Zacks Small-Cap Research

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CytoSorbents Corporation (CTSO-NASDAQ)

CTSO: REFRESH I Reports No Safety Concerns

Based on our 10-year DCF model, which uses a 13% discount rate to account for certain risks and uncertainties that CytoSorbents faces, and a 2% terminal growth rate, the shares are valued at approximately $12.50.

OUTLOOK

We expect to see accelerating product sales growth as well as more strides on the operational front. In addition to Fresenius coming online, expansion into other geographic territories (in addition to those detailed by Fresenius), an expected continued regular flow of clinical data (including that from the patient registry as well as REFRESH I), potential additional production gains from the direct sales force, sales through Biocon could also accelerate further. And the cardiac-surgery channel also holds significantly potential. Consummation of a partnering agreement could further this opportunity.

Current Price (10/05/16)	$6.40
Valuation	**$12.50**

SUMMARY DATA

52-Week High	**$8.10**
52-Week Low	**$3.11**
One-Year Return (%)	**4.21**
Beta	**-0.05**
Average Daily Volume (sh)	**73,476**
Shares Outstanding (mil)	**25**
Market Capitalization ($mil)	**$163**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**7**
Insider Ownership (%)	**4**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**58.2**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2016 Estimate	**N/A**
P/E using 2017 Estimate	**N/A**
Zacks Rank	**N/A**

Risk Level	**Above Avg.,**
Type of Stock	**Small-Growth**
Industry	**Med Products**

ZACKS ESTIMATES

Revenue
(in '000 of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2015	723 A	964 A	1344 A	1761 A	4792 A
2016	1810 A	2222 A	2615 E	3006 E	9653 E
2017					15974 E
2018					22334 E

Earnings per Share

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2015	-0.19 A	0.06 A	-0.11 A	-0.08 A	-0.33 A
2016	-0.08 A	-0.12 A	-0.11 E	-0.10 E	-0.40 E
2017					-0.31 E
2018					-0.19 E

Zacks Projected EPS Growth Rate - Next 5 Years % **N/A**

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REFRESH I reports no safety concerns: *Trial is complete, plasma-free hemoglobin data "are promising"…*

This morning (Oct 5th) CytoSorbents announced that the DSMB found "no safety concerns" related to CytoSorb after reviewing all reported adverse events of the 46 enrolled patients in REFRESH I. The therapy was considered feasible, well tolerated and a seamless fit into the cardiopulmonary bypass workflow and equipment incorporated during cardiac surgery. We view as obviously a positive development as it gets CTSO closer to the next step of moving into the larger REFRESH II study.

As a reminder, REFRESH I was an 8-site, randomized, U.S. safety and feasibility study assessing CytoSorb during complex cardiac surgery and where cardiopulmonary bypass was expected to be used for at least three hours. Patients were randomized to either CytoSorb installed or not installed in the bypass circuit during surgery.

With the primary safety endpoint now satisfied, the focus will be on biomarker data, including plasma-free hemoglobin, filtered from blood by the CytoSorb cartridge. CTSO's Chief Medical Officer notes in today's press release that "the data on plasma free hemoglobin are promising and are pending review by the cardiac surgery advisory board and trial investigators." The safety and 'efficacy' data will be used to support filing for IDE for the larger REFRESH II study – we expect to hear more about the data from REFRESH I and expected timing for discussions with FDA regarding IDE submission in the near-term. CTSO notes that they currently anticipate initiating REFRESH II early next year.

FINANCIAL MODEL

CytoSorbents Inc.

	2015 A	Q1A	Q2A	Q3E	Q4E	2016 E	2017 E	2018 E	2019 E
CytoSorb Sales	$4,043.8	$1,597.4	$1,852.7	$2,199.8	$2,580.8	$8,230.6	$14,848.0	$22,134.0	$27,252.0
y-o-y growth	*29.0%*	*127.0%*	*139.6%*	*105.3%*	*72.6%*	*103.5%*	*80.4%*	*49.1%*	*23.1%*
Total Royalties/Grants/Other	$747.8	$212.7	$369.7	$415.0	$425.0	$1,422.4	$1,126.0	$200.0	$0.0
y-o-y growth	*-24.3%*	*995.7%*	*93.7%*	*52.5%*	*60.1%*	*90.2%*	*-20.8%*	*-82.2%*	-
Revenue	$4,791.7	$1,810.2	$2,222.3	$2,614.8	$3,005.8	$9,653.0	$15,974.0	$22,334.0	$27,252.0
YOY Growth	*16.2%*	*150.3%*	*130.5%*	*94.6%*	*70.7%*	*101.5%*	*65.5%*	*39.8%*	*22.0%*
Cost of Goods Sold	$2,212.6	$819.5	$873.3	$1,206.9	$1,354.1	$4,253.7	$6,471.3	$8,047.6	$9,538.2
Gross Income	$2,579.1	$990.7	$1,349.1	$1,407.8	$1,651.7	$5,399.3	$9,502.7	$14,286.4	$17,713.8
Gross Margin	*53.8%*	*54.7%*	*60.7%*	*53.8%*	*55.0%*	*55.9%*	*59.5%*	*64.0%*	*65.0%*
SG&A	$8,011.9	$2,224.7	$2,944.4	$2,963.0	$3,105.6	$11,237.6	$13,078.4	$14,497.8	$16,187.7
SG&A % of Prod Sales	*198.1%*	*139.3%*	*158.9%*	*134.7%*	*120.3%*	*136.5%*	*88.1%*	*65.5%*	*59.4%*
R&D	$3,871.1	$856.1	$1,092.1	$1,218.0	$1,308.0	$4,474.2	$5,751.0	$5,866.0	$6,120.0
R&D % Tot Sales	*80.8%*	*47.3%*	*49.1%*	*46.6%*	*43.5%*	*46.4%*	*36.0%*	*26.3%*	*22.5%*
Operating Income	($9,303.9)	($2,090.1)	($2,687.4)	($2,773.2)	($2,761.9)	($10,312.5)	($9,326.7)	($6,077.3)	($4,593.9)
Operating Margin	-	-	-	-	-	-	-	-	-
Total Other Expense	($847.3)	($253.8)	$317.9	($90.0)	($92.5)	($118.4)	($612.2)	($526.5)	($266.0)
Pre-Tax Income	($8,456.6)	($1,836.3)	($3,005.2)	($2,683.2)	($2,669.4)	($10,194.1)	($8,714.5)	($5,550.9)	($4,327.9)
Taxes (benefit)	($324.6)	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Tax Rate	*3.8%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Preferred Dividend	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Net Income	($8,132.0)	($1,836.3)	($3,005.2)	($2,683.2)	($2,669.4)	($10,194.1)	($8,714.5)	($5,550.9)	($4,327.9)
Net Margin	*-169.7%*	*-101.4%*	*-135.2%*	*-102.6%*	*-88.8%*	*-105.6%*	*-54.6%*	*-24.9%*	*-15.9%*
EPS	($0.33)	($0.08)	($0.12)	($0.11)	($0.10)	($0.40)	($0.31)	($0.19)	($0.14)
YOY Growth	-	-	-	-	-				
Diluted Shares O/S	24,886	24,401	25,416	25,430	25,500	25,187	28,200	29,400	29,900

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