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## CytoSorbents Corporation (NASDAQ/CTSO)

October 15, 2021

### BUY: Guides to Lower Q3, Use Weakness to Buy

*CytoSorbents stock is down sharply after guiding to lower Q3 revenues as a result of fewer Covid hospitalized patients. For the most part, we see this as a non-event and would use weakness to build our positions. Why? Covid was never the story, nor the driver. Near term revenues are nice but the real opportunity is in the current clinical applications. On that front, the company received the green light to begin the STAR-D trial (removal of antithrombotics).*

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### Investment Highlights

**3Q21 Guidance (press release):** Total revenue, including product sales and grant income, for Q3 2021 was \$9.7 million, down 8% compared to \$10.5 million in Q3 2020. Q3 2021 CytoSorb product sales were \$8.9 million, down 13% compared to \$10.2 million in Q3 2020. Q3 2021 product sales in Germany are estimated to be \$3.7 million, a decrease of \$1.1 million or 24%, from product sales of \$4.8 million in Germany in Q3 2020. Core non-COVID-19 product sales for Q3 2021 were approximately \$7.8 million, up 4% from approximately \$7.5 million in Q3 2020. Estimated product sales related to COVID-19 were \$1.1 million in Q3 2021 versus approximately \$2.7 million in Q3 2020. The Company has a strong cash balance of \$61.0 million at September 30, 2021 and no debt.

**IDE Approval (& first patient enrolled) in the STAR-D Trial:** CytoSorbents received full approval of its Investigational Device Exemption (IDE) application by the FDA to conduct the pivotal STAR-D (Safe and Timely Antithrombotic Removal – Direct Oral Anticoagulants [DOAC]) double-blind, randomized, controlled trial in the United States to support FDA marketing approval. This is being performed under the previously announced FDA Breakthrough Device Designation granted to the DrugSorb-ATR™ Antithrombotic Removal System for the removal of apixaban (Eliquis®, Bristol-Myers-Squibb/Pfizer) and rivaroxaban (Xarelto®, Janssen/Bayer) in a cardiopulmonary bypass circuit to reduce the likelihood of serious perioperative bleeding in urgent cardiothoracic surgery.

**About STAR:** The STAR-T trial received full FDA IDE Approval in July 2021, and is being performed under the auspices of FDA Breakthrough Designation granted in April 2020. The STAR-T trial is expected to enroll up to 120 patients across 20 sites and be completed by 2022. The first patient was enrolled by Dr. Bradley S. Taylor, Chief of the Division of Cardiac Surgery and Director of Coronary Revascularization and site Principal Investigator at the University of Maryland Medical Center.

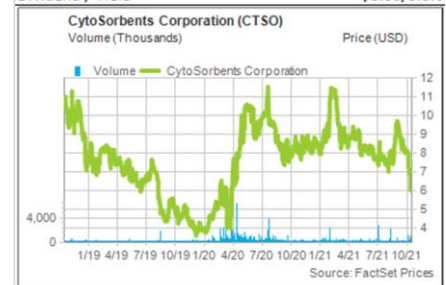
**Valuation.** We use a series of therapeutic models across the various indications and geographies and project product revenues for the Company out to the year 2030. In our U.S. therapeutic models, we apply a 30% risk cut (70% success probability) that both U.S. approvals and our market share forecasts 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 select 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.



Source: CytoSorbents

Current Price			
Current Price			\$5.99
Price Target			
Price Target			\$16.00
<b>Stock Data</b>			
52-Week Range	\$5.95	-	\$11.68
Shares Outstanding (mil.)	43.4		
Market Capitalization (mil.)	\$260		
Enterprise Value (mil.)	\$240		
Debt to Capital	0%		
Book Value/Share	\$0.35		
Price/Book	4.3		
Average Three Months Trading Volume (K)	151		
Insider Ownership	11.7%		
Institutional Ownership	43.7%		
Short interest (mil.)	4.4%		
Dividend / Yield	\$0.00/0.0%		



