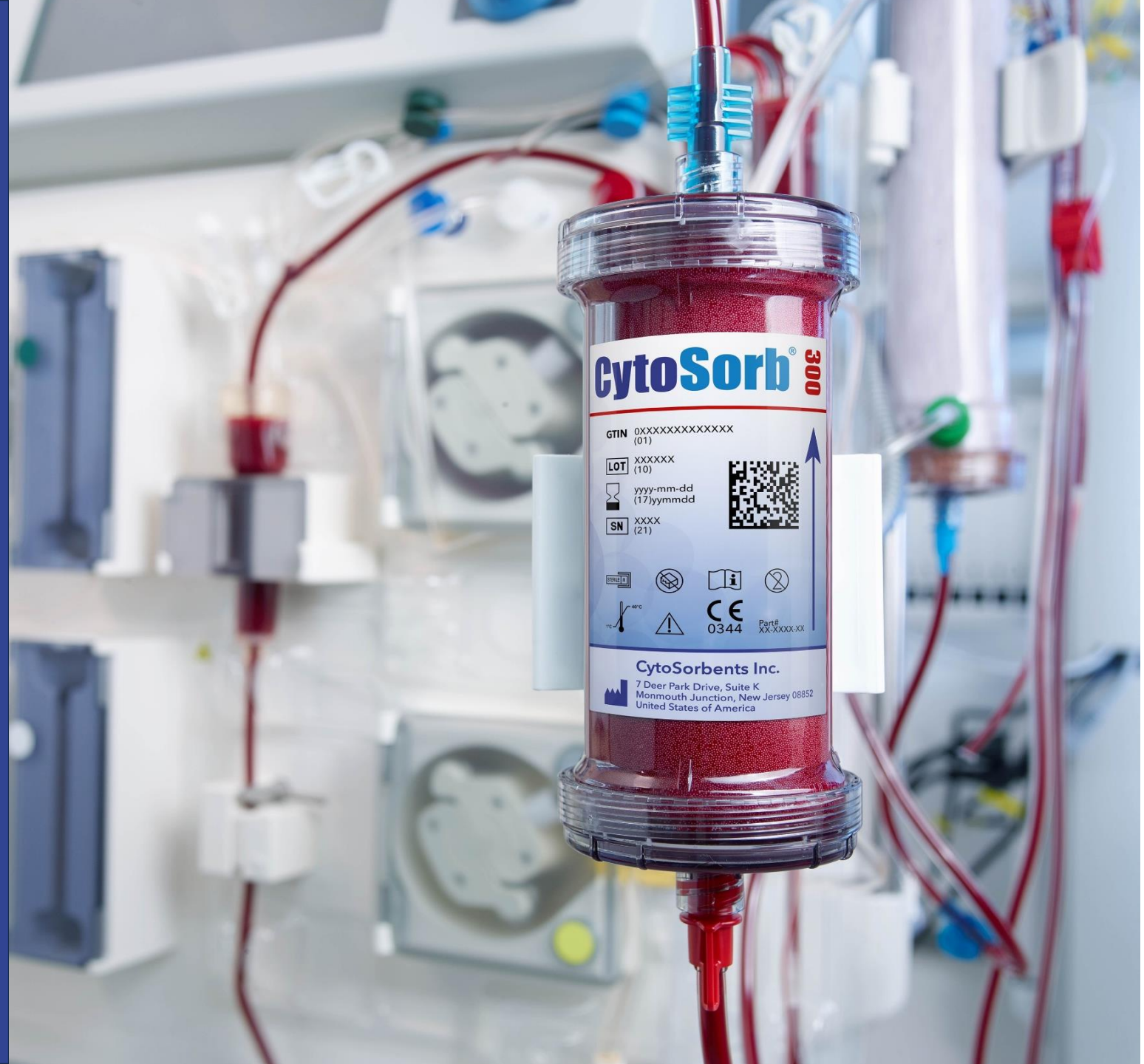


CytoSorbents™

Working to save lives **together.**

NASDAQ: CTSO

H.C. Wainwright 27th Annual Global Investment Conference

September 8, 2025

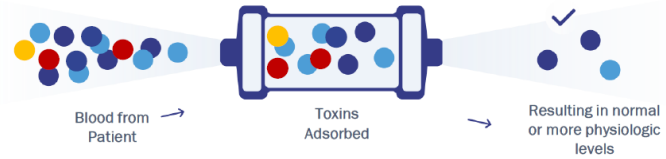
CytoSorbents™

Safe Harbor Statement

Statements in this presentation regarding CytoSorbents Corporation and its operating subsidiaries CytoSorbents Medical, Inc and CytoSorbents Europe GmbH that are not historical facts are forward-looking statements and are subject to risks and uncertainties that could cause actual future events or results to differ materially from such statements. Any such forward-looking statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. It is routine for our internal projections and expectations to change. Although these expectations may change, we are under no obligation to inform you if they do. Actual events or results may differ materially from those contained in the projections or forward-looking statements. The following factors, among others, could cause our actual results to differ materially from those described in a forward-looking statement: our history of losses; potential fluctuations in our quarterly and annual results, the restructuring of our direct sales team and strategy in Germany, our ability to navigate through the market authorization process with FDA and Health Canada, factors outside of our direct control including for example business conditions, international trade matters, and currency fluctuations, our dependence on key employees, competition for qualified personnel, market competition, regulatory and manufacturing issues, the possible unavailability of financing as and if needed, and risks related to protecting our intellectual property rights or potential infringement of the intellectual property rights of third parties. This list is intended to identify only certain of the principal factors that could cause actual results to differ from those discussed in the forward-looking statements. Readers are referred to a discussion of important risk factors detailed in the Company's 2024 Form 10-K filed with the Securities and Exchange Commission on March 31, 2025, and other reports and documents filed from time to time by us, which are available online at www.sec.gov.

