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## CytoSorbents Corporation (NASDAQ/CTSO)

March 10, 2023

### BUY: Reports 4<sup>th</sup> Quarter and Full Year 2022 Results

*CytoSorbents reported full year 2022 results, in-line with previously pre-released numbers. Total revenues were \$35M in a challenging year. The company spent \$34M in SG&A and \$15M in R&D supporting the STAR trials. We remain believers in CytoSorb and see the clinical work as the key driver to lead US revenues in the future.*

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### Investment Highlights

**Recent Quarter's Results:** Recall that CytoSorbents had pre-announced 4Q22 revenues. Total Q4 Revenues were approximately \$9.4 million versus \$8.1 in the prior quarter. Q4 2022 Product Sales were approximately \$7.6 million, up 18% sequentially from \$6.5 million in Q3 2022. **The Company closed the year with \$22M in cash on the balance sheet.** Management is prioritizing the U.S. STAR-T study.

**STAR-T & STAR-D:** The Company has initiated two FDA-approved pivotal trials designed to support U.S. marketing approval of DrugSorb-ATR. The first, which is now prioritized, is the 120-patient, 30-center STAR-T (Safe and Timely Antithrombotic Removal-Ticagrelor) randomized, controlled trial evaluating the ability of intraoperative DrugSorb-ATR use to reduce perioperative bleeding risk in patients on ticagrelor undergoing cardiothoracic surgery.

**START-T Update:** Patient enrollment in STAR-T reached 40 enrolled patients. Management expects to reach the second milestone of 80 patients enrolled this spring, which will trigger the next unblinded data review by the DSMB, and to complete enrollment of all 120 patients this summer, with database lock and topline data expected shortly thereafter. If positive, FDA and Health Canada regulatory submissions are planned upon the completion of the trial.

**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. Typically for early-stage companies with no revenues, we use 30%, and for companies with established products and revenues, we use a lower 15%. CytoSorbents arguably is somewhere in the middle, as products are approved and selling in Europe but not yet in the U.S. If we select a conservative 30%, we derive a \$9.00 price target. If we choose a more aggressive 15%, we arrive at a \$26.00 target. We select 25% to balance risk versus reward to derive a \$16.00 target.

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

Current Price \$3.58  
Price Target \$16.00



Source: Cytosorbents

#### Stock Data

52-Week Range	\$1.03	-	\$4.59
Shares Outstanding (mil.)	43.7		
Market Capitalization (mil.)	\$156		
Enterprise Value (mil.)	\$137		
Debt to Capital	0%		
Book Value/Share	\$0.35		
Price/Book	1.9		
Average Three Months Trading Volume (K)	63		
Insider Ownership	12.4%		
Institutional Ownership	35.8%		
Short interest (mil.)	1.5%		
Dividend / Yield	\$0.00/0.0%		



