

CytoSorbents Corporation

NASDAQ CM: CTSO

An Emerging Leader in
Critical Care Immunotherapy

Year 2014 Earnings Call
March 31, 2015



Safe Harbor Statement

Statements in this presentation regarding CytoSorbents Corporation and its operating subsidiaries CytoSorbents, Inc (now known as 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 Well-Positioned as 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

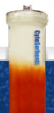
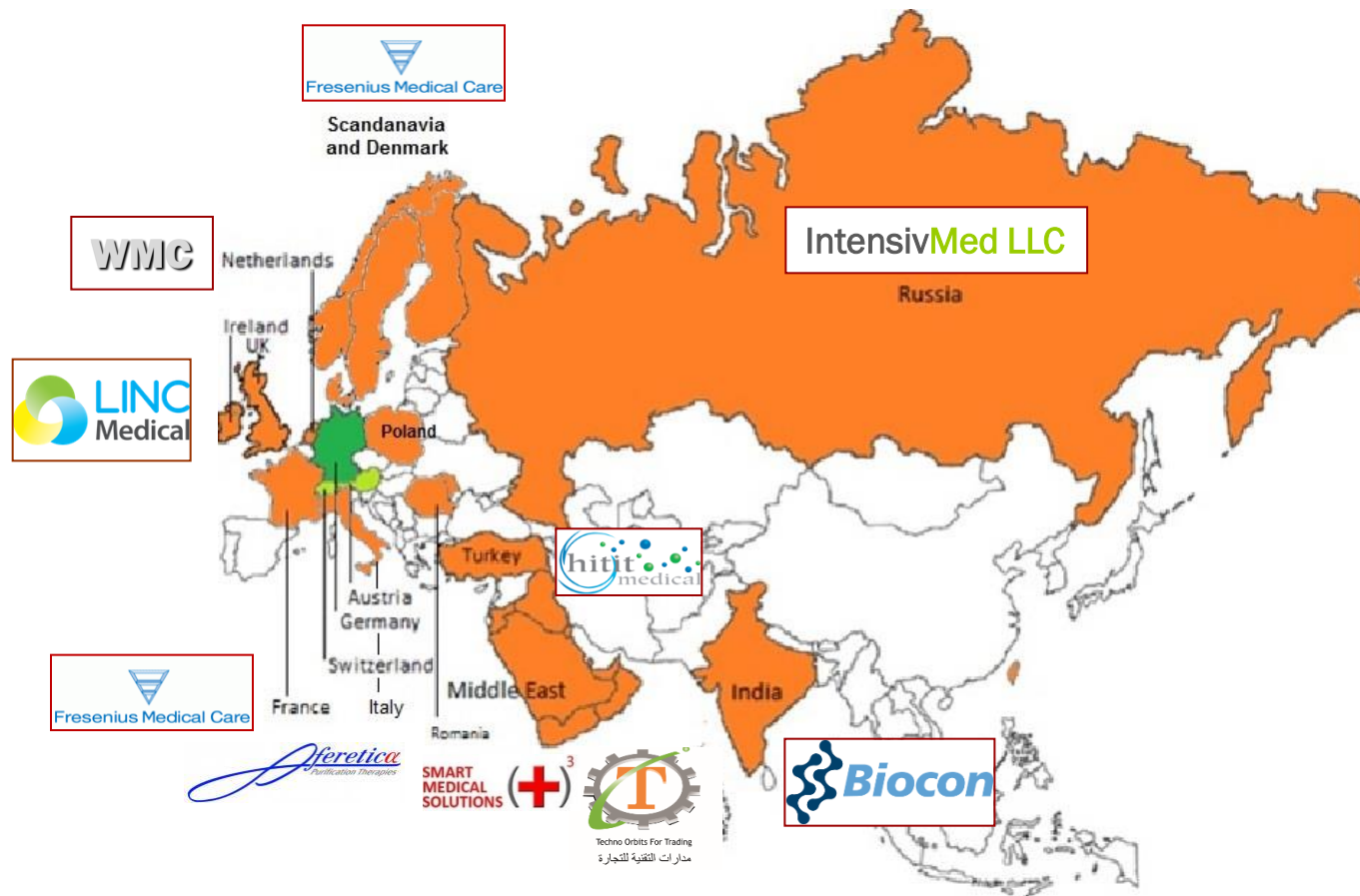


2014: A Strong Year of Growth

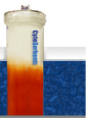


Achieved 2014 CytoSorb Sales of \$3.1M

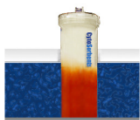
Driven by a growing combination of Direct Sales, Independent Distributor Sales, and Strategic Partner Sales



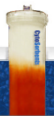
2nd CytoSorb Germany User's Meeting



1st International CytoSorb User's Meeting



ISICEM 2015



More Published Case Reports & Studies

Effects of a novel cytokine haemoadsorption system on inflammatory response in septic shock after cephalic pancreatectomy – a case report

Dana Tomescu^{1,4}, Simona O. Dima², Sabina Tănăsescu¹, Cristiana Pistol Tănase³, Anca Năstase², Mihai Popescu⁴

Romanian Journal of Anaesthesia and Intensive Care 2014 Vol 21 No 2, 134-138

Septic shock secondary to β -hemolytic streptococcus-induced necrotizing fasciitis treated with a novel cytokine adsorption therapy

Hubert Hetz¹, Reinhard Berger¹, Peter Recknagel², Heinz Steltzer¹

¹ AUVA Meidling Emergency Hospital, Department of Anesthesiology and Intensive Care Medicine, Vienna - Austria
² Integrated Research and Treatment Center, Center for Sepsis Control and Care, Jena University Hospital, Jena - Germany

DOI: 10.5301/ijao.5000315

Int J Artif Organs 2014; 37 (00): 000-000

SHORT COMMUNICATION

LETTER FROM THE FRONTLINE

LIVER TRANSPLANTATION 20:1523-1524, 2014

First Description of Single-Pass Albumin Dialysis Combined With Cytokine Adsorption in Fulminant Liver Failure and Hemophagocytic Syndrome Resulting From Generalized Herpes Simplex Virus 1 Infection

Blood Purification

Blood Purif 2013;35:314-315
DOI: 10.1159/000351206

Published online: July 31, 2013

Improvement of Hemodynamic and Inflammatory Parameters by Combined Hemoadsorption

Case Report

Use of a novel hemoadsorption device for cytokine removal as adjuvant therapy in a patient with septic shock with multi-organ dysfunction: A case study

Reshma Basu, Sunjay Pa

IJAO
ISSN 0391-3988

Int J Artif Organs 2015; 00(00): 000-000
DOI: 10.5301/ijao.5000382
SHORT COMMUNICATION

First successful combination of ECMO with cytokine removal therapy in cardiogenic septic shock: a case report

Case Reports
any
Germany

ASAIO Journal 2015

Cytosorb™ in a Patient with Legionella-Pneumonia Associated Rhabdomyolysis: A Case Report

Marion Wiegele and Claus G. Krenn

F. Born, M. Pichlmeier, S. Peter, N. Khaladi, C. Hagl
Herzchirurgische Klinik und Poliklinik
an der LMU München Campus Großhadern
Herzklinik am Augustinuum
(Direktor: Prof. Dr. med. Christian Hagl)

Systemic Inflammatory Response Syndrome in Heart Surgery: New possibilities for treatment through the use of a cytokine adsorber during ECC?

