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## CytoSorbents Corporation (NASDAQ/CTSO)

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### BUY: Reports 2<sup>nd</sup> Quarter – Signs Global Marketing Agreement with Fresenius

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*CytoSorbents reported 2Q22 results with \$8.5M in revenues, translating into a loss of about the same amount (\$10.8M), but stay focused not on the current revenues but on the potential for the company to get CytoSorb approved and commercialized in the U.S. The company closed the period with ~\$31M in cash.*

### Investment Highlights

**Second Quarter Results:** Revenues of \$8.5M (Product sales were \$7.3M) were down sequentially from the prior period and, as was true last quarter according to the company, reflect the impact of declining COVID patients.

**Signs a Deal with Fresenius:** The company announced yesterday the signing of an expanded global marketing agreement with Fresenius Medical Care where CytoSorb will become a featured blood purification therapy on Fresenius Medical Care Critical Care platforms.

**Enrollment Update:** U.S. STAR-T and STAR-D clinical trials – (press release): “*These trials remain our top clinical priority with each trial now having a critical mass of more than 20 centers active and screening for enrollment. As we expand to 30 sites for each trial, recently approved by the FDA, the majority of our operational plans, resources, and focus have shifted from study start-up activities (Phase I) to activities driving enrollment (Phase II). For our lead study STAR-T, enrollment continues and we are targeting the first Data Safety Monitoring Board (DSMB) review at 40 patients enrolled, expected to be achieved with a slight delay in the next few months. STAR-D is underway also, with the rapid activation of trial sites.*”

**Why has the stock pulled back?** It may be related to Covid. Perhaps it is based upon the perception that Covid would accelerate sales of CytoSorb, contrasted with the reality that Omicron is looking more like Nature’s vaccine and will drive the pandemic to its endemic stage. We remain focused on progress with the STAR trials.

**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.



Source: Cytosorbents

| Current Price                           |        |   |             |
|---|--------|---|-------------|
| Current Price                           |        |   | \$2.34      |
| Price Target                            |        |   |             |
| Price Target                            |        |   | \$16.00     |
| Stock Data                              |        |   |             |
| 52-Week Range                           | \$1.69 | - | \$9.80      |
| Shares Outstanding (mil.)               |        |   | 43.6        |
| Market Capitalization (mil.)            |        |   | \$102       |
| Enterprise Value (mil.)                 |        |   | \$82        |
| Debt to Capital                         |        |   | 0%          |
| Book Value/Share                        |        |   | \$0.35      |
| Price/Book                              |        |   | 2.9         |
| Average Three Months Trading Volume (K) |        |   | 318         |
| Insider Ownership                       |        |   | 11.4%       |
| Institutional Ownership                 |        |   | 45.1%       |
| Short interest (mil.)                   |        |   | 1.8%        |
| Dividend / Yield                        |        |   | \$0.00/0.0% |