CytoSorbents™

CytoSorbents (Nasdaq: CTSO) at a Glance



- **Platform** blood purification technology for removing toxins and harmful substances from a patient's blood
- **High margin** "razorblade" disposables that are "plug and play" into existing hospital blood pumps
- **Two main products** leverage the underlying polymer technology

CytoSorb

- Treatment of life-threatening conditions in the ICU and cardiac surgery
- Record core product sales of **$36.1 million** (TTM as of 6/30/25) and 71% product gross margins
- E.U. Approved with **nearly 300,000** CytoSorb devices utilized cumulatively to date in 70+ countries

DrugSorb™ ATR

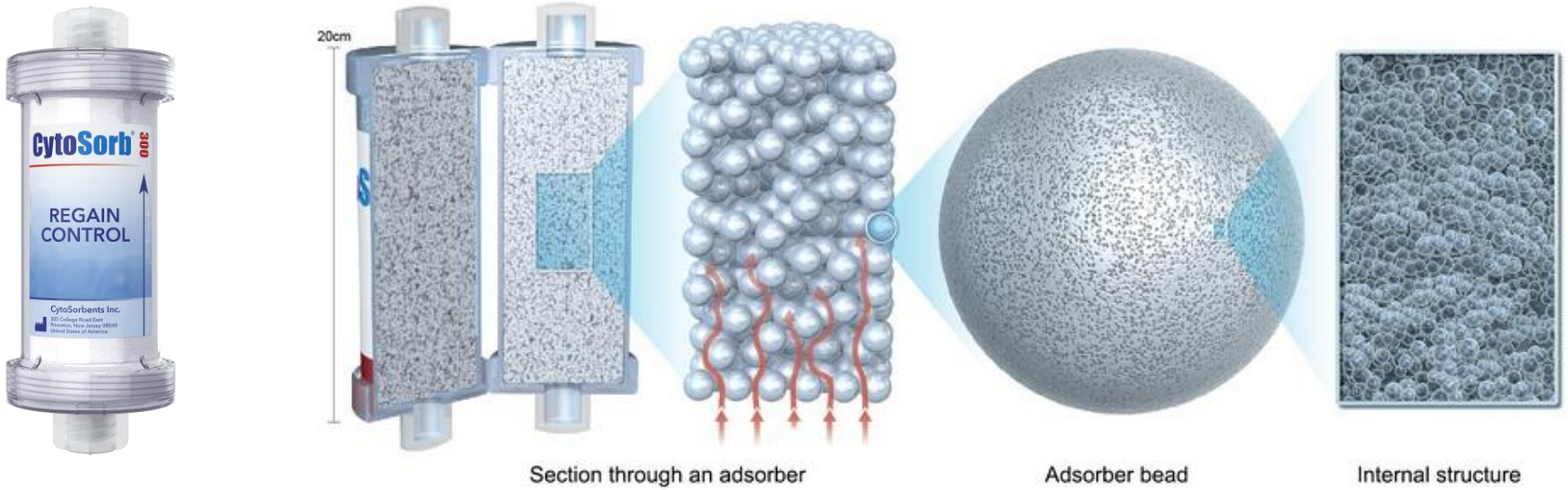
- Investigational device to reduce the severity of perioperative bleeding during CABG surgery due to blood thinners
- **Two FDA Breakthrough Device Designations**
- In interactive discussions with both FDA and Health Canada about a streamlined and suitable path forward to seek marketing approval with an expected update in the near future
- Targets significant unmet need in large U.S. and Canada addressable markets

** CytoSorb and DrugSorb-ATR are not yet cleared or approved in the U.S. or Canada*

CytoSorbents™

The Power of the Bead

Hemocompatible, highly porous polymer bead platform technology that act like tiny sponges to remove harmful substances from blood by pore capture, adsorption, and concentration



- Excellent removal of a broad range of substances from whole blood and plasma
- Solid state porous polymer chemistry that does not use ligands, antibodies, cells, or biologics
- 22 issued U.S. patents and multiple patents issued and pending worldwide
- Beneficiary of ~$50M in grants and non-dilutive funding from NIH, DARPA, DOD

CytoSorbents™

Expanding the Dimension of Blood Purification

CytoSorb is a powerful blood purification technology that removes a broad range of harmful substances that dialysis does not

CytoSorb works like the liver

Large Molecules and
Fat soluble substances

Cytokines
Inflammatory mediators
Bacterial toxins
Liver toxins
Proteins and peptides
Fat-soluble drugs

Dialysis works like the kidney

Small Molecules and
Water soluble substances

Urea, Ammonia
Electrolytes
Water
Water-soluble drugs

CytoSorb has 7 football fields of surface area to bind toxins compared to ¾ of a ping pong table for a dialyzer

