



# Annual Shareholders Meeting June 1, 2021

**CytoSorbents**<sup>™</sup>

WORKING TO SAVE LIVES

# 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 9, 2021 and other reports and documents filed from time to time by us, which are available online at [www.sec.gov](http://www.sec.gov).



# Opening Remarks

Al Kraus

Chairman of the Board

# Board of Directors



## **Al Kraus – Chairman (Audit, Governance, Compensation Committees)\***

25+ years leadership experience in the dialysis and medical device industries. Former CEO and Board director of CytoSorbents, NOvoVascular, Althin Medical, and former COO and U.S. Subsidiary Manager of Gambro, Inc., one of the leading dialysis companies in the world, taking them public through an IPO in the U.S. in the 1980's and growing sales 4x.



## **Michael Bator, MBA (Compensation Committee)\***

Founder and Partner of Quartz Advisory Group, LLC and Certus Advisory. 15 year Wall Street veteran, most recently as Managing Director - Healthcare Research at Jennison Associates, a US mutual and pension fund management company, with \$109 billion in equities and \$66 billion in fixed income assets. Formerly a management consultant at several agencies, including the Boston Consulting Group.



## **Phillip Chan, MD, PhD – Chief Executive Officer**

Former Partner at the \$80M NJTC Venture Fund, leading life science investments for 5 years. Co-founder and Vice Chairman of Medality Medical, evaluating its FDA 510(k) cleared HydraSolve™ lipoplasty device in the U.S. for the treatment of Type 2 Diabetes. Internal medicine physician with MD/PhD from Yale School of Medicine, internal medical residency at the Beth Israel Deaconess Medical Center at Harvard.



## **Edward Jones, MD, MBA (Audit, Governance Committees)\***

Clinical Professor of Medicine at Temple University Hospital and attending nephrologist at the Albert Einstein Medical Center and Chestnut Hill Hospital. Past President and Managing director of Delaware Valley Nephrology and Hypertension Associations. Past Board member of the National Kidney Foundation of the Delaware Valley, Past President of the Renal Physicians Association, and Chairman of Kidney Care Partners



## **Alan Sobel, MS, CPA (Audit Committee Chair, Governance Committee)\***

Audit Committee Chair. Managing Member of Sobel & Co., LLC, a full-service accounting, audit, tax, and business consulting firm serving individuals, small and mid-sized businesses, and SEC-registered companies. Former Chairman of the Audit Committee of the New Jersey Society of Certified Public Accountants

\* Independent directors per SEC definition

# Leadership Background



## **Phillip Chan, MD, PhD – Chief Executive Officer**

13 year tenure at CytoSorbents. Former Partner of the \$80M NJTC Venture Fund. Co-founder and Vice Chairman of Medality Medical, evaluating its US FDA 510(k) cleared HydraSolve™ device to treat Type 2 diabetes. MD/PhD - Yale School of Medicine, internal medical residency - Beth Israel Deaconess Medical Center at Harvard.



## **Vincent Capponi, MS - Chief Operating Officer and President**

25+ 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**

25+ 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



## **Efthymios “Makis” Deliargyris, MD, FACC, FESC, FSCAI – Chief Medical Officer**

20+ years in academia and industry in clinical development of anti-thrombotics and anti-coagulants, and as a cardiologist and interventional cardiologist. Former CMO of PLx Pharma (NASDAQ: PLXP) and Vice President, European Medical Director, and Global Medical Lead- Acute Cardiovascular Care at The Medicines Company



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

20+ 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**

20+ years experience in business development and commercial experience. Former Senior Director of New Venture Development at Johnson & Johnson, and previously at PwC Consulting, leading life science investments



# The Future of CytoSorbents: Opportunities Abound

Phillip Chan, MD, PhD  
Chief Executive Officer

**CytoSorb** Is In 68 Countries Around The World



# Targeting Deadly Conditions Afflicting Millions of People

## Critical Care

## Cardiothoracic Surgery

Uncontrolled inflammation can spiral out of control, leading to failure of vital organs and death

Highly invasive, with major risk of bleeding, shock, severe inflammation, infection, sepsis, and others



Sepsis



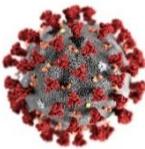
Surgical Complications



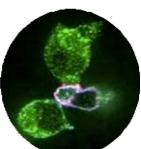
Influenza



Burn Injury



COVID-19



Cytokine Release Syndrome



Lung Injury



Liver Failure



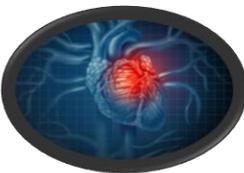
Trauma



Pancreatitis



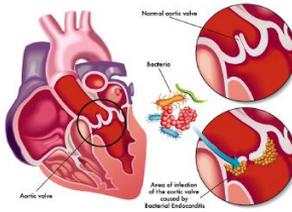
Life-threatening bleeding due to anti-thrombotic “blood thinners”



High Risk Procedures

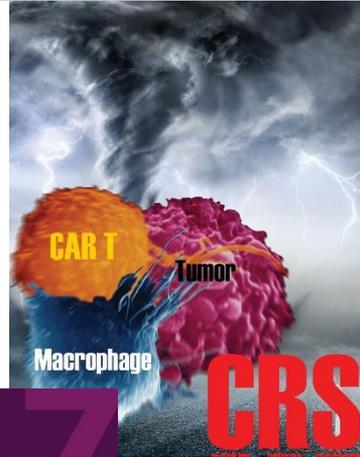


Post-op infection & shock



Infective Endocarditis

# Riding Many Macro Trends in Healthcare



SEPSIS BY-THE-NUMBERS

**48.9** MILLION CASES **11** MILLION DEATHS



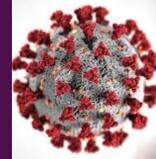
1 IN EVERY 5 DEATHS WORLDWIDE ARE ASSOCIATED WITH SEPSIS



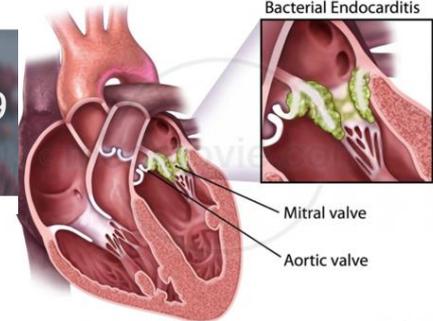
85% OCCUR IN LOW- OR MIDDLE-INCOME COUNTRIES



