CytoSorbents Corporation (NASDAQ: CTSO)

A Leader in Critical Care Immunotherapy

Q2 2016 Earnings Conference Call

August 9, 2016

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; 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. Readers 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 9, 2016 and other reports and documents filed from time to time by us, which are available online at 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

CytoSorb® Removes 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
- Clinically proven to remove key cytokines in the blood of critically-ill patients
- Approved for use in any situation where cytokines are elevated
- Works with standard dialysis and heart-lung machines
- Removes many other inflammatory mediators such as free hemoglobin, bacterial toxins, and complement
- Safe and well-tolerated: In ~14,000 human treatments

CytoSorbents
Working to Save Lives Through Blood Purification

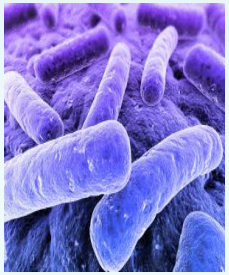
*CytoSorb is not yet approved in the U.S.

Goal: To Prevent or Treat Organ Failure

Improve Patient Outcome and Survival

Decrease Costs Of ICU and Patient Care

Sepsis



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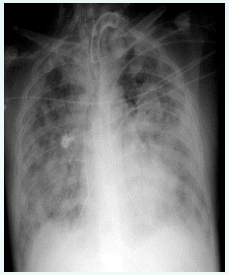


Burn Injury

Trauma

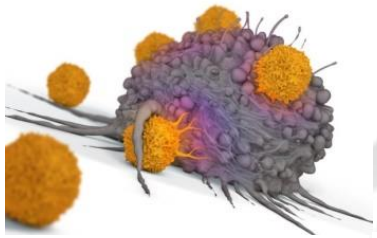
Pancreatitis

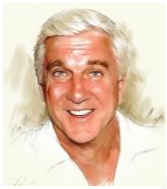
Influenza

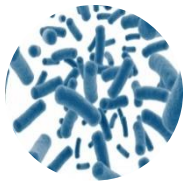
Surgical

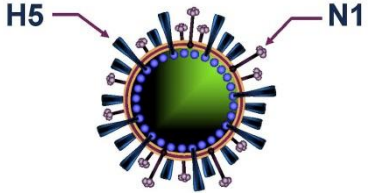
The Potential to Revolutionize Critical Care Medicine