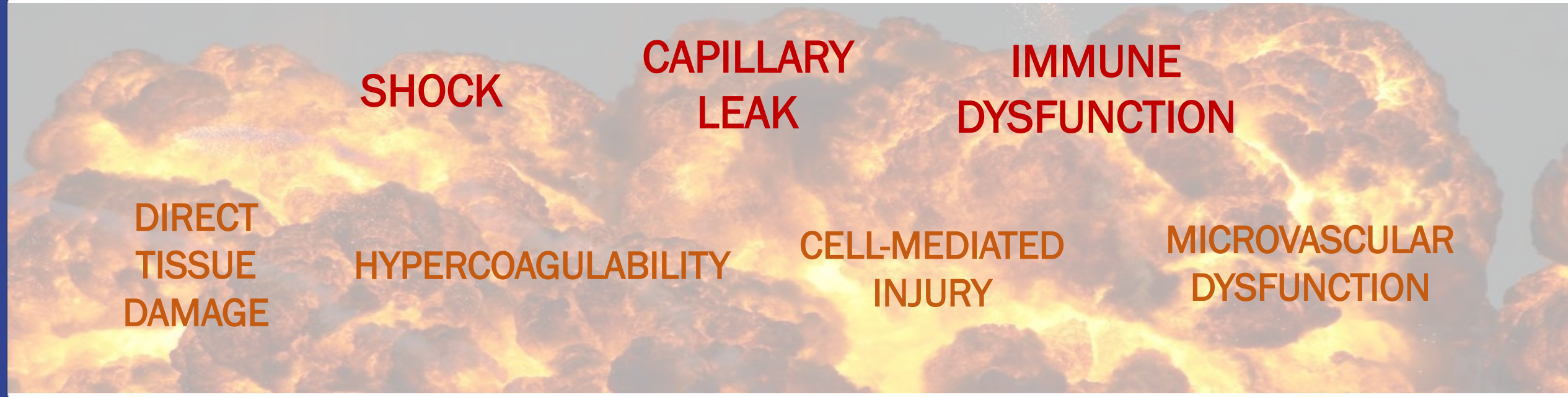
CytoSorbents™

CytoSorb

Our Core Business

CytoSorb Controls Massive Inflammation - the Heart of Critical Illness

- Acute inflammation is the body's mechanism to fight injury and infection
- However, severe inflammation, driven by cytokine storm, can cause a chain reaction of problems that can end in organ failure and death



- Severe inflammation is the common thread amongst most critical illnesses and impacts up to 60% of patients in the ICU. Is directly correlated to increased severity of illness, organ failure, and mortality

CytoSorb controls deadly inflammation and has demonstrated the reversal or prevention of many of these complications

CytoSorbents™

Targets Deadly Conditions That Afflict Millions of People

Critical Care

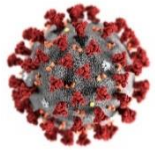
Removes the "fuel to the fire" of massive uncontrolled inflammation that is often associated with organ failure and death

Sepsis

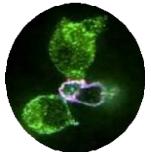
Surgical Complications

Influenza

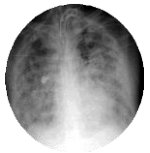
Burn Injury



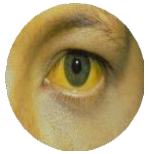
COVID-19



Cytokine Release Syndrome



Lung Injury



Liver Failure

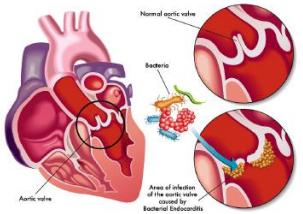
Trauma

Pancreatitis

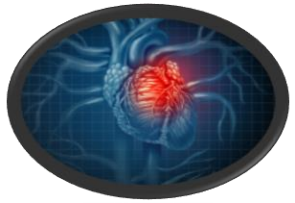
Cardiothoracic Surgery

Reduces inflammation and blood thinners, targeting reduction in complications of cardiac surgery like sepsis, bleeding, shock, and others

Life-threatening bleeding due to anti-thrombotic "blood thinners"



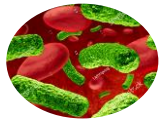
Infective Endocarditis



High Risk Procedures

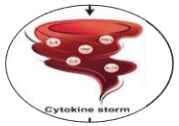
CytoSorbents™

This is Why CytoSorb Continues To Grow in ICU applications

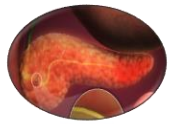


Sepsis, Septic Shock, Other Shock

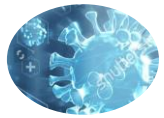
Liver failure



Cytokine storm/ Cytokine release syndrome



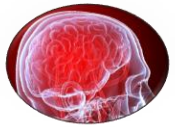
Pancreatitis



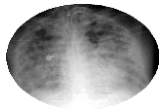
Infectious diseases (flu, COVID-19, other)

Burn injury

Post-surgical complications Organ transplant

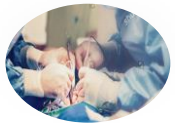


Neuroinflammation



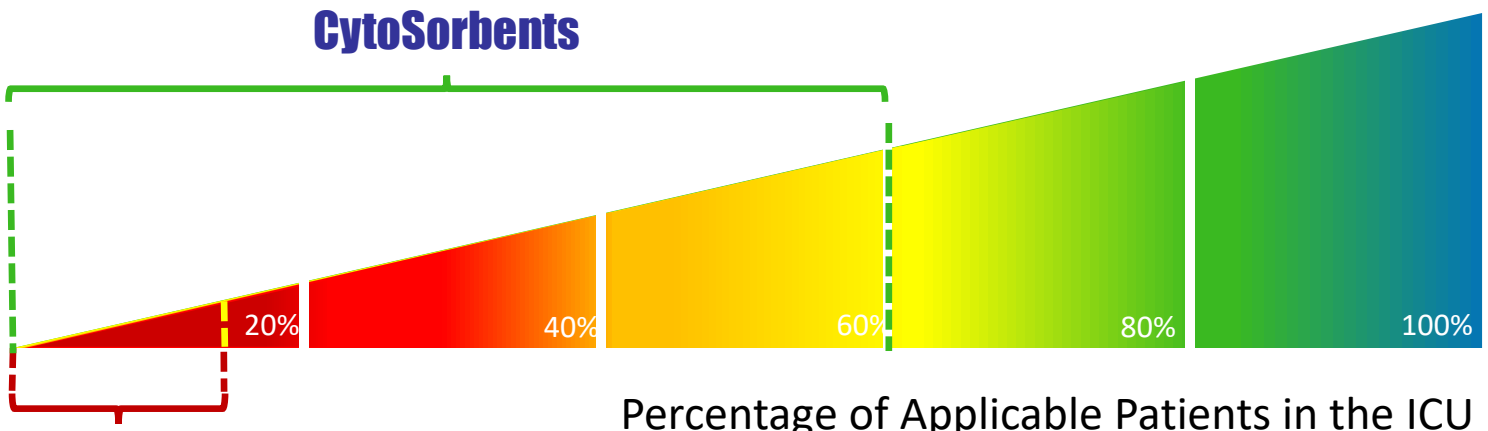
Acute Respiratory Distress Syndrome (ARDS)

