CytoSorbents Corporation (NASDAQ: CTSO)

A Leader in Critical Care Immunotherapy

Q2 2015 Earnings Conference Call

August 13, 2015

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 31, 2015 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

Case Report Video

Please note: Because of different internet speeds of participants on today's call, there may be a slight waiting period after the video plays on your computer as others finish watching the video.

We will promptly get back to the slide presentation

CytoSorb® Removes the Fuel to the Fire

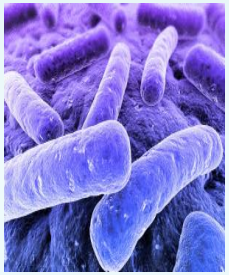
- CytoSorb® targets the $20 billion opportunity in critical care and cardiac surgery
- Approved in the European Union as the only specifically approved cytokine filter
- Clinically proven to remove key cytokines in the blood of critically-ill patients
- Approved for use in any situation where cytokines are elevated
- Safe: More than 6,000 human treatments, safe and well-tolerated

Goal: To Prevent or Treat Organ Failure

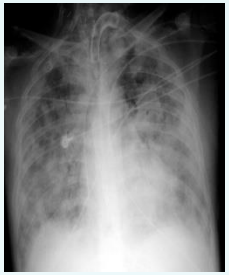
Improve Patient Outcome and Survival

Decrease Costs Of ICU and Patient Care

Sepsis



ARDS



Burn Injury

Trauma

Pancreatitis

Influenza

Surgical

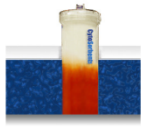
The Potential to Revolutionize Critical Care Medicine

Operating and Financial Highlights

Q2 2015 Comparative Revenue Results

	Three Months Ended June 30, 2015		Three Months Ended June 30, 2014		% Incr.
Product revenue	$ 773,112		$ 663,233		17%
Grant and other income	190,827		361,422		(47)%
Total revenue	$ 963,939		$ 1,024,655		(6)%

- CytoSorb® product sales were $773K in Q2 2015, a 17% increase over product sales of $663K in Q2 2014
- Product sales were negatively impacted by the decline in the exchange rate of the Euro by ~$147,000 or 19% of product sales for the three months ended June 30, 2015
- Grant and other income was $191K for the quarter ended June 30, 2015, as compared to $361K for the quarter ended June 30, 2014 as a result of the conclusion of several significant grants
- Product gross margins were ~63% in Q2 2015, as compared to 65% for Q2 2014



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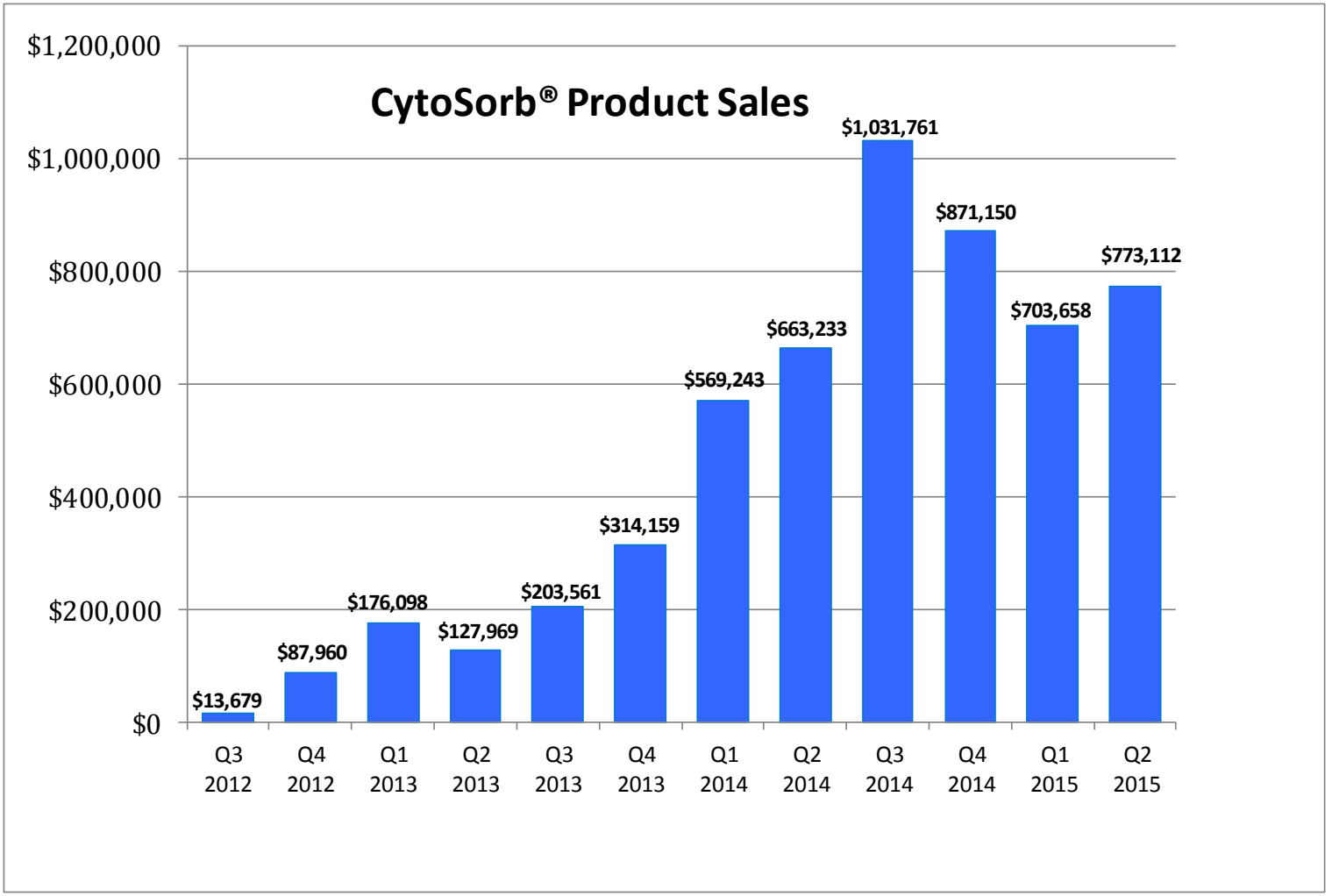
Working to Save Lives Through Blood Purification