Craig Morris¹, Lewis Gray² and Marco Giovannelli¹

Early report: The use of Cytosorb™ haemabsorption column as an adjunct in managing severe sepsis: initial experiences, review and recommendations

jics

Journal of the Intensive Care Society
JICS 1-4
© The Intensive Care Society 2015
Reprints and permissions:
sagepub.co.uk/
journalsPermissions.nav
DOI: 10.1177/1751375715574805
jics.sagepub.com
SAGE

CytoSorbents
Working to Save Lives Through Blood Purification

Launched International CytoSorb Registry

- The home of 40+ planned investigator initiated studies with many already enrolling



REGISTRATION FORM

S.-Allende-Platz 27, 07747 Jena

☐

☐

☐

+49 3641 9-396655
zks@med.uni-jena.de

+49 3641 9-396655 zks@med.uni-jena.de

🇬🇧 Search for:

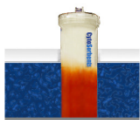
HOME BACKGROUND THE INTERNATIONAL CYTOSORB REGISTRY JOIN THE REGISTRY CONTACT LOGIN



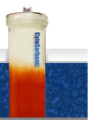
THE INTERNATIONAL CYTOSORB-REGISTRY

starts in November 2014

Welcome to the International CytoSorb-Registry website!



Launched New CytoSorb Website



Partnered with Global Leaders



Expansion of Biocon Partnership

- According to Biocon, hundreds of patients have benefited from CytoSorb® therapy and orders continue to increase
- Expanded agreement beyond sepsis to all critical care applications and cardiac surgery with a focus on the systemic inflammatory response syndrome (SIRS) in India and select emerging countries
- Negotiated a co-development agreement where Biocon has committed to conduct and publish results from multiple Investigator Initiated studies and patient case studies
- Biocon will continue to market CytoSorb® with their critical care antibiotics as the “most comprehensive treatment” of sepsis
- Biocon has also agreed to an increase in annual minimum sales targets which should result in significantly increased sales over the life of the agreement



Fresenius Medical Care

- Entered into a 6 country partnership with Fresenius, the largest dialysis company in the world for exclusive distribution of CytoSorb® in critical care in France, Sweden, Norway, Finland, Denmark and Poland
- Leveraging Fresenius' #1 or #2 position in critical care in these territories and elsewhere in the world
- CytoSorb® is a key part of Fresenius' growth strategy in critical care
- Strong sales force and distribution
- CytoSorb has been used on the Fresenius multiFiltrate thousands of times
- Potential for much broader synergy and expansion in the future



Cardiac Surgery Initial Partnership

- Entered into an initial partnership with a top-four global medical device company in cardiac surgery to use CytoSorb® intra-operatively during cardiac surgery in France
- Initial evaluation phase expected to be complete in Q2 2015
- Following a successful evaluation, the two parties plan to jointly determine how to potentially expand upon both the size and geographic footprint of its partnership
- France is the second largest medical device market and one of the highest volume cardiac surgery markets in the EU
- Medtronic, Sorin, Maquet and Terumo are top firms in the cardiac surgery space worldwide