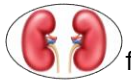
Trauma, Rhabdomyolysis



High risk surgical procedures, aortic surgery, Infective endocarditis

Drug overdose
Blood thinner toxicity





Dialysis/CRRT for Kidney Failure

FRESENIUS MEDICAL CARE · Vantive · B BRAUN SHARING EXPERTISE · AsahiKASEI · NIKKISO · NIPRO · JMS

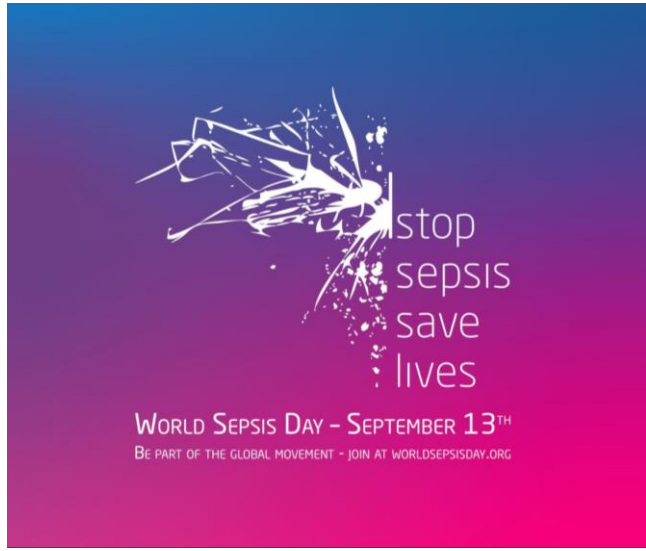
CytoSorb helps to treat critical illnesses where massive inflammation plays a dangerous role in 40-60% of patients in the ICU. Compare this to the only 10-15% of patients who require dialysis in the ICU

CytoSorbents™

Sepsis and Septic Shock are Deadly

- Sepsis is a complex life-threatening condition where the inflammatory response to a serious infection can spiral out of control, fueled by the excessive production of cytokines (cytokine storm), bacterial toxins, and other inflammatory agents

- Unchecked, massive inflammation can lead to Septic Shock – an often fatal complication marked by circulatory collapse and a lethal drop in blood pressure and a host of other problems like capillary leak and fluid overload that can lead to multiple organ failure and death



- Sepsis and septic shock afflict an estimated 49 million people worldwide each year, killing 11 million, and accounts for 1 in 5 deaths globally

- Supportive care treatment has improved, but mortality is still unacceptably high, despite antibiotics, fluids, vasopressors, and mechanical “life support”

- September is Sepsis Awareness Month and September 13th is World Sepsis Day, designed to create greater awareness of this pervasive problem

CytoSorbents™

CytoSorbents is Leading a New Era in Sepsis Treatment

For more than a decade, CytoSorbents has collaborated with clinicians and scientists around the world to advance the treatment of sepsis and septic shock by complementing traditional antibiotics with the broad-spectrum capability of CytoSorb

Antibiotics treat the infection

CytoSorb treats the deadly inflammatory response by removing the “fuel to the fire” that causes a system crash

