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Toll-Free: 866-928-0928 ♦ www.DawsonJames.com ♦ 101 North Federal Highway - Suite 600 ♦ Boca Raton, FL 33432

## CytoSorbents Corporation (NASDAQ/CTSO)

July 7, 2023

### BUY: CytoSorbents Completes Enrollment of the STAR-T Pivotal Trial

**Jason H. Kolbert**  
Managing Director & Senior Analyst  
jkolbert@dawsonjames.com

*CytoSorbents announced that it has completed enrollment of the pivotal Safe and Timely Antithrombotic Removal - Ticagrelor (STAR-T) randomized, controlled trial, evaluating the ability of DrugSorb-ATR to reduce perioperative bleeding in patients undergoing cardiothoracic surgery on ticagrelor.*

### Investment Highlights

**About START-T:** This is an n=120 randomized, controlled trial across 30 centers being conducted in both the U.S. and Canada that is designed to evaluate the ability of DrugSorb-ATR to reduce perioperative bleeding by removing the antithrombotic agent, ticagrelor, in patients undergoing cardiothoracic surgery. Brilinta is one of the leading “blood thinners” used as part of dual-antiplatelet therapy in patients suspected of having a heart attack. But if the patient is one of the up to 10% that need to undergo coronary artery bypass graft (CABG) or other open-heart surgery, the risk of major fatal or life-threatening CABG-related bleeding can be as high as 50-65%, particularly if the surgery is performed within several days of the last Brilinta dose. Waiting in the hospital to wash out the drug is the only acceptable alternative, but this comes at a high cost and potential clinical risk. The goal of DrugSorb-ATR is to allow patients to get the critical surgery they need without delay, while reducing or preventing this bleeding risk by actively removing the drug during the surgery. DrugSorb-ATR has received FDA Breakthrough Device Designation for this indication.

**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 \$12.00 price target. If we choose a more aggressive 15%, we arrive at a \$34.00 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.

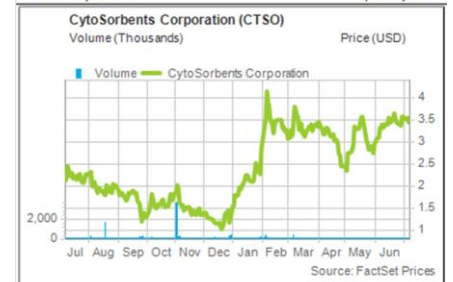
Current Price \$3.46  
Price Target \$16.00



Source: Cytosorbents

#### Stock Data

52-Week Range	\$1.03	-	\$4.59
Shares Outstanding (mil.)	44.0		
Market Capitalization (mil.)	\$152		
Enterprise Value (mil.)	\$132		
Debt to Capital	0%		
Book Value/Share	\$0.35		
Price/Book	1.9		
Average Three Months Trading Volume (K)	89		
Insider Ownership	12.6%		
Institutional Ownership	36.6%		
Short interest (mil.)	1.9%		
Dividend / Yield	\$0.00/0.0%		



