Cytosorbents Corp
Form S-1
June 04, 2010

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

CYTOSORBENTS CORPORATION
(Exact Name of Registrant as Specified in Its Charter)

Nevada	3841	98-0373793
(State or Other Jurisdiction of Incorporation or Organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

7 Deer Park Drive, Suite K
Monmouth Junction, New Jersey 08852
(732) 329-8885
(Address, Including Zip Code, and Telephone Number,
Including Area Code, of Registrant's Principal Executive Offices)

Phillip Chan President and Chief Executive Officer
CytoSorbents Corporation
(f/k/a Medasorb Technologies Corporation)
7 Deer Park Drive, Suite K
Monmouth Junction, New Jersey 08852
(732) 329-8885
(Name, Address, Including Zip Code, and Telephone Number,
Including Area Code, of Agent for Service)

Copies to:
Gregg Jaclin, Esq.
Eric Stein, Esq.
Christine Melilli, Esq.
Anslow Jaclin LLP
195 Route 9 South, Suite 204
Manalapan, NJ 07726

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: From time to time after the effective date of this registration statement, as determined by the selling stockholder.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. x

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act (Check one):

Large accelerated filer	¨	Accelerated filer	¨
Non-accelerated filer	¨	Smaller reporting company	x

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Security (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Shares of Common Stock, par value $0.001 per share	24,653,846 Shares	$ 0.0715	$ 1,762,750	$ 125.68
Total	24,653,846 Shares	$ 0.0715	$ 1,762,750	$ 125.68

(1) This registration statement covers 24,653,846 shares of our common stock. Pursuant to and in accordance with Rule 416 under the Securities Act, there are also registered hereunder such indeterminate number of securities as may be issued to prevent dilution resulting from stock splits, stock dividends, or similar transactions.

(2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) of the Securities Act. The proposed maximum offering price per share and proposed maximum aggregate offering price are based upon the average of the high, or $0.075, and low, or $0.068, sales prices of our common stock on May 28, 2010, as reported by the OTCBB. It is not known how many shares of our common stock will be sold under this registration statement or at what price or prices such shares will be sold.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933, AS AMENDED, OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), SHALL DETERMINE.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale of these securities is not permitted.

Subject to Completion, Dated June, 2010

PROSPECTUS

CytoSorbents Corporation
(f/k/a Medasorb Technologies Corporation)

24,653,846 SHARES OF COMMON STOCK

This prospectus is registering an aggregate of 24,653,846 shares of common stock, par value $0.001, of CytoSorbents Corp. (f/k/a Medasorb Technologies Corporation), a Nevada corporation, and relates to the sale of such shares by Lincoln Park Capital Fund, LLC. Lincoln Park Capital Fund, LLC is sometimes referred to in this prospectus as the selling stockholder or LPC. The prices at which LPC may sell the shares will be determined by the prevailing market price for the shares or in negotiated transactions. See “Plan of Distribution” on page 18 for a description of how the selling stockholder may dispose of the shares covered by this prospectus. We do not know when or in what amount the selling stockholder may offer the shares for sale. We will not receive proceeds from the sale of our shares by LPC. We have agreed to pay certain expenses related to the registration of the shares of common stock pursuant to the registration statement of which this prospectus forms a part.

Our common stock currently trades on the over-the-counter market and is quoted on the OTC Bulletin Board under the symbol “CTSO.” On May 28, 2010, the last reported sale price of our Common Stock was $0.07 per share.

The selling stockholder is an “underwriter” within the meaning of the Securities Act of 1933, as amended.

INVESTING IN OUR COMMON STOCK INVOLVES SUBSTANTIAL RISKS. SEE THE SECTION TITLED “RISK FACTORS” BEGINNING ON PAGE 6 OF THIS PROSPECTUS TO READ ABOUT FACTORS YOU SHOULD CONSIDER BEFORE BUYING SHARES OF OUR COMMON STOCK.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is June 4, 2010.

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PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information that you should consider before making an investment decision with respect to our securities. You should read this entire prospectus, including all documents incorporated by reference, carefully, especially the "Risk Factors" section beginning on page 6 of this prospectus and our financial statements and related notes contained in this prospectus before making an investment decision with respect to our securities. Please see the section titled, "Where You Can Find More Information," beginning on page 64 of this prospectus. Unless the context indicates otherwise, references to "CytoSorbents," "the Company," "we," "us," or "our," refers to CytoSorbents Corporation (f/k/a Medasorb Technologies Corporation) and our wholly-owned subsidiary, CytoSorbents, Inc.).