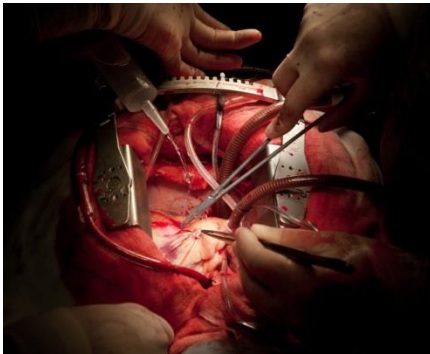


Focus on Generating Clinical Data

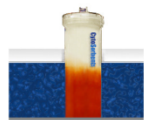
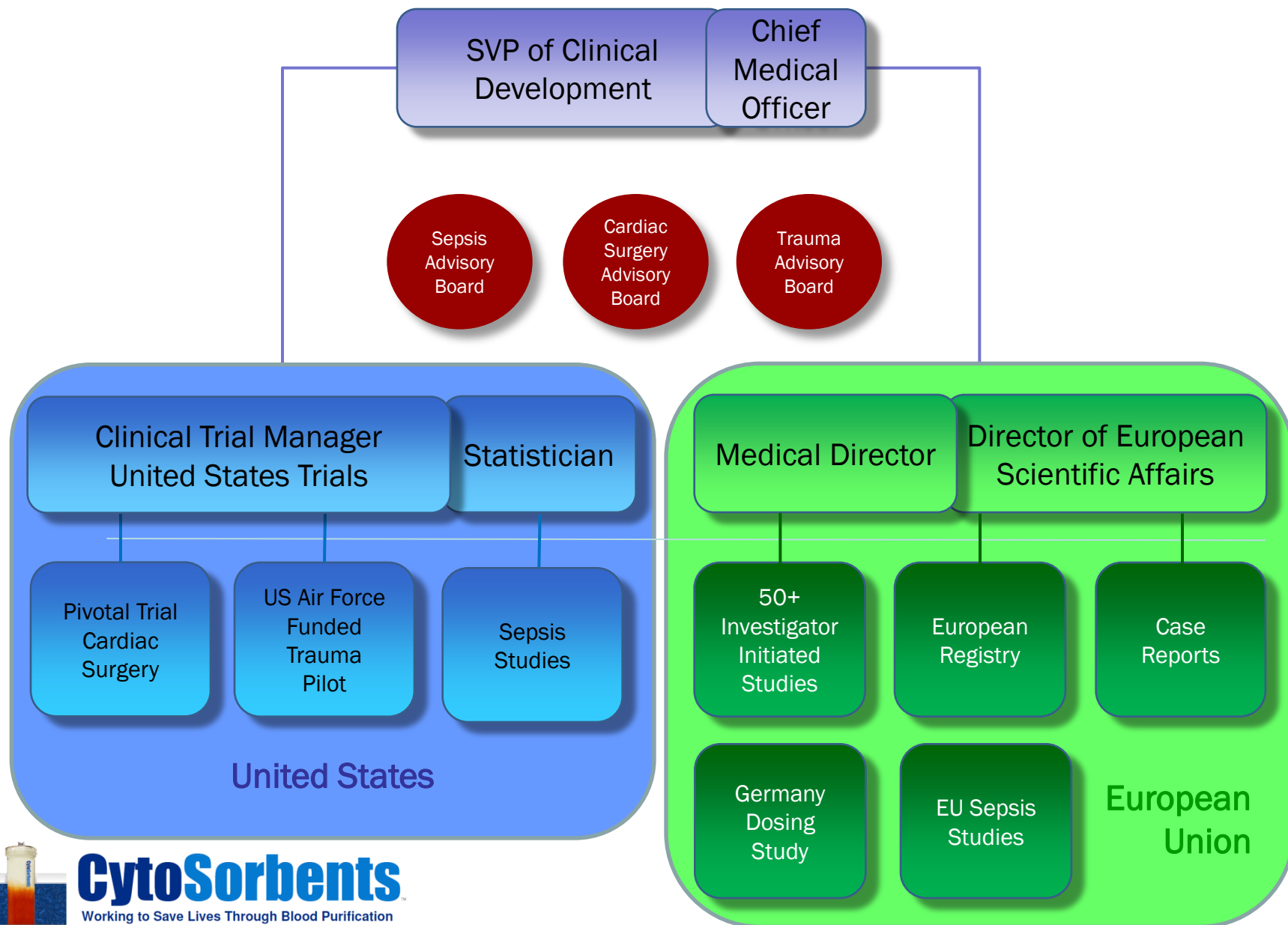


FDA Approval of IDE for REFRESH Study

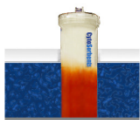
- **REFRESH** (Reduction in FRee Hemoglobin) Trial is a 20-patient multi-center feasibility study evaluating the safety of CytoSorb use intra-operatively in a bypass circuit in a heart-lung machine during complex cardiac surgery as a means of reducing plasma-free hemoglobin and other inflammatory mediators that can cause post-operative complications
- Expected to be completed this year, beginning the clinical trial process to seek US FDA approval for CytoSorb



Infrastructure to Drive Clinical Data



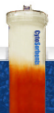
Increased Investor Awareness



NASDAQ Capital Market Listed

CytoSorbents (CTSO) Up-listed to NASDAQ in December 2014

- Average daily trading volume: 200K shares (\$3M daily trading value) vs 30,000 prior to up-listing

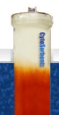




#11 on Forbes Best Performing Stocks of 2014

CytoSorbents Achieved Strong Stock Performance in 2014 comparing favorably to peers

Ticker	Company	Total return in 2014 (%)	Market capitalization (\$MIL)	Quarterly sales (\$MIL)
AVNR	Avanir Pharmaceuticals, Inc. Class A	404.5	3,284.5	32.7
OVAS	OvaScience, Inc.	383.8	1,075.3	0.0
AGIO	Agios Pharmaceuticals, Inc.	367.8	4,103.9	33.9
BLUE	Bluebird Bio, Inc.	337.2	2,875.6	6.4
RCPT	Receptos, Inc.	322.6	3,792.8	3.5
TGTX	TG Therapeutics, Inc.	306.2	696.4	0.0
RNA	Prosensa Holding NV	301.5	677.0	0.0
PTX	Pernix Therapeutics Holdings PTX +2.23% , Inc.	272.6	359.6	31.5
ACHN	Achillion Pharmaceuticals ACHN -8.13% , Inc.	269.1	1,228.0	0.0
FOLD	Amicus Therapeutics, Inc.	254.0	774.7	0.3
CTSO	CytoSorbents Corporation	218.4	251.6	1.2
PTCT	PTC Therapeutics, Inc.	205.1	1,739.6	1.7
ESPR	Esperion Therapeutics, Inc.	194.3	823.0	0.0
TTPH	Tetraphase Pharmaceuticals, Inc.	193.7	1,217.4	2.3
ISR	IsoRay, Inc.	192.0	80.1	1.0
ANIP	ANI Pharmaceuticals Inc	180.8	638.9	17.4
CMRX	Chimerix, Inc.	166.4	1,468.5	1.2
CBMG	Cellular Biomedicine Group, Inc.	153.1	128.4	0.1
HRT	Arrhythmia Research Technology, Inc.	142.9	21.2	6.0
NBIX	Neurocrine Biosciences, Inc.	139.2	1,698.0	0.0



Continued Positive Analyst Coverage and Investor Outreach

BREAN CAPITAL, LLC

COMPANY UPDATE (CTSO/ NASDAQ)

CytoSorbents Corporation
February 19, 2015

Jonathan Aschoff, (212) 702-6652
Yi Cheng, (212) 702-6620

CytoSorb Appears To Us To Be Worth Using To Alleviate CRS After CAR T Therapy

Investment Summary

Buy
TP: \$25.00

H.C. WAINWRIGHT & CO.

Target Price Revision
Medical Device
January 27, 2015

Swayampakula Ramakanth, Ph.D.
212-356-0544
sramakanth@hccwresearch.com

CytoSorbents Corp (CTSO)
Rating: Buy

Expanding Horizons; New \$12 Price Target; Reiterate Buy

Exciting year for CytoSorb development. At the end of 2014, CytoSorbents submitted an Investigational Device Exemption (IDE)

Stock Data 01/26/2015
Price \$8.14

MLV

EQUITY RESEARCH
Healthcare | Medical Devices

Initiating Coverage

CytoSorbents Corp.
Staking A Claim In Sepsis And Cardiac Surgery

We are initiating coverage of CytoSorbents Corp., an emerging blood purification company, with a BUY rating and a 12-month price target of \$30 per share. In our view, CytoSorbents is an unusual technology platform firm with a market

TICKER NASDAQ: CTSO
RATING BUY
PRICE TARGET \$30.00
Price (March 04, 2015) \$10.87

Market Data \$266.4
Market Cap (M): 24.5

Buy

WBB Securities, LLC

Stephen G. Brozak • sbrozak@wbbsec.com • (908) 518-7610

INITIATING COVERAGE – FEBRUARY 25, 2015

CytoSorbents Corporation (NasdaqCM: CTSO)