2 OUT OF EVERY 5 CASES ARE IN CHILDREN UNDER 5



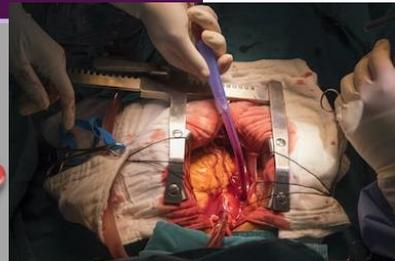
COVID-19  
CORONAVIRUS DISEASE 2019



*Blood Thinners*  
WHAT YOU NEED TO KNOW

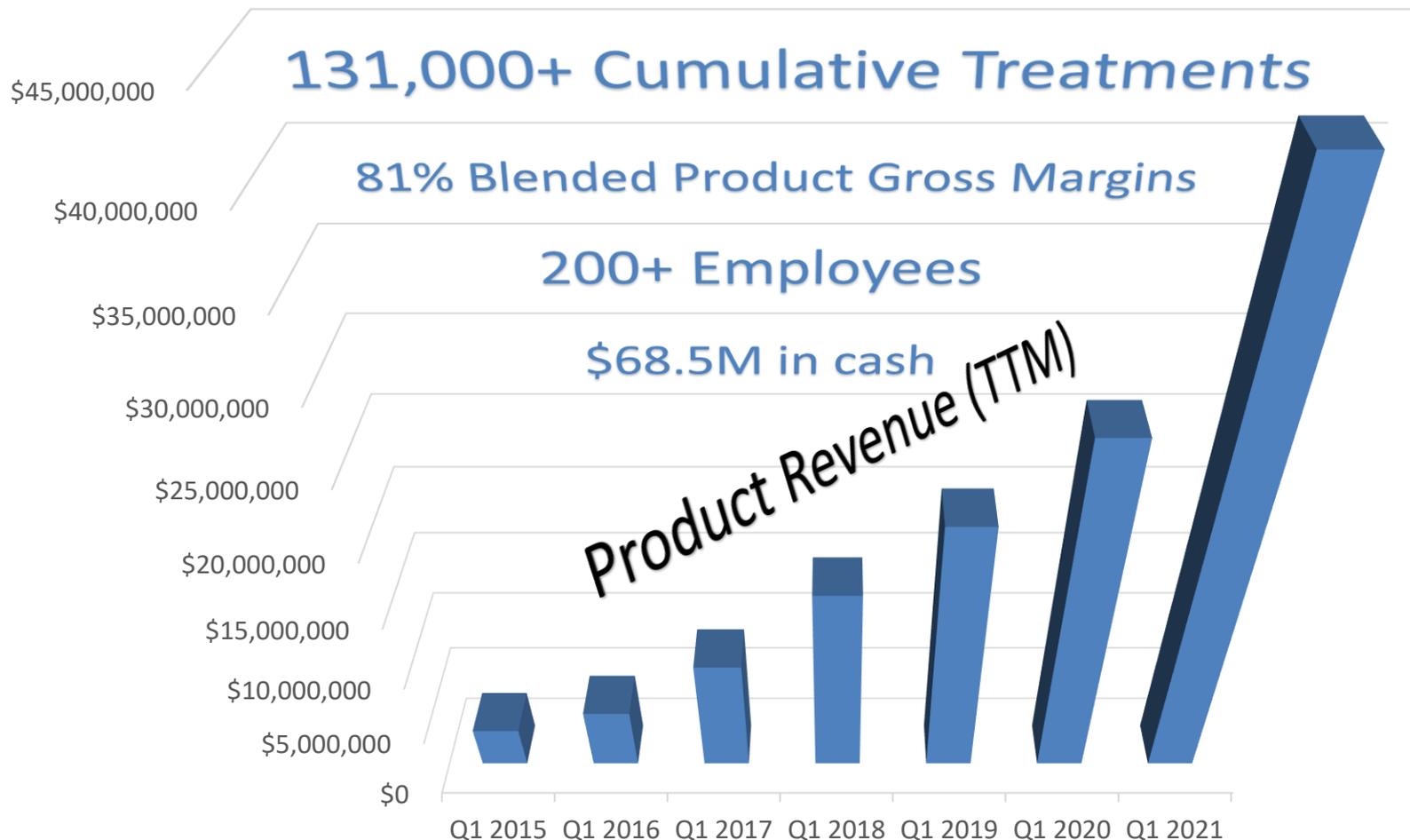
- coumadin
- heparin
- lovenox
- xarelto
- eliquis
- pradaxa
- plavix
- brilinta
- aggrenox
- aspirin
- TPA