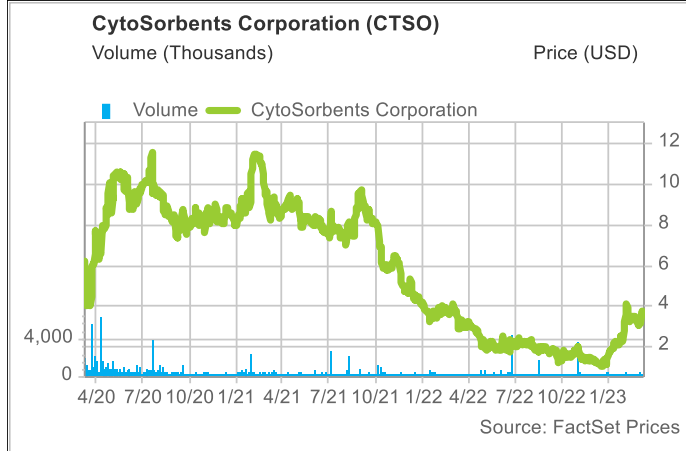
**Exhibit 1. Income Statement**

CTSO.: Income Statement (\$000)																
YE December 31	2019A	2020A	2021A	1Q22A	2Q22A	3Q22A	4Q22A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
<b>Revenue:</b>																
CytoSorb Direct Sales (Germany, Austria, Switzerland)	22,766	25,607	29,354	6,066	5,489	5,218	6,468	23,241	31,046	42,620	49,732	58,030	67,713	79,013	92,198	92,198
CytoSorb Distributor (Rest of EU)		10,240	10,498	1,800	1,500	1,200	1,200	5,700	13,649	15,878	18,472	21,490	25,001	29,085	33,837	33,837
CytoSorb (Cardiac surgery EU)		3,420							11,604	14,022	16,474	16,589	16,705	16,822	16,940	16,940
CytoSorb (Cardiac surgery US)		-	-	-	-	-	-	-	-	21,899	27,593	66,755	67,290	67,829	68,373	68,373
CytoSorb (other US)										38,459	78,231	190,960	283,238	395,071	602,722	602,722
VetResQ		185	194	58	49	45	55	207	217	228	239					
Other Sales					293	191	100	584								
<b>Total Product Sales</b>	<b>22,766</b>	<b>39,452</b>	<b>40,047</b>	<b>7,924</b>	<b>7,331</b>	<b>6,463</b>	<b>7,823</b>	<b>29,540</b>	<b>56,515</b>	<b>133,106</b>	<b>190,741</b>	<b>353,824</b>	<b>459,947</b>	<b>587,820</b>	<b>814,070</b>	<b>814,070</b>
Royalty (HemoDefend US)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grant revenue	2,184	1,552	3,062	767	1,164	1,649	1,748	5,328	-	-	-	-	-	-	-	-
Other revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Revenue</b>	<b>24,950</b>	<b>41,004</b>	<b>43,109</b>	<b>8,691</b>	<b>8,495</b>	<b>8,111</b>	<b>9,392</b>	<b>34,689</b>	<b>56,515</b>	<b>133,106</b>	<b>190,741</b>	<b>353,824</b>	<b>459,947</b>	<b>587,820</b>	<b>814,070</b>	<b>814,070</b>
<b>Expenses:</b>																
Costs of Goods Sold	7,364	11,052	11,047	2,278	3,551	4,494	3,633	13,956	11,303	26,621	38,148	70,765	91,989	117,564	162,814	162,814
	%COGS	25%	28%	20%	48%	55%	46%	46%	20%	20%	20%	20%	20%	20%	20%	20%
Research and Development	12,092	8,810	16,380	4,243	4,183	3,290	3,402	15,119	16,631	18,294	20,123	22,136	24,349	26,784	29,462	32,409
	%R&D	53%	22%	41%	54%	57%	43%	51%	29%	14%	11%	6%	5%	5%	4%	4%
Selling, General and Administrative	22,006	28,463	35,749	9,161	8,439	8,735	7,953	34,288	34,974	35,673	36,387	37,115	37,857	38,614	39,386	40,174
	%SG&A	97%	72%	89%	116%	115%	102%	116%	62%	27%	19%	10%	8%	7%	5%	5%
Legal, financial and other counseling	2,462	3,048	2,731	801	679	610	759	2,848	2,848	2,848	2,848	2,848	2,848	2,848	2,848	2,848
<b>Total Expenses</b>	<b>43,924</b>	<b>51,373</b>	<b>65,907</b>	<b>16,483</b>	<b>16,852</b>	<b>17,129</b>	<b>15,747</b>	<b>66,211</b>	<b>65,756</b>	<b>83,436</b>	<b>97,506</b>	<b>132,863</b>	<b>157,043</b>	<b>185,810</b>	<b>234,511</b>	<b>238,245</b>
Operating Income (Loss)	(18,974)	(10,369)	(22,799)	(7,792)	(8,357)	(9,017)	(6,355)	(31,522)	(9,240)	49,670	93,235	220,961	302,904	402,010	579,559	575,825
Interest income (expense), net																
Gain (loss) on foreign currency transactions	(1,384)	(1,201)	2	8	24	47	54	133								
Change in warrant liability		2,607	(2,569)	30	(2,523)	(3,230)	3,275	(2,449)								
Other income (expense), net				(1,213)	(23)	(0)	1,169	(67)								
<b>Total Other Income</b>	<b>(1,384)</b>	<b>1,406</b>	<b>(2,567)</b>	<b>(1,175)</b>	<b>(2,522)</b>	<b>(3,184)</b>	<b>4,498</b>	<b>(2,383)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Pretax Income</b>	<b>(20,358)</b>	<b>(8,964)</b>	<b>(25,366)</b>	<b>(8,967)</b>	<b>(10,880)</b>	<b>(12,201)</b>	<b>(1,857)</b>	<b>(33,905)</b>	<b>(9,240)</b>	<b>49,670</b>	<b>93,235</b>	<b>220,961</b>	<b>302,904</b>	<b>402,010</b>	<b>579,559</b>	<b>575,825</b>
Fx							1,804	1,804								
Income Tax Benefit (Provision)	1,092	1,127	(2,537)				1,095	1,095		8,941	19,579	53,031	84,813	132,663	191,255	190,022
<b>Tax Rate</b>	<b>5%</b>	<b>8%</b>	<b>10%</b>	<b>12%</b>	<b>12%</b>	<b>12%</b>	<b>12%</b>	<b>12%</b>	<b>15%</b>	<b>18%</b>	<b>21%</b>	<b>24%</b>	<b>28%</b>	<b>33%</b>	<b>33%</b>	<b>33%</b>
<b>GAAP Net Income (Loss)</b>	<b>(19,266)</b>	<b>(7,837)</b>	<b>(22,829)</b>	<b>(8,967)</b>	<b>(10,880)</b>	<b>(12,201)</b>	<b>1,039</b>	<b>(31,009)</b>	<b>(9,240)</b>	<b>40,729</b>	<b>73,656</b>	<b>167,931</b>	<b>218,091</b>	<b>269,347</b>	<b>388,305</b>	<b>385,803</b>
<b>GAAP-EPS</b>	<b>(0.62)</b>	<b>(0.20)</b>	<b>(0.57)</b>	<b>(0.21)</b>	<b>(0.25)</b>	<b>(0.28)</b>	<b>0.03</b>	<b>(0.71)</b>	<b>(0.21)</b>	<b>0.93</b>	<b>1.67</b>	<b>3.79</b>	<b>4.90</b>	<b>6.03</b>	<b>8.66</b>	<b>8.57</b>
GAAP-EPS (Dil)	(0.60)	(0.20)	(0.53)	(0.21)	(0.25)	(0.28)	0.03	(0.71)	(0.21)	0.93	1.67	3.79	4.90	6.03	8.66	8.57
Wgtd Avg Shrs (Bas) - '000s	32,253	38,819	43,358	43,488	43,560	43,607	43,651	43,636	43,760	43,935	44,111	44,288	44,465	44,643	44,822	45,002
Wgtd Avg Shrs (Dil) - '000s	32,253	38,819	43,358	43,488	43,560	43,607	43,651	43,636	43,760	43,935	44,111	44,288	44,465	44,643	44,822	45,002