You should rely only on the information contained in this prospectus or any related prospectus supplement, including the content of all documents incorporated by reference into the registration statement of which this prospectus forms a part. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. The information contained in this prospectus or incorporated by reference herein is accurate only on the date of this prospectus. Our business, financial condition, results of operations and prospects may have changed since such date. Other than as required under the federal securities laws, we undertake no obligation to publicly update or revise such information, whether as a result of new information, future events or any other reason.

Some of the industry data contained in this prospectus is derived from data from various third-party sources. We have not independently verified any of this information and cannot assure you of its accuracy or completeness. While we are not aware of any misstatements regarding any industry data presented herein, such data is subject to change based on various factors, including those discussed under the "Risk Factors" section beginning on page 6 of this prospectus.

The Company

CytoSorbents Corporation was incorporated in Nevada on April 25, 2002 as Gilder Enterprises, Inc. and was originally engaged in the business of installing and operating computer networks that provided high-speed access to the Internet. On June 30, 2006, we disposed of our original business, and pursuant to an Agreement and Plan of Merger, acquired all of the stock of MedaSorb Technologies, Inc., a Delaware corporation in a merger, and its business became our business. Following the merger, in July 2006 we changed our name to MedaSorb Technologies Corporation. In November 2008 we changed the name of our operating subsidiary from MedaSorb Technologies, Inc. to CytoSorbents, Inc. In May 2010 we finalized the name change of MedaSorb Technologies Corporation to CytoSorbents Corporation. Unless otherwise indicated, all references in this Annual Report to "MedaSorb,", "CytoSorbents", "us" or "we" with respect to events prior to June 30, 2006 are references to CytoSorbents, Inc. and its predecessors.

Our executive offices are located at 7 Deer Park Drive, Suite K, Monmouth Junction, New Jersey 08852. Our telephone number is (732) 329-8885.

Summary of Our Business

We are a therapeutic medical device company that is currently in the development stage, headquartered in Monmouth Junction, New Jersey. We have developed and will seek to commercialize a blood purification technology that we believe will be able to efficiently remove middle molecular weight toxins from circulating blood and physiologic fluids. We will be required to obtain required regulatory approvals from a Notified Body for the European Community (CE Mark) and the United States Food and Drug Administration before we can sell our products in Europe and the United States, respectively. We are currently focusing our efforts on obtaining regulatory approval in Europe before

proceeding with the FDA.

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We estimate that the market potential in Europe for our products is substantially equivalent to that in the U.S. Given the opportunity to conduct a much larger clinical study in Europe, and management's belief that the path to a CE Mark should be faster than FDA approval, we have targeted Europe as the introductory market for our CytoSorb™ product. In July 2007 we prepared and filed a request for a clinical trial with a German Central Ethics Committee. We received approval of the final study design in October of 2007.

We are currently approved by the German Ethics Committee to conduct a clinical study of up to 100 patients with acute respiratory distress syndrome or acute lung injury in the setting of sepsis. The primary endpoint of our clinical trial is cytokine reduction and is the basis of a planned CE Mark application to approve our device for clinical use in Europe.

After reviewing the initial cytokine data from the first 22 patients enrolled in our original protocol, our medical advisors recommended revisions to our protocol to minimize non-device related artifacts that may potentially arise if the samples are not processed or handled appropriately. The revisions to the protocol also include a provision for testing of our targeted endpoints in plasma instead of serum, changes in cytokine processing and analysis, additional options for anti-coagulation that the clinical sites may use, and an increase in the number of patients we may enroll into the study from 80 to 100.

These changes are intended to optimize the accuracy of our cytokine data for CE Mark submission. The proposed protocol changes and rationale for change were submitted to the German Ethics Committee and approved. Given these changes, cytokine data will not be statistically comparable between these first 22 patients and those enrolled subsequently in the study. While the company will continue to review all patient data in the aggregate, including secondary and exploratory endpoints, the primary use of the data from the first 22 patients will be used to support the planned CE Mark application from a safety perspective. Cytokine data from all patients enrolled subsequent to these first 22 patients, as well as safety data on all patients enrolled in the study, will be used for submission to the CE Mark authority.