straightnursingstudent.com



# Our Results Reflect our Potential and Hard Work

We believe there is much more we can accomplish



# Our Expansion Reflects our Confidence



**CytoSorbents  
New Headquarters and  
Manufacturing Facility**

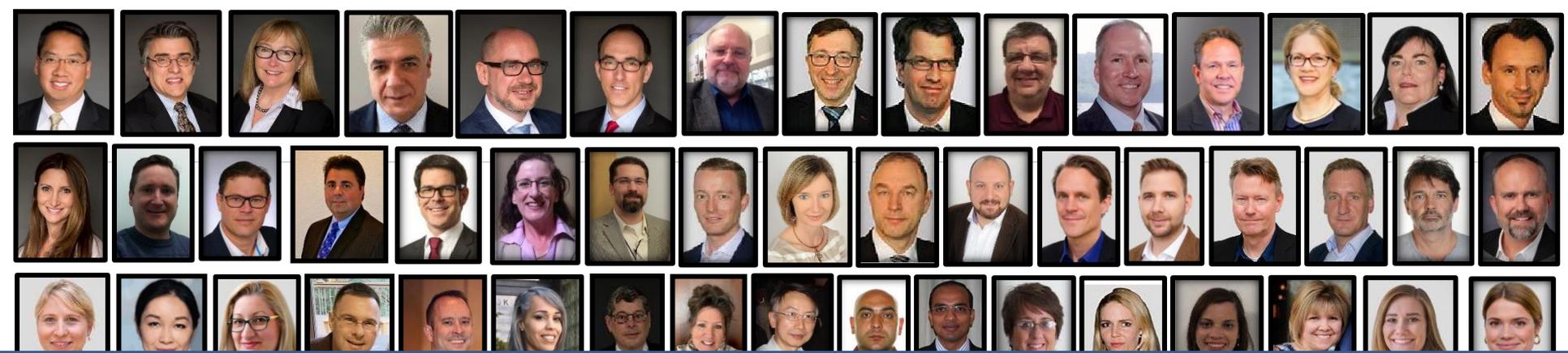
**Princeton, NJ**



**CytoSorbents  
New European  
Logistics Hub**

**Berlin, Germany**





And It Is Our Amazing People  
Who Will Get Us There



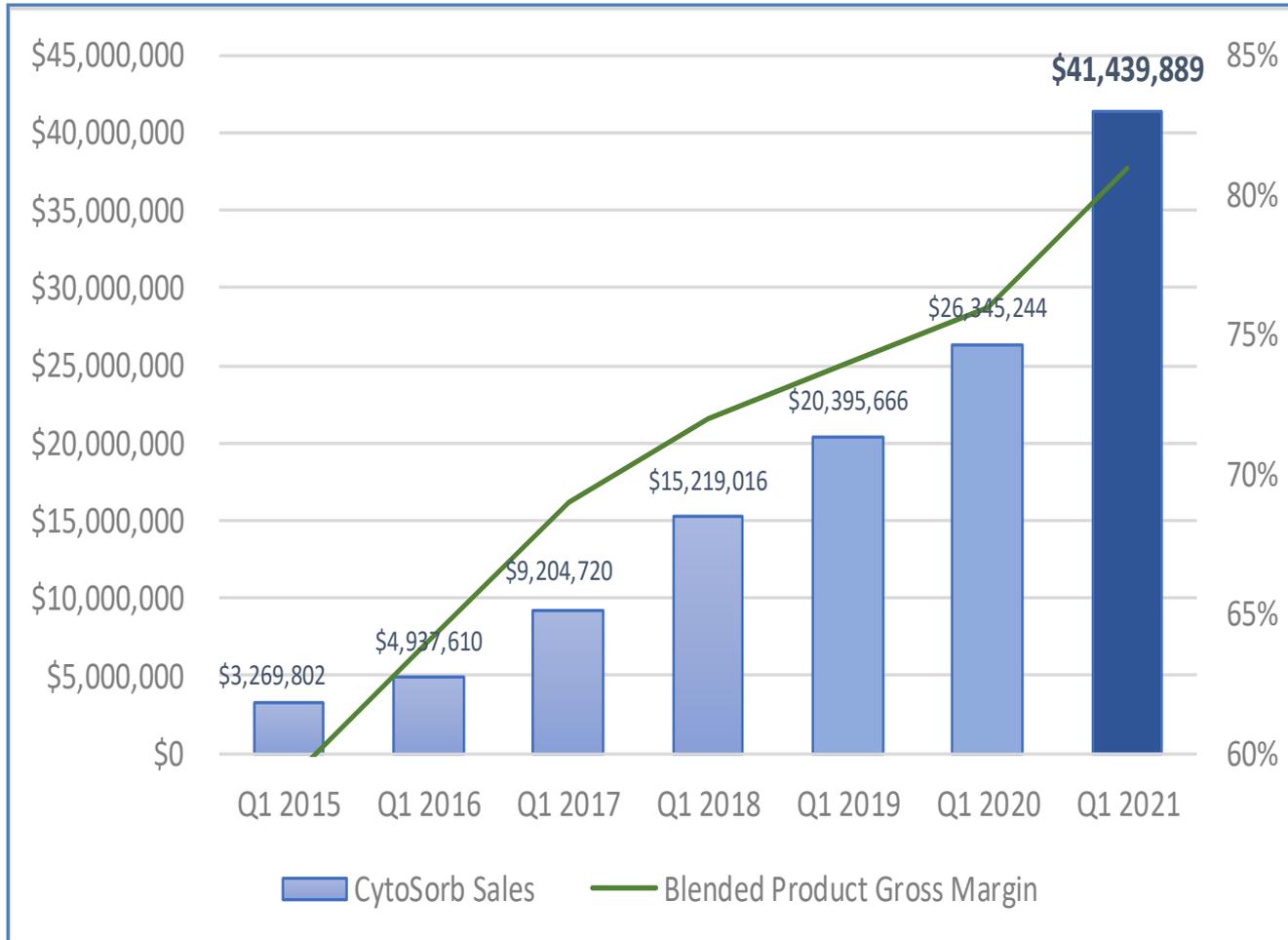


# Well-Positioned for Growth

Kathy Bloch, MBA, CPA  
Chief Financial Officer

# TTM Product Sales & Blended Gross Margin

The annual product sales growth trajectory remains strong



Q1 2021 gross margin of 81% excludes tariff costs related to prior periods (2020, 2019, and 2018) and non-recurrent employee retention tax credits.

# Year Over Year Financial Progress

	2021	2020	2019
<b>Growth Indicators:</b>			
TTM Product Sales, March 31	\$41,439,889	\$26,345,244	\$20,395,666
TTM Product Gross Margin \$, March 31	\$31,470,137	\$20,310,029	\$15,028,169
Product Gross Margin %, Q1*	81%	76%	74%
<b>Liquidity Indicators:</b>			
Cash and Cash Equivalents, March 31	\$68,468,285	\$26,389,021	\$19,647,374
Net Working Capital, March 31	\$69,875,527	\$26,064,951	\$18,116,861
Debt Outstanding, March 31	\$0	\$15M	\$15M
<b>Value Indicator:</b>			
Market Capitalization, May 31	\$350M	\$375M	\$203M

\*Q1 2021 gross margin of 81% excludes tariff costs related to prior periods (2020, 2019, and 2018) and non-recurrent employee retention tax credits

# Strong Foundation to Execute on Growth Plan

- The Company is well-capitalized, with \$68.5M in cash at March 31, 2021
- Our cash-on-hand provides adequate funding to execute our robust clinical and commercialization plans over the coming years
- We believe our existing cash balance is adequate to fund our activities through to the achievement of GAAP breakeven which we expect to reach within two years
- Given our 80%+ gross margins, we expect to generate strong cash flow from operations that is expected to continue increasing as sales grow



# The CytoSorbents Growth Story

Christian Steiner, MD

Executive Vice President – Sales and Marketing



> **131,000**

CytoSorb treatments  
since 2011

+ **49%**

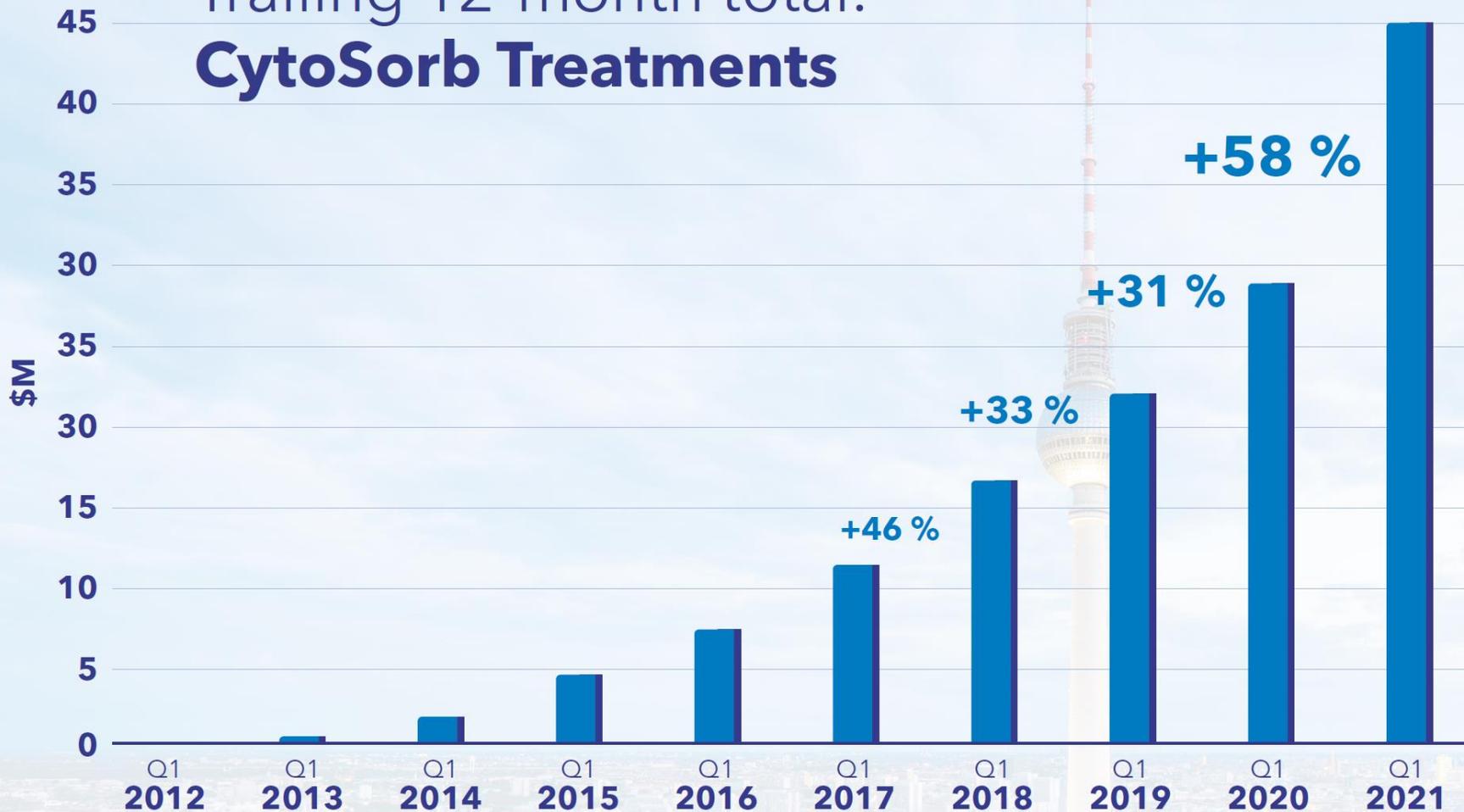
since April 1<sup>st</sup> 2020

CytoSorbents Growth Story

**CytoSorbents**™

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# Trailing 12-month total: **CytoSorb Treatments**



