

# CytoSorbents™



HELPING REDUCE DEADLY UNCONTROLLED INFLAMMATION IN HOSPITALIZED PATIENTS WORLDWIDE

**NASDAQ: CTSO**  
**Investor Presentation**  
February 2018

# Safe Harbor Statement

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This presentation contains “forward-looking statements” pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include, without limitation, any statement that may predict, forecast, indicate, or imply future results, performance or achievements, and may contain the words “estimate,” “intend,” “target,” “will,” “is likely,” “would,” “may,” or, in each case, their negative, or words or expressions of similar meaning. These forward-looking statements are found at various places throughout this presentation and include information concerning possible or assumed future results of our operations; business strategies; future cash flows; financing plans; plans and objectives of management; any other statements regarding future operations, future cash needs, business plans and future financial results, and any other statements that are not historical facts. Unless otherwise indicated, the terms “CytoSorbents,” “Company,” “we,” “us” and “our” refer to CytoSorbents Corporation. Any or all of the forward-looking statements included in this presentation are not guarantees of future performance and may turn out to be inaccurate. These forward-looking statements represent our intentions, plans, expectations, assumptions and beliefs about future events and are subject to risks, uncertainties and other factors. Many of those factors are outside of our control and could cause actual results to differ materially from the results expressed or implied by those forward-looking statements. 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 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; competition, inability to achieve regulatory approval for our device, 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. In light of these risks, uncertainties and assumptions, the events described in the forward-looking statements might not occur or might occur to a different extent or at a different time than we have described. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of the applicable presentation. You are referred to a discussion of important risk factors detailed in the Company’s Form 10-K filed with the Securities and Exchange Commission on March 3, 2017 and other reports and documents filed from time to time by us, which are available online at [www.sec.gov](http://www.sec.gov).

# CytoSorbents is a Leader in Critical Care Immunotherapy



Leading the Prevention or Treatment of  
**Life-Threatening Inflammation**  
in the ICU and Cardiac Surgery using  
CytoSorb® Blood Purification

# CytoSorbents At a Glance

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- NASDAQ-traded (CTSO): ~\$7.00 per share
- CytoSorb®, is E.U. approved, with 35,000+ treatments; distributed in 45 countries
- Pre-announced total 2017 revenue of \$15M+, including full year CytoSorb sales of \$13.2M, with \$17.3M in cash at year-end 2017
- ~90 employees with international footprint across two wholly-owned subsidiaries
  - CytoSorbents Medical, Inc - New Jersey, USA
    - Headquarters, ISO 13485 manufacturing, QA/QC, R&D
  - CytoSorbents Europe GmbH: International sales office - Berlin, Germany
- Strategic Partnerships with Fresenius Medical Care, Terumo, Biocon, and Dr. Reddy's
- Strong government support with nearly \$22M in grants, contracts, other non-dilutive funding
- Russell Microcap Index listed with coverage by Cowen, HCW, B Riley, Aegis, Maxim & Zacks
- ✓ **Expecting rapid growth and operating profitability (on quarterly basis) in 2018**
- ✓ **On path to potential U.S. approval with U.S. REFRESH 2 pivotal trial in cardiac surgery**

# Leadership Background



## Phillip Chan, MD, PhD – Chief Executive Officer and President

Former Partner at the \$80M NJTC Venture Fund, leading life science investments for 5 years. Co-founder of Andrew Technologies, commercializing its HydraSolve™ lipoplasty device in the U.S. MD/PhD from Yale School of Medicine, internal medical residency at the Beth Israel Deaconess Medical Center at Harvard.



## Vincent Capponi, MS - Chief Operating Officer

20+ years experience in the medical device, pharmaceutical and imaging fields. Led the first regulatory approval for the heparin flush syringe, used worldwide in hospitals, and managed manufacturing of > 1 million units/week



## Kathleen Bloch, MBA, CPA – Chief Financial Officer

20+ years as CFO of private and public companies. Former Laureate Biopharma CFO, a contract biopharmaceutical manufacturer, and CFO of Silverline Windows, a \$750M revenue window manufacturing company with 9 manufacturing plants nationally



## Eric Mortensen, MD, PhD - Chief Medical Officer

25 years leading clinical trials for key programs at Pfizer, GSK, and Merck. Most recently Vice President & Therapeutic Area Clinical Head for Inflammation and Immunology at Pfizer, leading the company's global late-stage development organization for programs in inflammation including studies for Enbrel and Xeljanz



## Christian Steiner, MD – Vice President of Sales and Marketing

15+ years experience in sales and marketing of extracorporeal therapy and critical care sales at Teraklin for MARS, the first liver failure dialysis technology, and at Pulsion Medical (hemodynamic monitoring)



## Christopher Cramer, MS, MBA – Vice President of Business Development

15+ years experience in business development and commercial experience. Former Senior Director of New Venture Development at Johnson & Johnson, and previously at PwC Consulting



# Uncontrolled Inflammation is Deadly



# Massive Inflammation Causes Organ Failure

Organ failure occurs when vital organs stop working,  
**causing nearly half of all deaths in the ICU.**



Little can be done to prevent or treat organ failure today

# No Ideal Options to Treat Severe Inflammation

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## **Anti-Inflammatory (too weak)**