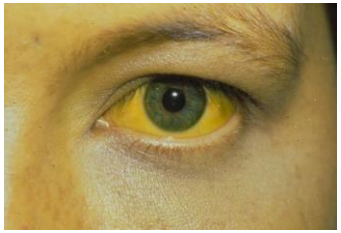
The World Needs CytoSorb®

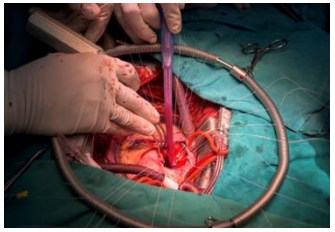












Financial Highlights

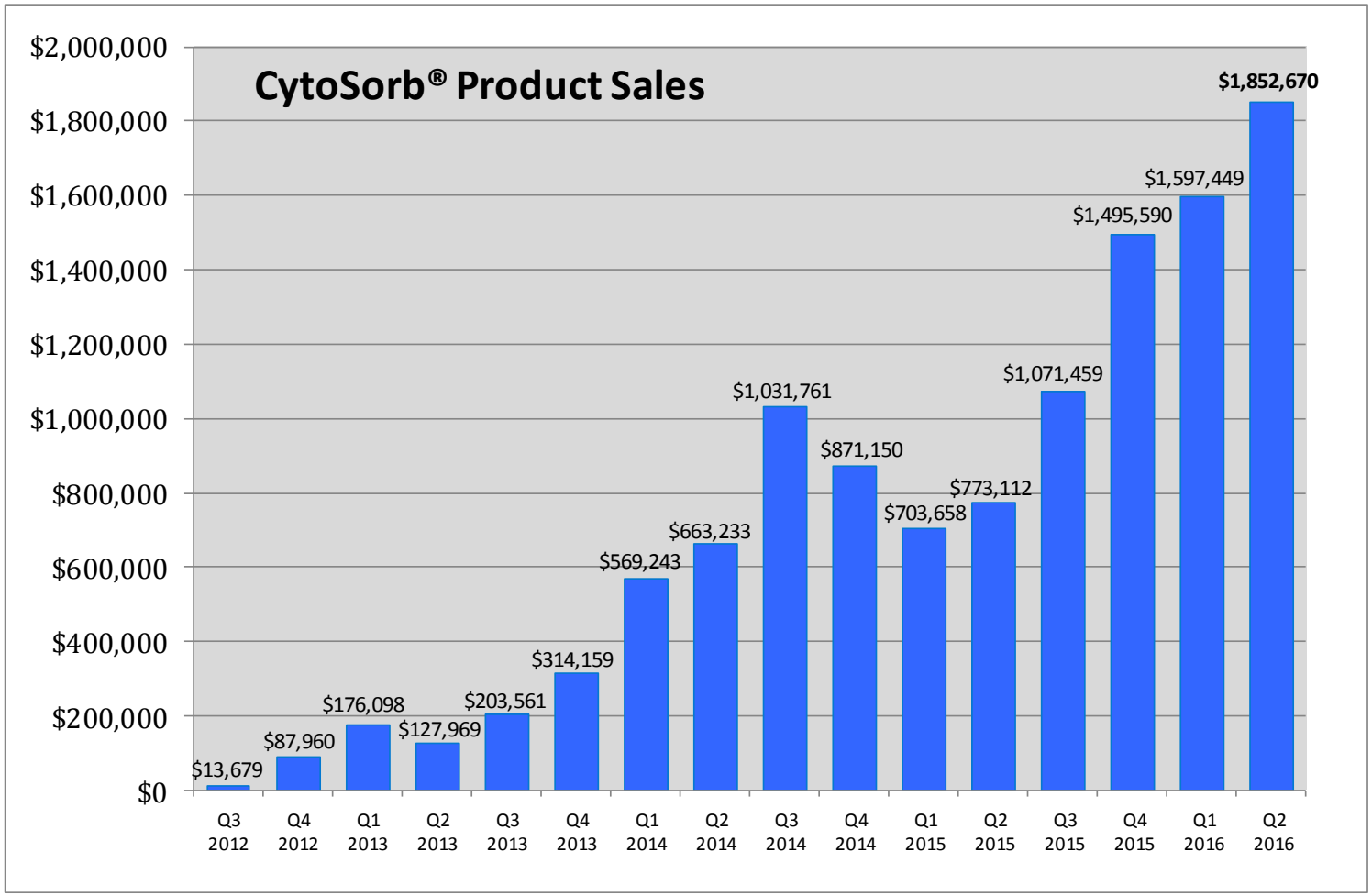
Q2 2016 Comparative Revenue Results

	3 Months Ended June 30, 2016		3 Months Ended June 30, 2015		% Incr.
Product revenue	$ 1,852,670		$ 773,112		140%
Grant and other income	369,668		190,827		94%
Total revenue	$ 2,222,338		$ 963,939		131%

- CytoSorb® product sales were $1.9M for Q2 2016, a 140% increase over Q1 2015 product sales of $773K
- Annualized product sales run rate was ~$7.4M based on Q2 2016 versus ~$3.1M in Q2 2015
- Total revenue for Q2 2016, which includes both product sales and grant revenue, was $2.2M as compared to $964K for Q2 2015, an increase of 131%
- Q2 2016 gross margins rose to approximately $1.3M, an increase of $850K as compared to gross margins of $499K for the second quarter of 2015
- Gross profit margins on product sales were approximately 68% for Q2 2016, as compared to 63% for the Q2 2015.

Quarterly Product Sales

Fifth consecutive quarter of product sales growth
Fourth consecutive quarter of record sales