While we are currently observing an improvement in our enrollment rate, to date patient enrollment has been slower than originally anticipated. The Company has taken a number of steps to improve recruitment, the most significant of which is the increase in the number of our clinical trial sites. With more sites actively seeking to enroll patients, we expect the patient enrollment rate to continue to increase going forward. Concurrent with the clinical study, we have commenced preparation for the CE Mark submission process. Assuming availability of adequate and timely funding, a successful outcome of the study, and CE Mark regulatory approval, the Company intends to commercialize its product in Europe.

By December 31, 2009 we had initiated and opened for enrollment a total of fourteen (14) hospital units to participate in our clinical study. To date the Company has enrolled sixty six (66) patients in the clinical study. We may enroll up to an additional thirty four (34) patients. In conducting the German Clinical study we have utilized our CytoSorb™ device in approximately 200 treatments to date with no Serious Adverse Events attributable to the device.

The clinical protocol for our European clinical study has been designed to allow us to gather information to support future U.S. studies. In the event we receive the CE Mark and are able to successfully commercialize our products in the European market, we will review our plans for the United States to determine whether to conduct clinical trials in support of 510K or PMA registration. No assurance can be given that our proposed CytoSorb™ product will work as intended or that we will be able to obtain CE Mark (or FDA) approval to sell CytoSorb™. Even if we ultimately obtain CE Mark approval, because we cannot control the timing of responses from regulators to our submissions, there can be no assurance as to when such approval will be obtained.

We have developed two products, CytoSorb™ and BetaSorb™ utilizing our adsorbent polymer technology. These products are known medically as hemoperfusion devices. During hemoperfusion, blood is removed from the body via a catheter

or other blood access device, perfused through a filter medium where toxic compounds are removed, and returned to the body.

The CytoSorb™ device consists of a cartridge containing adsorbent polymer beads that are intended to remove toxins and other substances from blood and physiologic fluids. The cartridge incorporates industry standard connectors at either end of the device, which connect directly to an extra-corporeal circuit (bloodlines) on a stand alone basis. The extra-corporeal circuit consists of plastic tubing through which the blood flows, our CytoSorb™ cartridge containing adsorbent polymer beads, pressure monitoring gauges, and a blood pump to maintain blood flow. The patient's blood is accessed through a catheter inserted into his or her veins. The catheter is connected to the extra-corporeal circuit and the blood pump draws blood from the patient, pumps it through the cartridge and returns it back to the patient in a closed loop system. As blood passes over the polymer beads in the cartridge, toxins (cytokines) are adsorbed from the blood.

To date, we have manufactured the CytoSorb™ device on a limited basis for testing purposes, including for use in clinical studies. We believe that other current state of the art blood purification technologies (such as dialysis) are incapable of effectively clearing the various toxic compounds intended to be adsorbed by our devices. We have demonstrated the ability of CytoSorb to remove cytokines in vitro with whole blood. CytoSorb's™ ability to interact safely with blood (hemocompatibility) and general biocompatibility has been demonstrated through ISO 10993 testing.

Prior to the current European Sepsis Trial, the CytoSorb™ device design was tested on a single patient with bacterial sepsis, producing results that our management found encouraging and consistent with our belief that our device design was appropriate for more extensive sepsis study.

In November 2009, we announced positive clinical data on key secondary endpoints from 7 CytoSorb™ treated patients, compared to 6 control patients, with severe sepsis in the setting of respiratory failure. These data included all fully monitored, completed data sets at that time from a 22 patient sepsis pilot.

We are currently enrolling patients in our European Sepsis Trial using our CytoSorb™ device. The study is a randomized, controlled clinical study in fourteen hospital sites in Germany of up to 100 patients with acute respiratory distress syndrome or acute lung injury in the setting of sepsis. Patients are being treated with one new device per day for up to seven (7) consecutive days. The study protocol was designed to support an application for the European CE Mark (regulatory approval to sell medical devices in Europe). This study is designed to be supportive of, but not specifically for, FDA approval for the use of our CytoSorb™ device in the U.S.

Following the sepsis indication, we intend to continue our research in other acute conditions where CytoSorb™ has indicated potential in preliminary studies to prevent or reduce the accumulation of cytokines and other toxic compounds in the bloodstream. These conditions include, but are not limited to, the prevention of post-operative complications of cardiac surgery (cardiopulmonary bypass surgery), damage to organs donated for transplant prior to organ harvest, and removing drugs from blood.