**NSAIDs**

**Aspirin**

**Anti-cytokine  
antibodies**

**Anti-integrin  
antibodies**

**Anti-oxidants**

## **Immunosuppressive (too strong)**

**Corticosteroids**

**Chemotherapy**

**Organ transplant  
Anti-rejection drugs**

**Radiation**

**Immune system  
ablation**

**Anti-leukocyte Abs**



# CytoSorb Bridges the Gap

## Anti-Inflammatory (too weak)

NSAIDs

Aspirin

Anti-cytokine  
antibodies

Anti-integrin  
antibodies

Anti-oxidants



## Immunosuppressive (too strong)

Corticosteroids

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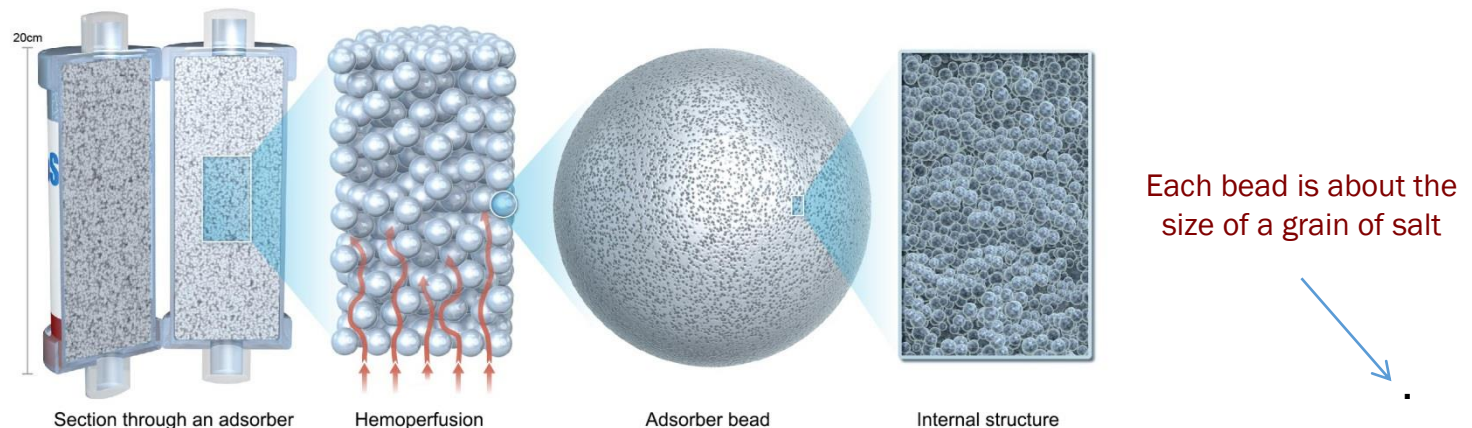
# CytoSorb® Reduces the Fuel to the Fire

- CytoSorb® targets the \$20+ billion opportunity in critical care and cardiac surgery
- Approved in the European Union as the only specifically approved extracorporeal cytokine filter
- Broad indication for use where cytokines are elevated
- Removes cytokines and many other inflammatory mediators such as free hemoglobin, bacterial toxins, myoglobin, and activated complement
- Safe and well-tolerated: ~35,000 cumulative treatments delivered, up from 20,000 a year ago



# Patented Blood Purification Technology

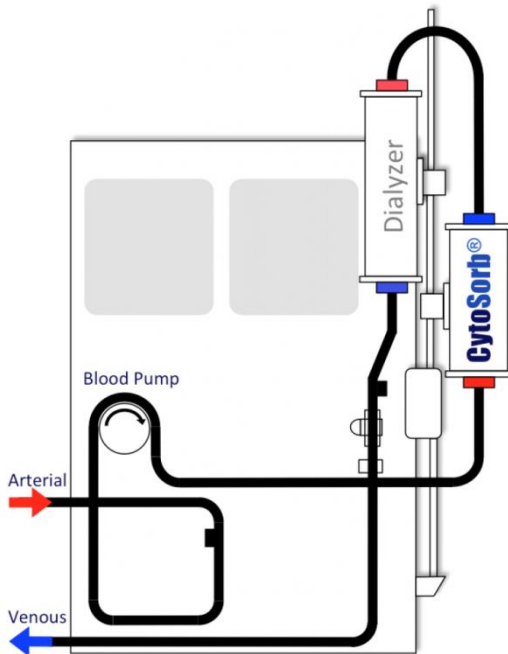
The underlying blood purification technology is based on biocompatible, highly porous polymer beads that act like tiny sponges to remove harmful substances from blood



- Proprietary patented technology with multiple patents pending worldwide
- Manufactured at our ISO 13485 certified facility in New Jersey
- One of the highest grade medical sorbents on medical market today

# CytoSorb is “Plug and Play”

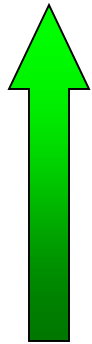
## Compatible with Existing Dialysis and Heart-Lung Machines



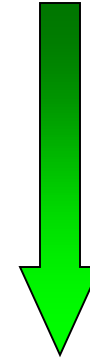
- Place a temporary dialysis catheter in a major vein
- Connect the device to a standard dialysis, ECMO, or heart-lung machine found in hospitals worldwide
- Pump blood out of the body and through the cartridge
- The polymer beads directly contact blood and remove unwanted or toxic substances
- “Purified” blood is pumped back into the patient
- Can treat 70+ total blood volumes per 24 hour treatment
- Each treatment uses a new cartridge



# Goal: To Prevent or Treat Organ Failure

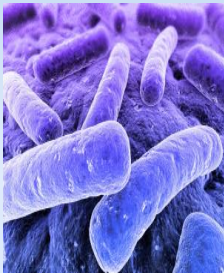


Improve  
Patient  
Outcome  
and  
Survival

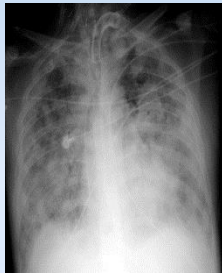


Decrease  
Costs Of  
ICU and  
Patient  
Care

Sepsis



ARDS



Burn Injury



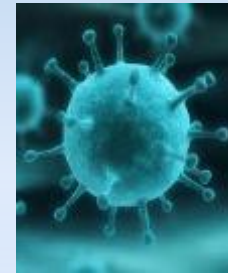
Trauma



Pancreatitis



Influenza



Surgical



The Potential to Revolutionize Critical Care Medicine

# Refractory Septic Shock

Prospective, single arm study in 20 patients with refractory late-stage septic shock using CytoSorb aggressively every 12 hours with a new cartridge

- Patients had refractory shock despite high doses of vasopressors, respiratory failure requiring mechanical ventilation, oligo-anuric kidney failure requiring dialysis, and lactate > 8 mmol/L
- Results from the CytoSorb Greifswald Study
  - Resolution of shock in 65% of patients treated with CytoSorb
  - 28-day survival was 45%, a 30-40% absolute improvement over expected (0-10%)
  - Reduction of IL-6 from an initial average of 87,000 pg/mL to below 10,000 pg/mL after 24 hours of treatment
- A similar population (n=16) receiving standard of care but no CytoSorb therapy, where shock could not be reversed, also on mechanical ventilation with an initial lactate level of  $6.1 \pm 4$  mmol/L, and 75% requiring renal replacement therapy had a mortality of 100% at 28 days.\*

- Conrad, M., et. al., "Early prediction of norepinephrine dependency and refractory septic shock with a multimodal approach of vascular failure", J Crit Care, 2015; 30:739-743.
- Friesicke, S, et.al., "Extracorporeal cytokine elimination as rescue therapy in refractory septic shock: a prospective single center study", J Artif Organs 2017 e-published ahead of print