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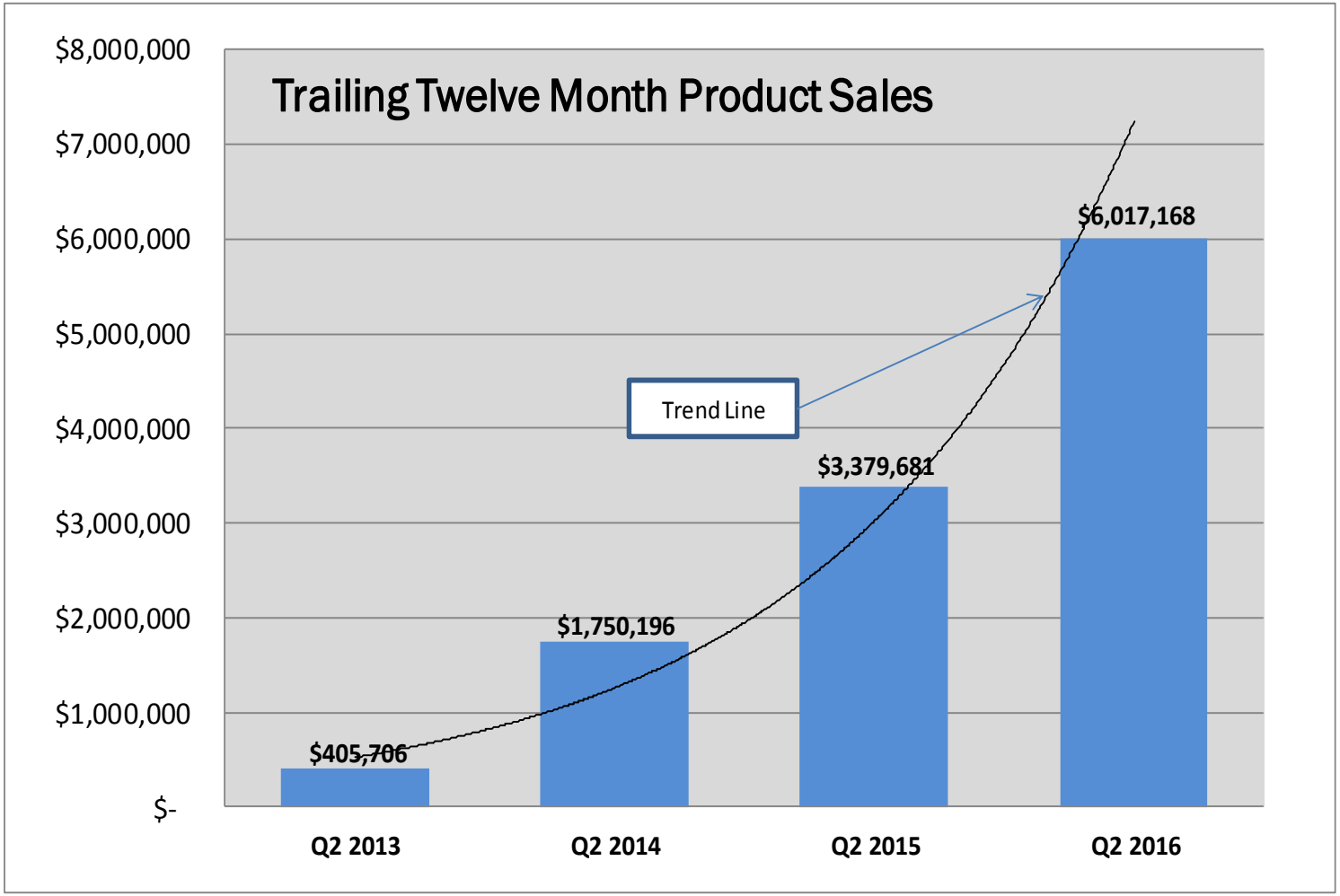
Comparative 6-Month Revenue Results

	6 Months Ended June 30, 2016		6 Months Ended June 30, 2015		% Incr.
Product revenue	$ 3,450,119		$ 1,476,770		134%
Grant and other income	582,401		210,243		177%
Total revenue	$ 4,032,520		$ 1,687,013		139%

- CytoSorb® product sales for 1H 2016 were $3.5M, a 134% increase over product sales of $1.5M for the same period a year ago
- Grant revenue grew 177% from $210K for 1H 2015 to $582K for the 1H 2016
- Total revenue for 1H 2016, which includes both product sales and grant revenue, was $4.0M as compared to $1.7M for 1H 2015, an increase of 139%

Trailing Twelve Months Product Sales

Over the past three years, the compound growth rate of return ("CAGR") on product sales was 145%



CytoSorb® Distributed in 37 Countries

Apheretica Purification Therapies

alphamedix A WORLD OF INNOVATION

Biocon

FRESENIUS MEDICAL CARE

hitit medical

HOANG LONG PHARMA

IntensivMed

LINC Medical

MEDIAL

Meditrade

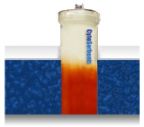
Palex

SMART MEDICAL SOLUTIONS

Techno Orbits For Trading
مدارات التقنية للتجارة

TekMed

WMC



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Geographic Expansion – A Growth Engine

