	($27.0)
Operating Margin	-	-	-	-	-	-	-	-
Non-Operating Expenses (Net)	($1.5)	$1.3	$0.3	($0.2)	($0.2)	$1.1	($1.0)	($1.0)
Pre-Tax Income	($20.6)	($3.6)	($6.7)	($6.0)	($6.3)	($22.5)	($25.5)	($28.0)
Income Taxes Paid	$0	$0	$0	$0	$0	$0	$0	$0
Tax Rate	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
Net Income	**($20.6)**	**($3.6)**	**($6.7)**	**($6.0)**	**($6.3)**	**($22.5)**	**($25.5)**	**($28.0)**
Net Margin	-	-	-	-	-	-	-	-
Reported EPS	**($0.79)**	**($0.08)**	**($0.13)**	**($0.10)**	**($0.10)**	**($0.41)**	**($0.39)**	**($0.40)**
YOY Growth	-	-	-	-	-	-	-	-
Basic Shares Outstanding	25.978	44.649	52.767	60.000	61.000	54.604	65.000	70.000

Source: Zacks Investment Research, Inc. *David Bautz, PhD*

HISTORICAL STOCK PRICE

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