

## US Equity Research

12 January 2015

## BUY

unchanged

PRICE TARGET US\$35.00

unchanged

Price (12-Jan) US\$22.60

Ticker VTL-NASDAQ

52-Week Range (US\$): 10.66 - 35.20  
 Avg Daily Vol (M) : 73.5  
 Shares Out. (M) : 21.8  
 Market Cap (US\$M): 492

FYE Dec	2013A	2014E	2015E
Revenue (US\$M)	0.0	0.0	0.0
EPS Adj&Dil (US\$)	(1.85)	(3.61)	(2.62)

Quarterly Revenue	Q1	Q2	Q3	Q4
2013A	0.0	0.0	0.0	0.0
2014E	0.0A	0.0A	0.0A	0.0
2015E	0.0	0.0	0.0	0.0

Quarterly EPS Adj&Dil	Q1	Q2	Q3	Q4
2013A	(0.49)	(0.34)	(0.43)	(0.59)
2014E	(24.49)A	(0.91)A	(0.59)A	(0.60)
2015E	(0.75)	(0.79)	(0.83)	(0.87)



Vital Therapies is a biotherapeutic company focused on its ELAD system for treatment of acute liver disease and failure.

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## Company Update

## VTL near completion of enrollment for VTI-208, on track for data readout by Q2/15

## VTI-208 enrollment at 97%, expect trial enrollment completion by end of Jan 2015

Vital provided updates to their enrollment of VTI-208, with 193/200 patients with alcohol-induced liver decompensation (AILD) currently enrolled in their Phase 3 trial, with an expected completion date by the end of this month. The company is on track to expect top-line data by end of 2Q15, which we believe has a high chance for a positive readout in demonstrating 90-day survival benefit. Unlike the phase 2 trial, which still demonstrated a trend towards survival benefit, the current phase 3 study has a strict exclusion criteria that only targets patients who have regenerable liver and not expected to die imminently. We believe the refined patient criteria and the larger patient population sets the pivotal trial up for success, with positive data a catalyst for major upside to the stock.

## STOPAH trial demonstrates lack of effective treatment in hard to treat disease, positive for VTI-208

Results presented in November of the STOPAH trial showed no benefit in the use of steroids of pentoxifylline in decreasing mortality after 28 days, reflecting the significant medical need for new and effective treatments. Since nearly all patients with AILD will lose benefit from steroids after 28 days, we believe positive results from the VTI-208 trial may move the ELAD system as a possible standard of care by physicians and cause a substantial increase to our conservative peak sales estimate of ~\$565M.

## VTL moves forward in acute alcoholic hepatitis and fulminant liver failure, substantial market opportunity at \$4B total

Topline data for both VTI-210, a phase 3 study evaluating the ELAD technology in severe acute alcoholic hepatitis (AAH) patients, and VTI-212, a single-arm Phase 2 trial in patients with fulminant or surgery induced hepatic failure, is expected by 2016. We value this market opportunity to be substantial at ~\$4B, including the \$1.5B potential from alcohol-induced liver decompensation alone. Importantly, no therapies are able to extend survival for these disease states, specifically for AILD, making the potential to tap into a lucrative market without much competition.

## Maintain \$35 price target, BUY recommendation

We maintain our \$35 PT with a BUY recommendation given the current on track enrollment of VTI-208, with expected positive data by end of 2Q15.