Source: Dawson James

**Important Disclosures:**

**Price Chart:**



Price target and rating changes over the past three years:

- Initiated – Buy – July 11, 2019 – Price Target \$15.00
- Update – Buy – August 12, 2019 – Price Target \$15.00
- Update – Buy – August 15, 2019 – Price Target \$15.00
- Update – Buy – August 19, 2019 – Price Target \$15.00
- Update – Buy – November 6, 2019 – Price Target \$15.00
- Update – Buy – February 19, 2020 – Price Target \$15.00
- Price Target Increase – Buy – March 9, 2020 – Price Target \$17.00
- Update – Buy – March 25, 2020 – Price Target \$17.00
- Update – Buy – April 13, 2020 – Price Target \$17.00
- Update – Buy – May 6, 2020 – Price Target \$17.00
- Update – Buy – June 9, 2020 – Price Target \$17.00
- Update – Buy – July 31, 2020 – Price Target \$15.00
- Update – Buy – August 12, 2020 – Price Target \$16.00
- Update – Buy – September 16, 2020 – Price Target \$16.00
- Update – Buy – October 14, 2020 – Price Target \$16.00
- Update – Buy – November 5, 2020 – Price Target \$16.00
- Update – Buy – December 2, 2020 – Price Target \$16.00
- 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

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- 2) **Neutral:** The analyst believes the price of the stock is fairly valued for the next 12-18 months;
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Current as of 3-Mar-23

	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	24	69%	1	3%
Market Perform (Neutral)	11	31%	2	6%
Market Underperform (Sell)	0	0%	0	0%
Total	35	100%	3	9%

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