Previous studies using our BetaSorb™ device in patients with chronic kidney failure have provided valuable data, which we will use in conducting clinical studies using our CytoSorb™ device. However, limited studies have been conducted using our CytoSorb™ device to date and no assurance can be given that our proposed CytoSorb™ product will work as intended or that we will be able to obtain the necessary regulatory body approvals to sell CytoSorb™. Even if we ultimately obtain regulatory approval, because we cannot control the timing of responses to our regulatory submissions, there can be no assurance as to when such approval will be obtained.

Our BetaSorb™ device is intended to remove beta2-microglobulin from the blood of patients suffering from chronic kidney failure who rely on long term dialysis therapy to sustain their life. BetaSorb™ utilizes an adsorbent polymer packed into an identically shaped and constructed cartridge as utilized for our CytoSorb™ product, although the polymers used in the two devices are physically different. The BetaSorb™ device also incorporates industry standard connectors at either end of the device, which connect directly into the extra-corporeal circuit (bloodlines) in series

with a dialyzer. To date, we have manufactured the BetaSorb™ device on a limited basis for testing purposes, including for use in clinical studies.

We had initially identified end stage renal disease (ESRD) as the target market for our polymer-based adsorbent technology. However, during the development of BetaSorb™, we identified several applications for our adsorbent technology in the treatment of critical care patients. As a result, we shifted our priorities to pursue critical care applications (such as for the treatment of sepsis) for our technology given that BetaSorb's™ potential for usage in chronic conditions such as end stage renal disease is anticipated to have a longer and more complex regulatory pathway. We currently intend to pursue our BetaSorb™ product after the commercialization of the CytoSorb™ product. At such time as we determine to proceed with our proposed BetaSorb™ product, if ever, we will need to conduct additional clinical studies using the BetaSorb™ device and obtain separate regulatory approval in Europe and/or the United States.

We have conducted clinical studies using our BetaSorb™ device in patients with chronic kidney failure, which have provided valuable data that underpin the development of the critical care applications for our technology. The BetaSorb™ device has been used in a total of four human pilot studies, involving 20 patients, in the U.S. and Europe. The studies included approximately 345 treatments, with some patients using the device for up to 24 weeks (in multiple treatment sessions lasting up to four hours, three times per week) in connection with the application of our products to patients suffering from chronic kidney failure.

We have not generated any revenue to date. We have incurred losses in each of our fiscal years and expect these losses to continue for the foreseeable future. We will need to raise significant additional funds to conduct clinical studies and obtain regulatory approvals to commercialize our products. No assurance can be given that we will ever successfully commercialize any products.

THE OFFERING

On May 5, 2010, we executed a purchase agreement (the "Purchase Agreement") and a registration rights agreement (the "Registration Rights Agreement"), with Lincoln Park Capital Fund, LLC. ("LPC") Under the Purchase Agreement, LPC is obligated to purchase from us up to $6 million of our common stock, from time to time over a 750 day (twenty-five (25) months) period.

Pursuant to the Registration Rights Agreement, we were required to file a registration statement that includes this prospectus with the U.S. Securities and Exchange Commission ("SEC") covering the shares that have been issued or may be issued to LPC under the Purchase Agreement. We do not have the right to commence any sales of our shares to LPC until the SEC has declared effective the registration statement of which this prospectus is a part. Thereafter, over approximately 750 days, or, 25 months, generally we have the right to direct LPC to purchase up to $6,000,000 of our common stock in amounts up to $50,000 as often as every two business days under certain conditions. We can also accelerate the amount of our common stock to be purchased under certain circumstances. No sales of shares may occur at a purchase price below $0.10 per share. The price of our stock as of May 28, 2010 was $0.07 and accordingly no sales of shares may occur until such time as the price is again at or above $0.10. The purchase price of the shares will be based on the market prices of our shares at the time of sale as computed under the Purchase Agreement without any fixed discount. We may at any time in our sole discretion terminate the Purchase Agreement without fee, penalty or cost upon one business days notice. We issued 1,153,846 shares of our common stock to LPC as an initial commitment fee for entering into the agreement (which shares are not a part of this offering), and we are obligated to issue up to an additional 1,153,846 shares pro rata as LPC purchases up to $6,000,000 of our common stock as directed by us.