Initiating Coverage with a Speculative Buy Rating and One-Year Price Target of \$13.00

12 Month Target Price	\$13.00
12 Month Trading Range	\$4.40-\$12.87
Market Capitalization (Mil)	\$267.87
Shares Outstanding (Mil)	24.5

MERRIMAN CAPITAL

CytoSorbents Corporation (CTSO)
CTSO Update Post Completion Of Quiet Period

Andrew D'Silva, Analyst
(415) 568-3927
adsilva@merrimanco.com

January 19, 2015

Investment Conclusion

CytoSorbents (CTSO) has developed a potentially breakthrough technology to extract inflammatory mediators such as cytokines and toxins from blood in critically ill patients with a wide range of inflammatory conditions such as sepsis, trauma, lung injury, burn injury, pancreatitis and many others. The company's various technologies are centered around its highly porous polymer beads which are backed by 32 issued U.S. patents. The company has begun aggressive sales initiatives outside the U.S. and has begun the process to obtain domestic regulatory approval as well. Furthermore, we do not believe the company's current price adequately accounts for the value inherent in the commercialization of CytoSorb®, its market potential or takeover value. **We are maintaining our BUY rating on CTSO shares; however, to account for a recent 25:1 reverse split we are adjusting our PT to \$18.75 from \$0.75 previously.**

Price:	\$8.33
Price Target:	\$18.75
52-Week Range:	\$4.40-\$12.87
Cash (M):	\$7.8
Debt (M):	\$0.0
Net Cash/Share:	\$0.32
Book Value/Share:	\$(0.44)

Zacks Small-Cap Research

December 18, 2014
Brian Marckx, CFA
bmarckx@zacks.com
Ph (312) 265-9474

111 North Canal Street, Chicago, IL 60606

scr.zacks.com (CTSD-OTCBB)

CytoSorbents Cp

CTSOD: Fresenius Adds More Than Just Marketing Muscle...

OUTLOOK

CytoSorb was CE Marked in March 2011 and subsequently commenced its initial commercialization. Initial focus on building awareness appears to be paying off. CTSD now generating awareness appears to be just starting to be used to clinical outcomes data which is just starting to be used to accelerate adoption and utilization. CTSD now expects to pursue cardiac surgery indication in the U.S. as this may provide the lowest cost, easiest and fastest route to the U.S. market. Cardiac surgery indication has driven substantial interest overseas with successful outcomes. Gov't contracts/grants that CTSD continues to score should benefit near-term revenue and cash flow as well as also aid their awareness-building efforts, further increase visibility and credibility of the technology, and potentially expand the menu of potential applications of the device. Interest in and use of CytoSorb from hospitals and physicians continues to increase. Also seeing great interest from

Current Recommendation	Outperform
Prior Recommendation	N/A
Date of Last Change	06/04/2012
Current Price (12/17/14)	\$6.60
Target Price	\$12.50

CytoSorbents
Working to Save Lives Through Blood Purification

Increased Media Coverage

+MASS DEVICE

CytoSorbents inks deal with Fresenius Medical Care ([link](#))
By Mark Hollmer
Mass Device
December 16, 2014

Fresenius Medical Care is slated to distribute CytoSorbents' cytokine blood purification filters in several countries as part of a new strategic partnership.

CytoSorbents (OTC:CTSO) said yesterday that it scored an international strategic partnership with Fresenius (NYSE:FMS) that will boost access to international markets for its cytokine blood purification

MEDICAL DEVICE DAILY™ THE DAILY MEDICAL TECHNOLOGY NEWS SOURCE

People in the News
Medical Device Daily
December 24, 2014

CytoSorbents (Monmouth Junction, New Jersey), a critical care focused immunotherapy company marketing its CytoSorb blood purification technology to help fight deadly inflammation in critically-ill and cardiac surgery patients, reported the appointment of Gregory Di Russo, as its Senior Vice President of Clinical Development, effective Jan. 5, 2015. Di Russo is an accomplished pediatric cardiothoracic surgeon specializing in congenital cardiac surgery and was Vice Chairman of Cardiothoracic Surgery at

Cardiovascular News

CytoSorbents submits IDE application for US CytoSorb cardiac surgery trial ([link](#))
By Dawn Powell
Cardiovascular News
January 2, 2014



CytoSorbents has submitted an Investigational Device Exemption (IDE) application to the US Food and Drug Administration (FDA) to conduct its proposed clinical trial using CytoSorb intra-operatively in patients undergoing complex cardiac surgery requiring the use of a heart-lung machine.

FDANEWS

Simplifying Global Compliance

CytoSorbents Files IDE for CytoSorb Cardiac Surgery Trial ([link](#))
By Kellen Owings
FDANews
January 2, 2015

FierceDrugDelivery

Cytosorbents no longer an OTC stock, uplists to Nasdaq ([link](#))
By Varun Saxena
FierceDrugDelivery
December 24, 2014

Starting today, CytoSorbents, maker of the CytoSorb extracorporeal cytokine adsorber to reduce

MICROCAP DAILY

Cytosorbents Corp (NASDAQ:CTSO) Rebounding on a Stronger Note ([link](#))
By James Elliot
MicroCap Daily
December 30, 2014

Cytosorbents Corp (NASDAQ:CTSO) is coming back strong after a shack to just over \$9 a share. The stock has been upwards on huge strength in recent days hitting a high of \$12.86. The ticker changed back to CTSO from CTSOD after the 1 for 25 reverse split of the stock. The Company announced on December 15 that its common stock has been approved for listing on The NASDAQ Capital Market. Shares are expected to begin trading on The NASDAQ Capital Market on Tuesday, December 23, 2014 under the ticker symbol "CTSO".

BioCentury®

CytoSorbents Corp. (OTCQB:CTSOD), Monmouth Junction, N.J.
By Staff Writer
BioCentury
December 15, 2014

FierceMedicalDevices

Fresenius adds blood purification tech to its dialysis offerings via partnership ([link](#))
By Varun Saxena
FierceMedicalDevice
December 16, 2014

Dialysis magnate Fresenius Medical Care, a leading provider of hemodialysis machines, has entered into a partnership to help commercialize the cytokine adsorber CytoSorb to combat sepsis and other infections that can lead to organ failure. The financial terms of the pact with product developer CytoSorbents were not disclosed.

