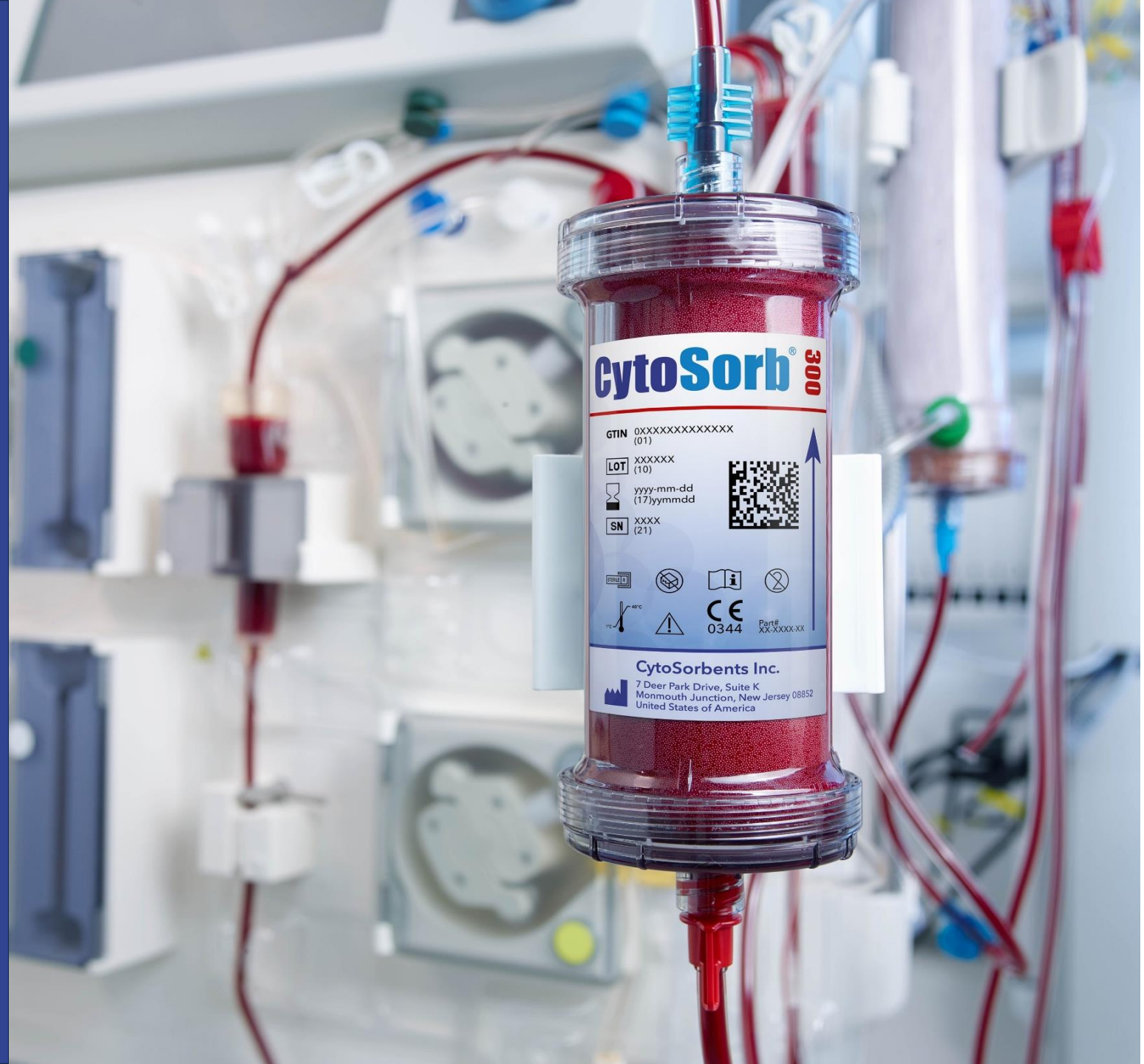


CytoSorbents™

Working to save lives **together.**

NASDAQ: CTSO

Investor Presentation

December 2025

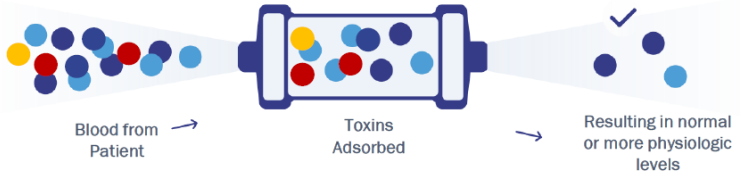
CytoSorbents™

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 resolve deficiencies in the FDA denial letter and the Health Canada Notice of Refusal, competition, inability to achieve regulatory approval for our devices, our ability to complete our strategic workforce and cost reduction plan to reduce costs, optimize operations, and achieve cash-flow break-even in the first quarter of 2026, technology systems beyond our control and technology-related defects that could affect the companies' products or reputation, risks related to adverse business conditions, our dependence on key employees, competition for qualified personnel, 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 at a Glance



- **Platform** blood purification technology for removing toxins and harmful substances from the blood
- **High margin** "razorblade" that we manufacture in U.S. - is "plug and play" into existing hospital blood pumps

CytoSorb

- Treatment of life-threatening conditions in the ICU and cardiac surgery
- Record core product sales of **$37.0 million** (TTM as of 9/30/25) and 71% gross margins
- E.U. Approved with **nearly 300,000** CytoSorb devices utilized cumulatively to date in 70+ countries worldwide