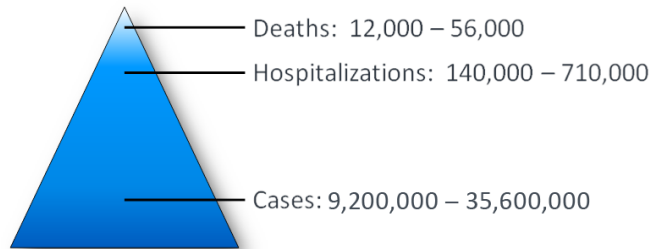
# Vasoplegia and Heart Transplantation

Prospective, single arm observational study, where propensity score matching of a total of 84 heart transplant patients (60 control, 24 treatment using CytoSorb during surgery) yielded a total of 16 matched pairs of control and treatment patients

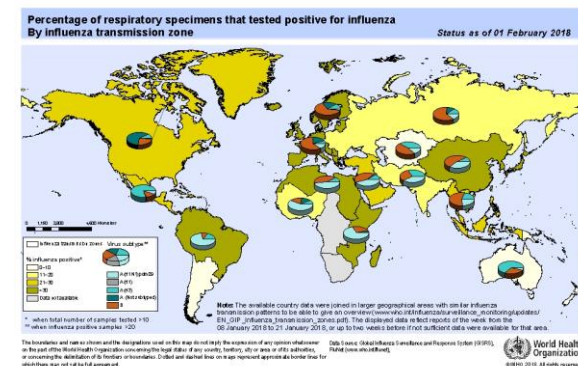
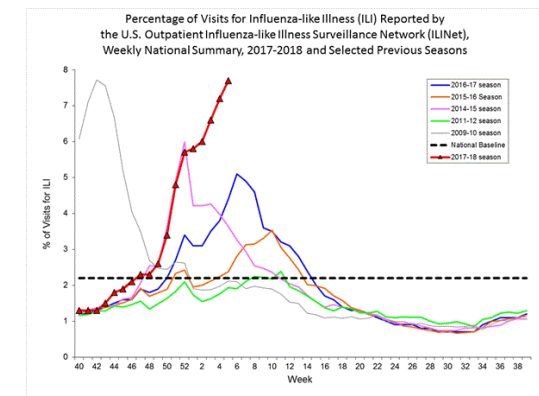
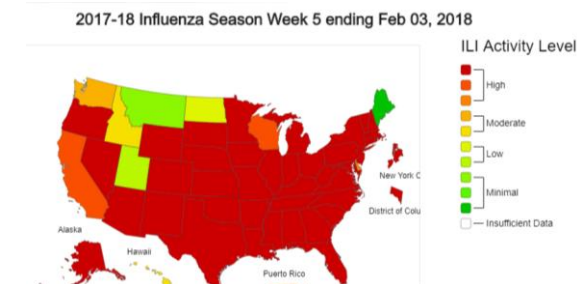
- Post-operatively, patients are prone to developing severe vasoplegia and shock, requiring vasopressors
  - When CytoSorb was used intra-operatively in a bypass circuit during cardiopulmonary bypass, the need for norepinephrine was significantly lower 24 hours after surgery (0.14 vs 0.30 ug/kg\*min control,  $p=0.04$ ) and 48 hours after surgery (0.06 vs 0.32 ug/kg\*min,  $p=0.05$ )
  - Despite less need for vasopressors, treatment patients maintained comparable hemodynamic parameters
  - Fewer cases of acute or acute on chronic renal failure requiring dialysis (2 vs 4 cases control,  $p=0.03$ ) and a trend to less acute kidney injury, shorter mechanical ventilation, shorter ICU stays in the treatment group
  - No deaths in the treatment group, vs 2 deaths in control, in 30 days after surgery
- 
- Nemeth E., et. al., "Impact of intraoperative cytokine adsorption on outcome of patients undergoing orthotopic heart transplantation – an observational study" Clinical Transplantation , accepted manuscript online 29 Jan 2018

# Seasonal Influenza

- Seasonal influenza in the US (CDC data)



- Current 2017-18 US epidemic is particularly severe
  - Poor vaccine coverage, virulent H3N2 strain, widespread
- In addition to very young and elderly, otherwise healthy people are dying from influenza
  - Cytokine storm, severe inflammation and rapid organ failure
  - Complications including secondary pneumonia and sepsis
- CytoSorb has recently been used to help treat about 2 dozen cases in Europe and India
  - Primary treatment of severe viral sepsis
  - Treatment of septic shock and multiple organ failure
  - With ECMO or dialysis

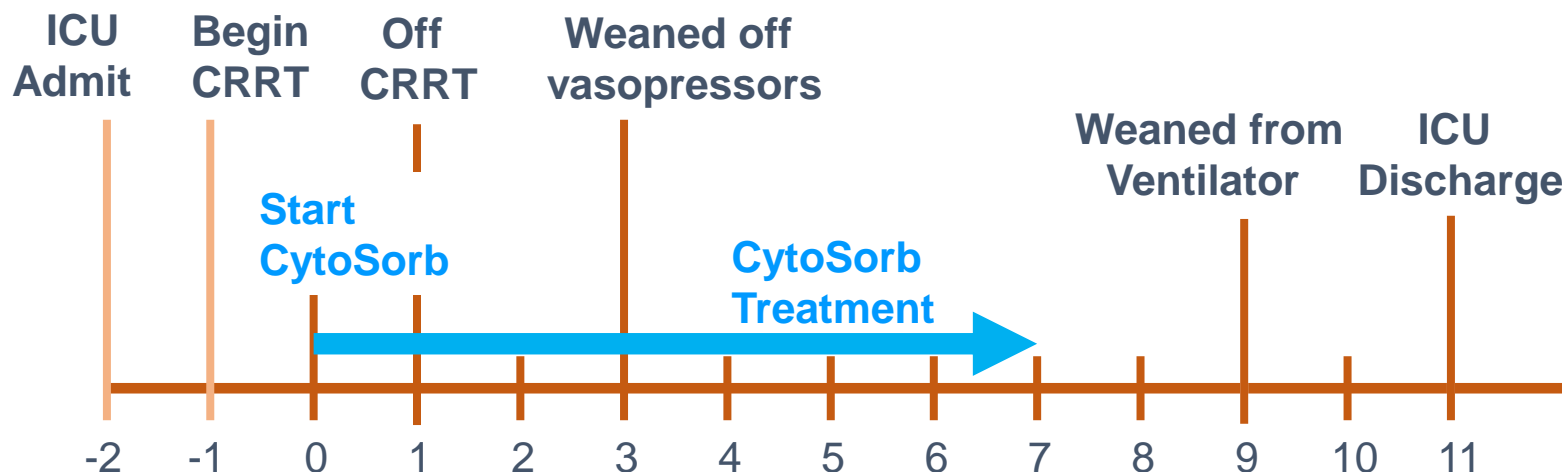




# Case Report: Influenza

56 year old man with documented swine (H1N1) influenza with multiple organ failure. Interferon levels were undetectable