6 Months Comparative Revenue Results

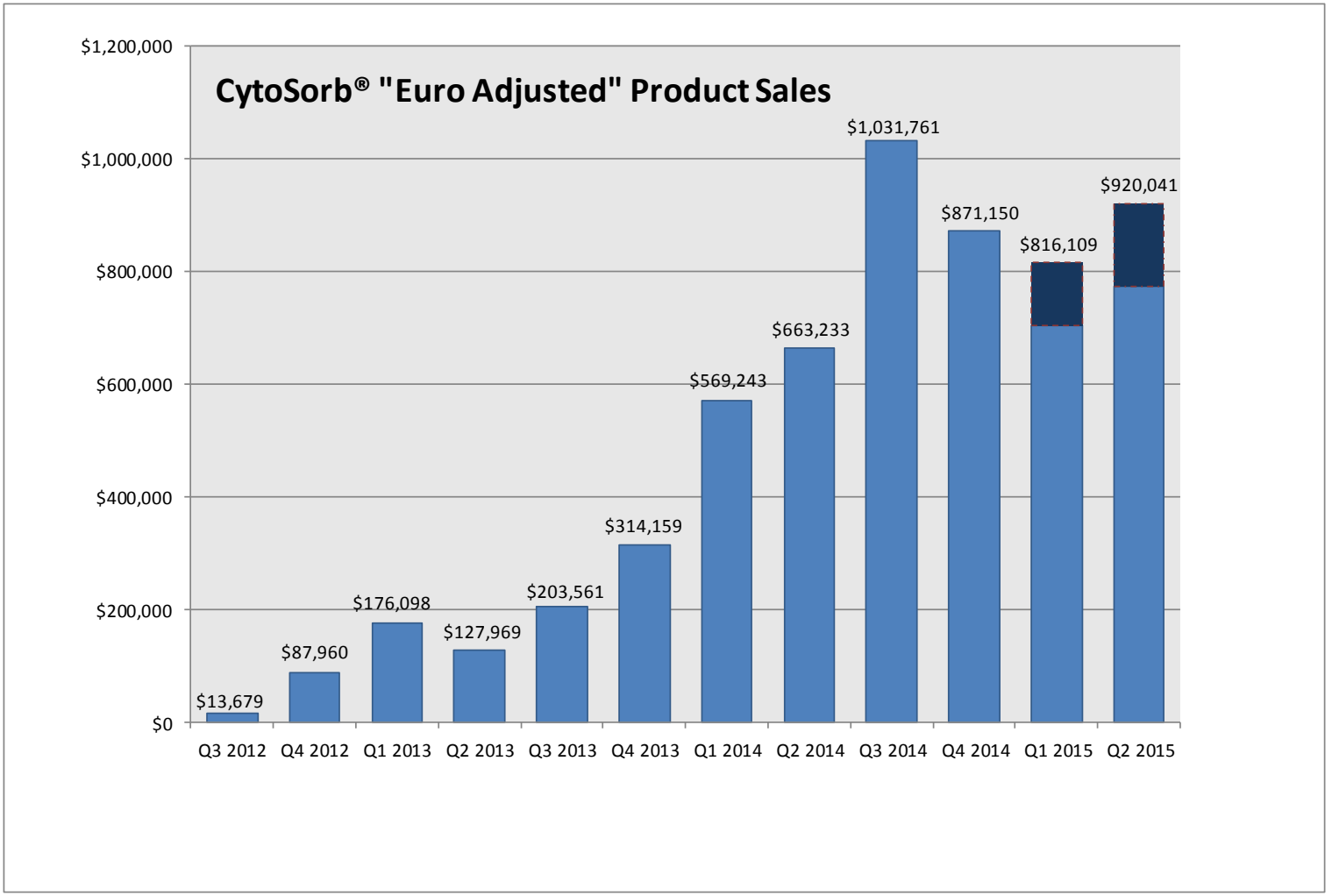
	Six Months Ended June 30, 2015		Six Months Ended June 30, 2014		% Incr.
Product revenue	$ 1,476,770		$ 1,232,476		20%
Grant and other income	210,243		854,351		(75)%
Total revenue	$ 1,687,013		$ 2,086,827		(19)%