CytoSorbents™

CytoSorb Enables Multi-Faceted Attack on Septic Shock

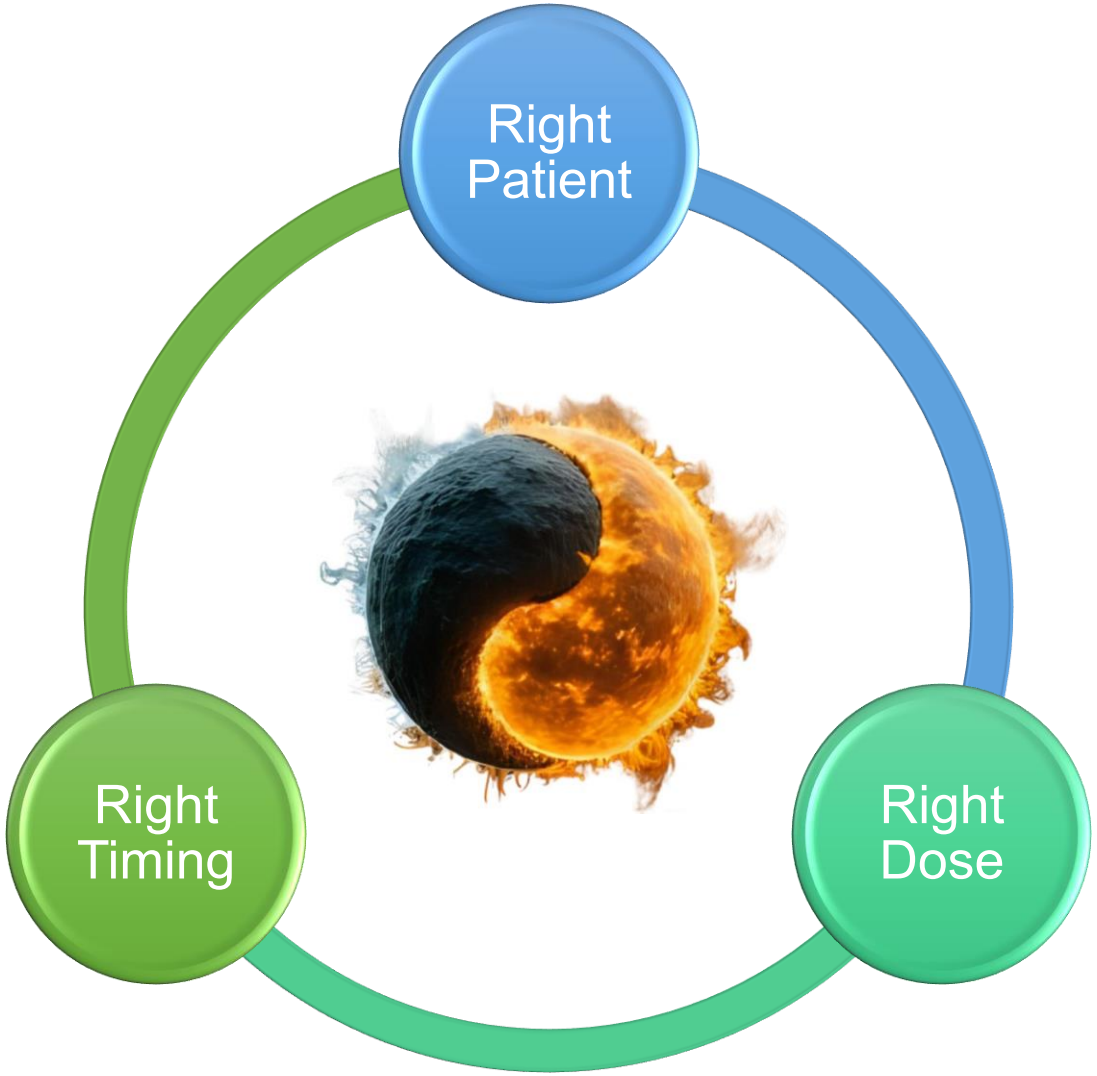
A wealth of published, peer-reviewed studies support the broad mechanisms of action of CytoSorb that enable a comprehensive and multi-faceted attack on septic shock – from beginning to end

CytoSorb helps to achieve the
Core Treatment Goals in Septic Shock to
Prevent or Treat Organ Failure and
Help Patients Recover

- Break the vicious cycle of uncontrolled inflammation
- Stabilize the patient (reverse shock, improve oxygenation, restore oxygenated blood flow, etc)
- Promote the repair of leaky blood vessels
- Actively remove excessive fluid and reduce fluid overload in organs

CytoSorbents™

The Key to Success: Right Patient, Right Timing, Right Dosing



Just like antibiotics, CytoSorb works most effectively when:

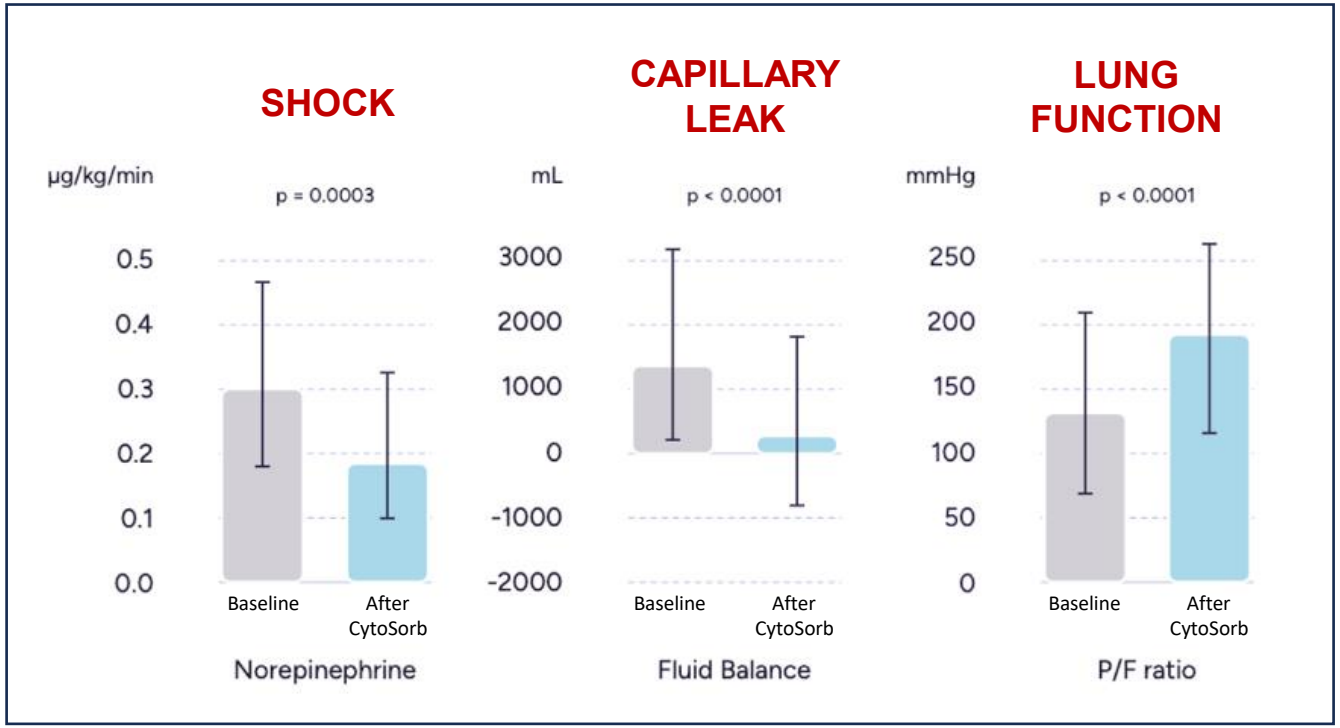
- Treat Early
- Treat Intensively
- Compete the Full Course of Treatment

