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CytoSorbents Corporation (NASDAQ/CTSO)

December 28, 2023

BUY: STAR-T Trial Update: Mixed Data. Increasing Our Risk (r) from 15% to 30%, Lowers Our Price Target from \$10 to \$4

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The independent DSMB met recently to perform the final review of the full unblinded data on all 140 patients in the STAR-T trial and concluded there were no issues with device safety, meeting the primary safety endpoint of the study. The company has also performed the initial data analysis on the primary effectiveness endpoint of STAR-T. Based on this analysis, the study did not meet the primary effectiveness endpoint in the overall patient population that underwent different types of cardiac surgeries.

However, the study did demonstrate evidence of reduced bleeding complications in patients in the pre-specified isolated coronary artery bypass graft surgery population, representing more than 90% of the overall study population.

Based on the mixed results we feel Cytosorb is an approvable product however we feel it's prudent to raise our risk rating from 15% to 30% which drives our price target down from \$10 to \$4.

Investment Highlights

The independent DSMB met recently to perform the final review of the full unblinded data on all 140 patients in the STAR-T trial and concluded there were no issues with device safety, meeting the primary safety endpoint of the study. The company has also performed the initial data analysis on the primary effectiveness endpoint of STAR-T.

- Based on this analysis, **the study did not meet the primary effectiveness endpoint in the overall patient population** that underwent different types of cardiac surgeries.
- However, **the study did demonstrate evidence of reduced bleeding complications in patients in the pre-specified isolated coronary artery bypass graft surgery population**, representing more than 90% of the overall study population. As a result, we remain believers that Cytosorb is an approvable product however we feel it's prudent to raise our risk from 15% to 30%.

Valuation: We use a series of therapeutic models across the various indications and geographies and project product revenues for the Company out to the year 2030. In our U.S. therapeutic models, we apply a 30% risk cut (70% success probability) that both U.S. approvals and our market share forecasts can be realized. For us, valuation becomes an interesting question when we discuss the appropriate "r" risk rate to use in our three-model metrics, free cash flow to the Firm (FCFF), Discounted EPS, and Sum-Of-The-Parts (SOP) models, which are equal-weighted, averaged, and rounded to the nearest whole number. We increase our risk rate from 15% to 30% risk which lowers our price target from \$10 to \$4.

Risks to our price target include: market, regulatory, financial, and commercialization risks.

Current Price \$1.63
Price Target \$4.00



Source: CytoSorbents

Stock Data

52-Week Range	\$1.06	-	\$4.59
Shares Outstanding (mil.)	52.2		
Market Capitalization (mil.)	\$85		
Enterprise Value (mil.)	\$65		
Debt to Capital	0%		
Book Value/Share	\$0.35		
Price/Book	1.9		
Average Three Months Trading Volume (K)	107		
Insider Ownership	13.9%		
Institutional Ownership	35.7%		
Short interest (mil.)	3.6%		
Dividend / Yield	\$0.00/0.0%		

