

Member FINRA/SIPC

Toll-Free: 561-391-5555 ♦ www.DawsonJames.com ♦ 101 North Federal Highway - Suite 600 ♦ Boca Raton, FL 33432

CytoSorbents Corporation (NASDAQ/CTSO)

July 6, 2021

BUY: CytoSorbents STAR Shines Bright

CytoSorbents Receives Full FDA Approval of Investigational Device Exemption (IDE) for U.S. STAR-T Trial on Ticagrelor Removal During Cardiothoracic Surgery

Jason H. Kolbert
Senior Healthcare Analyst
646-465-6891
jkolbert@dawsonjames.com

Investment Highlights

A STAR is Born. CytoSorbents announces the full approval of its Investigational Device Exemption (IDE) application to conduct the pivotal STAR-T (Safe and Timely Antithrombotic Removal – Ticagrelor) double-blind, randomized, controlled trial (RCT) in the U.S. to support FDA regulatory clearance. This study is being performed under the previously announced Breakthrough Designation granted for the removal of ticagrelor in a cardiopulmonary bypass circuit during urgent and emergent cardiothoracic surgery with CytoSorbents's proprietary polymer adsorption technology. The company has already identified and pre-screened many high-quality U.S. clinical centers that have indicated strong interest in participating in the STAR-T trial.

Breakthrough Device Designation. Last year, the FDA granted the breakthrough designation to remove ticagrelor during cardiothoracic surgery, recognizing the unmet medical need. Each year, ticagrelor is prescribed to millions of cardiovascular patients worldwide to reduce the risk of recurrent heart attack, stroke, or cardiovascular death. Ticagrelor is frequently preferred as first-line therapy in patients presenting to hospitals with an acute coronary syndrome in preparation of percutaneous coronary intervention (PCI) and stent placement. As many as ten percent of patients will require coronary artery bypass graft (CABG) open heart surgery. As several clinical studies, such as the PLATO trial, have shown, they face a very high risk of severe or life-threatening perioperative bleeding.

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 a mid-point (22.5%) to derive a \$16.00 target, which reflects the revised share count from the recent capital raise.

Risks. Market risks, Regulatory risks, Financial risks, and Commercialization risks.



Source: Cytosorbents

Current Price	\$7.35
Price Target	\$16.00
Stock Data	
52-Week Range	\$7.13 - \$11.74
Shares Outstanding (mil.)	43.3
Market Capitalization (mil.)	\$318
Enterprise Value (mil.)	\$299
Debt to Capital	0%
Book Value/Share	\$0.35
Price/Book	4.3
Average Three Months Trading Volume (K)	220
Insider Ownership	11.7%
Institutional Ownership	43.3%
Short interest (mil.)	4.9%
Dividend / Yield	\$0.00/0.0%