As of May 28, 2010, there were 101,175,222 shares of our common stock outstanding of which 99,277,507 shares are held by non-affiliates. 24,653,846 shares are offered hereby consisting of 23,500,000 shares that we may sell to LPC pursuant to the purchase agreement, and a total of 1,153,846 shares that we are obligated to issue to LPC as additional commitment fee shares pro rata as up to $6,000,000 of our common stock is purchased. If all of the 24,653,846 shares offered by LPC hereby were issued and outstanding as of May 28, 2010, such shares would represent approximately 19.6% of the total common stock outstanding or approximately 19.9% of the non-affiliates shares outstanding, as of the date hereof.

Securities Offered

Common stock offered by selling stockholder:	24,653,846 shares
Offering Price:	Market Price
Common Stock Currently Outstanding:	101,175,222 shares as of May 28, 2010
Use of proceeds:	We will not receive any proceeds from the sale by the selling stockholder of our common stock covered by this prospectus. However, we will receive proceeds from sales of our common stock under the Purchase Agreement. The proceeds from the Purchase Agreement will be used for working capital and general corporate purposes. See "Use of Proceeds" on page 18.
Risk Factors:	See "Risk Factors" beginning on page 6 and other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in the shares.
OTCBB Ticker Symbol:	CTSO.OB

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RISK FACTORS

An investment in our Common Stock involves a high degree of risk. You should carefully consider the risks described below before deciding to purchase shares of our Common Stock. If any of the events, contingencies, circumstances or conditions described in the risks below actually occur, our business, financial condition or results of operations could be seriously harmed. The trading price of our Common Stock could, in turn, decline and you could lose all or part of your investment.

RISKS RELATED TO OUR INDUSTRY AND OUR BUSINESS

We require additional capital to continue operations.

As of March 31, 2010 we had cash on hand of $1,346,301 and current liabilities of $1,320,771. We will need additional financing in the future in order to complete our clinical studies and the commercialization of our proposed products. There can be no assurance that we will be successful in our capital raising efforts.

Our long-term capital requirements are expected to depend on many factors, including:

- continued progress and cost of our research and development programs;
- progress with pre-clinical studies and clinical studies;
- the time and costs involved in obtaining regulatory clearance;
- costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims;
- costs of developing sales, marketing and distribution channels;
- market acceptance of our products; and
- cost for training physicians and other health care personnel.

In addition, in the event that additional funds are obtained through arrangements with collaborative partners or other sources, we may have to relinquish economic and/or proprietary rights to some of our technologies or products under development that we would otherwise seek to develop or commercialize by ourselves.

At such time as the SEC has declared effective a registration statement related to shares underlying the transaction, we may direct LPC to purchase up to $6,000,000 of shares of our common stock under our Purchase Agreement with LPC over a 750 day (25 month) period, generally in amounts of up to $50,000 every 2 business days. However, we cannot sell and LPC does not have the right nor the obligation to purchase any shares of our common stock on any business day that the purchase price of our common stock is less than $0.10 per share. The last closing date price of a share of our common stock on May 28, 2010 was $0.07 Accordingly, as of May 28, 2010, we cannot sell any shares of our common stock to LPC under the Purchase Agreement unless and until the price of our common stock is again at or above $0.10. We may therefore realize no proceeds under the Purchase Agreement. We have registered hereby 24,653,846 shares for sale by LPC pursuant to this prospectus (not including the initial commitment shares that have been issued to LPC); however, the selling price of our common stock to LPC will have to average at least $0.25 per share for us to receive the maximum proceeds of $6 million under the LPC Purchase Agreement. Assuming a purchase price of $0.10 per share (the minimum price at which stock may be sold to LPC) and the purchase by LPC of the full 23,500,000 shares under the Purchase Agreement, proceeds to us would be approximately $2.35 million.

The extent that we rely on LPC as a source of funding will depend on a number of factors including, the prevailing market price of our common stock and the extent to which we are able to secure working capital from other sources such as through the sale of our products. If obtaining sufficient funding from LPC were to prove unavailable or prohibitively dilutive and if we are unable to sell enough of our products, we may need to secure another source of funding in order to satisfy our working capital needs. Even if we sell all $6,000,000 worth of common stock under the

Purchase Agreement to LPC, we may still need additional capital to fully implement our business, operating and development plans. Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive when we require it, the consequences could be a material adverse effect on our business, operating results, financial condition and prospects.