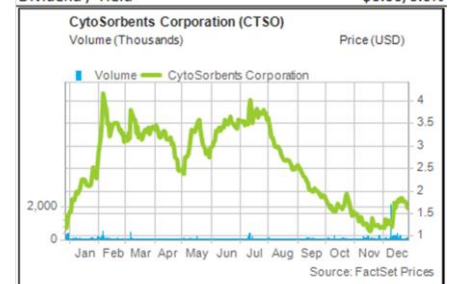


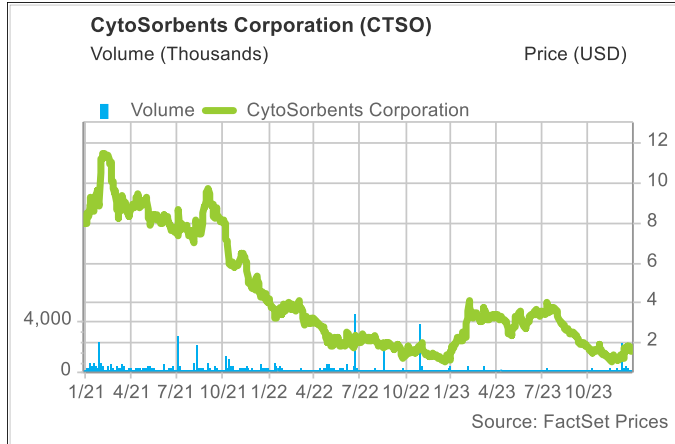
Exhibit 1. Income Statement

CTSO.: Income Statement (\$000)																
YE December 31	2019A	2020A	2021A	2022A	1Q23A	2Q23A	3Q23A	4Q23E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenue:																
CytoSorb Direct Sales (Germany, Austria, Switzerland)	22,766	25,607	29,354	17,573	5,910	5,920	5,609	5,600	23,039	23,500	25,850	58,030	67,713	79,013	92,198	92,198
CytoSorb Distributor (Rest of EU)		10,240	10,498	11,000	1,000	1,050	1,000	1,000	4,050	4,330	4,763	21,490	25,001	29,085	33,837	33,837
CytoSorb (Cardiac surgery EU)		3,420			1,000	1,102	1,100	1,000	4,202			16,589	16,705	16,822	16,940	16,940
CytoSorb (Cardiac surgery US)		-	-	-	-	-	-	-	-	-	27,593	66,755	67,290	67,829	68,373	68,373
CytoSorb (other US)		-	-	-	-	-	-	-	-	-	-	10,000	20,000	30,000	70,000	80,000
VetResQ		185	194													
Other Sales				787		7	45									
Total Product Sales	22,766	39,452	40,047	29,360	7,910	8,072	7,754	7,600	31,291	27,830	58,206	172,864	196,709	222,750	281,348	291,348
Royalty (HemoDefend US)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grant revenue	2,184	1,552	3,062	5,328	1,539	1,348	1,056		3,943							
Other revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Revenue	24,950	41,004	43,109	34,689	9,449	9,421	8,810	7,600	35,234	27,830	58,206	172,864	196,709	222,750	281,348	291,348
Expenses:																
Costs of Goods Sold	7,364	11,052	11,047	13,956	3,994	3,402	3,203	2,744	13,343	5,566	11,641	34,573	39,342	44,550	56,270	58,270
	%COGS	25%	28%	32%	20%	36%	36%	36%	36%	20%	20%	20%	20%	20%	20%	20%
Research and Development	12,092	8,810	16,380	15,119	4,214	3,668	3,749	4,490	16,631	18,294	20,123	22,136	24,349	26,784	29,462	32,409
	%R&D	53%	22%	41%	51%	53%	45%	48%	53%	68%	35%	13%	12%	12%	10%	11%
Selling, General and Administrative	22,006	28,463	35,749	34,288	8,463	7,723	8,104	9,443	34,974	35,673	36,387	37,115	37,857	38,614	39,386	40,174
	%SG&A	97%	72%	89%	117%	107%	96%	105%	124%	112%	63%	21%	19%	17%	14%	14%
Legal, financial and other counseling	2,462	3,048	2,731	2,848	669	1,185	1,103	769	2,848	2,848	2,848	2,848	2,848	2,848	2,848	2,848
Total Expenses	43,924	51,373	65,907	66,211	17,340	15,978	16,159	17,447	67,796	62,381	70,999	96,671	104,396	112,796	127,966	133,700
Operating Income (Loss)	(18,974)	(10,369)	(22,799)	(31,522)	(7,891)	(6,559)	(7,350)	(9,847)	(32,562)	(34,551)	(12,793)	76,193	92,314	109,954	153,382	157,648
Interest income (expense), net																
Gain (loss) on foreign currency transactions	(1,384)	(1,201)	2	133												
Change in warrant liability		2,607	(2,569)	(2,449)												
Other income (expense), net				(67)												
Total Other Income	(1,384)	1,406	(2,567)	(2,383)	566	406	(1,843)	-	-	-	-	-	-	-	-	-
Pretax Income	(20,358)	(8,964)	(25,366)	(33,905)	(7,326)	(6,153)	(9,193)	(9,847)	(32,562)	(34,551)	(12,793)	76,193	92,314	109,954	153,382	157,648
Fx				1,804												
Income Tax Benefit (Provision)	1,092	1,127	(2,537)	1,095	-	-	-	-	-	-	-	11,429	18,463	28,588	50,616	52,024
Tax Rate	5%	8%	10%	12%	15%	15%	15%	15%	15%	0%	0%	15%	20%	26%	33%	33%
GAAP Net Income (Loss)	(19,266)	(7,837)	(22,829)	(31,009)	(7,326)	(6,153)	(9,193)	(9,847)	(32,562)	(34,551)	(12,793)	64,764	73,851	81,366	102,766	105,624
GAAP-EPS	(0.62)	(0.20)	(0.57)	(0.71)	(0.17)	(0.14)	(0.21)	(0.22)	(0.74)	(0.78)	(0.29)	1.44	1.64	1.80	2.26	2.32
GAAP-EPS (Dil)	(0.60)	(0.20)	(0.53)	(0.71)	(0.17)	(0.14)	(0.21)	(0.22)	(0.74)	(0.78)	(0.29)	1.44	1.64	1.80	2.26	2.32
Wgtd Avg Shrs (Bas) - '000s	32,253	38,819	43,358	43,636	43,676	44,015	44,373	44,417	44,120	44,529	44,707	44,886	45,066	45,246	45,428	45,610
Wgtd Avg Shrs (Dil) - '000s	32,253	38,819	43,358	43,636	43,676	44,015	44,373	44,417	44,120	44,529	44,707	44,886	45,066	45,246	45,428	45,610