Figure 1: VTL income statement

Revenues	2013A	Mar-14A	Jun-14A	Sep-14A	Dec-14E	2014E	2015E	2016E	2017E	2018E	2019E	2020E
AILD								-	79,591	286,980	447,563	493,626
SILF								-	10,612	38,264	47,740	55,691
FHF								-	26,015	93,803	117,033	136,524
Total								-	116,218	419,047	612,335	685,841
Income Statement	2013A	Mar-14A	Jun-14A	Sep-14A	Dec-14E	2014E	2015E	2016E	2017E	2018E	2019E	2020E
Revenue												
Total Revenue	-	-	-	-	-	-	-	-	116,218	419,047	612,335	685,841
Cost of Revenue	-	-	-	-	-	-	-	-	17,433	62,857	91,850	102,876
Gross Profit	-	-	-	-	-	-	-	-	98,785	356,190	520,485	582,965
Operating Expenses												
Stock-based Compensation in SGA	537	202	247		273	722	1,235	1,482	3,225	3,566	4,078	4,821
Stock-based Compensation in R&D	411	154	247		273	675	1,235	1,482	1,743	1,928	2,204	2,606
Research & Development	21,376	9,219	9,125	10,244	9,287	37,875	41,521	37,045	43,582	40,480	38,577	37,790
General & Administrative	9,078	2,657	2,513	2,566	3,820	11,556	17,762	34,082	38,352	50,118	65,030	84,701
Total Operating Expense	31,402	11,876	11,638	12,810	13,107	49,431	59,283	71,127	81,934	90,598	103,607	122,491
EBITDA												
Operating Income		(11,876)	(11,638)	(12,810)	(13,107)	(49,431)	(59,283)	(71,127)	16,852	265,592	416,878	460,474
Interest Income	5	2	-	-	-	-	-	-	-	-	-	-
Interest Expenses	0	-	-	-	-	-	-	-	-	-	-	-
Other (expense) income, net	(15)	(2)	-	-	-	-	-	-	-	-	-	-
Revaluation of preferred stock warrant liabilities	0	-	-	-	-	-	-	-	-	-	-	-
Revaluation of future purchase rights liabilities	(1,306)	1,128	1,471	12	-	-	-	-	-	-	-	-
Pretax income	(32,718)	(10,748)	(10,167)	(12,798)	(13,107)	(49,431)	(59,283)	(71,127)	16,852	265,592	416,878	460,474
Provision for Income Taxes	-	-	-	-	-	-	-	-	6,235	98,269	154,245	170,375
Tax Rate	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%
Net Income	(32,718)	(10,748)	(10,167)	(12,798)	(13,107)	(49,431)	(59,283)	(71,127)	10,617	167,323	262,633	290,099
Amortization of deemed dividend		(22)										
Accretion to redemption value of convert preferred		(3,048)	(6,084)									
Net Income (Non-GAAP)	(39,085)	(13,818)	(16,251)	(12,798)	(13,107)	(55,974)	(59,283)	(71,127)	10,617	167,323	262,633	290,099
GAAP EPS (Diluted)	\$ (1.55)	\$ (24.49)	\$ (0.91)	\$ (0.59)	\$ (0.60)	\$ (3.61)	\$ (2.62)	\$ (2.61)	\$ 0.39	\$ 6.13	\$ 9.63	\$ 10.63
Non-GAAP EPS (Diluted)	\$ (1.85)	\$ (24.49)	\$ (0.91)	\$ (0.59)	\$ (0.60)	\$ (3.61)	\$ (2.62)	\$ (2.61)	\$ 0.39	\$ 6.13	\$ 9.63	\$ 10.63
Basic Weighted Average Shares	21,116	564	17,889	21,759	21,759	15,493	22,636	27,278	27,278	27,278	27,278	27,278
Diluted Weighted Average Shares		564	17,889	21,759	21,759	15,493	22,636	27,278	27,278	27,278	27,278	27,278

Source: Canaccord Genuity Estimates

Figure 2: VTL Valuation

	Peak Sales	Year	Current Value	Probability	Value Per Share
US					
AILD	\$564	2021	\$867	60%	\$25
SILF	\$158	2021	\$266	25%	\$3
FHF	\$64	2021	\$109	25%	\$1
EU - Royalty					
AILD	\$90	2021	\$215	45%	\$5
SILF	\$23	2021	\$55	25%	\$1
FHF	\$9	2021	\$21	25%	\$0
Total			\$1,532		\$35
Risk Free Rate	2%				
Beta	1.45	Shares (M)			21
Risk Premium	6%				
Discount Rate	11%				

Source: Canaccord Genuity Estimates

## Appendix: Important Disclosures

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Vital Therapies - VTL:

Our price target is based on a probability adjusted NPV valuation.