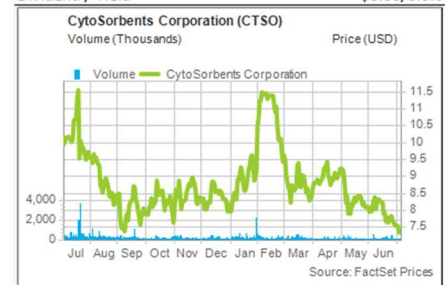


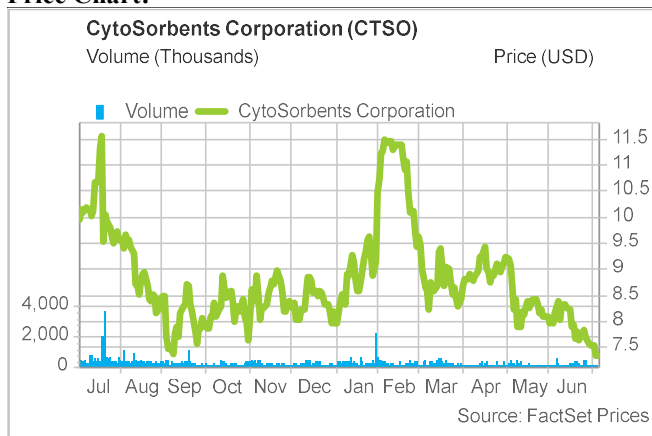
Exhibit 1. Income Statement

CTSO.: Income Statement (\$000)																
YE December 31	2019A	2020A	1Q21A	2Q21E	3Q21E	4Q21E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenue:																
CytoSorb Direct Sales (Germany, Austria, Switzerland)	22,766	25,607	7,000	9,657	10,462	10,865	40,239	54,439	69,046	84,070	99,520	115,405	131,735	148,520	150,699	150,699
CytoSorb Distributor (Rest of EU)		10,240	3,098	3,201	3,467	3,601	13,336	21,587	27,297	41,422	55,871	70,651	85,766	86,763	87,771	87,771
CytoSorb (Cardiac surgery EU)		3,420		1,648	1,785	1,854	6,866	9,218	11,604	14,022	16,474	16,589	16,705	16,822	16,940	16,940
CytoSorb (Cardiac surgery US)		-	-	-	-	-	-	-	16,294	21,899	27,593	66,755	67,290	67,829	68,373	68,373
CytoSorb (sepsis US)			2,106	2,281	2,369		8,773	17,846	45,376	92,302	187,755	200,508	223,353	246,919	271,225	271,225
VetResQ		185	45		51	52	194	204	214	225	236					
Other Sales																
Total Product Sales	22,766	39,452	10,143	16,658	18,046	18,740	69,409	103,293	169,831	253,939	387,449	469,908	524,849	566,853	595,008	595,008
Royalty (HemoDefend US)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grant revenue	2,184	1,552	455				455									
Other revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Revenue	24,950	41,004	10,598	16,658	18,046	18,740	69,864	103,293	169,831	253,939	387,449	469,908	524,849	566,853	595,008	595,008
Expenses:																
Costs of Goods Sold	7,364	11,052	2,751	4,519	4,895	5,084	17,250	20,659	33,966	50,788	77,490	93,982	104,970	113,371	119,002	119,002
%COGS	25%	28%	27%	27%	27%	27%	27%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Research and Development	12,092	8,810	2,282	2,326	2,520	2,617	9,691	10,660	11,726	12,898	14,188	15,607	17,168	18,885	20,773	22,850
%R&D	53%	22%	22%	14%	14%	14%	14%	10%	7%	5%	4%	3%	3%	3%	3%	4%
Selling, General and Administrative	22,006	28,463	7,710	7,856	8,510	8,838	32,733	36,006	36,726	37,461	38,210	38,974	39,753	40,549	41,360	42,187
%SG&A	97%	72%	76%	47%	47%	47%	47%	35%	22%	15%	10%	8%	8%	7%	7%	7%
Legal, financial and other counseling	2,462	3,048	708	732	792	823	3,048	3,048	3,048	3,048	3,048	3,048	3,048	3,048	3,048	3,048
Total Expenses	43,924	51,373	13,451	15,432	16,718	17,361	62,962	70,372	85,466	104,195	132,936	151,611	164,939	175,852	184,182	187,086
Operating Income (Loss)	(18,974)	(10,369)	(2,853)	1,226	1,328	1,379	6,902	32,921	84,365	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)	(1,201)	(10)													
Change in warrant liability		2,607	(1,306)													
Other income (expense), net																
Total Other Income	(1,384)	1,406	(1,316)	-	-	-	-	-	-	-	-	-	-	-	-	-
Pretax Income	(20,358)	(8,964)	(4,168)	1,226	1,328	1,379	6,902	32,921	84,365	149,745	254,513	318,297	359,910	391,002	410,826	407,921
Income Tax Benefit (Provision)	1,092	1,127	-	123	133	138	690	3,951	12,655	26,954	53,448	76,391	100,775	129,031	135,573	134,614
Tax Rate	5%	8%	10%	10%	10%	10%	10%	12%	15%	18%	21%	24%	28%	33%	33%	33%
GAAP Net Income (Loss)	(19,266)	(7,837)	(4,168)	1,103	1,195	1,241	6,212	28,970	71,710	122,791	201,066	241,906	259,135	261,971	275,253	273,307
GAAP-EPS	(0.62)	(0.20)	(0.10)	0.03	0.03	0.03	(0.01)	0.67	1.64	2.80	4.57	5.48	5.84	5.88	6.16	6.09
GAAP-EPS (Dil)	(0.60)	(0.20)	(0.10)	0.03	0.03	0.03	0.14	0.67	1.64	2.80	4.57	5.48	5.84	5.88	6.16	6.09
Wgtd Avg Shrs (Bas) - '000s	32,253	38,819	43,243	43,286	43,329	43,373	43,308	43,481	43,655	43,830	44,006	44,182	44,359	44,537	44,715	44,894
Wgtd Avg Shrs (Dil) - '000s	32,253	38,819	43,243	43,286	43,329	43,373	43,308	43,481	43,655	43,830	44,006	44,182	44,359	44,537	44,715	44,894

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

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 June 30, 2021, 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.

Information about valuation methods and risks can be found in the "VALUATION" and "RISKS" sections of this report.

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.

As of: 30-Jun-21

	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	24	71%	4	17%
Market Perform (Neutral)	10	29%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Total	34	100%	4	12%

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.