Treatment day	1	2	3	4	5	6	7
IL-6 (before) pg/mL	8,076	1,025	527	172	117	120	107
IL-6 (after) pg/mL	2,621	663	289	76	110	111	94
IL-6 (% change)	-68%	-35%	-45%	-56%	-6%	-8%	-12%



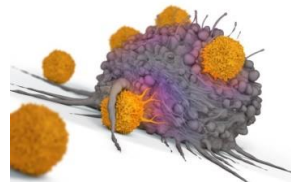
# CAR-T Cell Immunotherapy and CRS

- CAR-T cell cancer immunotherapy is a blood cancer treatment breakthrough.
- However, ~40-50% of patients can develop severe, high grade cytokine release syndrome (CRS), a cytokine storm that can lead to rapid organ failure and potentially death
- CytoSorb® was specifically designed to control cytokine storm and CRS and has already successfully treated a dozen cases of the closely related disease hemophagocytic lymphohistiocytosis (HLH)
- With FDA approvals of Kymriah (Novartis) and Yescarta (Gilead), with EU approvals pending, CytoSorb® could be used as second line to tocilizumab, but before steroids
- In March 2017, the pioneer of CAR T-cell immunotherapy, Dr. Carl June at University of Pennsylvania, joined our Scientific Advisory Board.

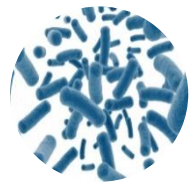


# The World Needs CytoSorb®

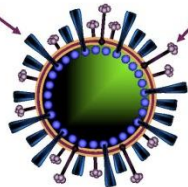
**CytoSorbents™**



**H1N1**



H5



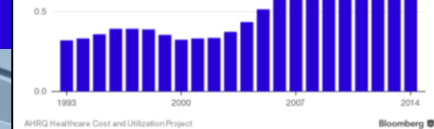
N1

**Hospital Stays for Sepsis Appear to Be Rising Dramatically**  
Experts say cases of sepsis may have been undercounted for years

**Recognizing Sepsis as a Global Health Priority — A WHO Resolution**

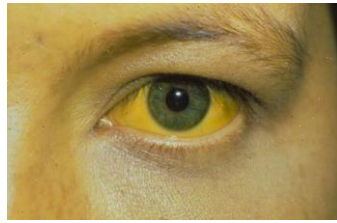
Konrad Reinhart, M.D., Ron Daniels, M.D., Niranjan Kissoon, M.D., Flavia R. Machado, M.D., Ph.D., Raymond D. Schachter, L.L.B., and Simon Finfer, M.D.

"Some very important clinical issues, some of them affecting life and death, stay largely in a backwater which is inhabited by academics and professionals the world have died prematurely or faced long-term disability. This toll of unnecessary suffering drove Germany, with the unanimous support of the WHO executive code" in the Global Burden of Disease statistics, where most deaths due to sepsis are classified as being caused by the underlying infection. Improving the coding



**Bloomberg**

**America Has a \$27 Billion Sepsis Crisis**



# Blood Purification Alternatives

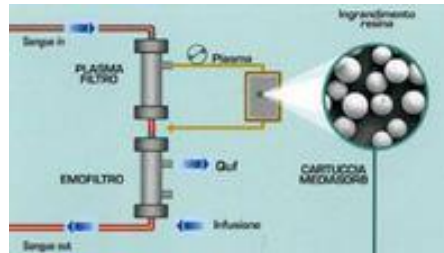
Blood Compatible  
Sorbents

Blood Incompatible  
Sorbents

HMCO  
Filters



CytoSorb  
CytoSorbents



CPFA - Bellco  
I.M.P.A.C.T - Hemolife



EMiC2 - Fresenius



SepteX - Baxter  
Oxiris - Baxter  
TheraNova - Baxter





# CytoSorb

35,000+ Treatments

45 Countries Worldwide with E.U.

**Critical Care**

**Cardiac Surgery**

United States



**Cardiac Surgery**



60+ Investigator Initiated Studies

 REFRESH I 

↓  
REFRESH 2   
Start  
Q1 2018

↓  
   
2020

# CytoSorb® Is Like a High Margin Razorblade

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- High margin “razorblade” fully compatible with existing installed base of “razor” blood pumps: Dialysis/CRRT, ECMO machines (ICU), heart-lung machines (OR)
- Blended gross margins are nearly 70%, expected to rise with new plant (1H 2018)
- Average Direct Selling Price is approximately \$1,000 per cartridge
- Approximately 1 - 10 cartridges are typically used per patient
  - Open heart surgery: 1-2 cartridges
  - Sepsis: 3-5 cartridges or roughly 1 day in the ICU
- In Germany, 400 hospitals have >400 beds. Each hospital typically sees 300-600 sepsis patients per year. At 3-5 cartridges per patient:
  - Revenue per patient = ~\$3,000-5,000
  - Potential revenue per hospital = \$1-3M for sepsis alone
- In 2016, one German hospital achieved sales >\$1M, validating revenue model

# Direct Sales: Focused on 5 Countries

CytoSorbents' direct sales force focused on most major university and public hospitals in Germany, Austria, Switzerland, Belgium and Luxembourg. German market alone is \$1.0-1.5 billion