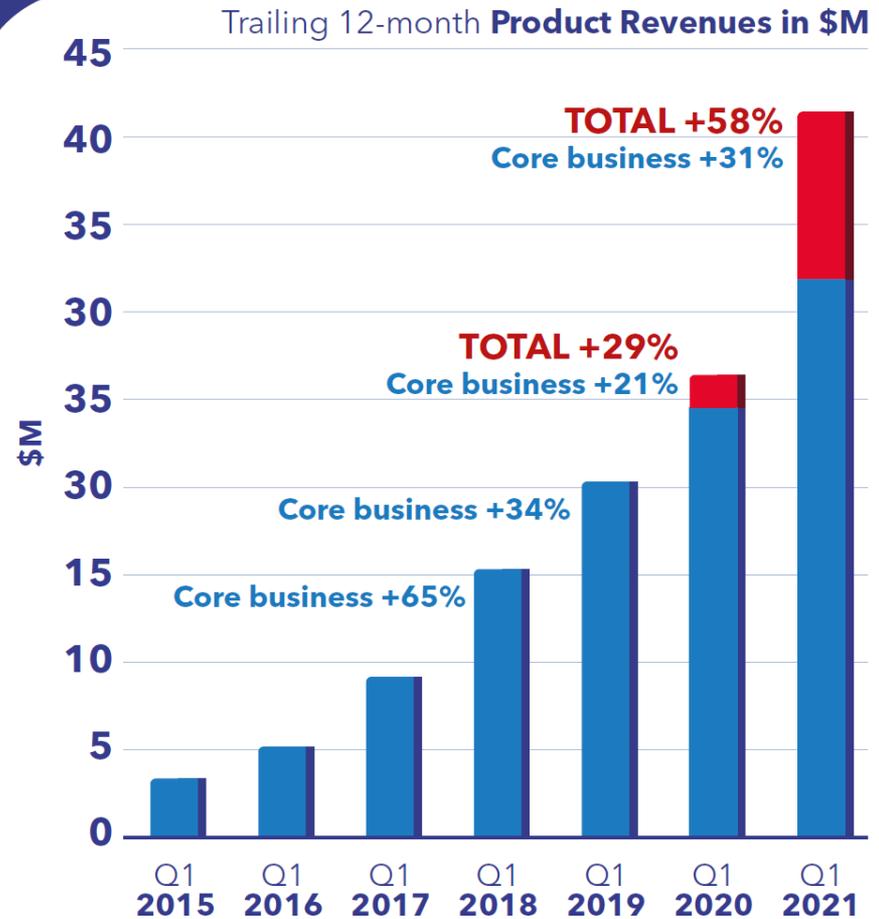
CytoSorbents Growth Story

**CytoSorbents**<sup>™</sup>

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# CytoSorb growth rates exceed industry averages

- **Accelerated revenue growth** both in TOTAL and CORE business while medical device industry declines by more than 3%\* in 2020
- CTSO revenue **CAGR >35%** (>45% incl. COVID) is outpacing the medical device industry CAGR of 4-6%\*
- **Stable pricing** and continued improvement of cost structure enables high gross margins
- Core business growth is based on **increased market penetration** in traditional indications supported by **geographical expansion**



CytoSorbents Growth Story

**CytoSorbents**<sup>TM</sup>

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\* FORTUNE Business Insights:  
Market Research Report Medical Devices 2020, May 2021

# CytoSorbents growth could benefit from **COVID**

## Short term impact

- **Additional revenues** due to the treatment of more than 6,000 patients worldwide up to date
- CytoSorb Therapy endorsed and **included in COVID therapy guidelines** in several countries
- **Additional registrations** for therapy of COVID-19 patients such as in the United States, Canada, Israel and India

Short term

CytoSorbents Growth Story

**CytoSorbents**<sup>TM</sup>

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# CytoSorbents growth could benefit from **COVID**

## Mid term scenarios

- **Increase of patient numbers** for core indications due to:
  - Ramp up of elective surgery programs (were down 30-40%)
  - Usual incidences of pneumogenic sepsis, influenza and others
  - Full ICU capacity available again
- Re-established **access to** actual and potential **customers**
- **Re-start** of **commercial campaigns** and initiatives (ATR, Liver) as well as **clinical programs** which were on hold

Mid term

CytoSorbents Growth Story

**CytoSorbents**<sup>™</sup>

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# CytoSorbents growth could benefit from **COVID**

## Long term effects

- **Significant awareness increase** for CytoSorb Therapy
- **Cytokine Storm** became an acknowledged **therapy target**
- Additional **registrations** in certain markets **are expected to stay effective**
- **Organizational and process** adaptations and changes during the pandemic can make the 'New Normal' **commercialization more effective**

Long term

CytoSorbents Growth Story

**CytoSorbents**<sup>TM</sup>

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# Ready for further growth

- **CTSO team** with **exceptional expertise** across all fields
- **New Production** in Princeton, NJ, United States
- **New CytoSorbents Logistic Hub** in Berlin, Germany
- **Additional sales and marketing channels** established
- Start of **new high potential markets:**
  - Singapore, Brazil, South Korea, Others
- **Campaigns** are expected to generate additional business
  - Anti-thrombotic Removal
  - Liver Support
- New application fields are currently being prepared



CytoSorbents Growth Story

**CytoSorbents**<sup>TM</sup>

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# CytoSorbents™

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## Fueling Growth with FDA Approval(s) and Data

Efthymios “Makis” Deliargyris, MD  
Chief Medical Officer

# Dual Path to U.S. FDA Approval

Indication STUDY	Status
Post-operative AKI <b>REFRESH-2</b>	<ul style="list-style-type: none"><li>• Actively enrolling - 154 patients enrolled to date</li><li>• 50% of study sites already actively screening and enrolling - Remaining sites to be activated by end of Q2</li><li>• Next milestone: Interim Analysis</li></ul>
Ticagrelor Removal <b>STAR-T</b> 	<ul style="list-style-type: none"><li>• Investigational plan in the spirit of the Breakthrough Designation (Clinical data to address unmet medical need)</li><li>• IDE Conditional approval Apr '21 (green light to start)</li><li>• Sites identified and initiation activities (IRB submission and site contracting) in progress</li><li>• Operations: Study vendors selected</li><li>• Study committees established (DSMB &amp; CEC)</li><li>• Full IDE approval expected imminently - <b>FPI Q3 '21</b></li></ul>

*We believe STAR-T represents the lowest risk and fastest path to FDA approval and will set precedent for upcoming trials to unlock the full Antithrombotic Removal opportunity*

# STAR-T “World-Class” Academic Leadership

**C. Michael Gibson, MS, MD**  
Interventional Cardiologist



**Co-PI's  
Heart-Team  
Approach**

**Michael Mack, MD**  
Cardiothoracic Surgeon



- Professor of Medicine, Harvard Medical School
- President & CEO of non-profit Baim Institute (formerly Harvard Clinical Research Institute)
- Founder, Editor-In-Chief [www.wikidoc.org](http://www.wikidoc.org)

*Principal Investigator or Executive Committee member in multiple antithrombotic drug pivotal studies leading to FDA approvals including prasugrel (Effient®, Daiichi Sankyo, Eli Lilly), rivaroxaban (Xarelto®, Bayer, Janssen), betrixaban (Bevyxxa®, Astra Zeneca), and andexanet alfa (Andexxa®, Astra Zeneca)*

- Chair, Cardiovascular Service Line, Baylor Scott & White Health
- President, Baylor Scott & White Research Institute
- Pioneer of the “Heart Team” approach

*Principal Investigator or Executive Committee member in multiple transcatheter valve device pivotal studies leading to FDA approvals including the Sapien aortic valve replacement system (Edwards Lifesciences) and the Mitraclip mitral valve repair system (Abbott)*

# 2021 – Rich in Clinical Milestones

Complementary approach to data generation: RCT, Registries, Single arm trials

2021		Q1	Q2	Q3	Q4	
Cardiovascular	STAR-T	Protocol	IDE Submission & Approval	Operational Readiness	FPI	Enrollment
	REFRESH II	Protocol	Study Resumption Activities	FPI	Enrollment	
	CYTATION	Operational Readiness	FPI	Enrollment		
	STAR Registry	Protocol	EC Submission Operational Readiness	FPI	Enrollment	
Critical Care	PROCYSS	Protocol	EC Submission and Operational Readiness		FPI	Enrollment
	Hep-On-Fire	Protocol	EC Submission and Operational Readiness			FPI
	CTC/CTCC Registry	CTC Enrollment		Publication submission	CTC/CTCC Ongoing Enrollment	

All clinical programs have either achieved, or on track to hit 2021 milestones

# 2021 - Key Clinical Team Hires

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## **Victoria Lee, MD – Director, Clinical Affairs**

Board certified in vascular surgery. Previously served as Associate Medical Director at Syntactx, a cardiovascular device CRO, and as Medical Consultant, McKinsey and Company. Education: University of Washington, NYU, Harvard.