The blood purification therapy CytoSorb complements Fresenius' extensive



CytoSorbents
Working to Save Lives Through Blood Purification

Operating and Financial Highlights



CytoSorbents

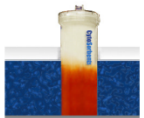
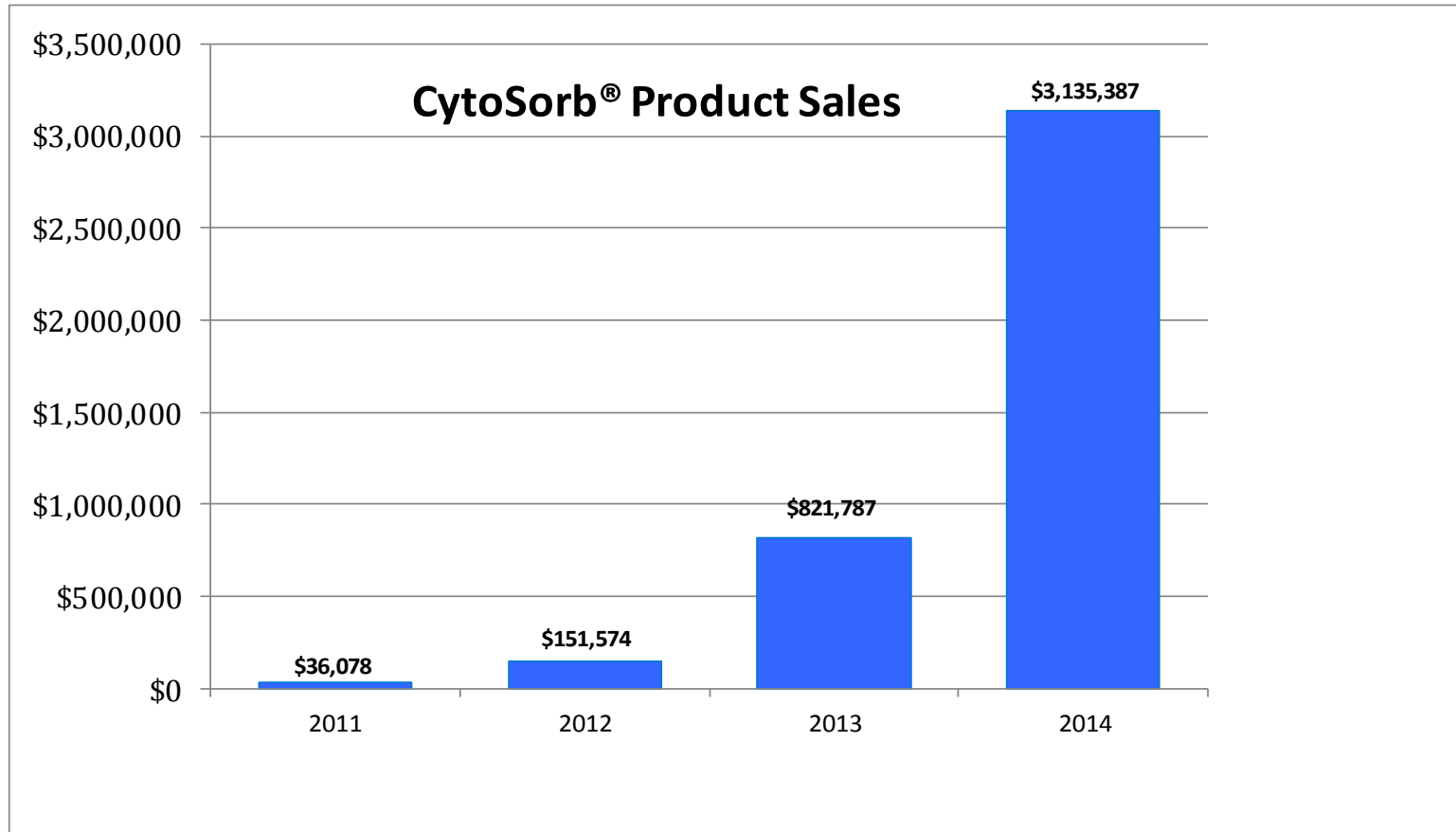
Working to Save Lives Through Blood Purification

2014 Comparative Revenue Results

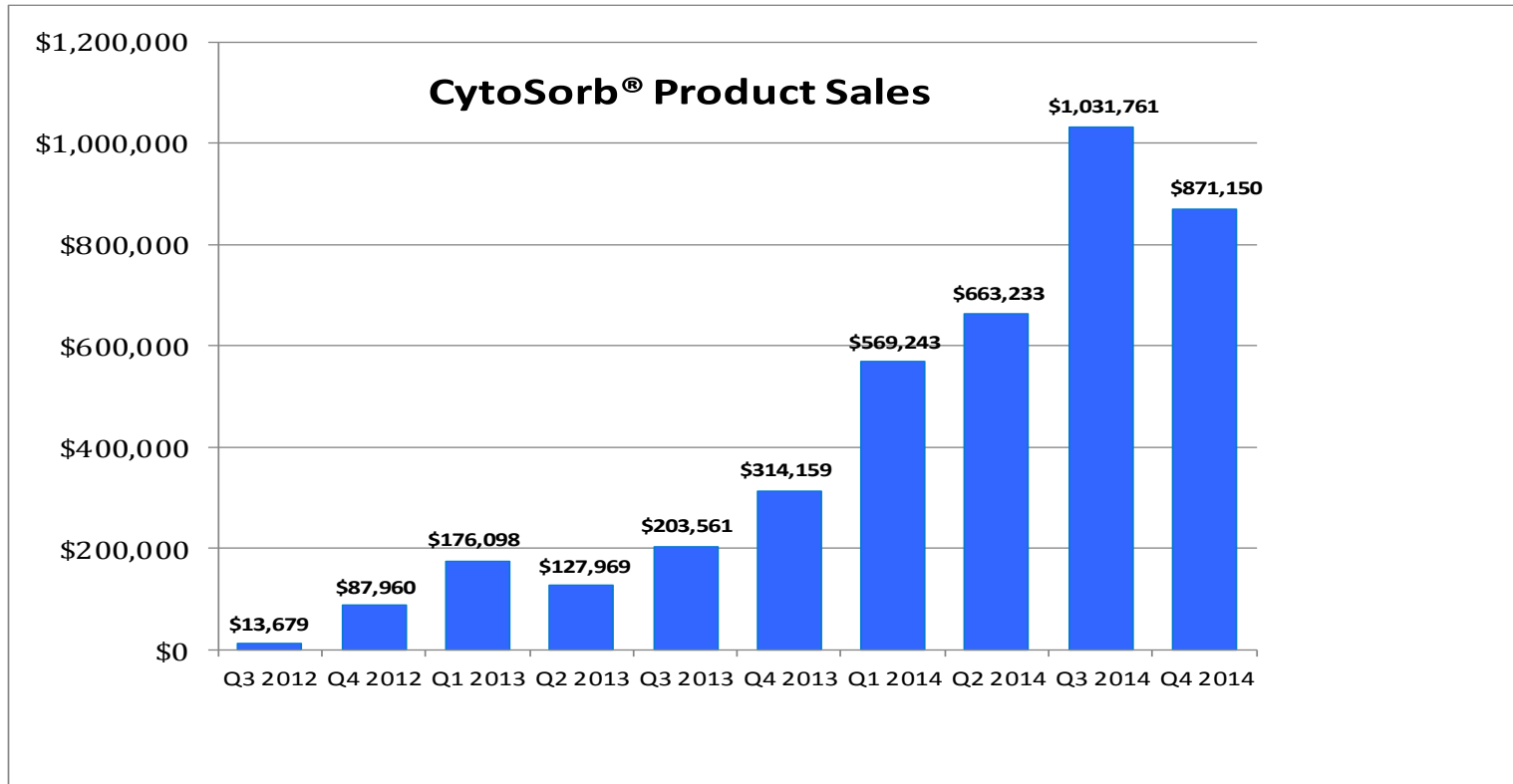
	2014	2013	% Incr.
Product revenue	\$ 3,135,387	\$ 821,787	282%
Grant and other income	987,438	1,600,880	(38)%
Total revenue	\$ 4,122,825	\$ 2,422,667	70%