**Dr. Christian Steiner, MD**  
Vice President – Sales and Marketing and General Manager  
CytoSorbents Europe GmbH



**Stefan M. Baudis**  
International Sales Director



**Dr. Joerg Scheier, MD**  
Senior Medical Director Europe



**Dr. Volker Humbert, MD**  
Senior Manager – Clinical Affairs



**Franziska Preissing**  
Senior Manager – Reimbursement & Health Economics



**Patrick Waltrich**  
Senior Manager – Finance/Operations



**Dominik Gutzler**  
Head of Product Management



**Dr. Rainer Kosanke, PhD**  
Director Scientific Affairs Europe



**Alexandru Bojan**  
Regional Sales Director



**Bettina Sabisch**  
Regional Sales Director



**Christian Tembaak**  
Regional Sales Director



**Hans-Juergen Kraus**  
Regional Sales Manager  
Southern Germany



**Matthias Hoeldtke**  
Regional Sales Manager  
Southern Germany



**Uwe Gerks**  
Regional Sales Manager  
Northern Germany



**Andreas Gassmann**  
Sales Representative  
Southern Germany



**Christian Koptik**  
Regional Sales Manager  
Austria



**Martin Scherer**  
Regional Sales Manager  
Southwest Germany



**Andreas Pendleler**  
Regional Sales Manager  
Western Germany



**Marco Dietrich**  
Regional Sales Manager  
Northern Germany



**Oliver Lupoli**  
Country Sales Manager  
Switzerland



**Brigitta Waldmueller**  
Sales Manager/Application Specialist  
Austria



**Harriet Adamson**  
Clinical Research Manager



**Eva Wechsler**  
Application Specialist



**Anke Applehoff**  
Application Specialist



**Kristin von Hammerstein**  
Marketing Manager



**Petra Hoffman**  
Sales Assistant/Customer Support



**Fernanda Goncalves Zawieja**  
Sales Assistant/Customer Support



# Dedicated Reimbursement In Germany

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- CytoSorb achieved a permanent, dedicated reimbursement code in Germany
  - Most important market and the largest medical device market in Europe and third largest in the world
- Was achieved rapidly through the initiative and strong support of several major medical societies across different medical specialties, helping to demonstrate the broad support of our therapy by physicians in the country
- Retroactive to January 1, 2017, the new code has resulted in higher reimbursement to many hospitals
- We expect direct sales momentum to accelerate into 2018 as the impact of this higher reimbursement is being felt



# CytoSorb® Distributed in 45 Countries



**Dr.Reddy's**



HOANG LONG PHARMA

**IntensivMed**

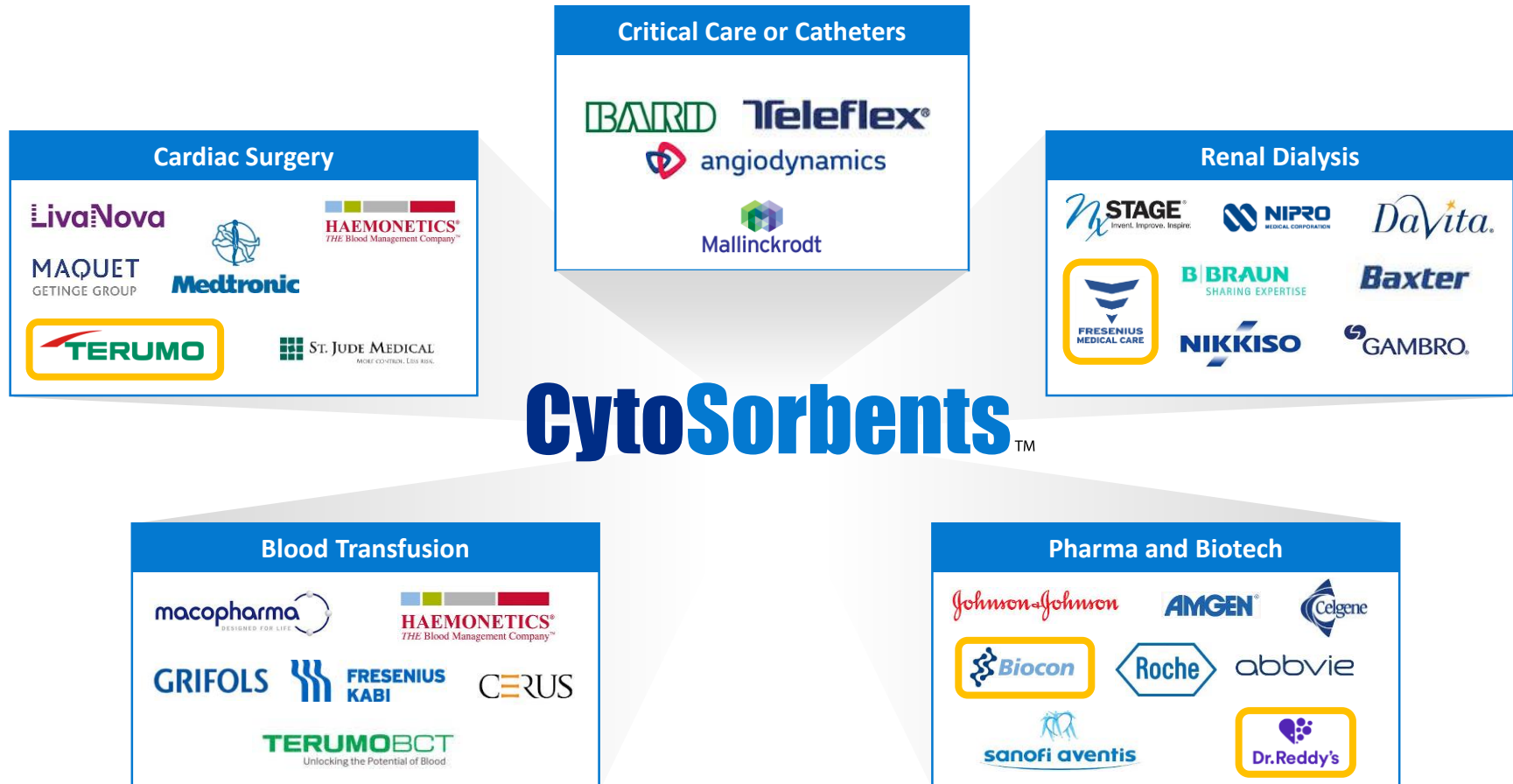


**TekMed**



**WMC**

# Four Major Partnerships, Potential for More



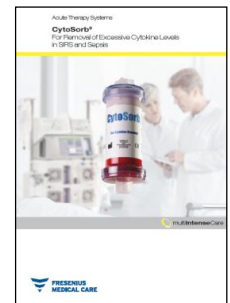
Partnered with leading multinational corporations:

Fresenius Medical Care, Terumo Cardiovascular, Biocon Ltd, and Dr. Reddy's Laboratories

\* Companies listed here are used simply as examples of companies in these respective verticals. We make no other representations as to our relationship with any of these companies.