DrugSorb™ ATR

- Investigational device to reduce the severity of perioperative bleeding during CABG surgery due to blood thinners
- **Two FDA Breakthrough Device Designations**
- Actively pursuing **regulatory approval in the US with new De Novo application, with a regulatory decision expected mid-2026, and potentially sooner**

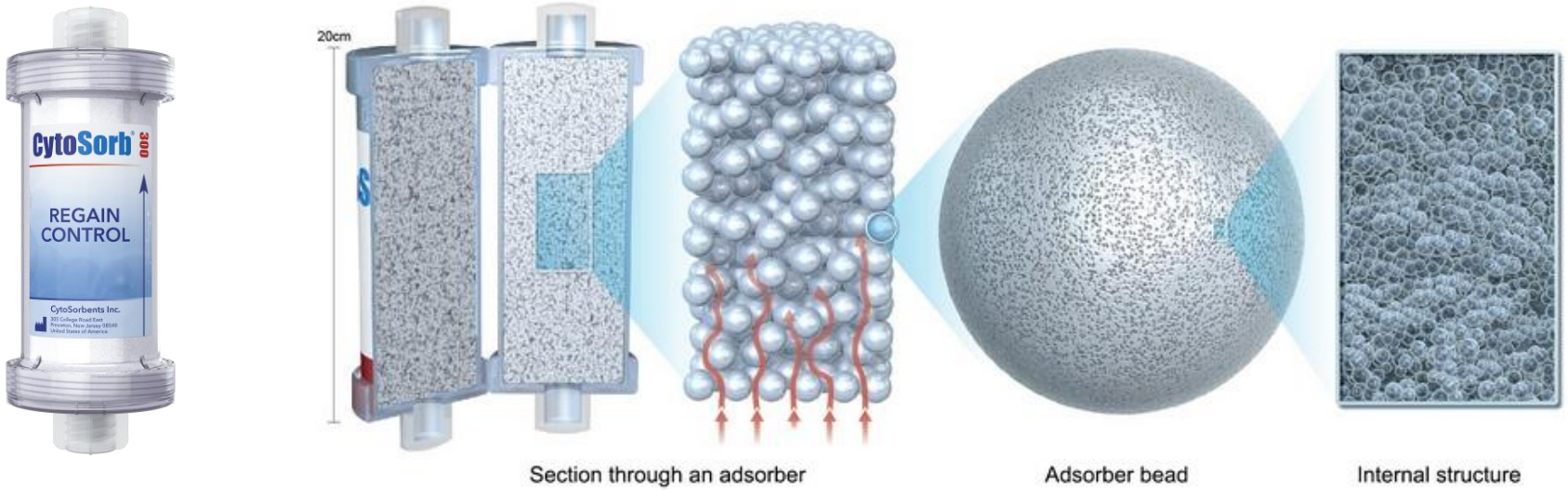
- **Driving to cash flow breakeven in Q1 2026 and near-term profitability with a strengthened balance sheet as a key priority**

* 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



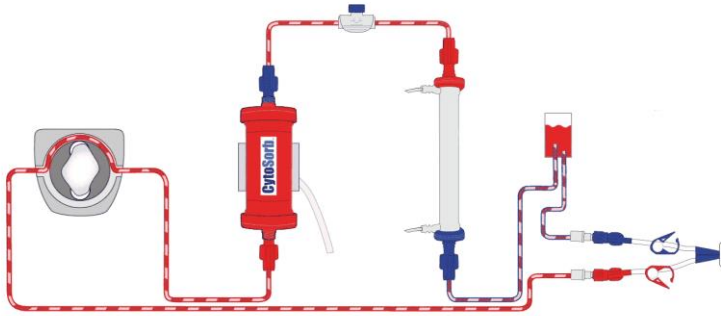
- Excellent removal of a broad range of substances from whole blood and plasma
- Solid state porous polymer chemistry that does not use ligands, antibodies, cells, or biologics
- 22 issued U.S. patents and multiple patents issued and pending worldwide
- Beneficiary of ~$50M in grants and non-dilutive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

CytoSorbents™

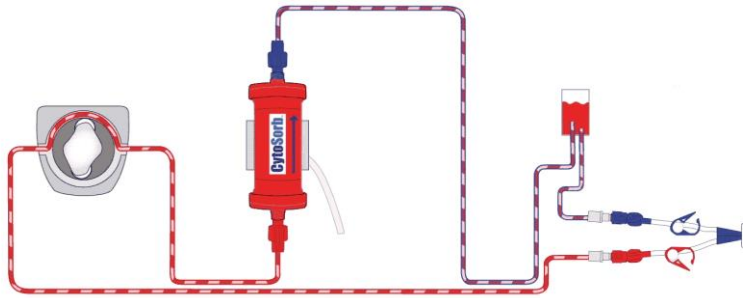
Products are “Plug and Play” Compatible

Compatible with Existing Blood Pump Infrastructure In Hospitals Today

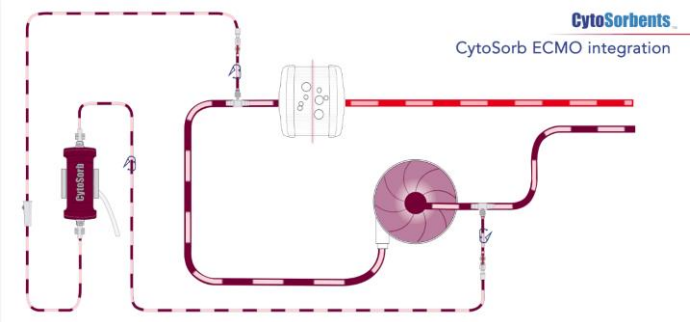
Dialysis or CRRT
(Continuous Renal Replacement Therapy)