## **Ed Tumaian – Executive Director, Global Clinical Operations**

25+ years experience in clinical development and operations. Previously held leadership roles in clinical operations at both CRO (Quintiles, Parexel) and pharma sponsors (Novartis, AstraZeneca, Sanofi). Lifecycle management of multiple blockbuster products including Prilosec, Nexium, Plavix, and Gleevec. Education: Villanova



## **Hans Kroger, MSc, MPH – Senior Director, Biostatistics & Data Management**

19+ years experience in biostatistics and data management. Previously held leadership roles at Sun Pharma, PTC Therapeutics, Sunovion and PRA health sciences. Education: Penn State, Emory, Columbia

# Robust Clinical Plan to Drive Growth

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- **Unlocking the U.S. market with FDA approval for ticagrelor removal in cardiac surgery (STAR-T)**
  - World class team to ensure rigorous and fast trial execution
  - U.S. DOAC removal study follows leveraging STAR-T framework
  - HECON modelling initiated to validate large value proposition of antithrombotic removal in U.S. cardiac surgery practice
- **Data generation in **Critical care** & **CV** to drive business growth**
  - U.S. multicenter data on CytoSorb + ECMO in COVID-19 (CTC)
  - RCT data from Germany on CytoSorb in septic shock (PROCYSS)
  - Clinical data to unlock the large opportunity in liver (HepOnFire)
  - Real world evidence generation with dedicated Registries in Critical Care (CTCC) and Antithrombotic Removal (STAR)
- **Expanded global Clinical/Medical capabilities and footprint**
  - Global team has doubled in size in 2021 and will continue to grow with the intent of driving timely and superior execution of clinical goals
  - Growing KOL advocacy in Critical Care and Cardiovascular Medicine



# Driving Growth Through U.S. Commercialization and Operational Excellence

Vincent Capponi, MS

President and Chief Operating Officer

# Key Hires

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## James Komsa, MBA – VP Marketing and Sales

- 25+ years of Executive Sales and Marketing Leadership at Small and Large Cap (Medtronic) Medical Device Companies
- Early Career Venture Cap backed high growth medical device successes sold to Philips and Medtronic
- 10 years as VP Cardiac and Vascular Group-Medtronic, responsible for Pacemakers, Defibrillators, Stents, Valves, Cardiac Surgery, Perfusion, >\$300+M/Yr
- 5+ years as Americas VP Interventional Spine, Spine, Biologics, Oncology product lines, signed agreement with AmGen, >\$350M/Yr
- 5+ years as VP Restorative Therapies Group, Spine, Biologics, ENT, Pain, Neuromodulation, Navigation, Imaging, Robotics, >\$450M/Yr



## David Cox, PhD, MBA – VP Global Regulatory

- 20+ years leadership experience in Regulatory Affairs.
- Former Vice President of Regulatory Affairs for the Tissue and Regenerative Technologies Division of Integra LifeSciences
- Led efforts for new Class 2 and 3 medical devices, as well as an Investigational New Drug
- Responsible for CE marking all classes of medical devices under the Medical Device Directive (MDD) and new Medical Device Regulation (MDR)
- Previous regulatory leadership roles at Terumo BCT (pathogen reduction and blood processing) and Medtronic (cardiac surgery)
- Formal Education: PhD in Bioinorganic Chemistry (University of Minnesota) and MBA (Carnegie Mellon University)

# FDA Emergency Use Authorization (EUA) for COVID-19

In April 2020, CytoSorbents received FDA EUA authorization for CytoSorb launching commercialization in the U.S.

- No commercial organization existed in the U.S. at the time necessitating CytoSorbents to develop a commercialization plan and team to introduce CytoSorb into the market
- Responded initially to broad interest from U.S. centers that expressed interest in CytoSorb, with clinical and technical training of many centers
- Developed sales and marketing infrastructure, including collateral marketing material
- Established CTC Registry
- Moved to proactively identify, contract, and establish 5 Distributor Network over a 3-month period, with coverage of >70% of states in the U.S.
- Presented at and attended numerous U.S. medical conferences sponsoring webinars on CytoSorb (e.g. ELSO, ICC, AmSECT, and Sanibel Perfusionist Symposium)
- Focused on KOL and reference account development

# New FDA EUA Marketing Material Example

Used in critically ill COVID-19 patients in more than 30 countries, including:



## CytoSorb™

CytoSorb has received U.S. FDA Emergency Use Authorization (EUA) for use in adult, critically ill, COVID-19 patients with imminent or confirmed respiratory failure.

### IS THIS PATIENT IN YOUR ICU?

If so, CytoSorb blood purification technology can reduce elevated cytokine levels that can cause ongoing damage to the lungs and other organs.

▶ Give your patient's lungs a chance to heal with CytoSorb.

### Who?

Patient has SEVERE INFLAMMATION with RAPIDLY DETERIORATING LUNG FUNCTION

18+ years old, in the ICU with COVID-19 who meets EUA criteria, and Imminent (pre-intubation) or Confirmed Respiratory Failure, and disease with one or more of:

- High Ferritin (>750 ng/mL)
- C-reactive protein (>50 mg/L)
- IL-6 (>500 pg/mL)



### When?

EARLY INTERVENTION WITH CYTOSORB IS VITAL



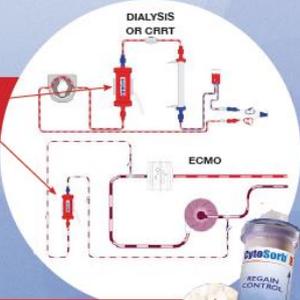
Use CytoSorb when respiratory failure is imminent. Begin CytoSorb adsorption at the start (or within 48 hours) of Mechanical Ventilation or ECMO

### What?

CYTOSORB IS AN EXTRACORPOREAL CYTOKINE ADSORBER THAT IS SIMPLE TO USE WITH CRT, HEMOPERFUSION, AND ECMO

CytoSorb works with standard blood pumps to remove elevated inflammatory cytokines from blood as it flows through the device

- Hemoperfusion mode
- CRRT or Hemodialysis, placed pre-hemofilter
- ECMO, in a bypass circuit outside the main ECMO flow



REDUCTION IN INFLAMMATORY MEDIATORS AND IMPROVEMENTS IN HEMODYNAMIC STABILITY ARE TYPICALLY SEEN FIRST, OFTEN WITHIN HOURS OF TREATMENT

## CytoSorbents™

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Used in critically ill COVID-19 patients in more than 30 countries, including:

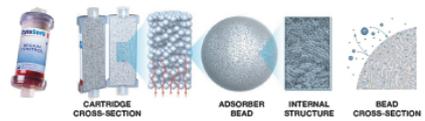


## CytoSorb™

CytoSorb has received U.S. FDA Emergency Use Authorization (EUA) for use in adult, critically ill, COVID-19 patients with imminent or confirmed respiratory failure.