- Achieved record CytoSorb® annual sales of \$3.1 M, a 282% increase over \$822K in 2013.
- Grant and other income declined by 38% as a result of the conclusion of several significant grants.
- Gross margin on product sales in 2014 were approximately 63%, as compared to 61% for 2013.

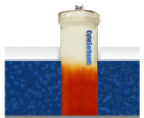
Rapidly-Growing Year-Over-Year Product Sales



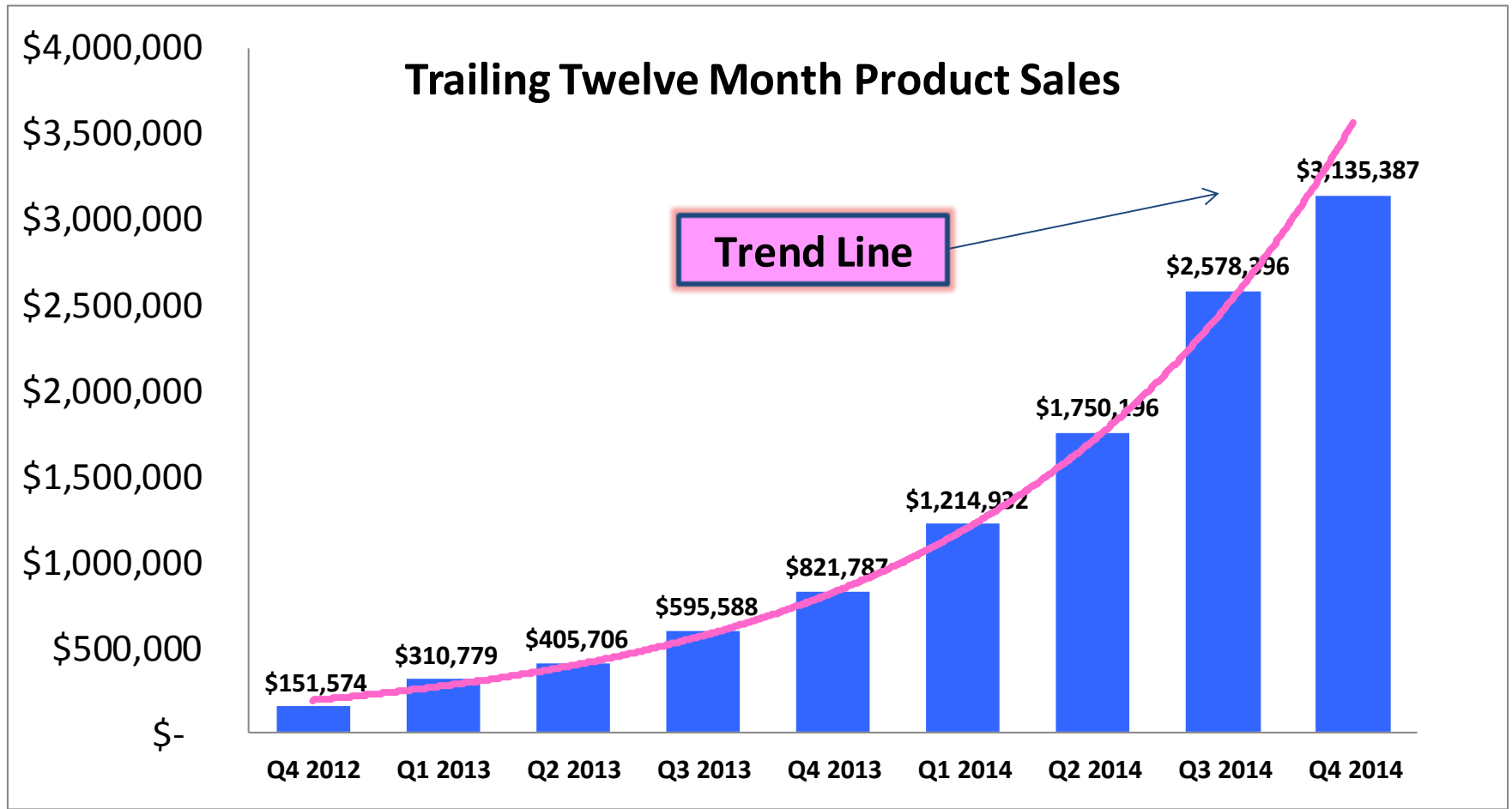
Quarterly Product Sales



- Q4 2014 Product Revenue were \$871K, an increase of \$557K or 177% over Q4 2013 product revenues of \$314K.
- Q4 2014 product revenues were approximately \$161K lower than Q3 2014 revenues. Q3 2014 was the first quarter where distributor sales exceeded direct sales, and due to the bulk nature of distributor orders, sales can fluctuate from quarter to quarter.