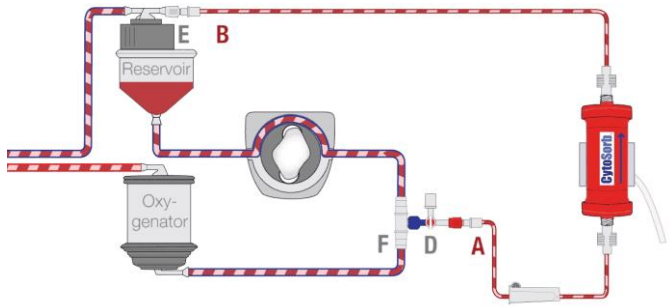
Hemoperfusion
(Standalone Treatment)



ECMO
(Extracorporeal Membrane Oxygenation)



CPB
(Cardiopulmonary Bypass)



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

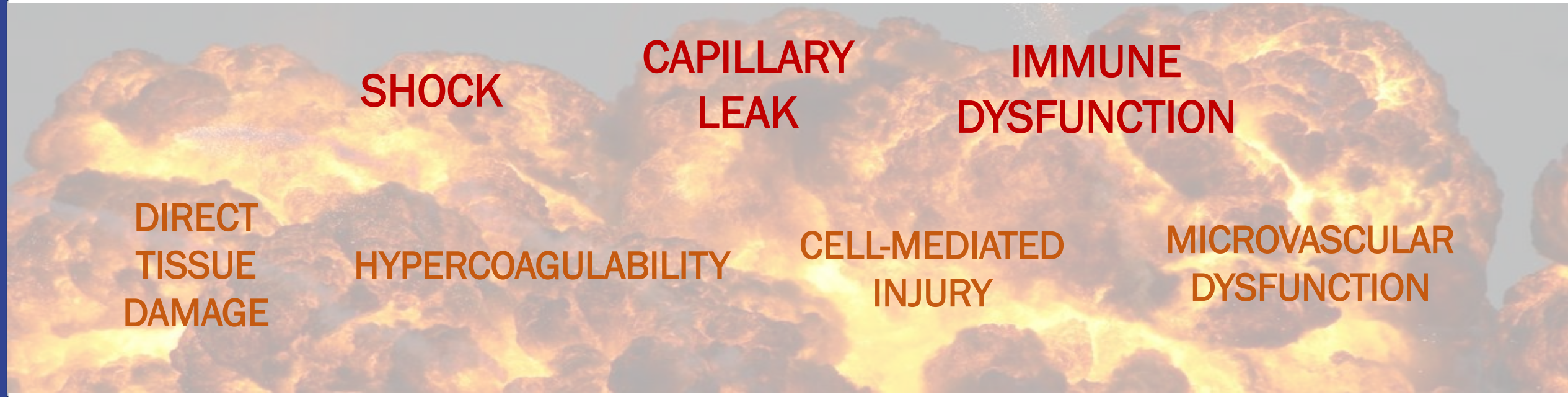
CytoSorbents™

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

* CytoSorb is E.U. approved but not yet cleared or approved in the U.S.

CytoSorbents™

Targets Deadly Conditions That Afflict Millions of People

Critical Care

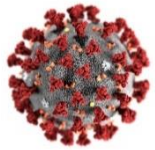
Removes the "fuel to the fire" of massive uncontrolled inflammation that is often associated with organ failure and death

Sepsis

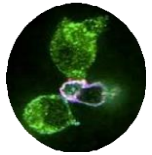
Surgical Complications

Influenza

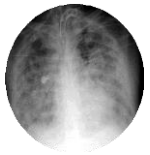
Burn Injury



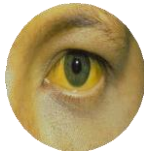
COVID-19



Cytokine Release Syndrome



Lung Injury



Liver Failure

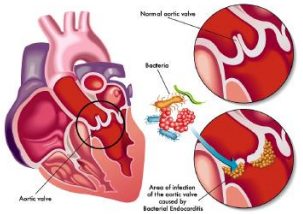
Trauma

Pancreatitis

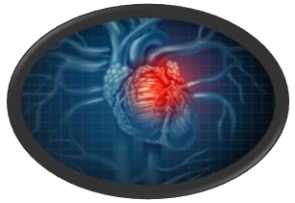
Cardiothoracic Surgery

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

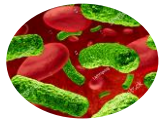


High Risk Procedures

* CytoSorb is E.U. approved but not yet cleared or approved in the U.S.