### How?

CYTOSORB ADSORBS ELEVATED INFLAMMATORY CYTOKINES THAT MAY DAMAGE VITAL ORGANS



- Highly biocompatible porous polymer beads
- Each bead has millions of pores and channels
- Removes substances from whole blood by pore capture, hydrophobicity, and concentration
- Seven football fields (>45,000 m<sup>2</sup>) of surface area in a single cartridge

### With CytoSorb treatment, clinicians have seen:

**INFLAMMATORY MARKER REDUCTION**

- IL-6 and other cytokines
- Ferritin, CRP, PCT & others

**IMPROVED HEMODYNAMIC STABILIZATION**

- Decreased need for vasopressors
- Improved lactate clearance
- Stabilization of fluid balance

**OBJECTIVE IMPROVEMENT IN LUNG FUNCTION**

**On Mechanical Ventilation:**

- Improved oxygenation, P/F ratio, and ABG
- Reduced FIO<sub>2</sub> need
- Ease of mechanical ventilation (↓ pressures, ↑ compliance)

**On ECMO:**

- Improved oxygenation and ABG
- Reduced sweep gas flow, O<sub>2</sub> need

**Improved Renal Function**



### Clinical Data

Evidence	Germany Rieder	Germany Nerhus	Italy Fava	US Mozami	Italy Rampino	Spain Ferrer	US Durham	Ecuador Lopez-Almaraz	Iran Nasiri	Saudi Arabia Alharthy
# Patients	7	10	25	10	5	7	10	25	26	60
Inflammatory mediators	✓	✓	✓	✓	(✓)	✓	✓	✓	✓	✓
Hemodynamic stabilization	n/r	✓	n/a	✓	n/a	n/r	n/r	✓	✓	✓
Respiratory Function	n/r	n/r	✓	✓	✓	✓	✓	✓	✓	✓
Survival	n/r	n/r	82% CYTO vs. 76%	86% CYTO vs. 96%	80% CYTO vs. 9%	71% (SOFA 9)	86% on ECMO	n/r	81% (APACHE2:26)	70% (SOFA:8) (APACHE2:22)

FULL REFERENCES ARE AVAILABLE AT [WWW.CYTOSORBENTS.COM](http://WWW.CYTOSORBENTS.COM) n/a: not applicable n/r: not reported \*Improvement seen in both groups

Call 848-667-8990 to order, or learn more at [CYTOSORBENTS.COM](http://CYTOSORBENTS.COM)

## CytoSorbents™

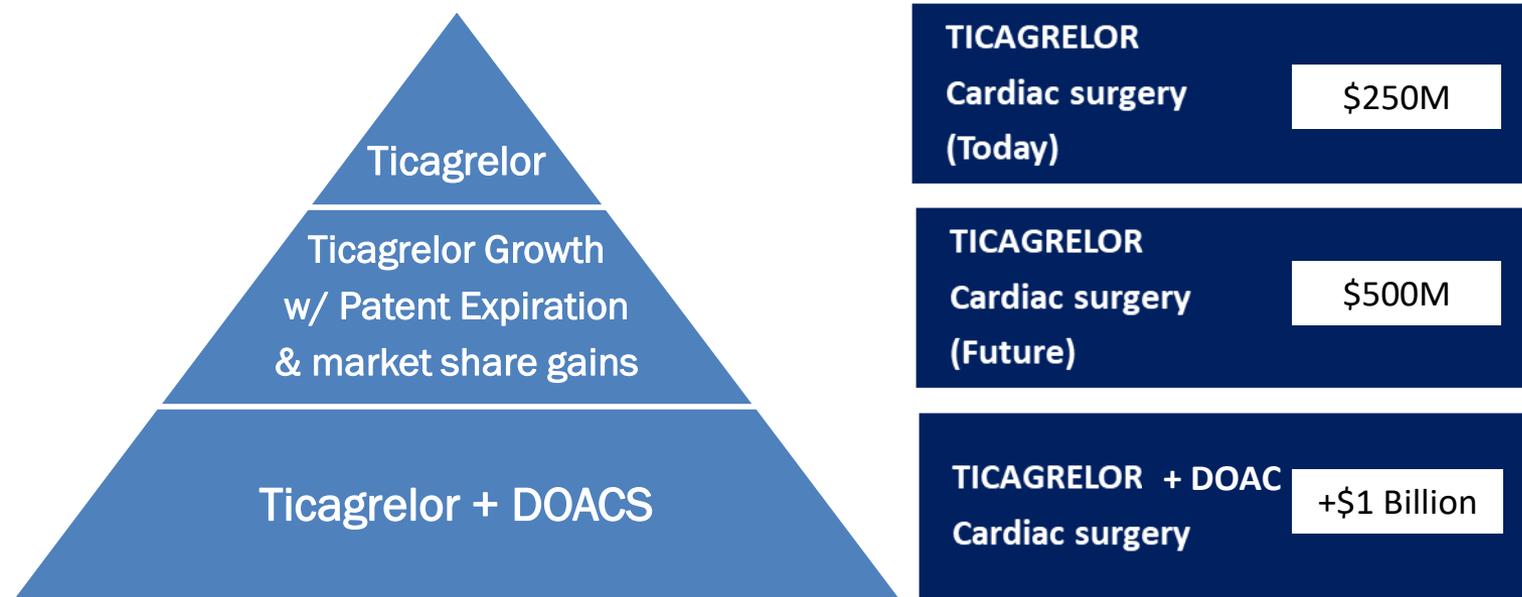
WORKING TO SAVE LIVES

The CytoSorb device has been authorized by FDA under an Emergency Use Authorization (EUA) to treat patients 18 years of age or older, with confirmed COVID-19 admitted to the ICU with confirmed or imminent respiratory failure. The CytoSorb device has neither been cleared nor approved for the indication to treat patients with COVID-19 infection. The CytoSorb device is authorized only for the duration of the declaration that circumstances exist justifying the authorization of the emergency use of the CytoSorb device under Section 564(b)(3) of the Act, 21 U.S.C § 380(b)(3)(1), unless the authorization is terminated or revoked sooner. ©2021 CytoSorbents, Inc. All rights reserved. CB-09-03/2021-Rev1

# Removal of Ticagrelor – A “Breakthrough” U.S. Opportunity

Addressing an unmet medical need to minimize bleeding risk in patients undergoing cardiopulmonary bypass surgery

- Total addressable U.S. market estimated at \$250M, growing to potentially \$500MM as ticagrelor (Brilinta®) goes off patent and takes market share as only reversible anti-platelet agent due to CytoSorb
- Possible add-on applications include removal of Factor Xa (Xarelto®) direct oral anticoagulants (DOACS) potentially increasing the total addressable market to \$1B+



# Planning for U.S. Commercialization of Ticagrelor Removal

## Commercialization Overview

- Key hire → James Komsa – Vice President U.S. Sales and Marketing
- Direct sales vs direct sales/distributor blended model go-to-market launch
- Identification of key cardiac sites to identify high volume surgical sites using ticagrelor
- Target key medical meetings to begin early discussion of application within FDA guidelines
- Implement strategy for follow on applications – DOACS
- Develop reimbursement strategy
  - ✓ Leverage CMS 4 year reimbursement for breakthrough medical devices (CMS-3372-F)
  - ✓ Leverage FDA Payor Communication Task Force “Early Payor Feedback Program” to gain early feedback on payor expectations for clinical data
- Build team in gated steps ahead of potential U.S. approval and launch
- Establish health economics strategy