CytoSorbents™

2025: COSMOS Registry Highlights Treatment Strategy Success

COSMOS registry, patient characteristics

- Data from 150 patients analyzed
- Critical care indications:
  - Septic shock (57.6%)
  - Cardiogenic shock (12.9%)
  - Rhabdomyolysis (10.6%)
  - Acute/acute-on-chronic liver failure (10.6%)
  - Acute respiratory distress syndrome (6.8%)
  - Others (9.1%)



When added to standard therapy, CytoSorb treatment:

- Led to significant improvements in fundamental problems in critical illness: Shock, capillary leak, and lung function
- Observed mortality rates in Registry participants were lower compared with the predicted mortality rates according to standardized and established critical care risk scores

*Ferrer, R, et al., J. Intensive Med. **2025** In press;*

CytoSorbents™

2025: Early & Intensive Treatment with More Blood Treated Works Best

Original Research

Real-World Outcomes of Hemoadsorption with CytoSorb® in Patients with Septic Shock: Insights from a Single-Center Study

Giorgio Berlot, MD[1], Paolo Carocci, MD[1], Valentina Votrico, MD[2], Barbara Iacoviello, MD[1], Nicolò Taverna, MD[1], Ugo Gerini, MD[3], Vittorio di Maso, MD[4], and Ariella Tomasini, MD[1]

- Large, retrospective single center study
- 175 patients with septic shock treated with CytoSorb
- Evaluated the impact of early versus late, and low versus high intensity treatment with CytoSorb on mortality compared to predicted mortality based on illness severity scores

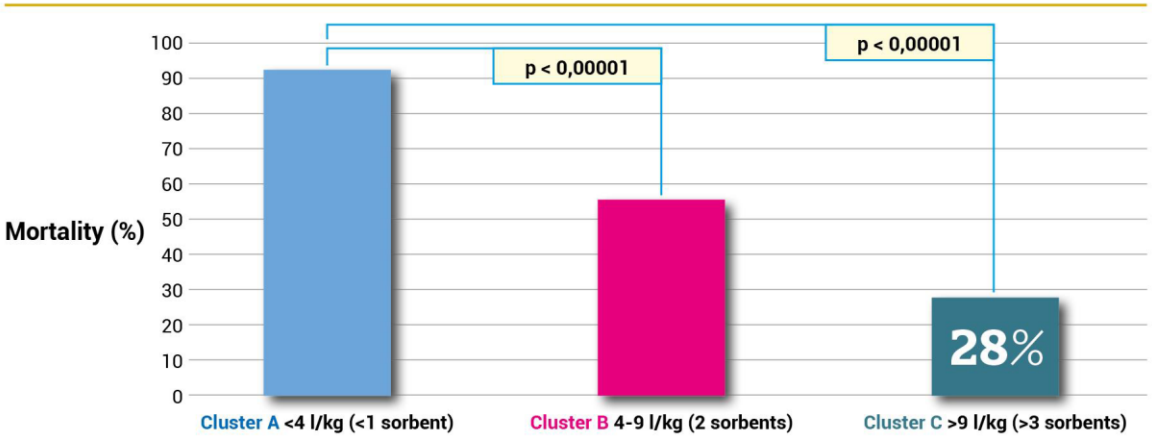
Early and Intensive Treatment with CytoSorb Doubles Survival Expectation

Table 3. Observed Versus Expected Mortality (%).

Categories	Expected mortality (%)	Observed mortality (%)	p-value
All (n = 175)	66	49	0.048
Early starters (n = 102)	66	48	n.s.
Late starters (n = 73)	70	51	n.s.
High intensity (n = 90)	63	30	0.002
Low intensity (n = 85)	71	69	n.s.
Early starters-high intensity (n = 56)	63	30	0.02
Late starters-low intensity (n = 38)	74	68	n.s.

Abbreviations: n.s., nonsignificant.

The More Blood Purified with CytoSorb, the Higher the Survival. Treatment Intensity is Key



*Berlot, G, et al., J. Intensive Care Med. **2025** Sep; 40(9):993-1000; 14(7), 2285; doi: 10.1177/08850666251331905.*

CytoSorb Improves Survival in Septic Shock Meta-Analysis

Journal of Clinical Medicine

MDPI

Systematic Review

Hemoadsorption in the Management of Septic Shock: A Systematic Review and Meta-Analysis

David Steindl [1,†], Tim Schroeder [2,†], Alexander Krannich [3,*] and Jens Nee [2]

- Meta-analysis of 744 septic shock patients from 1 RCT and 8 observational studies from 2019-2024, of which 449 patients were treated with CytoSorb
- CytoSorb reduced in-hospital mortality (OR 0.64, p=0.04)
- 28-30-day mortality was also halved with CytoSorb (OR 0.46, p=0.003) than without (p=0.003)
- Significant hemodynamic improvement with reductions in vasopressor need in CytoSorb patients again confirmed

Steindl, D., et a;., J. Clin. Med. 2025, 14(7), 2285; https://doi.org/10.3390/jcm14072285