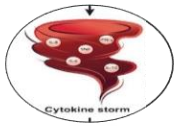
CytoSorbents™

This is Why CytoSorb Continues To Grow in ICU applications

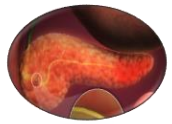


Sepsis, Septic Shock, Other Shock

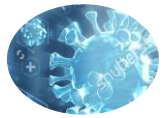
Liver failure



Cytokine storm/ Cytokine release syndrome



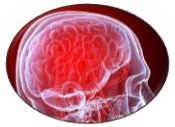
Pancreatitis



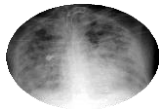
Infectious diseases (flu, COVID-19, other)

Burn injury

Post-surgical complications Organ transplant

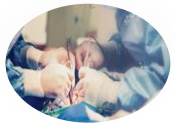


Neuroinflammation



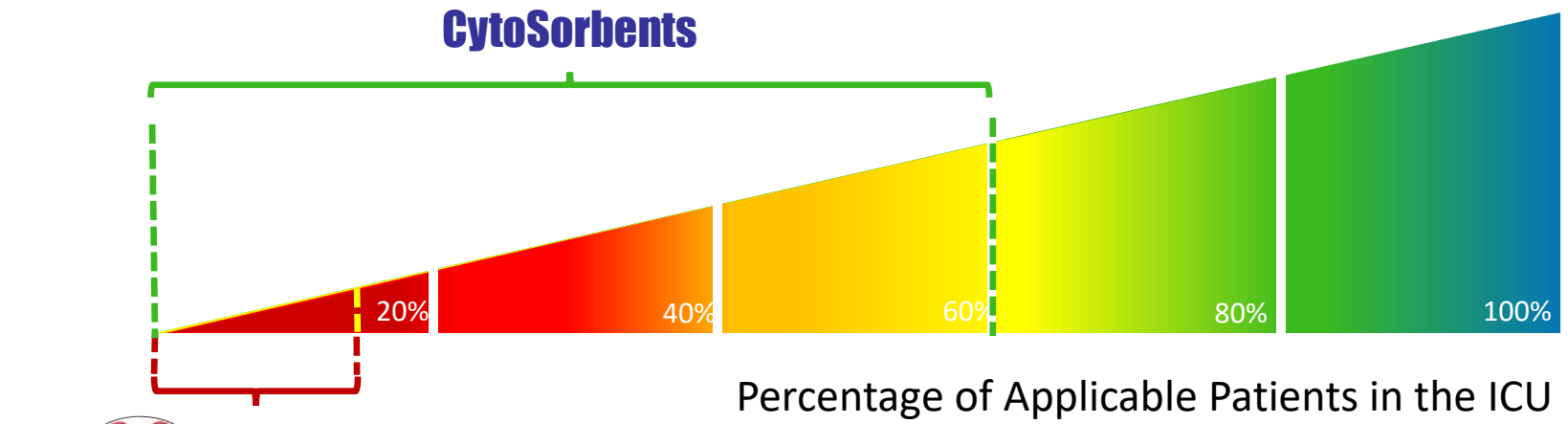
Acute Respiratory Distress Syndrome (ARDS)

Trauma, Rhabdomyolysis



High risk surgical procedures, aortic surgery, Infective endocarditis

Drug overdose
Blood thinner toxicity



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

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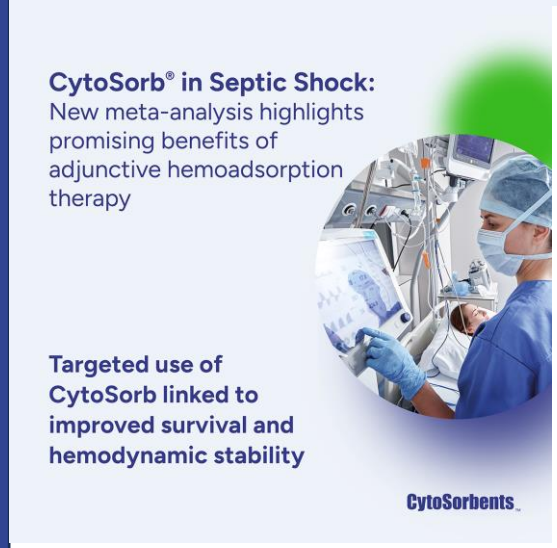
CytoSorbents™

Continue to Leverage Clinical Data



Voices around the world

CytoSorbents™

* CytoSorb is E.U. approved but not yet cleared or approved in the U.S.

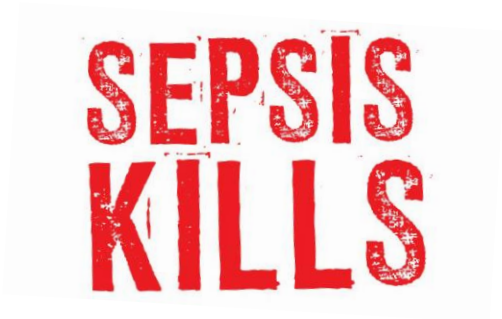
Sepsis and Septic Shock are Deadly

- 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”



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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 is E.U. approved but not yet cleared or approved in the U.S.

