

Member FINRA/SIPC

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

CytoSorbents Corporation (NASDAQ/CTSO)

April 20, 2023

BUY: STAR-T Trial Reaches 2nd Milestone at N=80

CytoSorbents announces that the pivotal STAR-T (Safe and Timely Antithrombotic Removal - Ticagrelor) randomized, controlled trial has enrolled 80 patients, achieved the second of three key enrollment milestones, and triggered a pre-specified Data and Safety Monitoring board (DSMB) safety review.

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

Investment Highlights

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.

STAR-T Update: Patient enrollment in STAR-T has now reached 80 enrolled patients, which now triggers the next unblinded data review by the DSMB. Next step: Complete the enrollment of all 120 patients; (this summer), which sets the stage for the 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 \$3.04
Price Target \$16.00



Source: CytoSorbents

Stock Data

52-Week Range	\$1.03	-	\$4.59
Shares Outstanding (mil.)	43.7		
Market Capitalization (mil.)	\$133		
Enterprise Value (mil.)	\$113		
Debt to Capital	0%		
Book Value/Share	\$0.35		
Price/Book	1.9		
Average Three Months Trading Volume (K)	51		
Insider Ownership	12.4%		
Institutional Ownership	35.8%		
Short interest (mil.)	1.5%		
Dividend / Yield	\$0.00/0.0%		



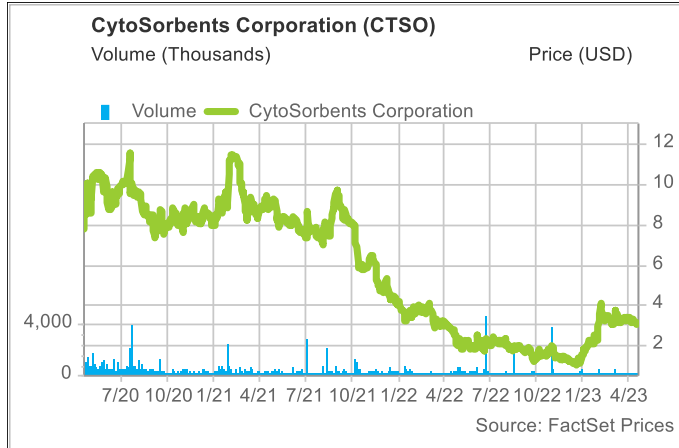
Exhibit 1. Income Statement

CTSO.: Income Statement (\$000)																
YE December 31	2019A	2020A	2021A	1Q22A	2Q22A	3Q22A	4Q22A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenue:																
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								
Total Product Sales	22,766	39,452	40,047	7,924	7,331	6,463	7,823	29,540	56,515	133,106	190,741	353,824	459,947	587,820	814,070	814,070
Royalty (HemoDefend US)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grant revenue	2,184	1,552	3,062	767	1,164	1,649	1,748	5,328	-	-	-	-	-	-	-	-
Other revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Revenue	24,950	41,004	43,109	8,691	8,495	8,111	9,392	34,689	56,515	133,106	190,741	353,824	459,947	587,820	814,070	814,070
Expenses:																
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
Total Expenses	43,924	51,373	65,907	16,483	16,852	17,129	15,747	66,211	65,756	83,436	97,506	132,863	157,043	185,810	234,511	238,245
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)								
Total Other Income	(1,384)	1,406	(2,567)	(1,175)	(2,522)	(3,184)	4,498	(2,383)	-	-	-	-	-	-	-	-
Pretax Income	(20,358)	(8,964)	(25,366)	(8,967)	(10,880)	(12,201)	(1,857)	(33,905)	(9,240)	49,670	93,235	220,961	302,904	402,010	579,559	575,825
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
Tax Rate	5%	8%	10%	12%	12%	12%	12%	12%	15%	18%	21%	24%	28%	33%	33%	33%
GAAP Net Income (Loss)	(19,266)	(7,837)	(22,829)	(8,967)	(10,880)	(12,201)	1,039	(31,009)	(9,240)	40,729	73,656	167,931	218,091	269,347	388,305	385,803
GAAP-EPS	(0.62)	(0.20)	(0.57)	(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
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
- Update – Buy – April 20, 2023 – Price Target \$16.00

Dawson James Securities, Inc. (the "Firm") is a member of the Financial Industry Regulatory Authority ("FINRA") and the Securities Investor Protection Corporation ("SIPC").

The Firm does not make a market in the securities of the subject Company (s). The Firm has NOT engaged in investment banking relationships with CTSO in the prior twelve months, as a manager or co-manager of a public offering and has NOT received compensation resulting from those relationships. The Firm may seek compensation for investment banking services in the future from the subject Company (s). The Firm has received other compensation from the subject Company (s) in the last 12 months for services unrelated to managing or co-managing of a public offering.

Neither the research analyst(s) whose name appears on this report nor any member of his (their) household is an officer, director or advisory board member of these companies. The Firm and/or its directors and employees may own securities of the Company (s) in this report and may increase or decrease holdings in the future. As of April 17, 2023, the Firm as a whole did not beneficially own 1% or more of any class of common equity securities of the subject company(s) of this report. The Firm, its officers, directors, analysts or employees may affect transactions in and have long or short positions in the securities (or options or warrants related to those securities) of the Company (s) subject to this report. The Firm may affect transactions as principal or agent in those securities.

Analysts receive no direct compensation in connection with the Firm's investment banking business. All Firm employees, including the analyst(s) responsible for preparing this report, may be eligible to receive non-product or service-specific monetary bonus compensation that is based upon various factors, including total revenues of the Firm and its affiliates as well as a portion of the proceeds from a broad pool of investment vehicles consisting of components of the compensation generated by investment banking activities, including but not limited to shares of stock and/or warrants, which may or may not include the securities referenced in this report.

Although the statements in this report have been obtained from and are based upon recognized statistical services, issuer reports or communications, or other sources that the Firm believes to be reliable, we cannot guarantee their accuracy. All opinions and estimates included in this report constitute the analyst's judgment as of the date of this report and are subject to change without notice.

The securities of the Company discussed in this report may be unsuitable for investors depending on their specific investment objectives and financial position. This report is offered for informational purposes only and does not constitute an offer or solicitation to buy or sell any securities discussed herein in any jurisdiction where such would be prohibited. Additional information is available upon request.

Rating Definitions:

- 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 17-Apr-23

	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	25	69%	2	6%
Market Perform (Neutral)	11	31%	1	3%
Market Underperform (Sell)	0	0%	0	0%
Total	36	100%	3	9%

Analyst Certification:

The analyst(s) whose name appears on this research report certifies that 1) all of the views expressed in this report accurately reflect his (their) personal views about any and all of the subject securities or issuers discussed; and 2) no part of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst in this research report; and 3) all Dawson James employees, including the analyst(s) responsible for preparing this research report, may be eligible to receive non-product or service-specific monetary bonus compensation that is based upon various factors, including total revenues of Dawson James and its affiliates as well as a portion of the proceeds from a broad pool of investment vehicles consisting of components of the compensation generated by investment banking activities, including but not limited to shares of stock and/or warrants, which may or may not include the securities referenced in this report.