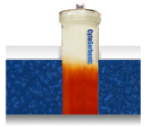
January 2016

Contributing to Revenue			Not Yet Contributing to Revenue		
#	Country	Population (M)	#	Country	Population (M)
1	Germany	81	16	France	66
2	Austria	9	17	Poland	39
3	Switzerland	8	18	Sweden	10
4	United Kingdom	64	19	Denmark	6
5	Italy	60	20	Norway	5
6	Turkey	75	21	Finland	5
7	India	1,200	22	Russia	144
8	Sri Lanka	21	23	UAE	9
9	Netherlands	17	24	Qatar	2
10	Romania	20	25	Kuwait	3
11	Ireland	5	26	Oman	4
12	Moldova	4	27	Bahrain	1
13	Australia	23	28	Iraq	33
14	New Zealand	5	29	Jordan	7
15	Saudi Arabia	29	30	Yemen	24
			31	Vietnam	90
			32	Israel	8
	Total	1,621		Total	456

August 2016

Contributing to Revenue			Not Yet Contributing to Revenue		
#	Country	Population (M)	#	Country	Population (M)
1	Germany	81	29	UAE	9
2	Austria	9	30	Qatar	2
3	Switzerland	8	31	Kuwait	3
4	United Kingdom	64	32	Oman	4
5	Italy	60	33	Bahrain	1
6	Turkey	75	34	Iraq	33
7	India	1,200	35	Jordan	7
8	Sri Lanka	21	36	Yemen	24
9	Netherlands	17	37	Israel	8
10	Romania	20			
11	Ireland	5			
12	Moldova	4			
13	Australia	23			
14	New Zealand	5			
15	Saudi Arabia	29			
16	France	66			
17	Poland	39			
18	Sweden	10			
19	Denmark	6			
20	Norway	5			
21	Finland	5			
22	Russia	144			
23	Spain	46			
24	Portugal	10			
25	Vietnam	90			
26	Hungary	10			
27	Czech Republic	11			
28	Slovakia	5			
	Total	2,068		Total	91

We continue to add new and existing distributors into the “contributing to revenue” category
Canada coming on-line soon and many other countries



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$10M Financing Facility from Bridge Bank

- $5.0M term loan drawn down on June 30, 2016 provided $4.9M in net proceeds
- The loan bears interest at the 30-day US dollar LIBOR rate plus 7.75%, which was 8.20% at June 30, 2016. The effective interest rate on the term loan (including all fees over the life of the loan) is 10.0%
- Interest-only payments for the first 12 months of the term loan, then 36 equal payments of principal plus interest, with maturity date of July 1, 2020
- Subject to certain conditions, CytoSorbents has at its sole discretion the ability to borrow an additional $5M in term loan debt in 2017. If drawn, the interest-only period will be extended by six months
- A success fee of 6.37% of funded loan amount due to Bridge Bank upon a "liquidity event" or if common stock trades above $8 for five consecutive days, payable in cash or common stock at the Company's discretion

Working Capital and Cap Table

Working Capital as of	6/30/16	12/31/15	12/31/14	12/31/13	12/31/12
Current Assets:					
Cash and short-term investments	$ 8,919	$ 7,509	$ 5,550	$ 2,183	$ 1,729
Grants and accounts receivable, net	945	649	819	453	51
Inventories	1,048	1,191	538	245	682
Prepaid expenses and other current assets	162	512	700	605	476
Total current assets	11,074	9,861	7,607	3,486	2,938
Current Liabilities(1):					
Accounts payable	1,022	685	698	787	801
Accrued expenses and other current liabilities	1,103	723	825	362	350
Deferred revenue		-	1	272	-
Total current liabilities	2,125	1,408	1,524	1,421	1,151
Net Working Capital	$ 8,949	$ 8,453	$ 6,083	$ 2,065	$ 1,787
(1) Excludes warrant liability, a current liability that does not have cash implications.					

Cap Table 6/30/2016

(unaudited)	Fully Diluted Common Shares
Common Stock	25,437,766
Options	3,000,675
Warrants	1,100,166
	29,538,607

Operating Highlights

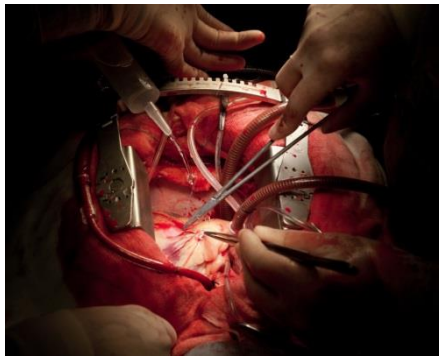
REFRESH I Trial Update

REduction in FREe Hemoglobin

REFRESH

- 40-patient, eight-center study evaluating the safety and efficacy of intra-operative use of CytoSorb® in a heart-lung machine during complex cardiac surgery in elective, non-emergent cardiac surgery > 3 hours
  - Aortic reconstruction, CABG redos, multiple valve replacements, etc