- CytoSorb® product sales were $1.5M for the six months ended June 30, 2015, a 20% increase over product sales of $1.2M in Q2 2014
- Product sales were negatively impacted by the decline in the exchange rate of the Euro by ~$259,000 or 19% of product sales for the six months ended June 30, 2015
- Trailing twelve month product revenue for the period ended June 30, 2015 was ~$3.4M, as compared to $1.8M for the twelve month period ended June 30, 2014
- Gross profit margins on product sales were ~61% for the first half of 2015, as compared to 63% for first half of 2014

Quarterly Product Sales



Quarterly “Euro-Adjusted” Product Sales



Working Capital and Cap Table

Working Capital as of	6/30/15	3/31/15	12/31/14	12/31/13	12/31/12
Current Assets:					
Cash and short-term investments	$ 11,205	$ 13,358	$ 5,550	$ 2,183	$ 1,729
Grants and accounts receivable, net	501	673	819	453	51
Inventories	1,060	703	538	245	682
Prepaid expenses and other current assets	275	148	700	605	476
Total current assets	13,041	14,882	7,607	3,486	2,938
Current Liabilities(1):					
Accounts payable	418	475	698	787	801
Accrued expenses and other current liabilities	718	734	825	362	350
Deferred revenue	-	-	1	272	-
Total current liabilities	1,136	1,209	1,524	1,421	1,151
Net Working Capital	11,905	$ 13,673	$ 6,083	$ 2,065	$ 1,787
(1) Excludes warrant liability, a current liability that does not have cash implications.					

CytoSorbents Cap Table (Pro-Forma as of 6/30/2015)

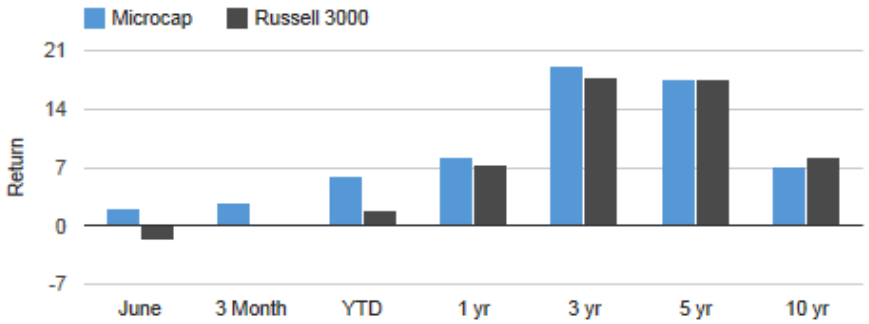
Common stock outstanding	24,890,521
Options	2,639,374
Warrants	1,418,145
Fully-diluted Common shares	28,948,040

Added to the Russell Microcap Index

Performance (USD)

MONTHLY | DAILY

	TOTAL RETURNS AS OF JUNE 30, 2015						
NAME	JUNE	3 MONTH	YTD	1 YR	3 YR	5 YR	10 YR
Microcap	2.18	2.80	6.03	8.21	19.25	17.48	7.07
Russell 3000	-1.67	0.14	1.94	7.29	17.73	17.54	8.15



Membership

Top 10 Holdings

HOLDING
Raptor Pharmaceutical Corp
BioCryst Pharmaceuticals Inc

CytoSorbents Corporation Set to Join Russell Microcap Index

6/19/15

CytoSorbents Corporation (NASDAQ: CTSO), a critical care immunotherapy leader commercializing its CytoSorb® blood purification technology to reduce deadly uncontrolled inflammation in hospitalized patients around the world, is set to join the Russell Microcap® Index at the conclusion of the Russell indexes annual reconstitution on June 26, 2015, according to a **preliminary list of additions** posted on June 12, 2015.

