

## Vital Therapies

VTL : NASDAQ : US\$22.19

**BUY****Target: US\$35.00**

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### COMPANY STATISTICS:

Forecast Return: 57.7%  
 Market Cap (M): US\$469  
 52-week Range: 10.66 - 13.00  
 Avg. Daily Vol. (000s): 14.0

### EARNINGS SUMMARY:

FYE Dec		2013A	2014E	2015E
Revenue (M):	Q1	0.0	0.0A	0.0
	Q2	0.0	0.0A	0.0
	Q3	0.0	0.0	0.0
	Q4	0.0	0.0	0.0
Total		0.0	0.0	0.0
EPS:	Q1	(0.49)	(24.49)A	(0.84)
	Q2	(0.34)	(0.91)A	(0.88)
	Q3	(0.43)	(0.70)	(0.92)
	Q4	(0.59)	(0.73)	(0.97)
Total		(1.85)	(4.11)	(2.86)

### SHARE PRICE PERFORMANCE:



Source: Interactive Data Corporation

### COMPANY DESCRIPTION:

Vital Therapies is a development stage biotherapeutic company focused on developing their ELAD system for the treatment of acute liver disease and failure.

All amounts in US\$ unless otherwise noted.

### Life Sciences -- Biotechnology

## ENROLLMENT ON TRACK FOR YE14 COMPLETION, 1H15 DATA

### Investment highlights

#### VTI-208 enrollment at 75%, on track for YE14 completion

Vital has now enrolled 150/200 subjects for its Phase 3 clinical trial in alcohol-induced liver decompensation, which we view as a move forward toward completion of enrollment by YE14. We expect preliminary results to be presented in 1H15, with major upside assuming a survival benefit at 90 days.

#### Phase 3 VTI-208 clinical trial poised for success

The current Phase 3 trial for ELAD has robust inclusion / exclusion criteria, which we believe will result in a positive outcome. Unlike the Phase 2 study, the current VTI-208 study targets patients who have a regenerable liver, and patients NOT expected to die imminently. Compared to the prior Phase 2b trial showing a trend toward overall survival, we believe the refined criteria will increase the chance for a survival benefit.

#### \$1.5B market opportunity with no competition

We estimate the current market for alcohol-induced liver decompensation (AILD) at ~\$1.5B, with no competition; our peak sales estimate is only ~\$565M. Current drug therapies of steroids remain ineffective and other extracorporeal dialysis machines have not shown any improvement in survival.

## VALUATION

**Figure 1: Vital NPV valuation**

	Peak Sales	Year	Current Value	Probability	Value Per Share
<b>US</b>					
AILD	\$564	2021	\$867	60%	\$25
SILF	\$158	2021	\$267	25%	\$3
FHF	\$64	2021	\$109	25%	\$1
<b>EU - Royalty</b>					
AILD	\$90	2021	\$215	45%	\$5
SILF	\$23	2021	\$55	25%	\$1
FHF	\$9	2021	\$21	25%	\$0
<b>Total</b>			<b>\$1,533</b>		<b>\$35</b>
Risk Free Rate	2%				
Beta	1.45			Shares (M)	21
Risk Premium	6%				
Discount Rate	11%				