Product Sales Trends Remain Strong



Balance Sheet and Cap Table

Consolidated Balance Sheet Data:

12/31/2014

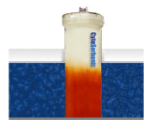
Cash and Short-Term Investments	\$	5,549,827 *
Total Assets	\$	8,468,625
Total Debt	\$	-
Total Shareholder's Equity	\$	3,963,183 *

* Does not reflect an additional \$10.3M financing completed in January 2015.

CytoSorbents Cap Table (Pro-Forma as of 3/31/2015)

Common stock outstanding	24,637,822 **
Options	2,192,171
Warrants	1,517,346
Fully-diluted Common shares	<u>28,347,339</u>

**Includes 1,250,000 shares issued in connection with the January 2015 \$10.3 financing.



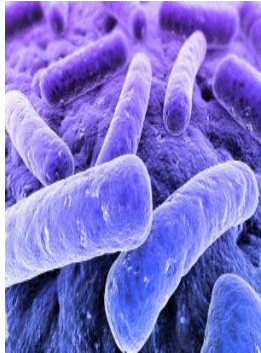
Outlook for 2015



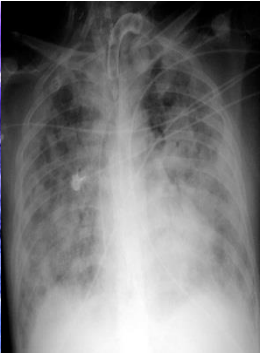
\$20 Billion Opportunity in Critical Care

Millions of people are admitted to the intensive care unit in hospitals in the U.S. and the European Union each year with deadly inflammatory conditions

Sepsis



ARDS



Burn Injury



Trauma



Pancreatitis



Influenza



Surgical



- In these conditions, massive inflammation driven by a “cytokine storm” causes cell death and organ failure. Nearly half of all deaths in the ICU is due to organ failure with no effective therapies
- Because of the lack of effective therapies, approximately 1 in every 3 patients dies
- The costs can be staggering: Lack of “active” therapies lead to patients lingering days to weeks in the ICU at \$2,000-3,000 per day in the ICU* on average
- Not surprising that we spend nearly 1% of our GDP on critical care**

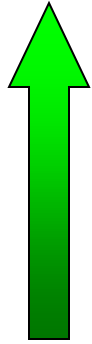


CytoSorb® Removes the Fuel to the Fire

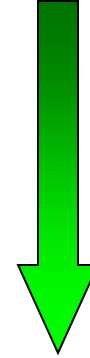
- CytoSorb® represents a powerful immunotherapy to control inflammation
- Approved in the European Union as the only specifically approved cytokine filter
- Clinically proven to remove key cytokines in the blood of critically-ill patients
- Approved for use in any situation where cytokines are elevated
- Safe: ~5,500 human treatments, safe and well-tolerated



Goal: To Prevent or Treat Organ Failure

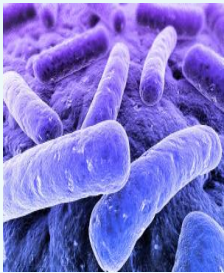


Improve
Patient
Outcome
and
Survival

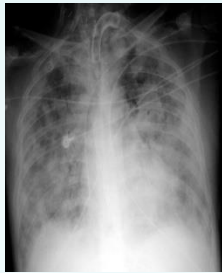


Decrease
Costs Of
ICU and
Patient
Care

Sepsis



ARDS



Burn Injury



Trauma



Pancreatitis



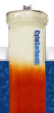
Influenza



Surgical



The Potential to Revolutionize Critical Care Medicine



CytoSorbents

Working to Save Lives Through Blood Purification

CytoSorbents Has Tremendous Potential

CytoSorb® may help revolutionize critical care medicine,
saving lives, and reducing costs

- Massive untapped \$20 billion unmet, medical need in critical care
- CytoSorb® sales are generating significant growth with attractive 65% gross margins
- Continued geographic expansion throughout the world
- FDA approval to start U.S. cardiac surgery pilot study – the first phase to seek U.S. approval with CytoSorb®
- Expansion of existing strategic partnerships and potential new ones
- NASDAQ Capital Market up-listing and clean cap structure dramatically changes profile of company and ability for institutional and retail investors to invest