- Primary endpoints: Safety and reduction of plasma-free hemoglobin and other inflammatory mediators that can cause post-operative complications



REFRESH I Trial Update

REduction in FREe Hemoglobin Trial

REFRESH

- Working with major cardiac surgery centers
  - Baylor College of Medicine and Texas Heart Institute
  - Baystate Medical Center
  - Columbia University
  - Cooper University Hospital
  - University of Kentucky
  - University of Maryland
  - University of Pennsylvania
  - University of Pittsburgh Medical Center

- In May, DSMB analyzed safety data from the first 24 patients and found no safety concerns and recommended completion of the trial
- Currently, enrollment is nearly complete with 44 patients enrolled to target a total of 40 patients who have completed all aspects of the trial. Expect to announce top-line data during the EACTS conference in Barcelona (Oct 1-5)
- Pending the successful completion of REFRESH I and agreement with the FDA, the REFRESH 2 trial is expected to start early next year

Fresenius Medical Care Partnership

- Entered into a multi-year partnership with Fresenius, the world's largest dialysis company, for exclusive distribution of CytoSorb® in critical care in France, Poland, Denmark, Norway, Sweden, and Finland
- CytoSorb® is a key part of Fresenius' growth strategy in critical care
- Fresenius has committed to annual minimum purchases to maintain exclusivity
- Leveraging Fresenius' critical care leadership and industry-leading sales force and distribution
- Potential for broader future synergy and expansion
- In May, Fresenius launched CytoSorb® with a 30-person ICU sales force that is also selling Fresenius products

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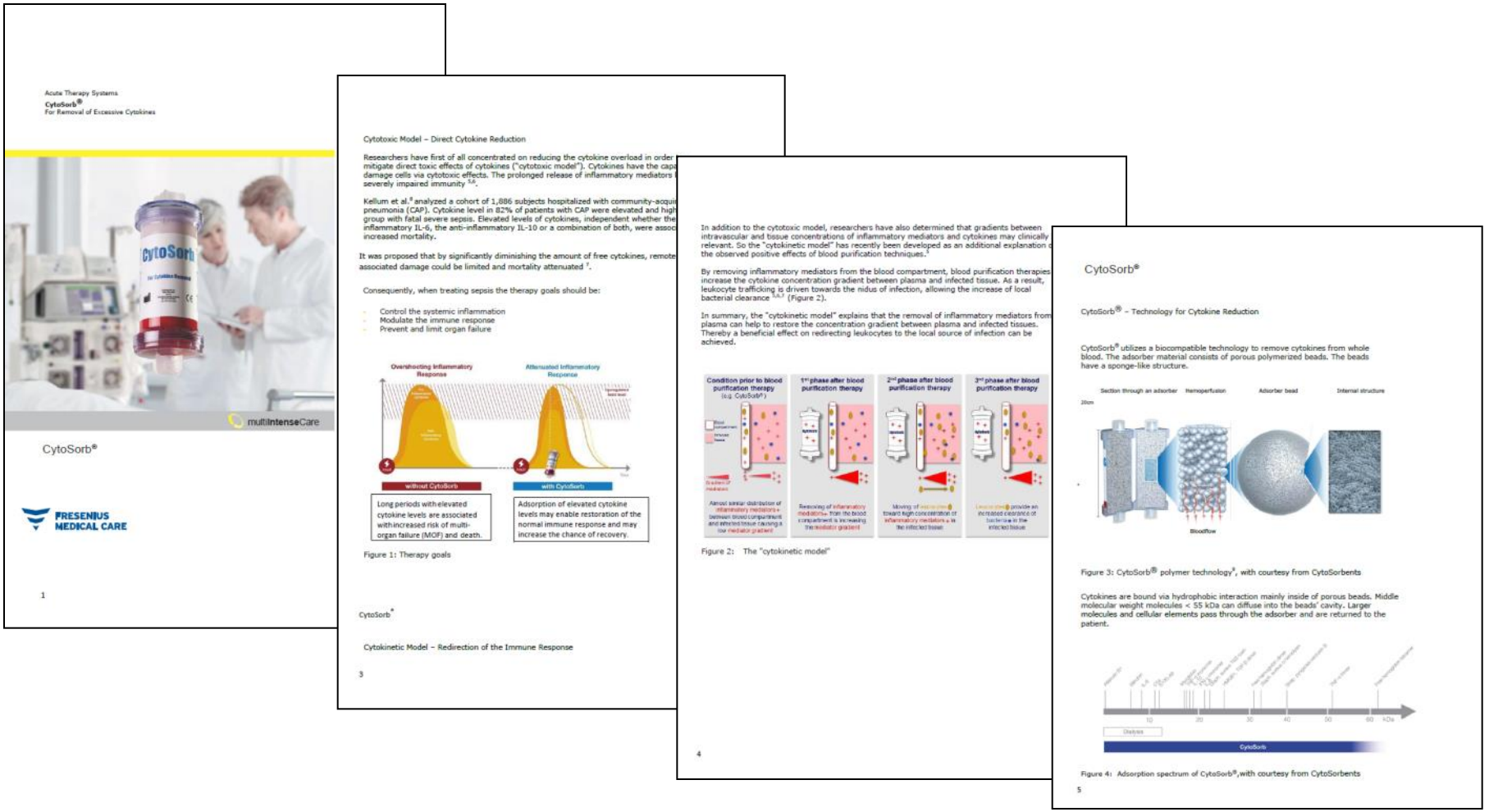
FMC is Actively Marketing and Selling

