

Vital Therapies, Inc. (VTL)

Rating	OUTPERFORM* [V]
Price (09 May 14, US\$)	12.50
Target price (US\$)	16.00 ¹
52-week price range	13.00 - 11.21
Market cap. (US\$ m)	263.95
Enterprise value (US\$ m)	223.92

*Stock ratings are relative to the coverage universe in each analyst's or each team's respective sector.

¹Target price is for 12 months.

[V] = Stock considered volatile (see Disclosure Appendix).

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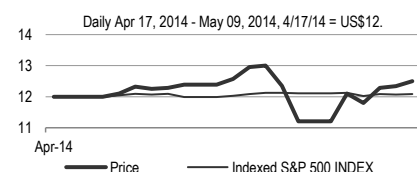
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INITIATION

Initiating at Outperform, \$16 TP

- **Promising but early data for ELAD in AILD:** VTL is developing a cell-based therapy for the treatment of alcohol-induced acute liver de-compensation (AILD). VTL's extracorporeal liver assist device (ELAD) uses immortalized human liver cancer cells housed in a machine located outside the body to take over a portion of the liver's workload which allows the liver to regenerate. Current standard of care for targeted AILD patients carries a 50% mortality rate. The ELAD has shown a numerical 20% (not statistically significant) mortality benefit vs. standard of care in small phase 2 data sets.
- **AILD opportunity \$9B in the US / Europe:** For the AILD opportunity, there are ~30K annual cases in the US & Europe. Assuming a price of \$150K per treatment, the US & Europe represent a ~\$9B AILD opportunity. There are also ~1M annual hepatitis B cases in urban China for which the ELAD has also shown promising phase 2 data. We forecast ~3%/2% of the US/Europe AILD market & 0.1% penetration of the China hepatitis B market by 2020 growing to ~6%/4%/0.2%, respectively by 2030. Our penetration assumptions imply ~\$300M/\$725M in 2020/2030 sales.
- **Key catalysts in 2015/16:** VTL expects preliminary data from its US pivotal phase 3 AILD study (VTI-208) in early 2015. Data from its VTI-210 (European pivotal AILD trial) & VTI-212 (fulminant hepatic failure trial) are expected in late 2015/early 2016. If ELAD were to show a 20% statistically significant mortality benefit in the AILD trials, this should de-risk the perceived likelihood of regulatory approval (expected in 2016 in the US/Europe) and result in valuation upside.
- **\$16 DCF-derived target price:** Our DCF-derived TP assumes a 12.5% WACC and 0% terminal growth rate. This represents a 2018 EV/sales multiple of 2.0x, which seems reasonable vs. a median multiple of 2.6x for VTL's peers (compares with VTL's current 2018 EV/sales multiple of 1.3x).
- **For our full report, please see our slide deck entitled "[Innovative Cell Therapy Could Fill Unmet Need in AILD.](#)"**

Share price performance



On 05/09/14 the S&P 500 INDEX closed at 1878.48

Quarterly EPS	Q1	Q2	Q3	Q4
2013A	—	—	—	—
2014E	-0.53	-0.52	-0.55	-0.54
2015E	-0.47	-0.40	-0.41	-0.42

Financial and valuation metrics

Year	12/13A	12/14E	12/15E	12/16E
EPS (CS adj.) (US\$)	-3.14	-2.14	-1.70	-0.53
Prev. EPS (US\$)	—	—	—	—
P/E (x)	-4.0	-5.9	-7.4	-23.8
P/E rel. (%)	-23.2	-36.7	-51.5	-185.2
Revenue (US\$ m)	—	—	—	20.1
EBITDA (US\$ m)	-30.6	-44.7	-48.3	-15.4
OCFPS (US\$)	-2.86	-1.99	-1.67	-0.66
P/OCF (x)	—	-6.3	-7.5	-18.8
EV/EBITDA (current)	-7.4	-5.0	-3.6	-12.7
Net debt (US\$ m)	-38	-40	-91	-69
ROIC (%)	-971.60	-3,007.36	-2,269.70	-192.66
Number of shares (m)	21.12	IC (current, US\$ m)	3.23	
BV/share (Next Qtr., US\$)	—	EV/IC (x)	150.3	
Net debt (Next Qtr., US\$ m)	-28.7	Dividend (current, US\$)	—	
Net debt/tot eq (Next Qtr., %)	-94.8	Dividend yield (%)	—	

Source: Company data, Credit Suisse estimates.

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Companies Mentioned (Price as of 09-May-2014)

Carmat (ALCAR.PA, €86.47)
HeartWare International Inc (HTWR.OQ, \$93.46)
Intercept (ICPT.OQ, \$235.37)
Natixis (CNAT.PA, €5.047)
PTC Therapeutics, Inc (PTCT.OQ, \$16.96)
Prothena Corp (PRTA.OQ, \$19.38)
Raptor Pharmactl (RPTP.OQ, \$7.83)
Thoratec Corp. (THOR.OQ, \$31.65)
Vital Therapies, Inc. (VTL.OQ, \$12.5, OUTPERFORM[V], TP \$16.0)
bluebird bio (BLUE.OQ, \$18.24)

Disclosure Appendix

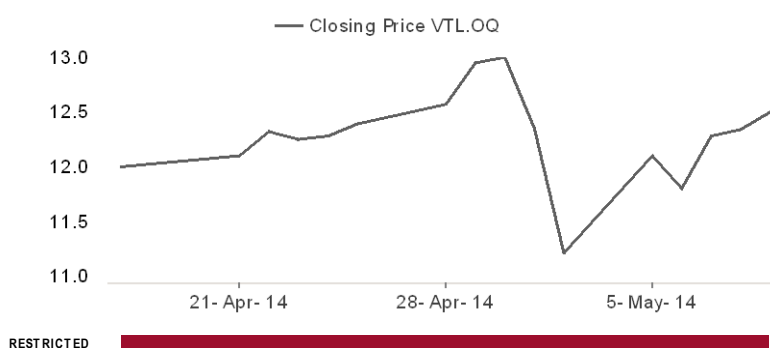
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3-Year Price and Rating History for Vital Therapies, Inc. (VTL.OQ)

VTL.OQ	Closing Price	Target Price	
Date	(US\$)	(US\$)	Rating
07-Apr-14			R

* Asterisk signifies initiation or assumption of coverage.



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Underperform/Sell*	13%	(44% banking clients)
Restricted	3%	

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Price Target: (12 months) for Vital Therapies, Inc. (VTL.OQ)

Method: Our \$16 DCF-derived price target is based on a 13.5% WACC and a 0% terminal growth rate.

Risk: Risks to our \$16 price target are: (1) a large, clean dataset does not yet exist, and while early data are encouraging, the ultimate clinical benefit of the ELAD system is yet to be proven; (2) ultimate pricing of the system is likely dependent on the mortality benefit demonstrated in VTL's ongoing phase 3 trial; (3) VTL will likely need additional financing prior to commercialization; (4) approval process in China is opaque; and (5) VTL's IP could ultimately afford exclusivity for a shorter period of time than we anticipate.

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See the Companies Mentioned section for full company names

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Credit Suisse has managed or co-managed a public offering of securities for the subject company (VTL.OQ) within the past 12 months.

Credit Suisse has received investment banking related compensation from the subject company (VTL.OQ) within the past 12 months

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