We currently have no commercial operations and there can be no assurance that we will be successful in developing commercial operations.

We are a development stage company and have been engaged primarily in research and development activities and have not generated any revenues to date. There can be no assurance that we will be able to successfully manage the transition to a commercial enterprise. Potential investors should be aware of the problems, delays, expenses and difficulties frequently encountered by an enterprise in the early stage of development, which include unanticipated problems relating to development of proposed products, testing, regulatory compliance, manufacturing, competition, marketing problems and additional costs and expenses that may exceed current estimates. Our proposed products will require significant additional research and testing, and we will need to overcome significant regulatory burdens prior to commercialization. We will also need to raise significant additional funds to complete clinical studies and obtain regulatory approvals before we can begin selling our products. There can be no assurance that after the expenditure of substantial funds and efforts, we will successfully develop and commercialize any products, generate any revenues or ever achieve and maintain a substantial level of sales of our products.

We have a history of losses and expect to incur substantial future losses, and the report of our auditor on our consolidated financial statements expresses substantial doubt about our ability to continue as a going concern.

We have experienced substantial operating losses since inception. As of March 31, 2010, we had an accumulated deficit of $80,652,936 which included losses from operations of $969,051 for the three month period ended March 31, 2010. In part due to these losses, our audited consolidated financial statements for the period ended December 31, 2009 have been prepared assuming we will continue as a going concern, and the auditors' report on those financial statements express substantial doubt about our ability to continue as a going concern. Our losses have resulted principally from costs incurred in the research and development of our polymer technology and general and administrative expenses. Because our predecessor was a limited liability company until December 2005, substantially all of these losses were allocated to that company's members and will not be available for tax purposes to us in future periods. We intend to conduct significant additional research, development, and clinical study activities which, together with expenses incurred for the establishment of manufacturing arrangements and a marketing and distribution presence and other general and administrative expenses, are expected to result in continuing operating losses for the foreseeable future. The amount of future losses and when, if ever, we will achieve profitability are uncertain. Our ability to achieve profitability will depend, among other things, on successfully completing the development of our technology and commercial products, obtaining the requisite regulatory approvals, establishing manufacturing and sales and marketing arrangements with third parties, and raising sufficient funds to finance our activities. No assurance can be given that our product development efforts will be successful, that required regulatory approvals will be obtained, that any of our products will be manufactured at a competitive cost and will be of acceptable quality, or that the we will be able to achieve profitability or that profitability, if achieved, can be sustained.

We depend upon key personnel who may terminate their employment with us at any time.

We currently have only seven employees. Our success will depend to a significant degree upon the continued services of our key management and advisors, including, Dr. Phillip Chan, our Chief Executive Officer; David Lamadrid, our Chief Financial Officer; Vincent Capponi, our Chief Operating Officer and Dr. Robert Bartlett our Chief Medical Officer, who works with us on a consulting basis. These individuals do not have long-term employment agreements, and there can be no assurance that they will continue to provide services to us. In addition, our success will depend on our ability to attract and retain other highly skilled personnel. We may be unable to recruit such personnel on a timely basis, if at all. Management and other employees may voluntarily terminate their employment with us at any time. The loss of services of key personnel, or the inability to attract and retain additional qualified personnel, could result in delays in development or approval of our products, loss of sales and diversion of management resources.

Effective January 1, 2010, Dr. Phillip Chan, David Lamadrid and Vincent Capponi entered into new Employment Agreements with us pursuant to which their employment will terminate on December 31, 2010 without automatic renewal. There can be no assurance that they will continue to provide services to us. Effective as of December 31, 2008, Al Kraus stepped down from his position as president and Chief Executive Officer. Effective January 1, 2009, Dr. Phillip Chan replaced him as the Interim CEO and effective January 1, 2010, Dr. Chan was appointed CEO. Mr. Kraus remains with us as a Director, serving as Chairman of the Board.

Our Chief Medical Officer works with us on a consulting basis.

Our Chief Medical Officer, Dr. Robert Bartlett, works with us on a consulting basis. Because of the part time nature of his consulting agreement, Dr. Bartlett may not always be available to provide us with his services when needed by us in a timely manner.