Membership in the Russell Microcap Index, which remains in place for one year, means automatic inclusion in the appropriate growth and value style indexes. FTSE Russell determines membership for its Russell indexes primarily by objective, market-capitalization rankings and style attributes.

Dr. Phillip Chan, Chief Executive Officer of CytoSorbents stated, "We are pleased to be included in the Russell Microcap Index, a significant corporate achievement that is expected to increase visibility and exposure of our company and life-saving technology to the broader investment community. This complements our continued institutional investor outreach, where the response has been extremely positive to date."

Russell indexes are widely used by investment managers and institutional investors for index funds and as benchmarks for active investment strategies. Approximately $5.7 trillion in assets are benchmarked to the Russell's U.S. indexes. Russell Indexes are part of FTSE Russell, a leading global index provider.

For more information on the Russell 1000 and the Russell indexes reconstitution, go to "Recon Central"

June 2015

Second Half 2015 Catalysts

Strengthening the Direct Sales Team

Dr. Christian Steiner
Managing Director

Stefan M. Baudis
Sales Director International

Alexandru Bojan
Business Manager Export

Support

Dr. Jörg Scheier
Medical Director Europe

Dr. Rainer Kosanke
Head of Scientific Marketing

Dominik Gutzler
Head of Product Management

Eva Wechsler
Application Specialist

Ilona Otto
Sales Assistant / Customer Support national

Petra Hoffmann
Sales Assistant / Customer Support international

Sales

Hans-Jürgen Kraus
Regional Sales Manager Southern Germany

Matthias Höldtke
Regional Sales Manager South-East Germany

Martin Scherer
Regional Sales Manager Southwest Germany

Uwe Gerks
Regional Sales Manager Northern Germany

Steffen Martens
Regional Sales Manager North East Germany

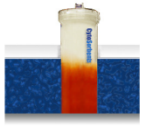
Andreas Pendleder
Regional Sales Manager Western Germany

Contract Sales Rep Cardiac Surgery

Sales Rep 8: Currently Screening

Sales Rep 9: Currently Screening

Medical Science Liaison



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Starting Sales Now in 3 New Countries

Saudi approval with Medical Device Marketing Authorization

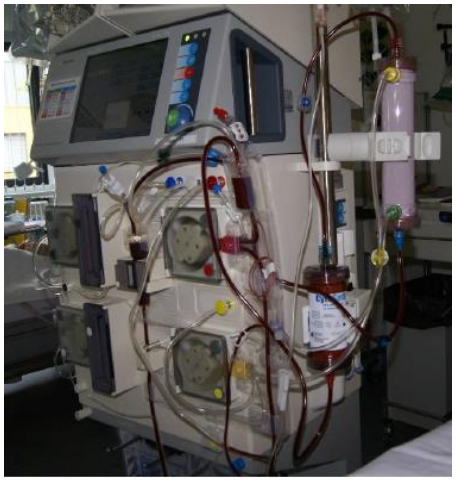
- Enables sales in Saudi Arabia (29M people) via our partner, Techno Orbits
- Tender orders can be substantial
- Potentially opens doors to rest of Middle East

Signed with TekMed for Australia and New Zealand

- Targets collective population of 28M people
- CytoSorb is registered already, so sales can begin immediately

Fresenius Medical Care in 2H 2015

- Initial marketing to key opinion leaders in critical care is planned in Q3 2015 in France, Sweden, Norway, Finland, Denmark and Poland (131M people)
- CytoSorb will not only be certified on the existing Fresenius multiFiltrate, but will also be certified on the newly launched multiFiltratePRO



- Sales training and preparation of marketing literature are ongoing
- Both sides are eager to get started

Sowing the Seeds of Growth

Contributing to Revenue		
#	Country	Population (M)
1	Germany	81
2	Austria	9
3	Switzerland	8
4	United Kingdom	64
5	Italy	60
6	Turkey	75
7	India	1,200
8	Sri Lanka	21
9	Netherlands	17
10	Romania	20
11	Ireland	5
12	Moldova	4
13	Australia	23
14	New Zealand	5
15	Saudi Arabia	29
	Total	1,621

Not Yet Contributing to Revenue		
#	Country	Population (M)
16	France	66
17	Poland	39
18	Sweden	10
19	Denmark	6
20	Norway	5
21	Finland	5
22	Russia	144
23	UAE	9
24	Qatar	2
25	Kuwait	3
26	Oman	4
27	Bahrain	1
28	Iraq	33
29	Jordan	7
30	Yemen	24
31	Israel	8
	Total	366

TekMed

Q3 2015 Start
57M people

Fresenius Medical Care

Q3 2015 Start
131M people

Estimated
2016 Start

We are just tapping into these major markets. We expect Q3 2015 to begin to reflect initiation of selling in new markets covering 188 million people ≈ 600,000 cases of severe sepsis/shock per year.