# Expanded Fresenius Partnership

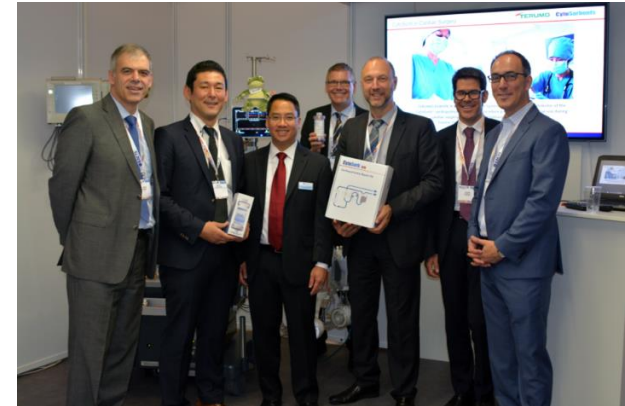
- CytoSorbents renewed and expanded its partnership with Fresenius Medical Care in January 2017
- Extension on exclusive distribution of CytoSorb for critical care applications in France, Poland, Denmark, Norway, Sweden, and Finland through 2019
- Guaranteed minimum quarterly orders and payments of CytoSorb evaluable every 1.5 years
- Co-marketing agreement across all of the countries where CytoSorb is sold, where possible
  - Adds to the “effective” sales force in each country
  - Fresenius has provided written endorsement of CytoSorb for the multiFiltrate platform



**We have launched our co-marketing effort in 5 countries and plan to ramp up to other countries soon**

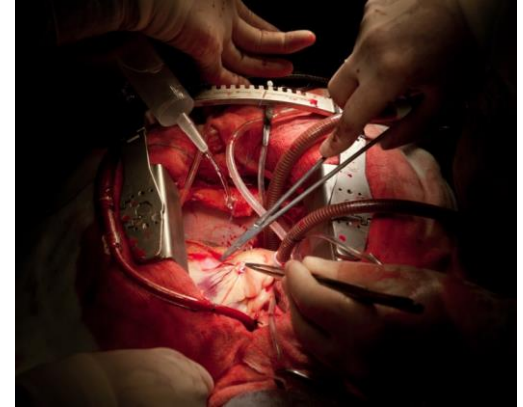
# Launched in December

- Entered into a multi-country strategic partnership with Terumo Cardiovascular Group, a global leader in medical devices for cardiac and vascular surgery
- Initial exclusive distribution of CytoSorb® CPB Procedure Pack for intra-operative use during cardiac surgery in France, Denmark, Norway, Sweden, Finland, and Iceland
- Launched December 2016
- We believe this strategic partnership opens the door to potential expansion to other countries, such as Japan – the second largest medical device market in the world



# U.S. Approval Targets Cardiac Surgery

- Heart disease is the leading cause of death worldwide driven by smoking, unhealthy lifestyles, and an aging population
- ~1M cardiac surgeries performed annually in U.S. and E.U.
  - Coronary artery bypass graft surgery
  - Valve repair or replacement
  - Heart or lung transplantation
  - Congenital defect repair
  - Aortic reconstruction
- Complex cardiac surgeries require long heart-lung machine pump times, resulting in:
  - ↑ Hemolysis and free hemoglobin
  - ↑ Inflammatory mediators, cytokines, and activated complement



**Severe inflammation, nitric oxide scavenging, and reduced blood flow can lead to kidney, lung, and/or heart failure in many patients following surgery**



# U.S. REFRESH 1 Trial

## REduction in FREe Hemoglobin



**CytoSorbents™**

- 46-patient, eight-center trial evaluating the safety and efficacy of intra-operative use of CytoSorb® in a heart-lung machine during elective, non-emergent complex cardiac surgery with heart-lung machine time  $\geq 3$  hours
- Working with major cardiac surgery centers
  - Baylor and Texas Heart Institute
  - Baystate Medical Center
  - Columbia University
  - Cooper University Hospital
  - University of Kentucky
  - University of Maryland
  - University of Pennsylvania
  - University of Pittsburgh
- First RCT using CytoSorb in high risk cardiac surgery
  - Demonstrated safety
  - Identified valve replacement patients who are the highest levels of peak pfHb
  - Demonstrated that CytoSorb significantly reduces pfHb by 35-40% and activated complement during treatment in this population
- Data from the REFRESH 1 Trial was selected for podium presentation at the American Association of Thoracic Surgery (AATS) conference in May 2017 and was submitted for publication

CPB Length	Mean Reduction of pfHb (mg/dL)	P-value
3.0	35 mg/dL	0.09
3.5	48 mg/dL	0.05
4.0	61 mg/dL	0.05
4.5	74 mg/dL	0.07

# REFRESH 2 - AKI Targets US Approval

REFRESH 2 – AKI is a pivotal, multi-center RCT using CytoSorb intraoperatively to reduce the incidence or severity of acute kidney injury (AKI) in high risk cardiac surgery patients

- The development of even mild AKI after surgery predicts 1 and 5 year mortality and progression to chronic kidney disease
- Trial design approved by FDA:
  - Up to 400 patient, 20-25 center 1:1 randomized, controlled PMA trial in elective, valve replacement or aortic reconstruction with hypothermic cardiac arrest
  - Intervention: Standard of care (control) or Standard of care + CytoSorb intraoperatively
  - Primary endpoint: Postoperative acute kidney injury (AKI)
  - Secondary clinical and cost-effectiveness endpoints: Reduction in other organ injury (incidence of stroke, time on mechanical ventilation, hemodynamic stability), days in the ICU
  - Completion of study: 2019 with potential 2020-21 FDA approval
  - Cost: Approximately \$12M spread out over 3 years
- With FDA IDE approval, central IRB approval, and recent CMS approval, enrollment expected to begin soon

# German Govt Funding REMOVE Endocarditis Trial

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- Infective endocarditis (heart valve infection) occurs when bacteria seeds a heart valve from IV drug abuse and dirty needles, or from dental procedures
- The incidence of endocarditis is rising due to the opiate crisis
- Patients often require open heart surgery valve replacement but are very hemodynamically unstable before, during, and after surgery due to a combination of sepsis and heart valve destruction
- Intraoperative CytoSorb has been used to help stabilize such patients peri-operatively with good success
- The German Federal Ministry of Education and Research is funding a 250 patient, multi-center, randomized, controlled study (REMOVE) using CytoSorb during valve replacement open heart surgery in patients with infective endocarditis, expected to start in 1H 2018
- The trial is in collaboration with B.R.A.H.M.S, a division of ThermoFisher
- Primary endpoint is improved hemodynamic stability and reduced organ injury