# Products and Product Pipeline

Internal and government supported development programs



Sepsis,  
Critical Care,  
High Risk  
Surgery  
CE

ECOS-300CY<sup>®</sup>

Ex Vivo Organ  
Perfusion  
For Transplant  
CE



Critical  
Illnesses in  
Animals

Marketed

**HemoDefend RBC**

Purification of pRBCs

**HemoDefend BGA**

Universal Plasma



**CytoSorb-XL**

Successor to CytoSorb



**K+ontrol**

Severe Hyperkalemia



**ContrastSorb**

CT Imaging and  
Interventional Radiology



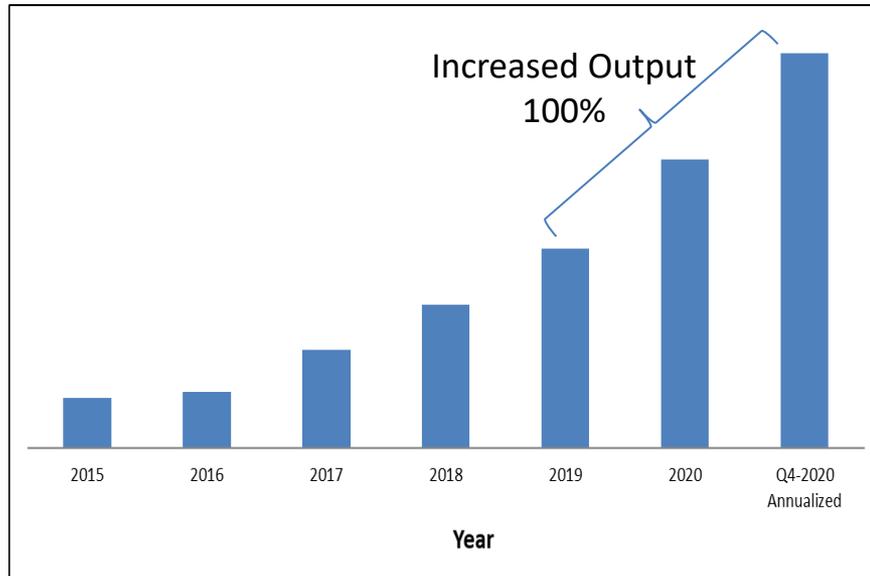
**DrugSorb**

Drug Overdose

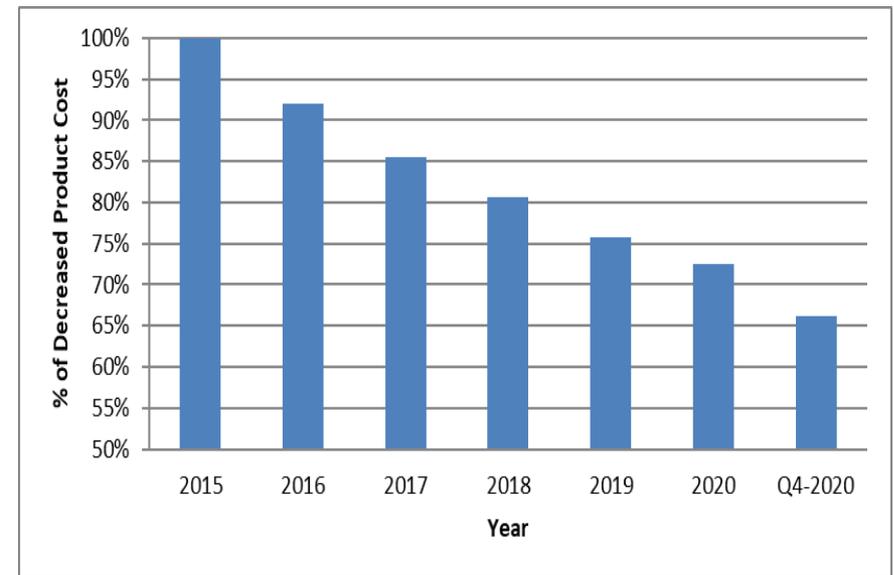
Under Development

# Driving Operational Excellence

## CytoSorb Device Output



## CytoSorb Cost Reduction



- Ramped production to 7-day, 4-shift operation over a ~3 month period to address COVID surge demand
- Aggressive cost reductions (>35%) have led to significant improvements in gross margins, ~62% in 2015 to ~82% Q4 2020



## **World Class Partnerships to Advance Growth**

**Chris Cramer, MBA, MS**

**Vice President – Business Development**

# CTSO is Partnered with World Class Companies

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- Global co-marketing
- 



- Distribution in Columbia, Ecuador, Czech Republic, Finland, France, Mexico, South Korea
  - Global co-marketing
- 



- Distribution in France and Nordic countries
  - Distribution in U.S. under COVID-19 EUA
- 



- Distribution in India and Sri Lanka

# Our Newest Partner: **B | BRAUN**

Privately held and based in Melsungen, Germany, B. Braun is one of the world's leading healthcare companies

With global operations in 64 countries and over 64,000 employees, B. Braun generated sales of €7.5 billion in 2019

B. Braun Avitum manufactures and distributes products for patients with kidney disease including continuous renal replacement therapy, dialyzers, and chronic and acute hemodialysis systems like the OMNI and OMNIset



CytoSorb with OMNI® and OMNIset® disposable kit

In February 2021, CytoSorbents and B. Braun executed a global co-marketing agreement

Goal is to leverage the world-class commercial organizations of B. Braun and CytoSorbents to:

- Increase the visibility and awareness of CytoSorb and OMNI
- Promote access to care for physicians using CytoSorb and OMNI
- Generate new sales leads for CytoSorb and OMNI

# CTSO Maintains an Active BD Pipeline

## Acute Care



**Baxter**



## Cardiac Surgery



TANDEM | LIFE

## Pharma Companies



## Organ Transplant



## HemoDefend





# Building a Best-in-Class Investor Relations Program

Phillip Chan, MD, PhD  
Chief Executive Officer

# CytoSorbents Stock Performance



# Systematic Progress on IR Strategy

- Continued operational outperformance in our core business
- Leveraged PR and opportunities in COVID-19 and conducted more than 200 investor meetings via virtual non-deal roadshows and investor conferences to increase awareness of CytoSorbents and its current and future potential
- Increased institutional ownership to 40%, progressing towards a target of 60-65%
- Increased sell-side analyst coverage with new coverage by Leerink and Jefferies
- Eliminated financing risk through our ATM and \$57.5M secondary offering in July 2020 and subsequent retirement of \$15M long-term debt facility with Bridge Bank, with current cash balance of \$68.5M (3/31/21)
- Drove visibility on planned U.S. approval with pending launch of STAR-T (Safe and Timely Antithrombotic Removal of Ticagrelor) pivotal trial in the U.S.
- Brought IR role in-house to drive focused outreach to institutional investors and improved investor communications

# Seven Analysts Currently Covering CTSO

**COWEN**

**SVBLEERINK**

**Jefferies**

**B | RILEY**

 **HCW**  
H.C.WAINWRIGHT&CO.

 **DAWSONJAMES**  
SECURITIES

**MAXIM**

Joshua Jennings, MD

Danielle Antalffy

Anthony Petrone, CFA

Andrew D'Silva

Sean Lee, CFA

Jason Kolbert, MBA

Jason McCarthy, PhD

# Introducing Terri Anne Powers



Terri Anne Powers, MBA, IRC

Vice President – Investor Relations and Corporate Communications

- 15 years of experience in the healthcare industry as a seasoned investor relations professional and sell-side analyst
- Most recently VP Investor Relations for Diplomat Pharmacy, the largest publicly-traded independent provider of U.S. specialty pharmacy services prior to acquisition by UnitedHealth Group's OptumRx
- Former Director of North American IR for Paris, France-based Veolia Environnement, a large cap publicly-traded global water, waste and energy leader
- Seven years as a former associate analyst at Robert W. Baird and Prudential Securities
- MBA in finance and strategic management from the University of Chicago Booth School of Business and BS in chemistry from Alma College