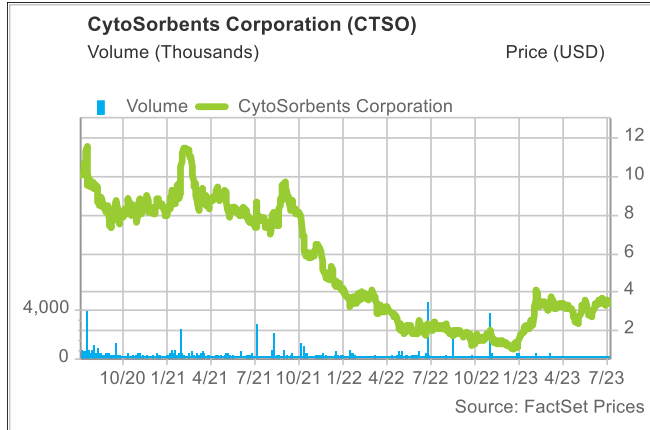
**Exhibit 1. Income Statement**

CTSO.: Income Statement (\$000)																
YE December 31	2019A	2020A	2021A	2022A	1Q23A	2Q23E	3Q23E	4Q23E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
<b>Revenue:</b>																
CytoSorb Direct Sales (Germany, Austria, Switzerland)	22,766	25,607	29,354	17,573	5,910	7,451	8,072	8,383	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	11,000	1,000	3,276	3,549	3,685	13,649	15,878	18,472	21,490	25,001	29,085	33,837	33,837
CytoSorb (Cardiac surgery EU)	-	3,420	-	-	1,000	2,785	3,017	3,133	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	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Sales	-	-	-	787	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Product Sales</b>	<b>22,766</b>	<b>39,452</b>	<b>40,047</b>	<b>29,360</b>	<b>7,910</b>	<b>13,512</b>	<b>14,638</b>	<b>15,201</b>	<b>56,299</b>	<b>132,878</b>	<b>190,502</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	5,328	1,539	-	-	-	1,539	-	-	-	-	-	-	-
Other revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Revenue</b>	<b>24,950</b>	<b>41,004</b>	<b>43,109</b>	<b>34,689</b>	<b>9,449</b>	<b>13,512</b>	<b>14,638</b>	<b>15,201</b>	<b>57,838</b>	<b>132,878</b>	<b>190,502</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	13,956	3,994	2,702	2,928	3,040	12,664	26,576	38,100	70,765	91,989	117,564	162,814	162,814
	%COGS	25%	28%	32%	48%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Research and Development	12,092	8,810	16,380	15,119	4,214	3,991	4,324	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%	30%	30%	30%	14%	11%	6%	5%	5%	4%	4%
Selling, General and Administrative	22,006	28,463	35,749	34,288	8,463	8,394	9,093	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%	62%	62%	62%	27%	19%	10%	8%	7%	5%	5%
Legal, financial and other counseling	2,462	3,048	2,731	2,848	669	683	740	769	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>66,211</b>	<b>17,340</b>	<b>15,771</b>	<b>17,085</b>	<b>17,742</b>	<b>67,117</b>	<b>83,391</b>	<b>97,458</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)	(31,522)	(7,891)	(2,259)	(2,448)	(2,542)	(9,279)	49,488	93,044	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	133	-	-	-	-	-	-	-	-	-	-	-	-
Change in warrant liability	-	2,607	(2,569)	(2,449)	-	-	-	-	-	-	-	-	-	-	-	-
Other income (expense), net	-	-	-	(67)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Other Income</b>	<b>(1,384)</b>	<b>1,406</b>	<b>(2,567)</b>	<b>(2,383)</b>	<b>566</b>	<b>-</b>	<b>-</b>	<b>-</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>(33,905)</b>	<b>(7,326)</b>	<b>(2,259)</b>	<b>(2,448)</b>	<b>(2,542)</b>	<b>(9,279)</b>	<b>49,488</b>	<b>93,044</b>	<b>220,961</b>	<b>302,904</b>	<b>402,010</b>	<b>579,559</b>	<b>575,825</b>
Fx	-	-	-	1,804	-	-	-	-	-	-	-	-	-	-	-	-
Income Tax Benefit (Provision)	1,092	1,127	(2,537)	1,095	-	(339)	(367)	(381)	-	8,908	19,539	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>15%</b>	<b>15%</b>	<b>15%</b>	<b>15%</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>(31,009)</b>	<b>(7,326)</b>	<b>(1,920)</b>	<b>(2,080)</b>	<b>(2,160)</b>	<b>(9,279)</b>	<b>40,580</b>	<b>73,505</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>(0.71)</b>	<b>(0.17)</b>	<b>(0.04)</b>	<b>(0.05)</b>	<b>(0.05)</b>	<b>(0.21)</b>	<b>0.92</b>	<b>1.67</b>	<b>3.79</b>	<b>4.91</b>	<b>6.04</b>	<b>8.67</b>	<b>8.58</b>
GAAP-EPS (Dil)	(0.60)	(0.20)	(0.53)	(0.71)	(0.17)	(0.04)	(0.05)	(0.05)	(0.21)	0.92	1.67	3.79	4.91	6.04	8.67	8.58
Wgtd Avg Shrs (Bas) - '000s	32,253	38,819	43,358	43,636	43,676	43,720	43,763	43,807	43,742	43,917	44,093	44,269	44,447	44,625	44,804	44,983
Wgtd Avg Shrs (Dil) - '000s	32,253	38,819	43,358	43,636	43,676	43,720	43,763	43,807	43,742	43,917	44,093	44,269	44,447	44,625	44,804	44,983

Source: Dawson James

**Important Disclosures:**

**Price Chart:**



Price target and rating changes over the past three plus 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
- 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

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Current as of 22-Jun-23

	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	26	72%	2	5.50%
Market Perform (Neutral)	10	28%	2	5.50%
Market Underperform (Sell)	0	0%	0	0.00%
Total	36	100%	4	11.00%

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