CytoSorbents™

World Sepsis Day Global Webinar – September 10, 2025

Turning the Tide in Sepsis and Septic Shock: Real World Insights with CytoSorb

Date: Wednesday, September 10, 2025

Time: 11:00 AM EDT

Hosted by: Dr. Phillip Chan, MD, PhD

Webinar registration required: https://cyto.news/webinar-sepsis/sep10

CytoSorbents™

The Opportunity of

DrugSorb™ ATR

* The DrugSorb-ATR system is an investigational device that is not yet cleared/approved by FDA, Health Canada, or by any other Global Regulatory Agency and is not commercially available for sale

CytoSorbents™

Blood Thinners Can Cause Serious Perioperative Bleeding
DrugSorb-ATR can help

- Millions of people are on blood thinners to reduce their risk of heart attack and stroke
- Acute heart attack patients commonly receive “super-aspirin” blood thinners like Brilinta® to improve clinical outcomes
- But Brilinta® (ticagrelor) can cause serious and potentially life-threatening bleeding in patients that need to undergo urgent coronary artery bypass graft (CABG) surgery
- Only drug washout for 3-5 days can reduce the risk of serious bleeding. However:
  - Frequently, surgery cannot wait - patients now risk major bleeding
  - Delaying surgery in a patient who is still having a heart attack risks complications like sudden death, and is expensive and an inefficient use of hospital resources
- DrugSorb-ATR is a Breakthrough Designated Device intended to solve this pervasive and serious unmet medical need in the U.S. and Canada that puts tens of thousands of patients at risk each year and addresses a >$1B market opportunity over time

DrugSorb-ATR is an investigational medical device in the U.S. and Canada and is not yet cleared or approved.
Brilinta® is a trademark of AstraZeneca

CytoSorbents™

Brilinta® and the Use Case for DrugSorb™ ATR

DrugSorb™ ATR

The ultimate goal of DrugSorb-ATR is to allow patients to get the critical surgery they need without delay, while reducing or preventing bleeding complications

CytoSorbents™

Continued Real World Validation

We continue to demonstrate and be recognized for the ability to address the critical global unmet need of reducing serious bleeding in CABG patients on Brilinta®

- At EuroPCR (May 2025), Prof. Robert Storey presented a new comparative analysis of bleeding risk in 150 CABG patients on Brilinta® with CytoSorb (STAR Registry) vs 644 CABG patients (control) on Brilinta® without CytoSorb*
  - Key findings: CytoSorb led to highly significant reductions in:
    - Rates of severe CABG-related bleeding (10.7% vs 33% control, p<0.001)
    - Large transfusion events (≥5 units of blood): 6% vs. 27% control, p<0.001)
    - Need for re-operations to control bleeding (4% vs. 9.6% control, p=0.02)

- At the 73rd International Congress of the European Society for Cardiovascular and Endovascular Surgery (May 2025), Prof. Matthias Thielmann received the “Best Oral Presentation Award” for his talk “Early CABG with Intraoperative Hemoadsorption in Patients on Ticagrelor: Real World Data from the International Safe and Timely Antithrombotic Removal (STAR) Registry”

DrugSorb-ATR and CytoSorb are investigational medical devices in the U.S. and Canada and are not yet cleared or approved

** Schoerghuber, M, et al.,Eur. J. Cardio-Thoracic Surg (2024) Jul 1;66(1):ezae265. doi: 10.1093/ejcts/ezae265*

CytoSorbents™

FDA and Health Canada Regulatory Update

- Submitted DrugSorb-ATR U.S. FDA De Novo and Health Canada Medical Device License applications for Brilinta® in CABG which included STAR-T RCT data and STAR registry real world evidence (RWE) in late-2024
- Interactive review with FDA resolved many issues, however, a denial letter was issued in April 2025 citing remaining deficiencies that must be addressed to obtain marketing authorization.
- Following a formal in-person appeal hearing with FDA in July 2025 with FDA senior officials and review team, and in-person testimony by our cardiac surgery clinical experts, FDA:
  - Found no issues with device safety – extremely important in determining the benefit-to-risk of the device - but upheld its prior denial decision, citing the need for additional information to support the Company's desired label indication
  - Proactively proposed a path forward for market authorization for DrugSorb-ATR
- We continue to have constructive discussions with FDA to determine the best path forward and expect to provide an update in the near future
- Meanwhile, in June 2025, we received a Notice of Refusal from Health Canada, citing certain deficiencies in our application, following which we filed a Level 1 "Request for Reconsideration". Plans for Health Canada are pending a more definitive FDA path forward
- We continue to firmly believe in the favorable benefit-to-risk profile of DrugSorb-ATR and remain committed to driving marketing approval in the U.S. and Canada to help the tens of thousands of CABG patients at risk each year from Brilinta® alone

DrugSorb-ATR is an investigational medical device in the U.S. and Canada and is not yet cleared or approved