Fresenius is actively marketing and selling CytoSorb in its market countries, and has a busy schedule in actively promoting CytoSorb in upcoming critical care conferences

Fresenius multiFitrate Pro

Marketing Collateral



Product Brochure (9 pages)

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Biocon Partnership Update

Treat Primary Infection with Antibiotics

Treat Massive Inflammatory Response

- Biocon is the largest biopharmaceutical company in India
- Significant growth in India with expansion into Sri Lanka
- Currently funding and conducting the first investigator initiated study in India
- Established a separate sales division to focus specifically on all aspects of CytoSorb market development and sales
- Embarking on another KOL speaker series in India

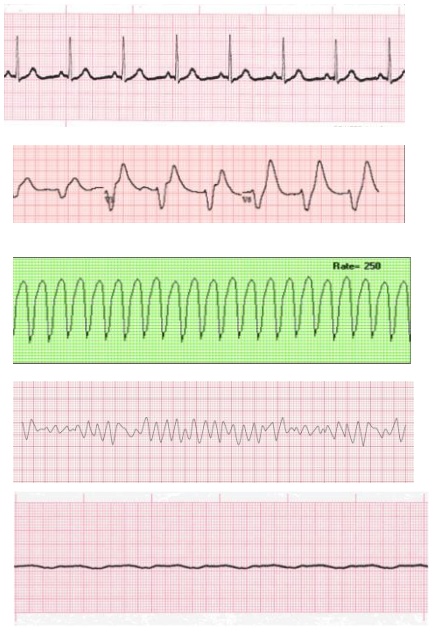
$18 Million in U.S. Government Support

- DARPA awarded $3.8M five year (2012-present) contract as part of “Dialysis-Like Therapeutics” program to treat sepsis by removing cytokines and pathogen-derived toxins
- U.S. Army awarded ~$1.7M SBIR contracts for trauma and burn injury research and hyperkalemia (2011-present)
- U.S. Air Force funding a 30-patient human pilot study (~$3M) in trauma (2013-present); FDA approved trial

- US Dept of Health and Human Services awarded $0.5M grant (2010) for therapies that can save lives and reduce costs under the QTDP Program
- NIH grant awarded $7M five year (2006-2010) to University of Pittsburgh and Dr. John Kellum to research CytoSorb bead for treatment of sepsis
- NIH/NHLBI awarded $1.7M Phase I & II SBIR contracts to advance HemoDefend purification technology with the goal of improving the quality and safety of blood transfusions (2013- present)
- JPEO-CBD awarded $150K Phase I SBIR contract for fungal mycotoxin removal
- Defense Health Agency awarded a $150K Phase I SBIR contract to treat hyperkalemia