# Focused IR Strategy Going Forward

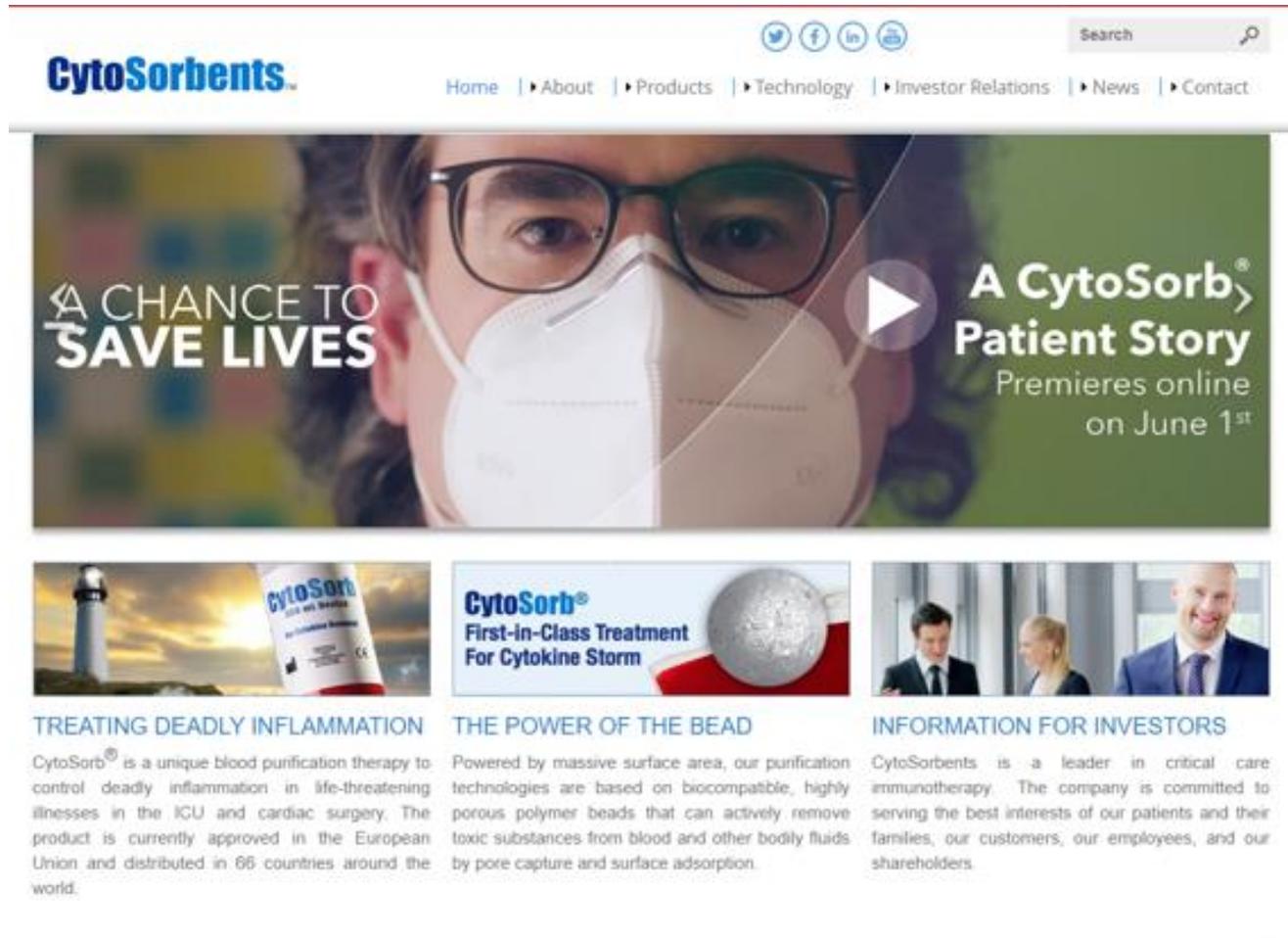
- Communicate our story and progress, particularly on our dual path to U.S. regulatory approval, to both investors and the broader stakeholder community
- Proactive, focused, systematic, and sustained outreach to current and prospective longer-term focused institutional investors, both domestic and international
- Manage relationships with covering analysts and support efforts to add analyst coverage and increase visibility
- More streamlined communications, including revised investor materials and sharpening of messaging
- Increased visibility in the investor community via media, conferences, webinars, analyst days, and other channels
- Targeted steady news flow and integrated approach with public relations firm RubensteinPR to drive greater visibility among investors and other stakeholders

# CytoSorbents is Well-Positioned for Growth

- Strong, experienced management team with continued addition of key talent to support growth initiatives
- Well-capitalized to support planned investments in manufacturing capacity, clinical programs and commercialization efforts for the coming years
- Continued growth expected in ex-US markets driven by additional partnerships, geographic expansion and label additions
- Targeted dual-path to U.S. FDA approval, with several clinical milestones expected in 2021
- Continued development of other product lines (HemoDefendRBC, VetResQ, CytoSorb-XL, etc.)
- Operational excellence to support improved efficiency and planned U.S. commercialization of CytoSorb®

# Working to Save Lives – One Patient at a Time

We invite you to view the video premiere of “A CytoSorb Patient Story” from a physician who became critically ill with COVID-19 and was saved with the help of CytoSorb at [www.cytosorbents.com](http://www.cytosorbents.com)



The screenshot shows the CytoSorbents website homepage. At the top left is the CytoSorbents logo. To its right are social media icons for Twitter, Facebook, LinkedIn, and YouTube. Further right is a search bar. Below the navigation is a main banner featuring a close-up of a person wearing glasses and a white surgical mask. The banner text reads: "A CHANCE TO SAVE LIVES" on the left, a play button icon in the center, and "A CytoSorb® Patient Story Premieres online on June 1<sup>st</sup>" on the right. Below the banner are three columns of content:

- TREATING DEADLY INFLAMMATION**: Accompanied by an image of a lighthouse and a CytoSorb product. Text: "CytoSorb® is a unique blood purification therapy to control deadly inflammation in life-threatening illnesses in the ICU and cardiac surgery. The product is currently approved in the European Union and distributed in 66 countries around the world."
- THE POWER OF THE BEAD**: Accompanied by an image of a metallic bead. Text: "Powered by massive surface area, our purification technologies are based on biocompatible, highly porous polymer beads that can actively remove toxic substances from blood and other bodily fluids by pore capture and surface adsorption."
- INFORMATION FOR INVESTORS**: Accompanied by an image of three business professionals. Text: "CytoSorbents is a leader in critical care immunotherapy. The company is committed to serving the best interests of our patients and their families, our customers, our employees, and our shareholders."

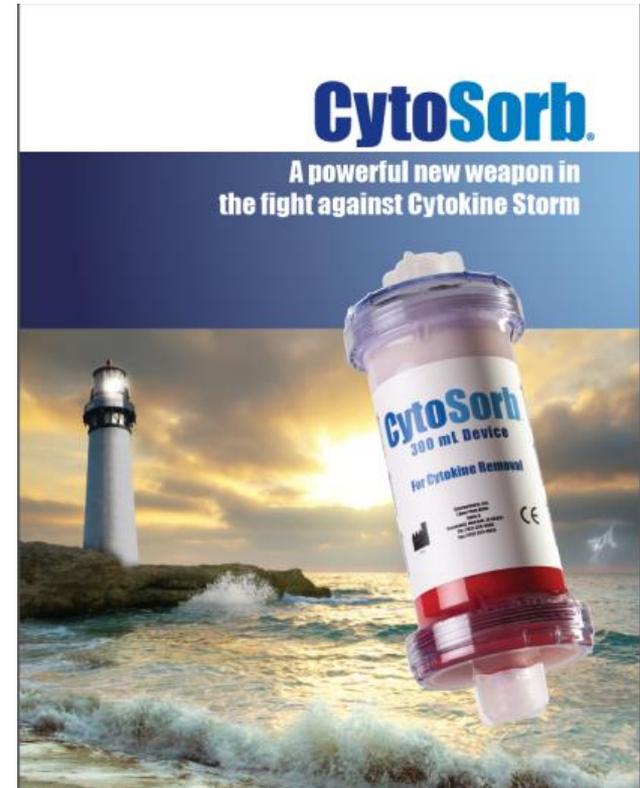
# Q&A Session

**CytoSorbents Corporation**

**NASDAQ: CTSO**

Vice President of Investor Relations and  
Corporate Communications

Terri Anne Powers  
[tpowers@cytosorbents.com](mailto:tpowers@cytosorbents.com)  
732-482-9984



**Working to Save Lives**



**CytoSorbents™**