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

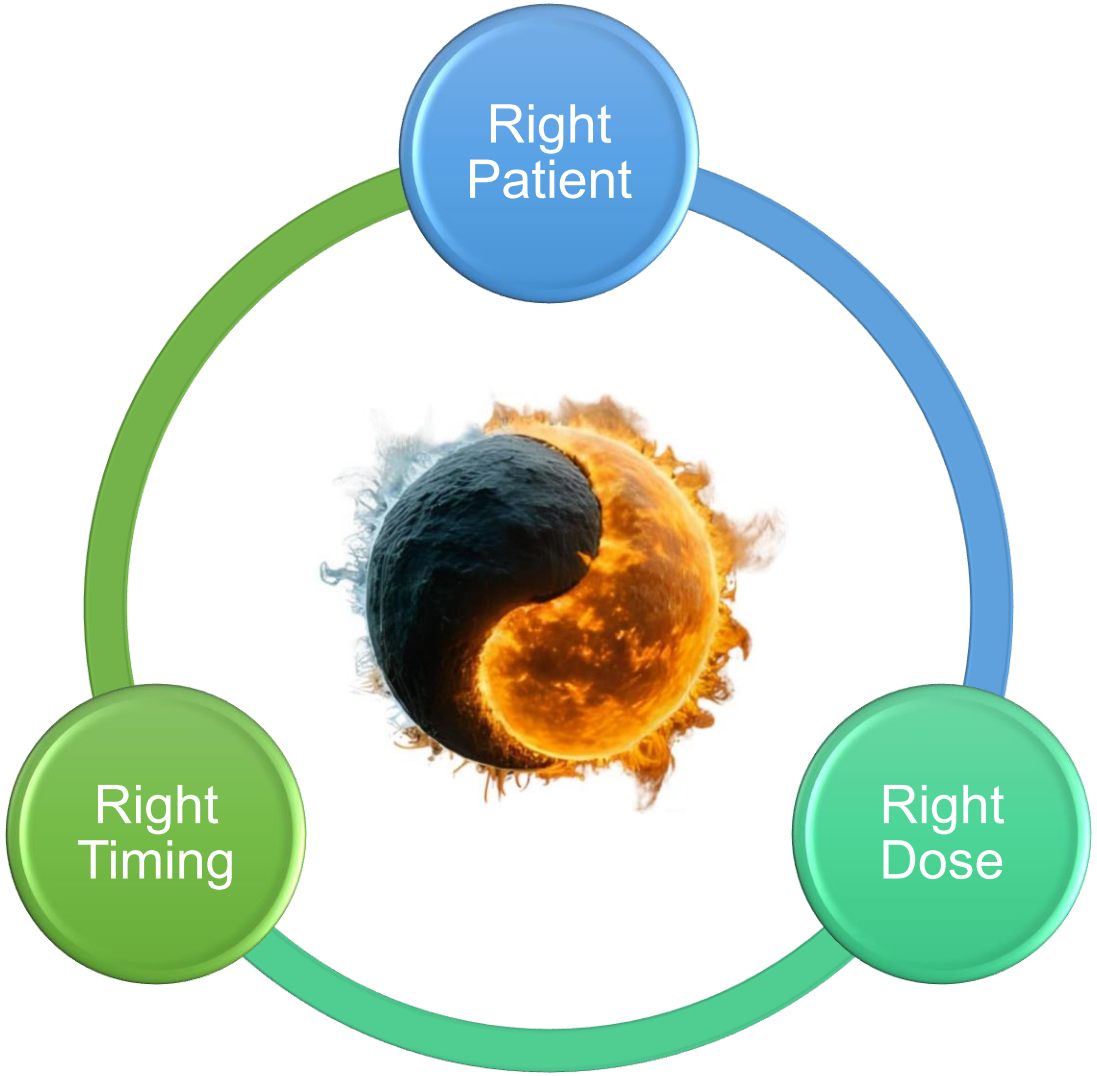
CytoSorb helps to achieve the
Core Treatment Goals in Septic Shock to
Prevent or Treat Organ Failure and
Help Patients Recover

- 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™

* CytoSorb is E.U. approved but not yet cleared or approved in the U.S.

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

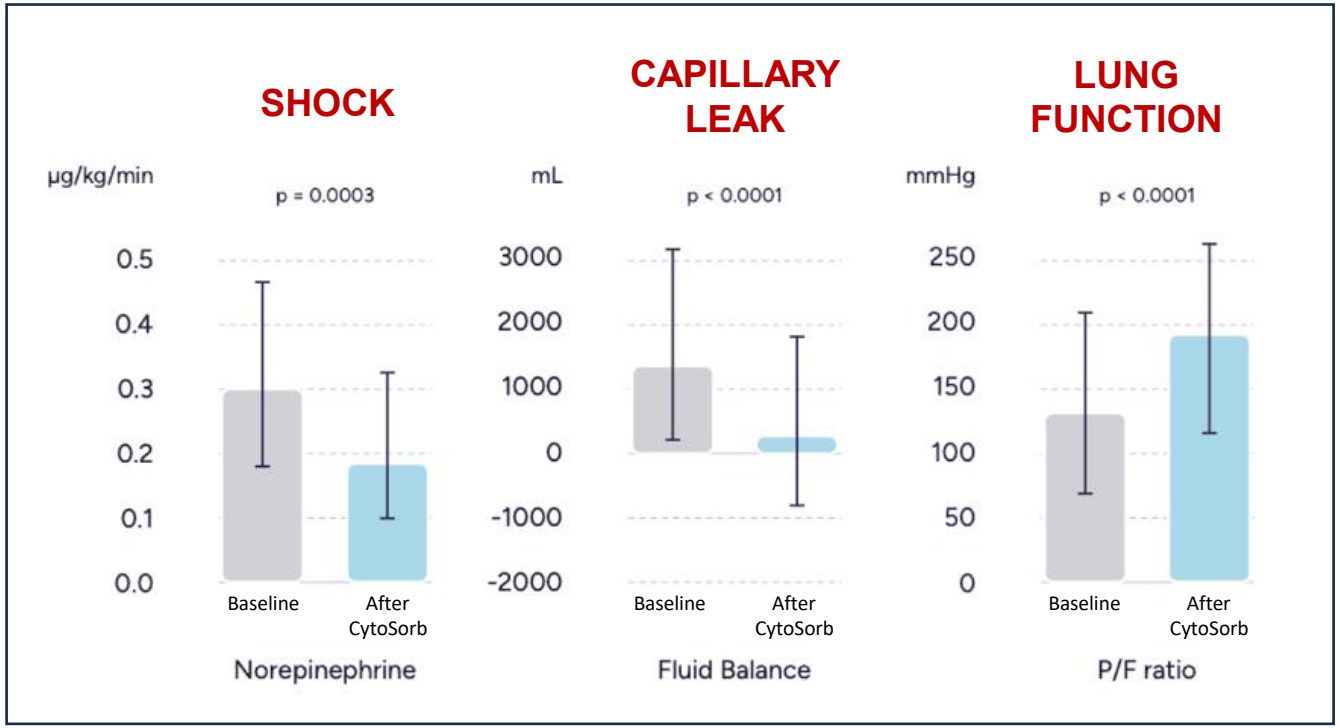
* CytoSorb is E.U. approved but not yet cleared or approved in the U.S.