Potassium Binding Polymer Program

- We were recently awarded a total of approximately $650K in Small Business Innovation Research (SBIR) contracts to continue development of novel potassium (K^+) binding polymers
  - ~$500K Phase II Enhancement increasing our previous $1.15M U.S. Army Phase I and II SBIR contract [1]
  - ~$150K Phase I SBIR contract from the Defense Health Agency [2]
- The goal is to develop rapid treatments for severe hyperkalemia that can kill wounded warfighters and civilians suffering from severe trauma, burn injury, massive blood transfusions, kidney failure, etc
- This program represents a new product category for the company and takes advantage of our polymer's massive porosity and surface area and potassium binding chemistry to directly bind and remove K^+ in blood
- Though dialysis has been definitive treatment, these polymers may be better suited due to faster kinetics, ease of treatment, and ability to reduce cytokines, myoglobin, and other toxins in trauma and burn injury
- Relypsa (RLYP) was just acquired by Galenica AG for $1.5 billion for its recently FDA approved orally-administered potassium binding resin, Veltassa



Funding is managed by the U.S. Army Medical Research and Materiel Command (USAMRMC) under a recently awarded $500,000 Phase II enhancement increasing the previous U.S. Army $1.15 million Phase I and II SBIR Contract, W81XWH-12-C-0038[1] and a new Defense Health Agency $150,000 Phase I SBIR award under Contract No. W81XWH-16-C-0080[2]. The views, opinion and/or findings contained in this presentation are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision unless so designated by other documentation. In conducting research using animals, the investigator(s) adhered to the Animal Welfare Act Regulations and other Federal statutes relating to animals and experiments involving animals and the principles set forth in the current version of the Guide of Care and Use of Laboratory Animals, National Research Council.

Visit CytoSorb.com for Case of the Week

- We have had excellent feedback from both physicians and investors on the many exciting case reports presented in the CytoSorb “Case of the Week” on the www.cytosorb.com website
- These cases highlight the ongoing successes that clinicians continue to have as they treat earlier or more aggressively
- Our goal, using these reports, our Proceedings of the International CytoSorb Users meeting publication, and our Case Study Summary booklet is to broadly teach our users how and when the therapy is being used most effectively

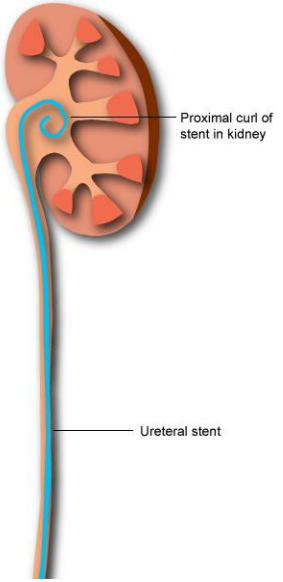
Case Report: Septic Shock from UTI

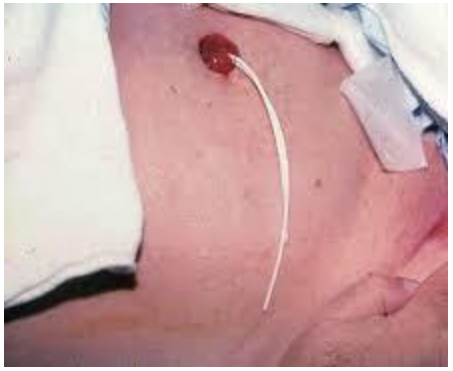
- 75 yo man with a history of surgery for urinary tract cancer, developed a urinary tract infection after replacement of a ureteral stent designed to conduct urine from the ureters outside the body (urostomy)

- Diagnosed with an E. coli infection and despite broad spectrum antibiotics, rapidly developed septic shock with severe hypotension and a lactate of 14.3 mmol/L requiring multiple vasopressors (norepinephrine and dobutamine) and the initiation of renal replacement therapy

- Initiated treatment with CytoSorb for 30 hours resulting in a significant stabilization of blood pressure, with a weaning of dobutamine after 3 hours and a 50% reduction of norepinephrine in 24 hours. Lactate was halved in 10 hours and returned to normal after 24 hours

- Weaned off of renal replacement therapy and mechanical ventilation within 6 days of CytoSorb treatment and transferred to a normal hospital ward 2 weeks after CytoSorb treatment