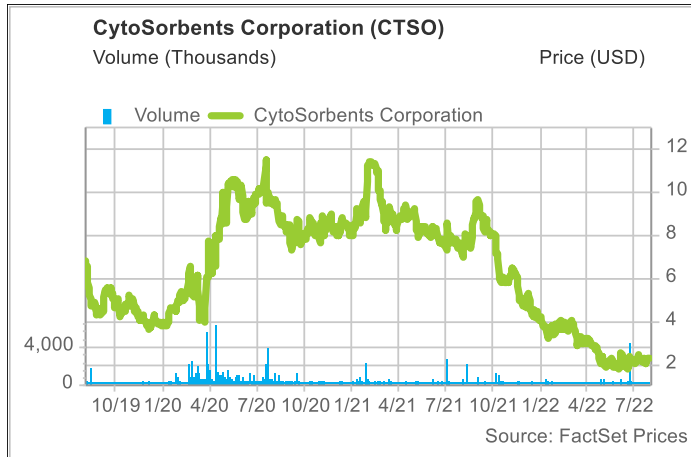
**Exhibit 1. Income Statement**

| CTSO.: Income Statement (\$000)                       |                 |                |                 |                |                 |                |                |                 |                 |                |                |                |                |                |                |                |
|---|-----------------|----------------|-----------------|----------------|-----------------|----------------|----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| YE December 31  | 2019A           | 2020A          | 2021A           | 1Q22A          | 2Q22A           | 3Q22E          | 4Q22E          | 2022E           | 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           | 7,325          | 7,606          | 28,172          | 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           | 2,982          | 3,096          | 11,468          | 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              | 53             | 55             | 204             | 214             | 225            | 236            |                |                |                |                |                |
| Other Sales   |                 |                |                 |                | 293             |                |                |                 |                 |                |                |                |                |                |                |                |
| <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>10,359</b>  | <b>10,758</b>  | <b>39,844</b>   | <b>56,513</b>   | <b>133,103</b> | <b>190,738</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           | -              | -              | 1,931           | -               | -              | -              | -              | -              | -              | -              | -              |
| 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>10,359</b>  | <b>10,758</b>  | <b>41,775</b>   | <b>56,513</b>   | <b>133,103</b> | <b>190,738</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           | 2,072          | 2,152          | 10,052          | 11,303          | 26,621         | 38,148         | 70,765         | 91,989         | 117,564        | 162,814        | 162,814        |
|   | %COGS           | 25%            | 28%             | 20%            | 48%             | 20%            | 20%            | 20%             | 20%             | 20%            | 20%            | 20%            | 20%            | 20%            | 20%            | 20%            |
| Research and Development                              | 12,092          | 8,810          | 16,380          | 4,243          | 4,183           | 4,685          | 4,865          | 18,018          | 19,820          | 21,802         | 23,982         | 26,381         | 29,019         | 31,920         | 35,113         | 38,624         |
|   | %R&D            | 53%            | 22%             | 41%            | 54%             | 57%            | 45%            | 45%             | 35%             | 16%            | 13%            | 7%             | 6%             | 5%             | 4%             | 5%             |
| Selling, General and Administrative                   | 22,006          | 28,463         | 35,749          | 9,161          | 8,439           | 10,224         | 10,618         | 39,324          | 40,111          | 40,913         | 41,731         | 42,566         | 43,417         | 44,285         | 45,171         | 46,075         |
|   | %SG&A           | 97%            | 72%             | 89%            | 116%            | 115%           | 99%            | 99%             | 71%             | 31%            | 22%            | 12%            | 9%             | 8%             | 6%             | 6%             |
| Legal, financial and other counseling                 | 2,462           | 3,048          | 2,731           | 801            | 679             | 710            | 737            | 2,731           | 2,731           | 2,731          | 2,731          | 2,731          | 2,731          | 2,731          | 2,731          | 2,731          |
| <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>17,691</b>  | <b>18,371</b>  | <b>70,125</b>   | <b>73,964</b>   | <b>92,066</b>  | <b>106,592</b> | <b>142,442</b> | <b>167,156</b> | <b>196,501</b> | <b>245,828</b> | <b>250,243</b> |
| Operating Income (Loss)                               | (18,974)        | (10,369)       | (22,799)        | (7,792)        | (8,357)         | (7,331)        | (7,613)        | (28,350)        | (17,451)        | 41,037         | 84,147         | 211,383        | 292,791        | 391,320        | 568,242        | 563,827        |
| Interest income (expense), net                        |                 |                |                 | 8              | 24              |                |                |                 |                 |                |                |                |                |                |                |                |
| Gain (loss) on foreign currency transactions          | (1,384)         | (1,201)        | 2               | 30             | (2,523)         |                |                |                 |                 |                |                |                |                |                |                |                |
| Change in warrant liability                           |                 | 2,607          | (2,569)         | (1,213)        | (23)            |                |                |                 |                 |                |                |                |                |                |                |                |
| Other income (expense), net                           |                 |                |                 |                |                 |                |                |                 |                 |                |                |                |                |                |                |                |
| <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>-</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>(8,967)</b> | <b>(10,880)</b> | <b>(7,331)</b> | <b>(7,613)</b> | <b>(28,350)</b> | <b>(17,451)</b> | <b>41,037</b>  | <b>84,147</b>  | <b>211,383</b> | <b>292,791</b> | <b>391,320</b> | <b>568,242</b> | <b>563,827</b> |
| Income Tax Benefit (Provision)                        | 1,092           | 1,127          | (2,537)         |                |                 |                |                |                 |                 | 7,387          | 17,671         | 50,732         | 81,982         | 129,136        | 187,520        | 186,063        |
| <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>(7,331)</b> | <b>(7,613)</b> | <b>(28,350)</b> | <b>(17,451)</b> | <b>33,650</b>  | <b>66,476</b>  | <b>160,651</b> | <b>210,810</b> | <b>262,184</b> | <b>380,722</b> | <b>377,764</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>(0.17)</b>  | <b>(0.17)</b>  | <b>(0.65)</b>   | <b>(0.40)</b>   | <b>0.77</b>    | <b>1.51</b>    | <b>3.63</b>    | <b>4.74</b>    | <b>5.87</b>    | <b>8.49</b>    | <b>8.40</b>    |
| GAAP-EPS (Dil)  | (0.60)          | (0.20)         | (0.53)          | (0.21)         | (0.25)          | (0.17)         | (0.17)         | (0.65)          | (0.40)          | 0.77           | 1.51           | 3.63           | 4.74           | 5.87           | 8.49           | 8.40           |
| Wgtd Avg Shrs (Bas) - '000s                           | 32,253          | 38,819         | 43,358          | 43,488         | 43,560          | 43,604         | 43,647         | 43,575          | 43,756          | 43,932         | 44,108         | 44,284         | 44,462         | 44,640         | 44,819         | 44,998         |
| Wgtd Avg Shrs (Dil) - '000s                           | 32,253          | 38,819         | 43,358          | 43,488         | 43,560          | 43,604         | 43,647         | 43,575          | 43,756          | 43,932         | 44,108         | 44,284         | 44,462         | 44,640         | 44,819         | 44,998         |

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
- 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

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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;
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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 1-Aug-22

|                            | Company Coverage |            | Investment Banking |             |
|----------------------------|------------------|------------|--------------------|-------------|
| Ratings Distribution       | # of Companies   | % of Total | # of Companies     | % of Totals |
| Market Outperform (Buy)    | 30               | 68%        | 4                  | 13%         |
| Market Perform (Neutral)   | 13               | 30%        | 0                  | 0%          |
| Market Underperform (Sell) | 1                | 2%         | 0                  | 0%          |
| Total                      | 44               | 100%       | 4                  | 9%          |

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