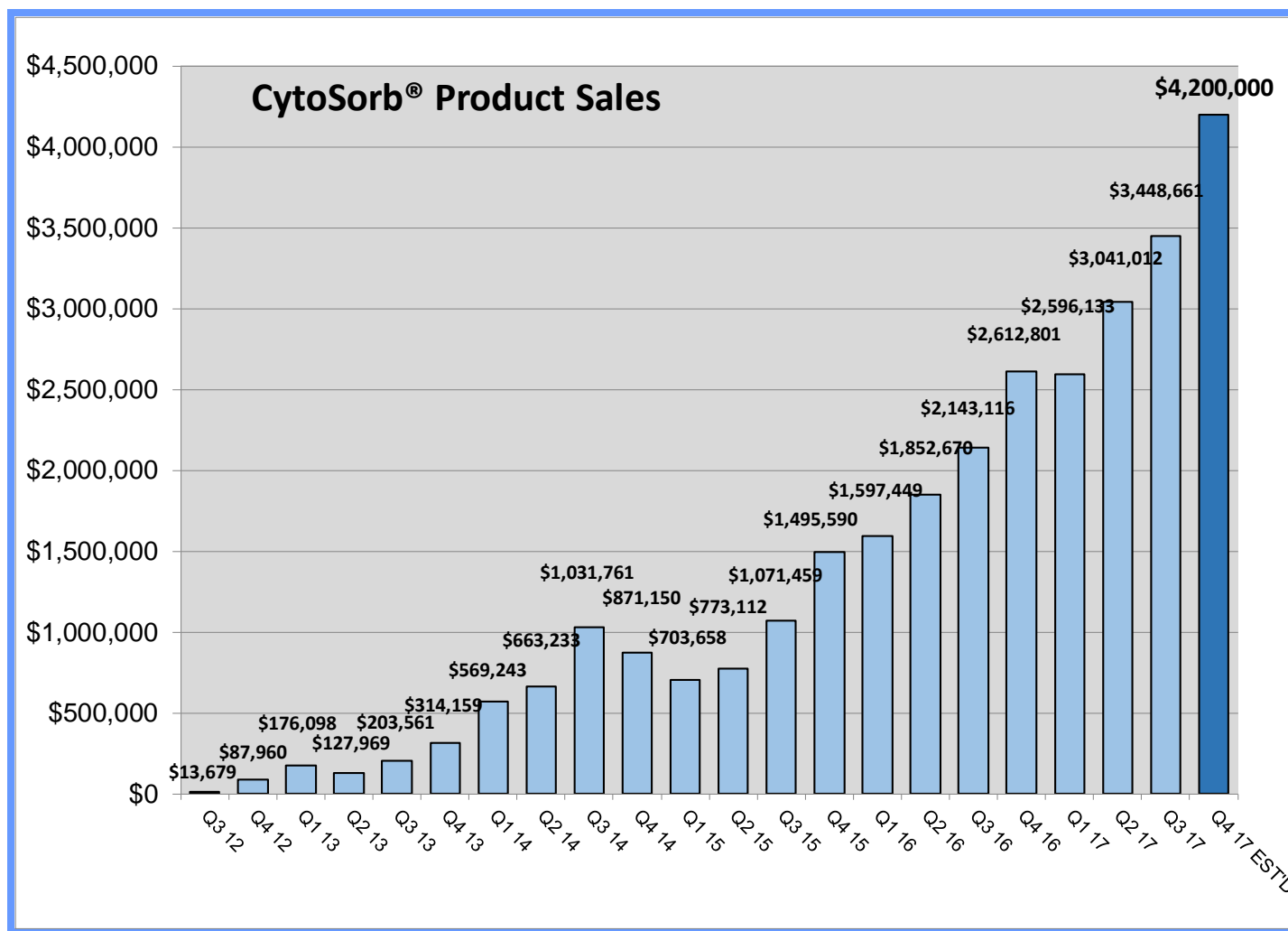
# Q4 2017 and Year End Guidance

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The Company expects to announce record results including:

- Full year 2017 total revenue in excess of \$15 million and Q4 2017 total revenue of approximately \$4.6 million (range \$4.5 - 4.7M)
- Full year 2017 CytoSorb sales of approximately \$13.2 million (range \$13.1 - 13.3M), representing more than 60% growth from \$8.2 million in 2016
- Q4 2017 product sales of approximately \$4.2 million (range \$4.1 - 4.3M), an increase of approximately 60% from \$2.6 million in Q4 2016, and more than 20% sequential growth from \$3.4 million last quarter
- 2017 blended gross product margins, between higher margin direct sales and lower margin distributor sales, that exceed 65%
- End-of-year cash position of \$17.3 million (12/31/17)