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

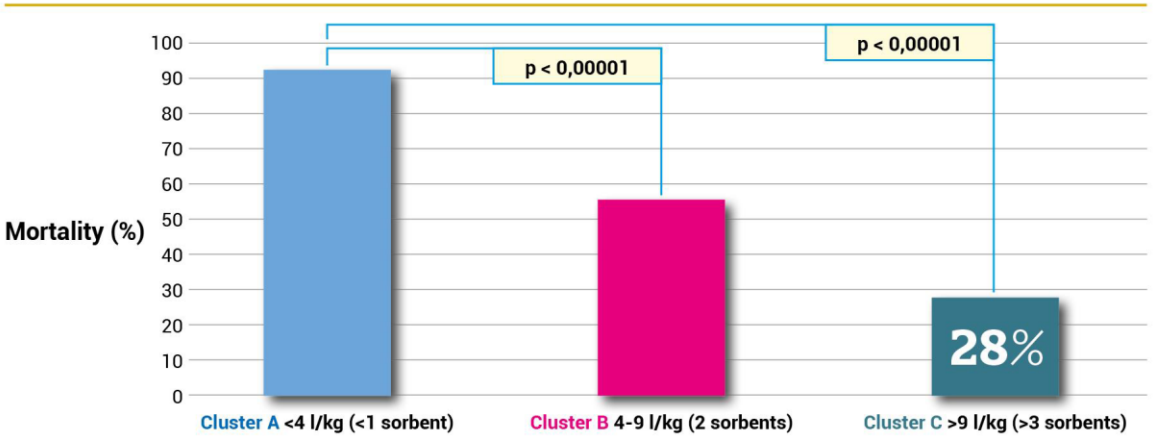
Early and Intensive Treatment with CytoSorb Doubles Survival Expectation

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



* CytoSorb is E.U. approved but not yet cleared or approved in the U.S.

*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]

CHARITÉ UNIVERSITÄTSMEDIZIN BERLIN

- 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

** CytoSorb is E.U. approved but not yet cleared or approved in the U.S.*

CytoSorbents™

CytoSorbents™

Working to save lives together.

Turning the Tide of Sepsis and Septic Shock:

Real World Insights with CytoSorb

September 10, 2025

Link to webinar replay: https://cyto.news/webinar-sepsis/sep10

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

CytoSorbents™

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

Brilinta® and the Use Case for DrugSorb™ ATR

DrugSorb™ ATR

weekly plan						
monday	tuesday	wednesday	thursday	friday	saturday	sunday
	X	X	X	X	X	

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™

DrugSorb-ATR is De Novo Eligible

- U.S & Canadian randomized controlled STAR-T trial established DrugSorb-ATR as a De Novo 510(k) eligible device, DrugSorb-ATR must show that its probable benefits outweigh its probable risks to gain market clearance

- Our initial De Novo submission that was reviewed this year was denied primarily due to FDA's request for additional information to support efficacy and our proposed label indication. Most issues have now been resolved, with three important outcomes from our discussions with FDA

  1) FDA recommended a new De Novo submission to provide robust analyses of new real-world evidence demonstrating DrugSorb-ATR's effectiveness in clinical practice that were either not available with the first submission, or not eligible for inclusion in the prior review and appeal due to FDA rules

  2) FDA raised no safety concerns with DrugSorb-ATR, significantly reducing the "risk" side of the De Novo assessment. Under FDA Breakthrough Device, De Novo, and Least Burdensome guidelines, FDA has established a precedent to provide market approval for safe/low risk devices and allow post-market data collection (e.g. registry) to answer remaining questions on efficacy

  3) FDA indicated agreement that a new De Novo review would be limited to the remaining open items from the prior submission, which should streamline the process.