Source: Canaccord Genuity, Inc. estimates

8 September 2014

**Figure 2: Vital Therapies Income Statement**

(\$000's) [FY-DEC]	2013A	Mar-14A	Jun-14A	Sep-14E	Dec-14E	2014E	2015E	2016E	2017E	2018E	2019E	2020E
Revenues												
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
<b>Income Statement</b>	<b>2013A</b>	<b>Mar-14A</b>	<b>Jun-14A</b>	<b>Sep-14E</b>	<b>Dec-14E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>	<b>2017E</b>	<b>2018E</b>	<b>2019E</b>	<b>2020E</b>
Revenue												
<b>Total Revenue</b>	-	-	-	-	-	-	-	-	116,218	419,047	612,335	685,841
Cost of Revenue	-	-	-	-	-	-	-	-	17,433	62,857	91,850	102,876
<b>Gross Profit</b>	-	-	-	-	-	-	-	-	98,785	356,190	520,485	582,965
<b>Operating Expenses</b>												
Stock-based Compensation in SGA	537	202	247	260	273	982	1,235	1,482	3,225	3,566	4,078	4,821
Stock-based Compensation in R&D	411	154	247	260	273	934	1,235	1,482	1,743	1,928	2,204	2,606
Research & Development	21,376	9,219	9,125	8,845	9,287	36,476	41,521	37,045	43,582	40,480	38,577	37,790
General & Administrative	9,078	2,657	2,513	3,638	3,820	12,628	17,762	34,082	38,352	50,118	65,030	84,701
<b>Total Operating Expense</b>	<b>31,402</b>	<b>11,876</b>	<b>11,638</b>	<b>12,483</b>	<b>13,107</b>	<b>49,104</b>	<b>59,283</b>	<b>71,127</b>	<b>81,934</b>	<b>90,598</b>	<b>103,607</b>	<b>122,491</b>
EBITDA												
<b>Operating Income</b>		<b>(11,876)</b>	<b>(11,638)</b>	<b>(12,483)</b>	<b>(13,107)</b>	<b>(49,104)</b>	<b>(59,283)</b>	<b>(71,127)</b>	<b>16,852</b>	<b>265,592</b>	<b>416,878</b>	<b>460,474</b>
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	-	-	-	-	-	-	-	-	-
<b>Pretax income</b>	<b>(32,718)</b>	<b>(10,748)</b>	<b>(10,167)</b>	<b>(12,483)</b>	<b>(13,107)</b>	<b>(49,104)</b>	<b>(59,283)</b>	<b>(71,127)</b>	<b>16,852</b>	<b>265,592</b>	<b>416,878</b>	<b>460,474</b>
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%
<b>Net Income</b>	<b>(32,718)</b>	<b>(10,748)</b>	<b>(10,167)</b>	<b>(12,483)</b>	<b>(13,107)</b>	<b>(49,104)</b>	<b>(59,283)</b>	<b>(71,127)</b>	<b>10,617</b>	<b>167,323</b>	<b>262,633</b>	<b>290,099</b>
Amortization of deemed dividend		(22)										
Accretion to redemption value of convert preferred		(3,048)	(6,084)									
<b>Net Income (Non-GAAP)</b>	<b>(39,085)</b>	<b>(13,818)</b>	<b>(16,251)</b>	<b>(12,483)</b>	<b>(13,107)</b>	<b>(55,659)</b>	<b>(59,283)</b>	<b>(71,127)</b>	<b>10,617</b>	<b>167,323</b>	<b>262,633</b>	<b>290,099</b>
<b>GAAP EPS (Diluted)</b>	<b>\$ (1.55)</b>	<b>\$ (24.49)</b>	<b>\$ (0.91)</b>	<b>\$ (0.70)</b>	<b>\$ (0.73)</b>	<b>\$ (4.11)</b>	<b>\$ (2.86)</b>	<b>\$ (2.81)</b>	<b>\$ 0.42</b>	<b>\$ 6.60</b>	<b>\$ 10.36</b>	<b>\$ 11.45</b>
<b>Non-GAAP EPS (Diluted)</b>	<b>\$ (1.85)</b>	<b>\$ (24.49)</b>	<b>\$ (0.91)</b>	<b>\$ (0.70)</b>	<b>\$ (0.73)</b>	<b>\$ (4.11)</b>	<b>\$ (2.86)</b>	<b>\$ (2.81)</b>	<b>\$ 0.42</b>	<b>\$ 6.60</b>	<b>\$ 10.36</b>	<b>\$ 11.45</b>
Basic Weighted Average Shares	21,116	564	17,889	17,889	17,889	13,558	20,700	25,343	25,343	25,343	25,343	25,343
Diluted Weighted Average Shares		564	17,889	17,889	17,889	13,558	20,700	25,343	25,343	25,343	25,343	25,343

Source: Canaccord Genuity, Inc.

**Investment risks**

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.

8 September 2014

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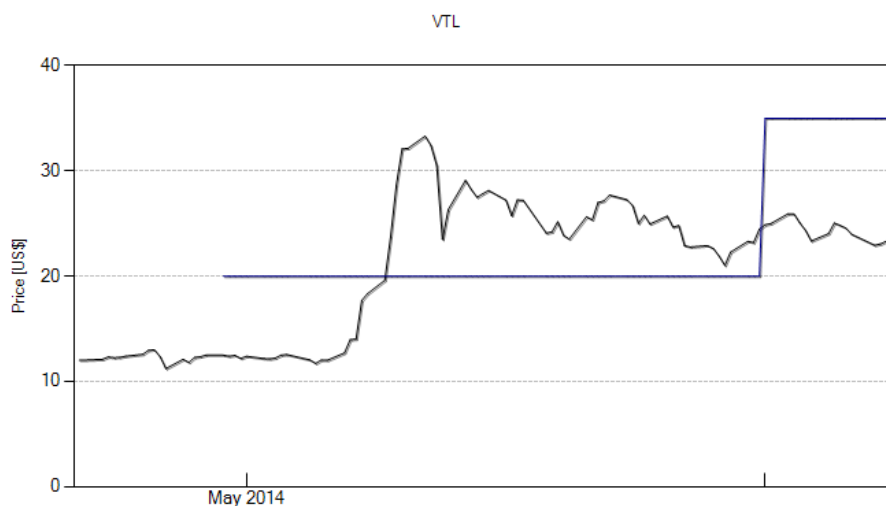
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**Site Visit:**

An analyst has not visited Vital Therapies' material operations.

**Price Chart:\***

Market Price				Target Price			
Date	Analyst	Rating	Target Price	Date	Analyst	Rating	Target Price
1) 05/12/2014	Newman	Buy	20.00	2) 08/14/2014	Newman	Buy	35.00

\*Price charts assume event 1 indicates initiation of coverage or the beginning of the measurement period.

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Global Stock Ratings  
(as of 3 July 2014)

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	#	%	
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Speculative Buy	49	5.0%	55.1%
Hold	290	29.5%	13.1%
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	984	100.0%	

\*Total includes stocks that are Under Review

8 September 2014

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