Source: Company reports and Dawson James

Important Disclosures:

Price Chart:



Price target and rating changes over the past three-plus years:

- Update – Buy – January 12, 2021 – Price Target \$16.00
- Update – Buy – January 19, 2021 – Price Target \$16.00
- Update – Buy – April 20, 2021 – Price Target \$16.00
- Update – Buy – May 6, 2021 – Price Target \$16.00
- Update – Buy – July 6, 2021 – Price Target \$16.00
- Update – Buy – September 1, 2021 – Price Target \$16.00
- Update – Buy – October 15, 2021 – Price Target \$16.00
- Update – Buy – November 9, 2021 – Price Target \$16.00
- Update – Buy – November 22, 2021 – Price Target \$16.00
- Update – Buy – January 18, 2022 – Price Target \$16.00
- Update – Buy – March 9, 2022 – Price Target \$16.00
- Update – Buy – April 29, 2022 – Price Target \$16.00
- Update – Buy – May 4, 2022 – Price Target \$16.00
- Update – Buy – August 3, 2022 – Price Target \$16.00
- Update – Buy – August 17, 2022 – Price Target \$16.00
- Update – Buy – October 6, 2022 – Price Target \$16.00
- Update – Buy – November 4, 2022 – Price Target \$16.00
- Update – Buy – November 15, 2022 – Price Target \$16.00
- Update – Buy – December 29, 2022 – Price Target \$16.00
- Update – Buy – January 24, 2023 – Price Target \$16.00
- Update – Buy – February 1, 2023 – Price Target \$16.00
- Update – Buy – March 10, 2023 – Price Target \$16.00
- Update – Buy – April 20, 2023 – Price Target \$16.00
- Update – Buy – May 3, 2023 – Price Target \$16.00
- Update – Buy – June 16, 2023 – Price Target \$16.00
- Update – Buy – July 7, 2023 – Price Target \$16.00
- Update – Buy – August 2, 2023 – Price Target \$16.00
- Update – Buy – September 16, 2023 – Price Target \$16.00
- Price Target Change – Buy – November 15, 2023 – Price Target \$10.00
- Update – Buy – December 14, 2023 – Price Target \$10.00
- Price Target Change – Buy – December 28, 2023 – Price Target \$4

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- 2) **Neutral:** The analyst believes the price of the stock is fairly valued for the next 12-18 months;
- 3) **Sell:** The analyst believes the price of the stock will decline by at least 20% over the next 12-18 months and should be sold.

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Current as of 14-Dec-23

	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	21	61.76%	4	11.80%
Market Perform (Neutral)	13	38.24%	2	5.90%
Market Underperform (Sell)	0	0%	0	0.00%
Total	34	100%	6	17.70%

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