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

CytoSorbents™

FDA Regulatory Timeline

- On November 7, 2025, we filed a formal Pre-Submission Meeting Request with supporting documentation
- Anticipate a pre-submission meeting will be held in either late 2025 or early Q1 2026 to confirm FDA requirements for the new De Novo application
- Expect to file a new De Novo Filing in Q1 2026, that includes robust analyses of real-world evidence that FDA has not seen before
- Anticipate mid-2026 regulatory decision following a typical 150-day review process
- Review may be expedited as DrugSorb-ATR is still an FDA Breakthrough Device eligible for priority and interactive review

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

CytoSorbents™

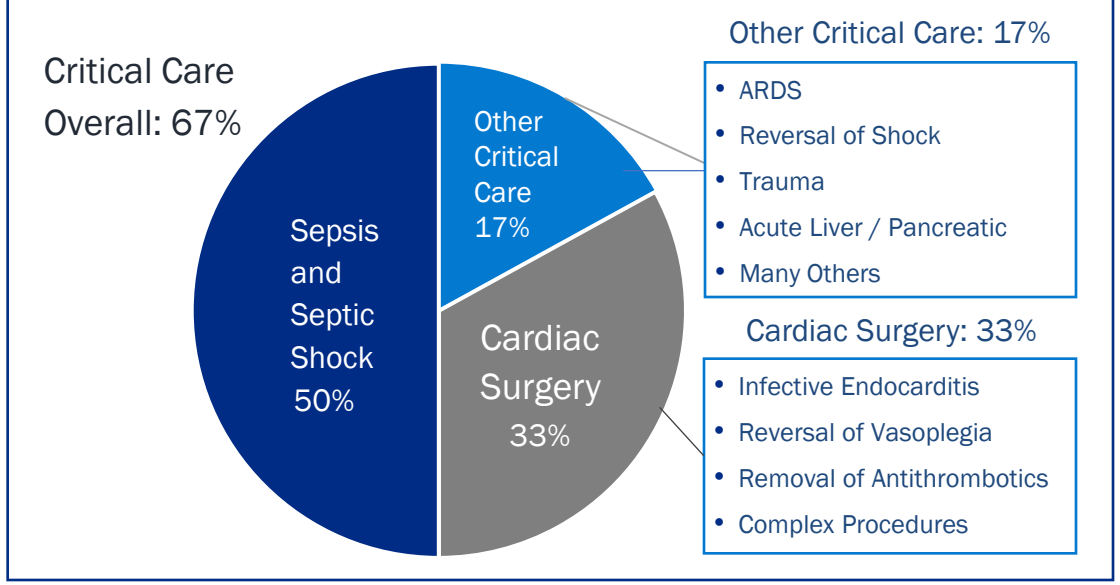
Financial Performance

CytoSorbents™

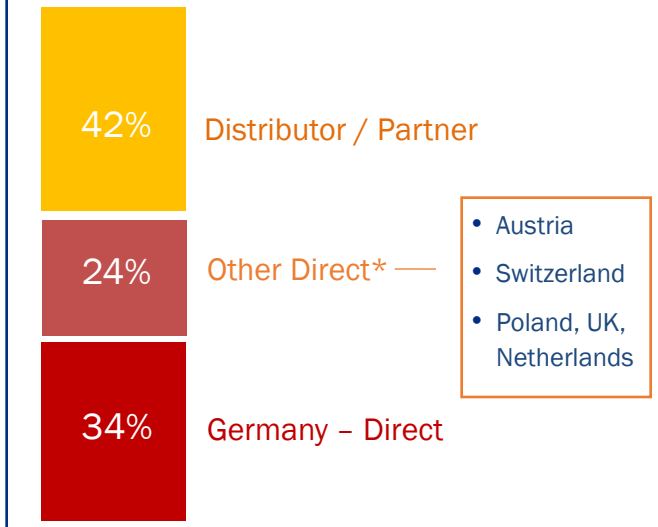
CytoSorb Commercialization Focus

- We sell CytoSorb in more than 70 countries worldwide with nearly 300,000 treatments to date
- Sell Direct in Germany and 8 other countries & through Distributors and partners in the remainder

Estimated Revenue By Market



Revenue By Geography



* Switzerland, Austria, Poland, Netherlands, England, Wales, North Ireland, Scotland, Ireland