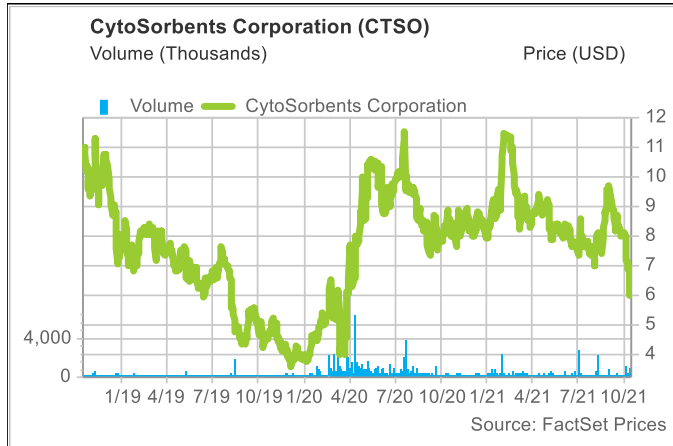
**Exhibit 1. Income Statement**

CISO: Income Statement (\$000)																								
YE December 31	2019A	1Q20A	2Q20A	3Q20A	4Q20A	2020A	1Q21A	2Q21A	3Q21E	4Q21E	2021E	1Q22E	2Q22E	3Q22E	4Q22E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
<b>Revenue:</b>																								
CytoSorb Direct Sales (Germany, Austria, Switzerland)	22,766	5,050	5,500	6,930	8,127	25,607	7,000	8,214	6,000	6,000	27,214	9,391	9,799	10,616	11,024	40,829	55,237	84,070	99,520	115,405	131,735	148,520	150,699	150,699
CytoSorb Distributor (Rest of EU)		2,350	2,800	2,497	2,593	10,240	3,098	3,100	3,700	1,500	11,398	3,103	3,238	3,508	3,643	13,492	27,297	41,422	55,871	70,651	85,766	86,763	87,771	87,771
CytoSorb (Cardiac surgery EU)		710	1,160	780	770	3,420	-	-	-	-	-	2,120	2,212	2,397	2,489	9,218	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 (sepsis US)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	187,755	200,508	223,353	246,919	271,225	271,225
VerResQ		45	60	39	41	185	45	46	46	52	194	47	49	53	55	204	214	225	236	-	-	-	-	-
Other Sales		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Product Sales</b>	<b>22,766</b>	<b>8,155</b>	<b>9,520</b>	<b>10,246</b>	<b>11,531</b>	<b>39,452</b>	<b>10,143</b>	<b>11,360</b>	<b>9,746</b>	<b>7,552</b>	<b>38,806</b>	<b>14,661</b>	<b>15,298</b>	<b>16,573</b>	<b>17,211</b>	<b>63,743</b>	<b>139,728</b>	<b>253,939</b>	<b>387,449</b>	<b>469,908</b>	<b>524,849</b>	<b>566,853</b>	<b>595,008</b>	<b>595,008</b>
Royalty (HemoDefend US)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grant revenue	2,184	551	275	301	425	1,552	455	664	664	-	1,783	-	-	-	-	-	-	-	-	-	-	-	-	-
Other revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Revenue</b>	<b>24,950</b>	<b>8,706</b>	<b>9,795</b>	<b>10,547</b>	<b>11,956</b>	<b>41,004</b>	<b>10,598</b>	<b>12,024</b>	<b>10,410</b>	<b>7,552</b>	<b>40,590</b>	<b>14,661</b>	<b>15,298</b>	<b>16,573</b>	<b>17,211</b>	<b>63,743</b>	<b>139,728</b>	<b>253,939</b>	<b>387,449</b>	<b>469,908</b>	<b>524,849</b>	<b>566,853</b>	<b>595,008</b>	<b>595,008</b>
<b>Expenses:</b>																								
Costs of Goods Sold	7,364	2,385	3,250	2,890	2,527	11,052	2,751	2,710	2,710	2,049	10,220	2,932	3,060	3,315	3,442	12,749	27,946	50,788	77,490	93,982	104,970	113,371	119,002	119,002
	<b>%COGS</b>	<b>25%</b>	<b>29%</b>	<b>20%</b>	<b>28%</b>	<b>28%</b>	<b>27%</b>	<b>27%</b>	<b>27%</b>	<b>27%</b>	<b>27%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>
Research and Development	12,092	1,965	2,406	1,753	2,685	8,810	2,282	3,699	3,699	2,617	9,691	2,452	2,558	2,772	2,878	10,660	11,726	12,898	14,188	15,607	17,168	18,885	20,773	22,850
	<b>%R&amp;D</b>	<b>53%</b>	<b>24%</b>	<b>25%</b>	<b>17%</b>	<b>23%</b>	<b>22%</b>	<b>33%</b>	<b>38%</b>	<b>35%</b>	<b>25%</b>	<b>17%</b>	<b>17%</b>	<b>17%</b>	<b>17%</b>	<b>17%</b>	<b>8%</b>	<b>5%</b>	<b>4%</b>	<b>3%</b>	<b>3%</b>	<b>3%</b>	<b>3%</b>	<b>4%</b>
Selling, General and Administrative	22,006	6,317	6,591	7,282	8,273	28,463	7,710	9,821	9,821	8,838	32,733	8,281	8,641	9,362	9,722	36,006	36,726	37,461	38,210	38,974	39,753	40,549	41,360	42,187
	<b>%SG&amp;A</b>	<b>97%</b>	<b>77%</b>	<b>69%</b>	<b>71%</b>	<b>72%</b>	<b>76%</b>	<b>86%</b>	<b>101%</b>	<b>117%</b>	<b>84%</b>	<b>58%</b>	<b>58%</b>	<b>56%</b>	<b>56%</b>	<b>56%</b>	<b>26%</b>	<b>15%</b>	<b>10%</b>	<b>8%</b>	<b>8%</b>	<b>7%</b>	<b>7%</b>	<b>7%</b>
Legal, financial and other counseling	2,462	519	846	580	1,103	3,048	708	717	717	823	3,048	701	732	792	823	3,048	3,048	3,048	3,048	3,048	3,048	3,048	3,048	3,048
<b>Total Expenses</b>	<b>43,924</b>	<b>11,186</b>	<b>13,093</b>	<b>12,506</b>	<b>14,588</b>	<b>51,373</b>	<b>13,451</b>	<b>16,947</b>	<b>16,947</b>	<b>14,326</b>	<b>55,692</b>	<b>14,366</b>	<b>14,991</b>	<b>16,240</b>	<b>16,865</b>	<b>62,462</b>	<b>79,445</b>	<b>104,195</b>	<b>132,936</b>	<b>151,611</b>	<b>164,939</b>	<b>175,852</b>	<b>184,182</b>	<b>187,086</b>