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Vital Therapies - VTL:

Risks to our outlook and price target include the following: Vital Therapies' clinical studies may fail, requiring additional clinical trials and further capital; clinical trials may be terminated altogether, decreasing the overall value of the company's pipeline; competitors may attain the technology surrounding the ELAD system, increasing the likelihood of a competitive/generic product. Even if the ELAD system is approved, resulting revenues may be below investor expectations due to lack of efficacy, competition, complexity, or all three. Safety issues may also emerge after FDA approval that could limit the usage of the ELAD system, also reducing sales. Competitors could gain access to the ELAD systems technology and potentially create a competitor product. Vital Therapies' keeps much of its IP as trade secrets, creating the opportunity for competitors to poach employees for intelligence. In addition, competitors may be able to gather ELAD's technology through reverse engineering the ELAD system after appropriating it from a hospital. Congress has recently questioned high pricing for biotech drugs, which could become a trend, creating broad downward pressure across the biotech sector. Although we believe oncology drugs will receive less pricing pressure due to the seriousness of the disease, lawmakers may eventually make public calls for lower pricing.

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#### Global Stock Ratings (as of 01/12/15)

Rating	Coverage Universe		IB Clients
	#	%	%
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Hold	336	31.17%	13.10%
Sell	43	3.99%	0%
Speculative Buy	51	4.73%	58.82%
	1078*	100.0%	

\*Total includes stocks that are Under Review

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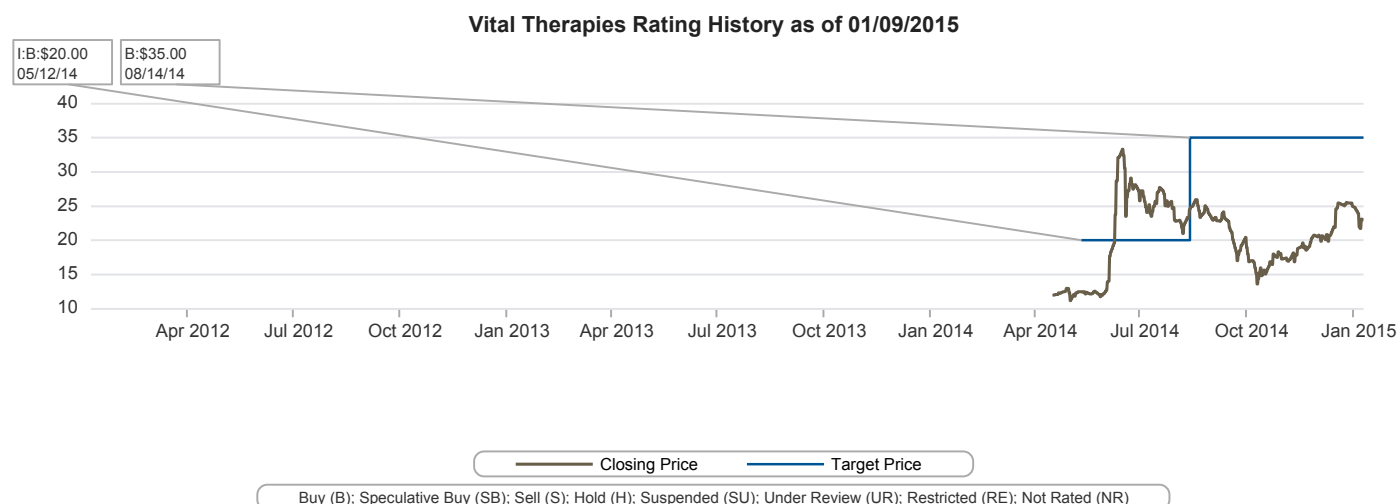
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