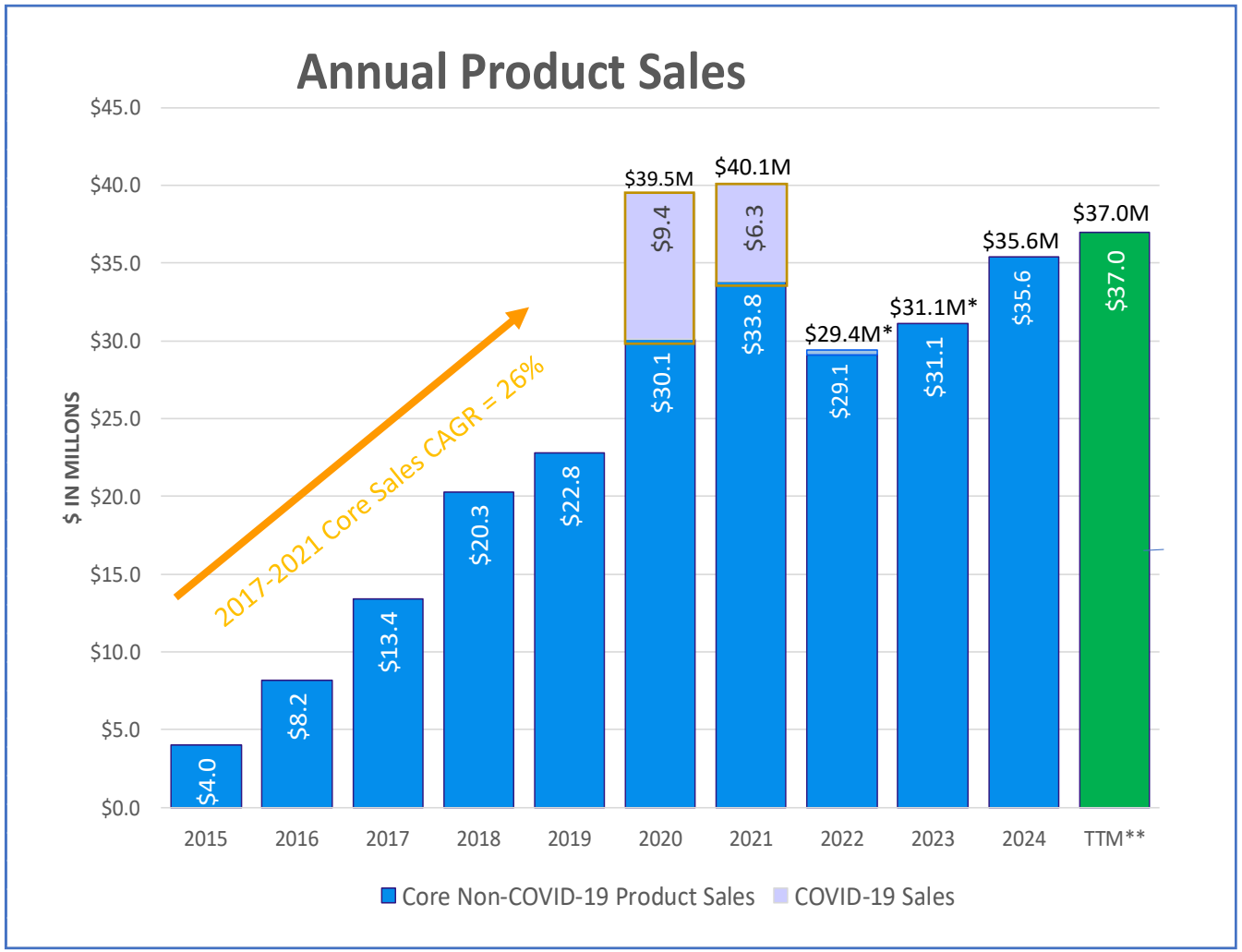
CytoSorbents™

Core Business Performance Summary

- Q3 2025 Revenue was $9.5M, a 10% increase vs $8.6M a year ago
    - Performance led by record sales in our distributor territories, and strong sales in our other direct markets
    - Aided by favorable currency exchange
    - Currently undergoing a restructuring of our German sales team and processes to drive a return to growth and more consistent financial performance in 2026
    - Gross margin remains solid at ~70%
- Strong balance sheet with $9.1M in cash (as of 9/30/25)
- Amended credit agreement provides additional $2.5M in cash and 6-month extension of interest only period to Jan 1, 2027. FDA marketing approval of DrugSorb-ATR further unlocks an additional $2.5M and 6-month extension of the interest-only period

CytoSorbents™

Targeting Acceleration of Annual Revenue Growth



* 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)

Trailing 12-month revenue (as of 9/30/25) was $37.0M vs $33.8M in the comparable period a year ago

- Distributor/Partner sales: $15.6M (+14.4% growth)
- Direct Sales (outside Germany): $8.8M (+23.5% growth)
- Germany: $12.6M (-3.2% growth)

With Germany:	+9.4% sales growth
Without Germany:	+17.3% sales growth

Rest of business (66% of sales) is healthy, with our focus on returning Germany (34% of sales) to growth

CytoSorbents™

A Clear and Compelling Value Proposition

We believe CytoSorbents is significantly undervalued. We continue to execute our strategy designed to drive strong future growth and reduce risk. With expected sequential progress in our business, our goal is to improve operational visibility, attract new investors, and maximize shareholder value

- ✓ CytoSorb is an E.U. approved product that is the basis of an established, international core business in critical care and cardiac surgery with $37M (+9% ttm) in high (71%) gross margin sales and an excellent "razorblade" business model with expectations for strong future growth. We are taking active measures to return Germany back to growth which is expected to boost overall sales growth
- ✓ We have resolved most open issues with FDA from our first DrugSorb-ATR De Novo submission and importantly FDA has acknowledged device safety. We are now focused on resolving the remaining items with FDA in a new De Novo submission, and have now started the clock via our pre-submission application to FDA. We aim to file a new DrugSorb-ATR De Novo application in Q1 2026, with a regulatory decision expected by mid-2026, potentially sooner
- ✓ Meanwhile, we have strengthened our financial position by amending our credit facility with Avenue Capital Group, adding $2.5M in cash to our balance sheet (pro-forma $11.6M cash 9/30/25) and extending the interest-only (IO) period to January 1, 2027, with an option of another $2.5M and another 6-mth IO extension with FDA approval
- ✓ Finally, we have implemented our Headcount and Cost Reduction program, targeting cash flow breakeven in Q1 2026

 * CytoSorb is E.U. approved but neither CytoSorb nor DrugSorb-ATR are yet cleared or approved in the U.S.

CytoSorbents™

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