Given $3,000 - $5,000 in CytoSorb treatment costs per patient, these new territories enable us to target a $1.8 - 3.0 billion total addressable market ***for sepsis alone***

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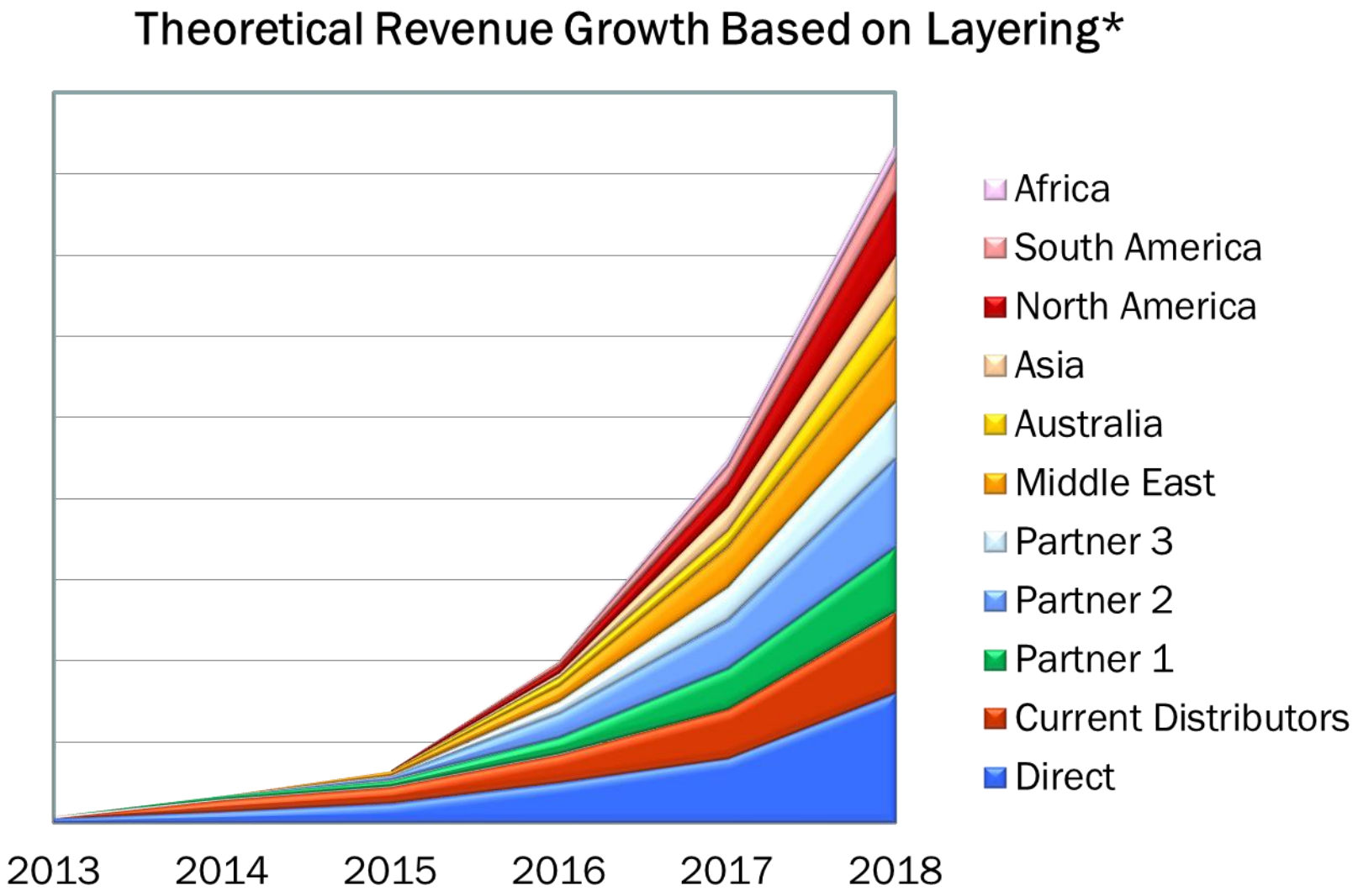
*Mayr, FB, Yende S, Angus DC, "Epidemiology of severe sepsis" Virulence 2014 5(1):4-11