Near Term Challenges



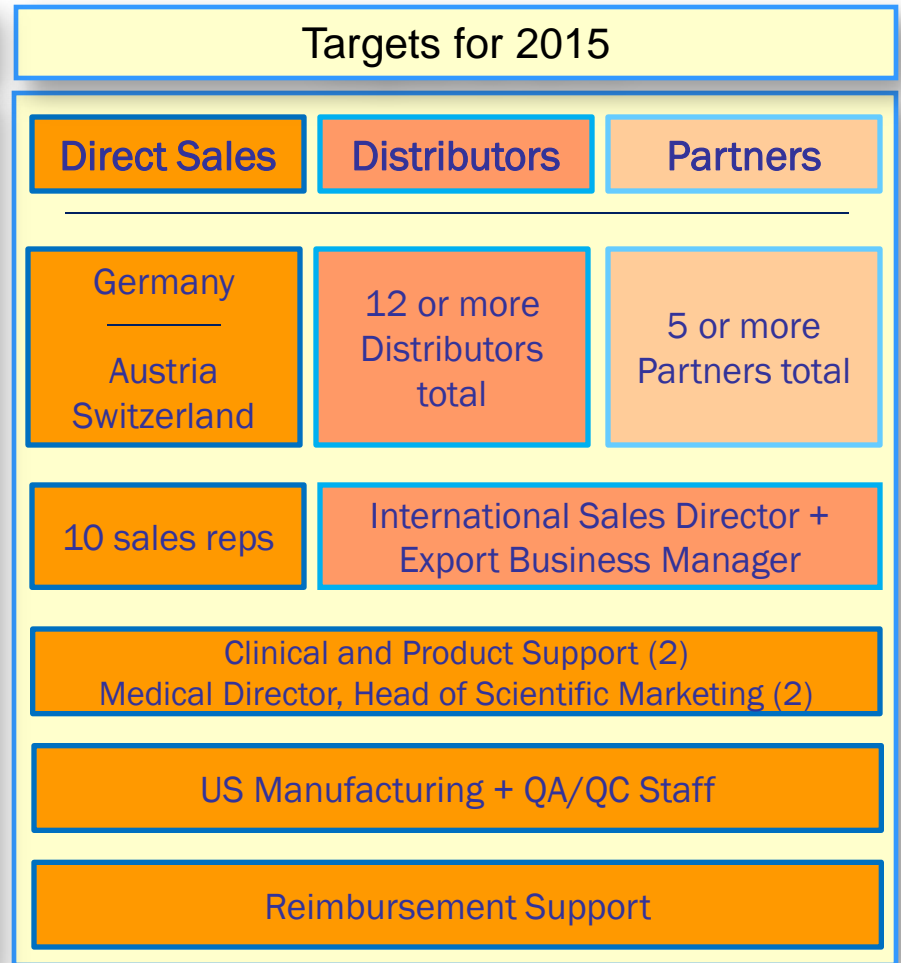
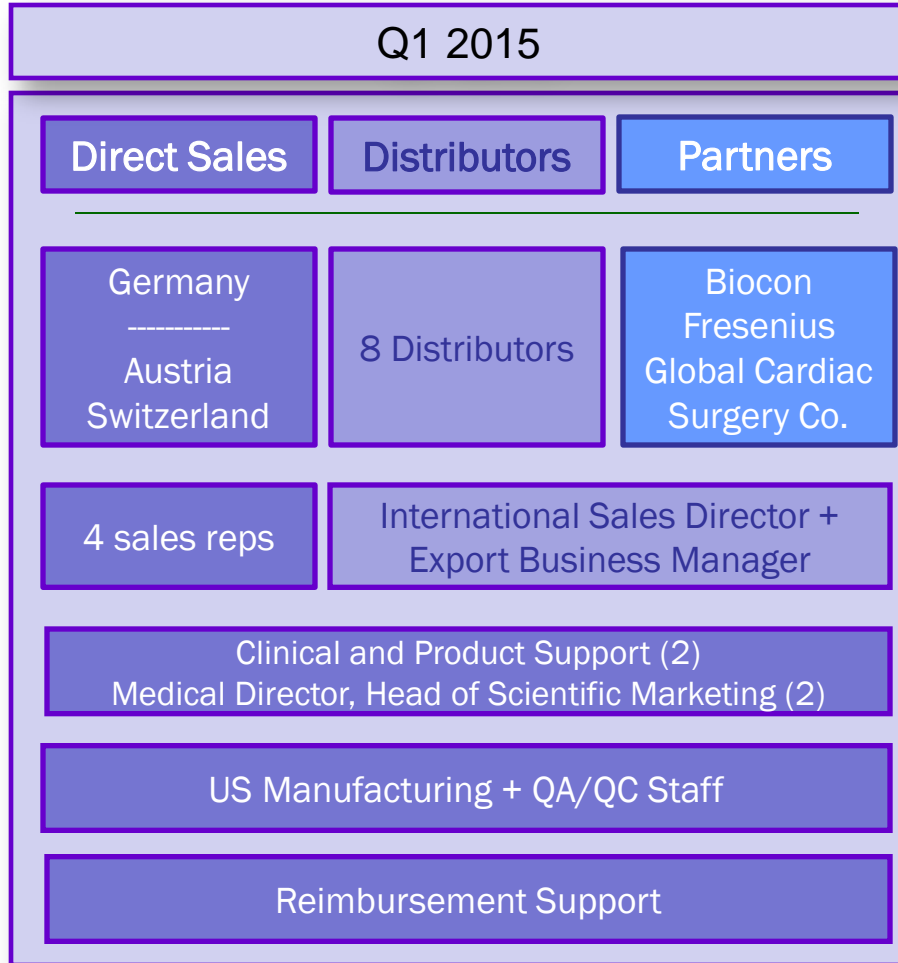
Sales Infrastructure Targets For 2014

2013		
Direct Sales	Distributors	Partners
Germany Austria Switzerland	5 Distributors (UK, Ireland, Netherlands, Turkey, Russia)	Biocon (India)
4 sales reps		
Clinical Support (1)		
US Manufacturing + QA/QC Staff		
Reimbursement		

Targets for 2014		
Direct Sales	Distributors	Partners
Germany Austria Switzerland	10+ Distributors	2+ Partners
10 sales reps	Distributor/Partner Support Rep	
Clinical Support Staff (2)		
Support increases in sales with increases in US Manufacturing + QA/QC Staff		
Reimbursement Support		



Restructuring Targets For 2015



Q1 2015 Revenue Guidance

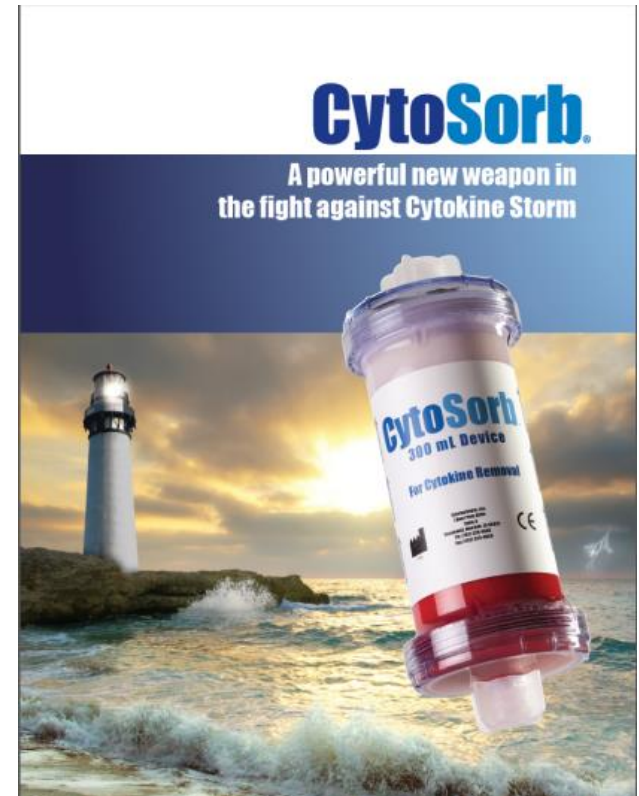
- In general, our product sales are too dependent on the timing and size of orders and cannot yet be accurately predicted
- We have given guidance, however, when data from the full quarter is known
- Expect that Q1 2015 CytoSorb product revenue will be in the range of \$700,000 - \$ 725,000 (unaudited). Adjusting for the impact in the change of the Euro, which has dropped 22% from a year ago, this is equivalent to an adjusted range of \$800,000 - \$850,000

Q&A Session

CytoSorbents Corporation

NASDAQ CM: CTSO

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



An Emerging Leader in Critical Care Immunotherapy