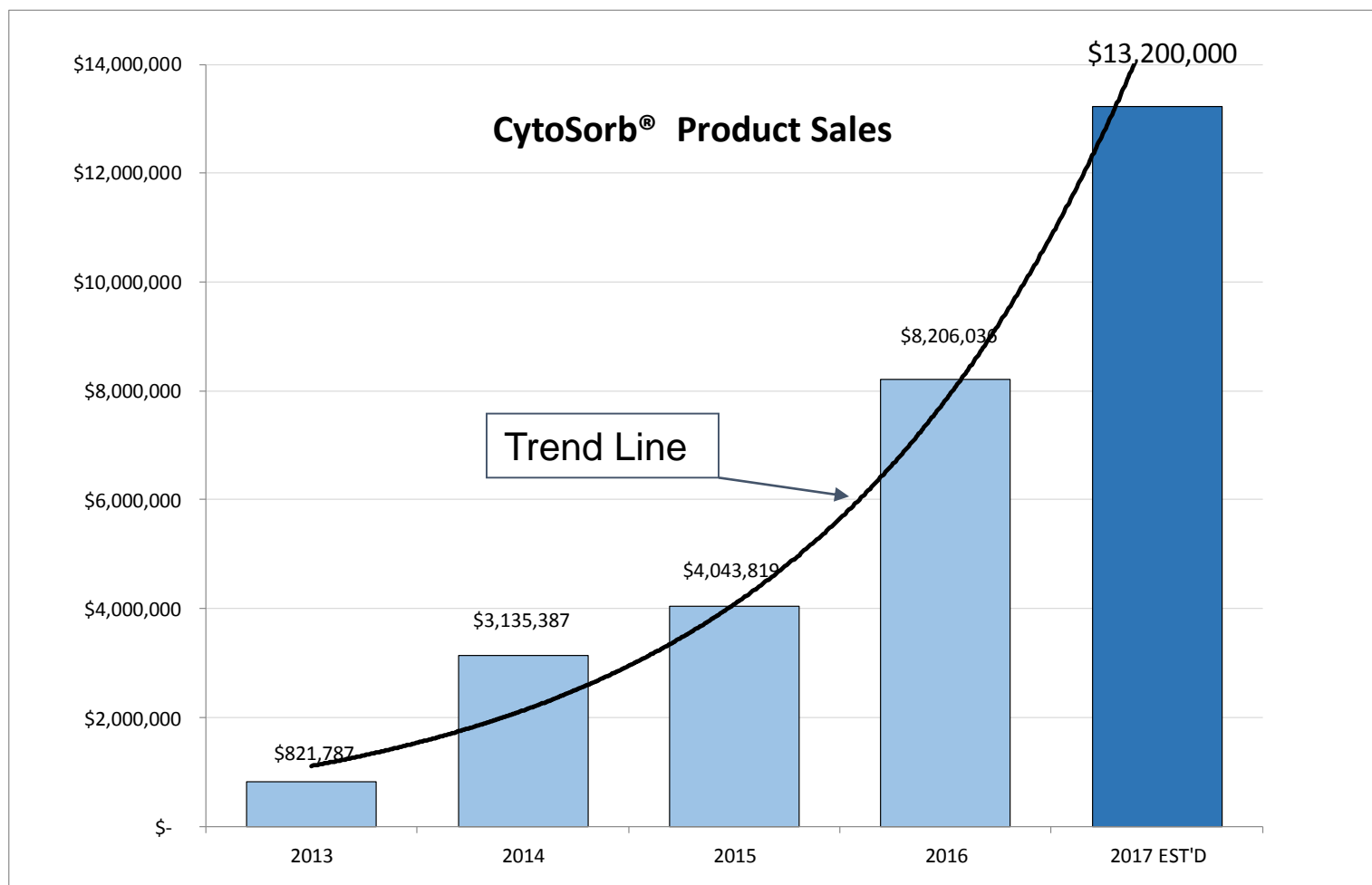
# Quarterly Product Sales





# Historical Annual Product Sales

Over the past three years, the compound growth rate of return (“CAGR”) on product sales was 62%



# 2018: Rapid Growth & Operating Profitability

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Targeting rapid growth and the achievement of operating profitability\* on a quarterly basis later this year

- CytoSorb is a high clinical impact “need to have” device that saves lives which justifies usage, strong average selling prices, and reimbursement
- As a high margin disposable, CytoSorb drives a very profitable business model
- Mixed revenue model combining our direct sales force with sales through distributors and strategic partners keeps organization lean and fixed costs low
- We manufacture CytoSorb and directly benefit from COGS reductions via scaled manufacturing. Significant margin expansion expected after new plant comes online in 1H 2018
- New tax law drops corporate tax rate from 35% to 21%, extending life of significant net operating losses to offset tax liability and increasing cash

More than \$0.50 on every dollar of sales is expected to drop to EBITDA

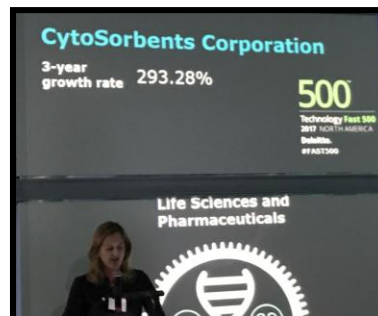
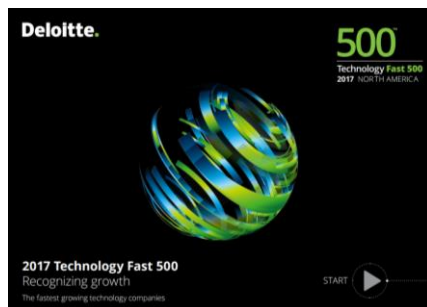
# Gaining Broader Industry Accolades

- Winner of 2017 Global Frost & Sullivan Product Leadership Award in Blood Purification

*“There were many factors that led to our selection of CytoSorb® for this year’s Global Product Leadership Award,” said Frost & Sullivan Research Analyst Aish Vivek. “Among the most important was the recognition that this innovative product is surprisingly well-positioned to help solve two long-standing, difficult, and tightly linked fundamental problems with hospital medicine today. These include the high rates of death from common critical illnesses such as sepsis that have no approved treatment, and the resulting staggering costs and losses in critical care that are financially crippling hospital networks and healthcare systems throughout the world.”*



- Recognized on the 2017 Deloitte Technology Fast 500 as one of the fastest growing companies in North America
  - 293% revenue growth from 2013-2016
  - 7<sup>th</sup> of 21 medical device companies



RANK	COMPANY NAME	% GROWTH
29	STRATA Skin Sciences, Inc.	6,251%
77	Convergent Dental	2,002%
131	Nevro	872%
178	ViewRay, Inc.	604%
259	Inovity Medical Inc.	352%
264	Intersect ENT, Inc.	346%
297	CytoSorbents Corporation	293%
306	AxoGen, Inc.	275%
314	Dexcom, Inc.	265%
352	Siemer Scientific, Inc.	227%
369	Wound Management Technologies, Inc.	219%
371	Corindus Vascular Robotics, Inc.	217%
405	Penumbra, Inc.	196%
416	Tandem Diabetes Care, Inc.	190%
421	Iradimed Corporation	187%
437	NanoString Technologies	175%



# Upcoming Milestones

- Ongoing progress in international sales
- Operating profitability targeted in 2018
- Potential new partnerships and expansion of existing partnerships
- Near-term initiation of pivotal REFRESH 2 study
- Publications of clinical and research data
- Greater investor awareness through investor meetings, conferences, non-deal roadshows



# CytoSorbents Investment Summary

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CytoSorbents is strongly positioned and on track  
to have strong growth in 2018

- Established, well-run U.S. medtech but with a biotech profile, nearing critical mass
- Strategically positioned and addressing some of the largest, most visible, unmet medical needs worldwide in critical care, cardiac surgery, cancer immunotherapy, and others
- Potentially highly profitable “razorblade” in someone else’s “razor” business model
- Significant CytoSorb® sales growth and expected gross margin expansion and near-term operating profitability
- Excellent validation by customers, partners, and government agencies
- Undiscovered by most investors, but positioned for broader awareness
- Visibility on multiple exits for investors



***Providing Hope  
in a helpless situation***



HELPING PATIENTS SURVIVE CRITICAL ILLNESSES WORLDWIDE



**CytoSorbents™**

Working to Save Lives Through Blood Purification

NASDAQ: CTSO

Dr. Phillip Chan, MD, PhD – CEO

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