CytoSorbents™

Financial Performance

CytoSorbents™

Q2 2025 Revenue and Gross Margin

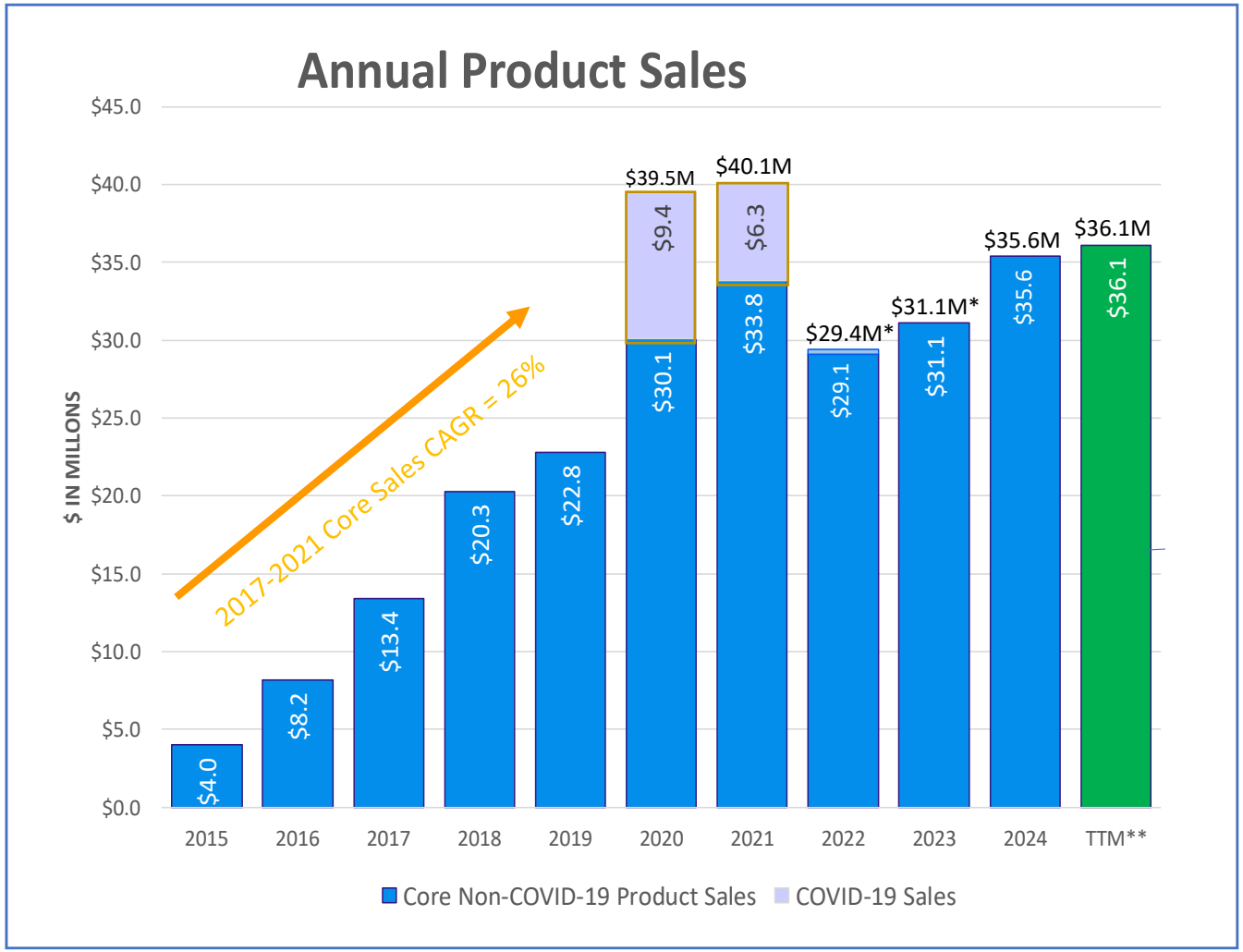
- Revenue led by 22% growth year-over-year and sequentially in Germany with continued strength in our other direct territories
- Distributor sales were among our best ever, second only to a record Q2 2024
- We are pleased with the initial results of our proactive reorganization of our German commercial team and sales approach that began in Q1 2025
- 71% 2Q25 GM is unchanged from 2024 average and 1Q25

	2Q25	2Q24	YoY Change
Revenue	$9.6m	$8.8m	+9%
Constant currency growth			+4%
Gross Profit	$6.8m	$6.5m	+5%
Gross Margin	70.9%	73.5%	

CytoSorbents™

Annual Product Sales

CytoSorbents sells through Direct Sales in 9 countries and Distributors in 60+ others



* 2022 and 2023 Core Product Sales were impacted by fall of the Euro to dollar compared to 2021.

** Trailing 12 months (as of 6/30/25)

CytoSorbents™

Strong Balance Sheet
Driving Core Business toward Cash Flow Breakeven as we exit 2025

- $11.7 million in cash, cash equivalents and restricted cash at June 30, 2025
- Includes $1.7 million received in April from Sale of NJ NOL and R&D credits
- $5.0 million second tranche available at our option on our $20M debt agreement
  - Requires FDA approval of DrugSorb-ATR prior to December 31, 2025

We continue to prioritize initiatives to drive revenue growth, improve gross margins, and reduce costs to lead our core business toward near cash-flow breakeven as we exit 2025, in preparation of potential market approval of DrugSorb-ATR and launch in the U.S. and Canada

CytoSorbents™

A Clear and Compelling Value Proposition

- ✓ **CytoSorb is the basis of our established, international core business in critical care and cardiac surgery with $36M+ (ttm) in high margin product sales with expectations for growth due to:**
  - Significant market opportunity, targeting major unmet medical needs
  - "Right patient at the Right Time with the Right Dose of CytoSorb"
  - Strong growth from Direct sales outside Germany and Distributor/Partner sales
  - Active measures to restore Germany back to growth
- ✓ Goal is to drive towards near breakeven in this core business and achieve financial independence
- ✓ Though not required for our success, we remain committed to bringing DrugSorb-ATR to the North American market, and continue to believe that with no safety issues, we can successfully work through the remaining concerns that FDA and Health Canada have and bring DrugSorb-ATR to the tens of thousands of CABG patients on Brilinta® at risk each year in these countries

CytoSorbents™

CytoSorbents Corporation

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