Operating income (Loss)	(18,974)	(2,480)	(3,298)	(1,960)	(2,632)	(10,369)	(2,853)	(4,923)	(6,537)	(6,774)	(15,102)	295	307	333	346	1,281	60,283	149,745	254,513	318,297	359,910	391,002	410,826	407,921
Interest income (expense), net	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain (loss) on foreign currency transactions	(1,384)	(668)	(274)	(261)	2	(1,201)	(10)	(13)	(13)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Change in warrant liability	-	(306)	-	1,381	1,532	2,607	(1,306)	243	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other income (expense), net	-	-	705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Other Income</b>	<b>(1,384)</b>	<b>(974)</b>	<b>431</b>	<b>1,120</b>	<b>1,534</b>	<b>1,406</b>	<b>(1,316)</b>	<b>247</b>	<b>247</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</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>(3,454)</b>	<b>(2,867)</b>	<b>(840)</b>	<b>(1,803)</b>	<b>(8,964)</b>	<b>(4,168)</b>	<b>(4,676)</b>	<b>(6,290)</b>	<b>(6,774)</b>	<b>(15,102)</b>	<b>295</b>	<b>307</b>	<b>333</b>	<b>346</b>	<b>1,281</b>	<b>60,283</b>	<b>149,745</b>	<b>254,513</b>	<b>318,297</b>	<b>359,910</b>	<b>391,002</b>	<b>410,826</b>	<b>407,921</b>
Income Tax Benefit (Provision)	1,992	-	-	-	1,127	1,127	-	-	-	(677)	(1,510)	35	37	40	41	154	9,042	26,954	53,448	76,391	100,775	129,031	135,573	134,614
<b>Tax Rate</b>	<b>5%</b>	<b>8%</b>	<b>8%</b>	<b>8%</b>	<b>8%</b>	<b>8%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>10%</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>(3,454)</b>	<b>(2,867)</b>	<b>(840)</b>	<b>(2,930)</b>	<b>(7,837)</b>	<b>(4,168)</b>	<b>(4,676)</b>	<b>(6,290)</b>	<b>(6,096)</b>	<b>(13,592)</b>	<b>259</b>	<b>270</b>	<b>293</b>	<b>304</b>	<b>1,127</b>	<b>51,240</b>	<b>122,791</b>	<b>201,066</b>	<b>241,906</b>	<b>259,135</b>	<b>261,971</b>	<b>275,253</b>	<b>273,307</b>
<b>GAAP-EPS</b>	<b>(0.62)</b>	<b>(0.10)</b>	<b>(0.08)</b>	<b>(0.02)</b>	<b>0.00</b>	<b>(0.20)</b>	<b>(0.10)</b>	<b>(0.11)</b>	<b>(0.15)</b>	<b>(0.14)</b>	<b>(0.49)</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.03</b>	<b>1.17</b>	<b>2.80</b>	<b>4.57</b>	<b>5.48</b>	<b>5.48</b>	<b>5.84</b>	<b>5.88</b>	<b>6.16</b>
GAAP-EPS (Dil)	(0.60)	(0.10)	(0.08)	(0.02)	(0.00)	(0.20)	(0.10)	(0.11)	(0.15)	(0.14)	(0.31)	0.01	0.01	0.01	0.01	0.03	1.17	2.80	4.57	5.48	5.84	5.88	6.16	6.09
Wtd Avg Shrs (Bas) - '000s	32,253	33,981	36,483	41,593	41,635	38,819	43,243	43,317	43,317	43,360	43,309	43,404	43,447	43,491	43,534	43,469	43,643	43,818	43,993	44,170	44,247	44,524	44,703	44,882
Wtd Avg Shrs (Dil) - '000s	32,253	33,981	36,483	41,593	41,635	38,819	43,243	43,317	43,317	43,360	43,309	43,404	43,447	43,491	43,534	43,469	43,643	43,818	43,993	44,170	44,247	44,524	44,703	44,882

Source: Dawson James estimates and company reports

**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

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- 1) **Buy:** The analyst believes the price of the stock will appreciate and produce a total return of at least 20% over the next 12-18 months;
- 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.

The following chart reflects the range of current research report ratings for all companies followed by the analysts of the Firm. The chart also reflects the research report ratings relating to those companies for which the Firm has performed investment banking services.

Current as of 10/15/21	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	25	69%	4	16%
Market Perform (Neutral)	11	31%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Total	36	100%	4	11%

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