Growth Driven by Direct, Distributor, Partner Sales



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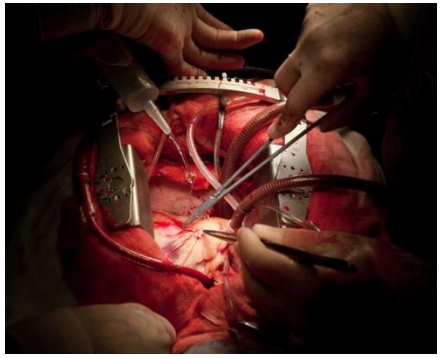
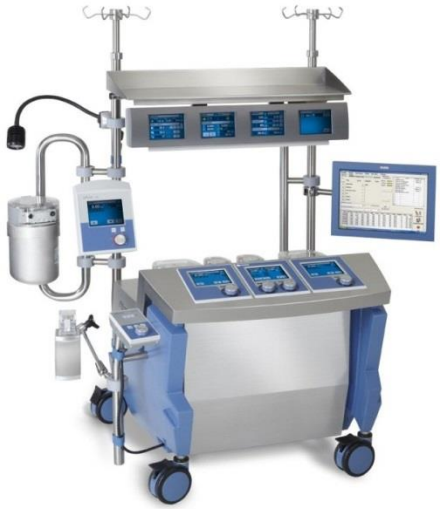
* This graph is provided only to demonstrate the concept of revenue layering. It does NOT represent revenue forecasts or guidance

Cardiac Surgery Partner Update

- The evaluation by our cardiac surgery partner in France, one of the top-4 cardiac surgery companies in the world, continues to go well and, though slower than anticipated, should be completed in the next several months
- Meanwhile, two randomized, controlled studies (University of Hamburg-Eppendorf and Medical University of Vienna, using CytoSorb intra-operatively during cardiac surgery have completed, with data expected this year
- CytoSorb® has been used safely in more than 300 intra-operative cardiac surgery cases to date





REFRESH Update

REduction in FREe Hemoglobin

- FDA approved our amendment to expand the trial to a 40-patient randomized controlled study at 8 centers
- Led by our Chief Medical Officer, Dr. Robert Bartlett, we are in the process of negotiating and finalizing clinical trial agreements and obtaining IRB approvals with 8 major cardiac surgery centers in the US
- Central IRB approval has been obtained, which is applicable to some of the sites
- The Data Safety Monitoring Board (DSMB) has been established
- We are on schedule to start enrollment in September 2015 with a goal of completing enrollment in Q4 2015/Q1 2016
- Added Steven Sisk as Director of Clinical Operations, formerly at Medtronic to oversee the day to day operations of the trial
- This trial is expected to support the REFRESH 2 Registration Trial for CytoSorb

REFRESH Trial Overview

- 40 patient, 8-center randomized controlled feasibility study using CytoSorb intra-operatively in a bypass circuit during complex cardiac surgery lasting more than 180 minutes
  - Standard of care (20 control) vs CytoSorb + Standard of care (20 treatment)
- Primary safety endpoint: Safety
- Primary efficacy endpoint: Reduction in plasma free hemoglobin
- Secondary endpoints:
  - Ventilator time, time in the ICU, days in the hospital, incidence and progression to AKI, 30-day mortality
  - Biomarker reduction: Complement, cytokines and other inflammatory mediators

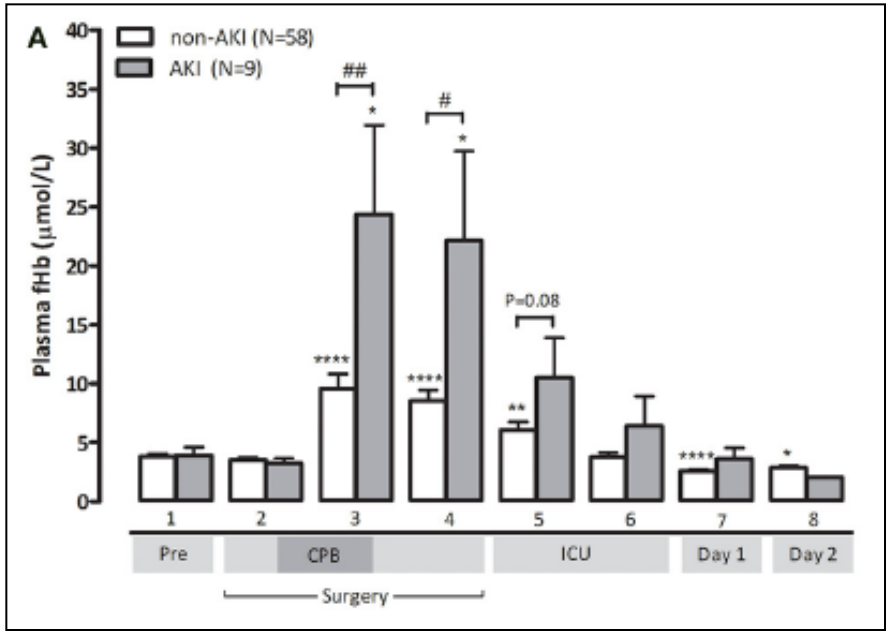
Dangers of Plasma Free Hemoglobin (PfHb)