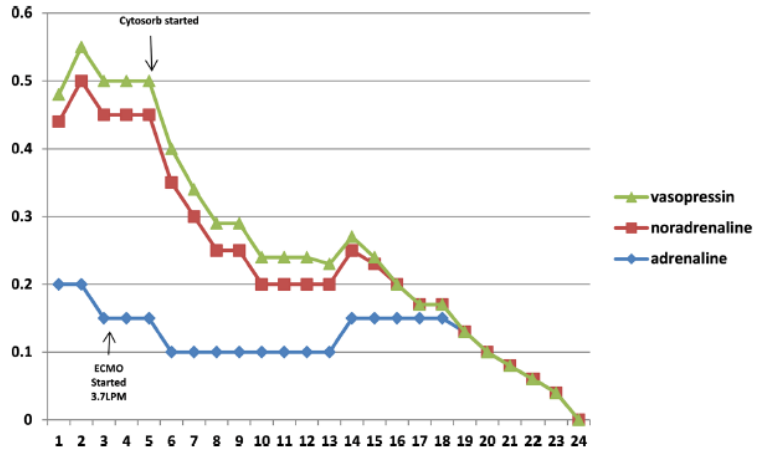


Case Report: Swine Flu & PVL+Staph Pneumonia

- A previously healthy 33 yo woman, 5 months after giving birth, presented with a 4-day history of flu-like symptoms, who presented with breathlessness, confusion, and chest and abdominal pain

- At ICU admission, diagnosed with H1N1 influenza complicated by a secondary bacterial pneumonia with heavy growth of Panton-Valentine leukocidin (PVL+) Staph aureus. PVL is a pore-forming toxin (~34kDa) that causes necrotizing pneumonia and destruction of white blood cells and is fatal in up to 75% of cases

- Had profound acute respiratory distress syndrome upon admission, severe heart failure and shock requiring high amounts of vasopressors x3, marked neutropenia, and a serious lactic acidosis with oliguria requiring hemodiafiltration



- Despite antibiotics and veno-arterial ECMO (VA ECMO), the patient's condition did not improve. CytoSorb was then added after 2 hours and continued for 24 hours, resulting in hemodynamic stabilization and weaning of vasopressors within 24 hours. IVIG and clindamycin were then also added. Patient went on to recover with normal heart function and some residual lung dysfunction in a 2-month follow-up following her discharge

* Lees, NJ "Combination of ECMO and cytokine adsorption therapy for severe sepsis with cardiogenic shock and ARDS due to Panton–Valentine leukocidin-positive*Staphylococcus aureus* pneumonia and H1N1" J Artif Organs, 2016 Jul 16; e-published ahead of print

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Royal Brompton & Harefield NHS
NHS Trust

Outlook for 2H 2016

- CytoSorbents has not historically given financial guidance on quarterly results until the quarter has been completed.
- However, we currently expect a strong second half of 2016, with the achievement of numerous operating milestones
- In addition, we expect that second half 2016 CytoSorb sales as well as total revenue will exceed those in the first half of 2016

CytoSorb®

SIRS and Sepsis: Regain Control!

Q&A Session

CytoSorbents Corporation

NASDAQ: CTSO

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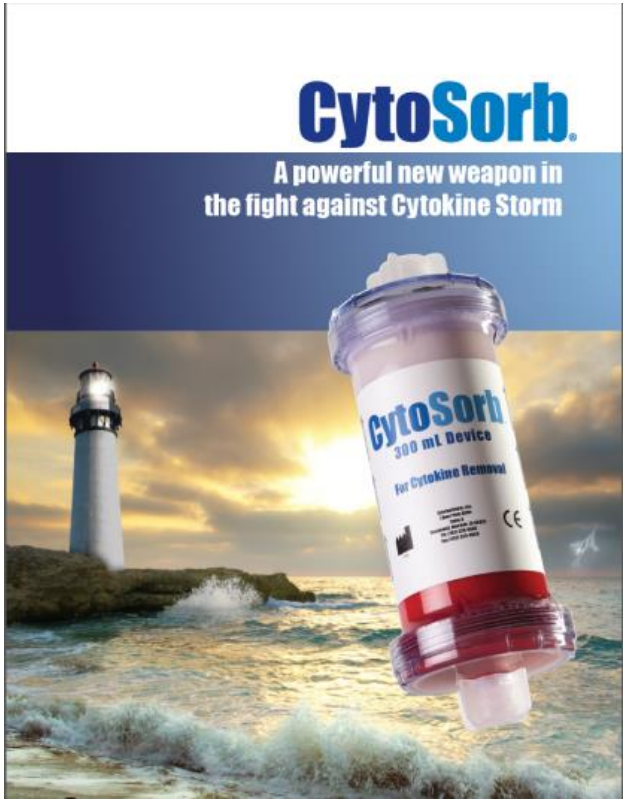

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