Patients undergoing complex cardiac surgery with significant cardiotomy suction are at highest risk of hemolysis, releasing large amounts of PfHb into circulation

Once the haptoglobin scavenging system is overwhelmed, PfHb can cause a direct depletion of plasma nitric oxide (NO), leading to pulmonary hypertension, renal ischemia and AKI, intestinal mucosal injury, organ failure, and other complications.

PfHb also can lead to oxygen radical generation and oxidative injury to tissues

PfHb is correlated to the development of AKI

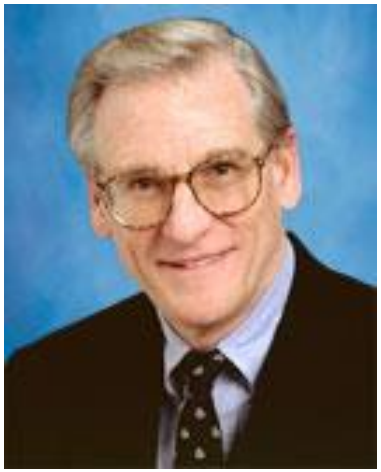


Source: Windsant et al., Hemolysis during cardiac surgery is associated with increased intravascular nitric oxide consumption and perioperative kidney and intestinal damage, Frontiers in Physiology, Sep-2014

Leading Advisors in Cardiac Surgery

Dr. Joe Zwischenberger, M.D. - SAB Chair
University of Kentucky

Dr. Robert Bartlett, M.D.
University of Michigan



Dr. Paul Checchia, M.D.
Texas Children's Hospital in Houston

Dr. Jonathan William Haft, M.D.
University of Michigan

Dr. Nicholas Smedira, M.D.
Cleveland Clinic Foundation

Dr. Craig Smith, M.D.
Columbia University

Dr. Peter Wearden, M.D., Ph.D.
U. of Pittsburgh Medical Center

FDA Expedited Access Pathway (EAP)

The FDA has issued formal guidance on the EAP program that will facilitate the approval of medical devices that treat life-threatening conditions and have no approved alternative treatments

- We believe that CytoSorb® is an excellent candidate for EAP Designation (similar to Breakthrough Designation for drugs and biologics) as it targets the treatment of many life-threatening illnesses such as sepsis, lung injury, pancreatitis, trauma, and other conditions that do not have viable treatment alternatives

- If we obtain EAP Designation, CytoSorb® could potentially get to market with a clinical trial using less stringent endpoint criteria (e.g. NOT 28-day all-cause mortality), provided that it is safe and that the company commits to obtaining the more stringent end-point in the post-market period

- We have been working diligently on the EAP application for sepsis and expect to file it with the FDA in the coming weeks. The application must be very thorough, including a data designation plan that details the clinical trials that will be pursued in the pre-market and post-market periods. FDA response on EAP Designation is expected within 30 days of submission, but could be delayed with questions

CytoSorb Attacks Sepsis Broadly

Inflammatory cytokines (organ failure) & other factors

Immunosuppressive cytokines & re-establish immune responsiveness

Many bacterial toxins (organ failure)

Re-establish proper leukocyte trafficking to prevent cell-mediated organ injury

Improvement in hemodynamics

Reduction in capillary leak

No other single therapy has demonstrated this broad range of activity

CytoSorb®

SIRS and Sepsis: Regain Control!

Case Report: Septic Shock

- 72 year old male patient was admitted with sepsis from a urinary tract infection
- His condition and hemodynamic stability rapidly deteriorated with concurrent elevation in plasma inflammatory markers, despite broad antibiotic coverage
- Developed full-blown multi-organ failure: septic shock, respiratory failure, severely disturbed coagulation, liver dysfunction, and kidney failure.
- Placed on standard CRRT hemofiltration therapy with CytoSorb. Three CytoSorb sessions were run in the following days
- The first and consecutive second session resulted in a reduction of procalcitonin (PCT), C-reactive protein (CRP) and bilirubin and a markedly reduced need for vasopressors with significantly improved hemodynamics and reduced signs of capillary leak
- Due to a recurring inflammatory “second hit” episode, another session with CytoSorb was run, resulting in a marked improvement in organ function and inflammatory status, and stabilization of the patient
- The treatment was well-tolerated and safe, helping to “regain control” of the patient, who survived

Case Report: ARDS & Multi-organ Failure

- A 45-year-old male patient was admitted with small intestine obstruction due to torsion
- Immediately scheduled for surgical intervention, but aspirated at anesthesia induction
- Rapidly developed one of the worst and most fatal forms of lung failure called acute respiratory distress syndrome (ARDS) requiring ECMO therapy to ensure sufficient oxygen supply
- Developed an overwhelming systemic inflammatory response syndrome (SIRS) with shock and severe capillary leak syndrome, causing severe swelling all over his body, with multiple organ failure
- CytoSorb was initiated and led to a profound decrease of IL-6 and IL-8, paralleled by a marked clinical stabilization of the patient including a significant reduction in vasopressors, and a significant improvement in lung function
- In this patient, CytoSorb therapy helped to “regain control” over the initially dramatic hyper-inflammatory response and helped to stabilize the patient hemodynamically, ultimately leading to a full recovery
- CytoSorb treatment was safe with no serious device related adverse events observed

Case Report: Rhabdomyolysis

- A 55 year old patient was transferred from an outside hospital with sepsis from pneumonia and ARDS due to complications
- He had developed a complication called “compartment syndrome” where high pressure builds up in a muscle compartment that cannot expand. The muscle tissue was damaged and resulted in a drastic increase in myoglobin levels (rhabdomyolysis) that can cause kidney failure
- In addition, his inflammatory markers were extremely elevated, and he developed acute liver dysfunction
- A total of 4 CytoSorb® consecutive treatments (20 hours each) were performed
- During the course of the treatment, plasma concentrations of IL-6, PCT, and myoglobin decreased significantly, with a simultaneous normalization of blood counts, blood coagulation parameters, and liver enzymes
- With treatment, the patient had a strong improvement of his clinical situation, including stabilization of his respiratory and liver function
- In this patient, CytoSorb resulted in many improvements, including improved organ function, a significant reduction of cytokines including IL-6, and a major additional benefit of treating rhabdomyolysis and preventing kidney failure. The patient went on to a full recovery
- The treatment was safe with no adverse device-related events

Much More to Report

CytoSorb® is helping to save lives around the world. More clinical data will be made public in October at three major upcoming events.

Berlin, Germany
October 2, 2015

ESICM
The Intensive Connection
28TH ANNUAL CONGRESS
CITYCUBE - BERLIN
3-7 OCTOBER 2015
ESICM LIVES 2015
www.esicm.org

European Society of Intensive Care Medicine

EACTS
European Association For Cardio-Thoracic Surgery

29th EACTS Annual Meeting
Amsterdam, The Netherlands
3-7 October 2015

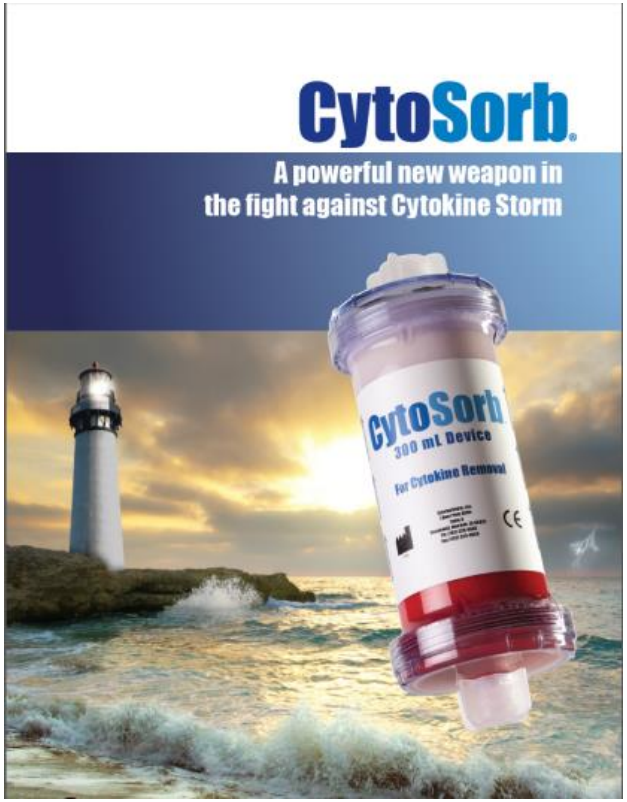
Abstract deadline 30 April 2015
Raising Standards through Education and Training

Q&A Session

CytoSorbents Corporation

NASDAQ: CTSO

Phillip P. Chan, MD, PhD - CEO
7 Deer Park Drive, Suite K
Monmouth Junction, NJ 08852
pchan@cytosorbents.com



A Leader in Critical Care Immunotherapy Company