Acceptance of our medical devices in the marketplace is uncertain, and failure to achieve market acceptance will prevent or delay our ability to generate revenues.

Our future financial performance will depend, at least in part, upon the introduction and customer acceptance of our polymer products. Even if approved for marketing by the necessary regulatory authorities, our products may not achieve market acceptance. The degree of market acceptance will depend upon a number of factors, including:

- the receipt of regulatory clearance of marketing claims for the uses that we are developing;
- the establishment and demonstration of the advantages, safety and efficacy of the our polymer technology;
- pricing and reimbursement policies of government and third-party payers such as insurance companies, health maintenance organizations and other health plan administrators;
- our ability to attract corporate partners, including medical device companies, to assist in commercializing our products; and
- our ability to market our products.

Physicians, patients, payers or the medical community in general may be unwilling to accept, utilize or recommend any of our products. If we are unable to obtain regulatory approval or commercialize and market our products when planned, we may not achieve any market acceptance or generate revenue.

Even if we receive the CE Mark, there can be no assurance that the data from our clinical studies will be viewed as sufficient by the medical community to support the purchase of our products in substantial quantities or at all.

We may face litigation from third parties claiming that our products infringe on their patent, trademark or other intellectual property rights, or seek to challenge the validity of our patents.

Our future success is also dependent on the strength of our intellectual property, trade secrets and know-how, which have been developed from years of research and development. In addition to the “Purolite” litigation discussed below, we may be exposed to additional future litigation by third parties seeking to challenge the validity of our rights based on claims that our technologies, products or activities infringe the intellectual property rights of others or are invalid, or that we have misappropriated the trade secrets of others.

Since our inception, we have sought to contract with large, established manufacturers to supply commercial quantities of our adsorbent polymers. As a result, we have disclosed, under confidentiality agreements, various aspects of our technology with potential manufacturers. We believe that these disclosures, while necessary for our business, have resulted in the attempt by potential suppliers to assert ownership claims to our technology in an attempt to gain an advantage in negotiating manufacturing rights.

We have previously engaged in discussions with the Brotech Corporation and its affiliate, Purolite International, Inc. (collectively "Purolite"), which had demonstrated a strong interest in being our polymer manufacturer. For a period of time beginning in December 1998, Purolite engaged in efforts to develop and optimize the manufacturing process needed to produce our polymer products on a commercial scale. However, the parties eventually decided not to proceed. In 2003, Purolite filed a lawsuit against us asserting, among other things, co-ownership and co-inventorship of certain of our patents. On September 1, 2006, the United States District Court for the Eastern District of Pennsylvania approved a Stipulated Order and Settlement Agreement under which we and Purolite agreed to the settlement of the action. The Settlement Agreement provides us with the exclusive right to use our patented technology and proprietary know how relating to adsorbent polymers for a period of 18 years. Under the terms of the Settlement Agreement, we have agreed to pay Purolite royalties of 2.5% to 5% on the sale of certain of our products if and when those products are sold commercially.

Several years ago we engaged in discussions with the Dow Chemical Company, which had indicated a strong interest in being our polymer manufacturer. After a Dow representative on our Advisory Board resigned, Dow filed and received several patents naming our former Advisory Board member as an inventor. In management's view the Dow patents improperly incorporate our technology and should not have been granted to Dow. The existence of these Dow patents could result in a potential dispute with Dow in the future and additional expenses for us.

"Alkermes" Litigation

In February 2008, Alkermes, Inc. commenced an action against us in the U.S. District Court for the District of Massachusetts, alleging that our use of the name MedaSorb infringes on Alkermes' registered trademark "MEDISORB." In the action, Alkermes sought an injunction against our further use of the name Medasorb. Pursuant to a Settlement Agreement dated June 18, 2008, we have changed the name of MedaSorb Technologies Corporation to CytoSorbents Corporation and have changed the name of our wholly-owned subsidiary, through which we conduct all of our operational activities, from MedaSorb Technologies Inc. to CytoSorbents, Inc. to avoid any potential confusion with Alkermes' similarly named product.

We have temporarily ceased the application process with the FDA and commenced the process to obtain CE Mark approval of our products in the Europe market.

In 2007, the FDA approved our Investigational Device Exemption (IDE) application to conduct a limited study of five (5) patients in the adjunctive treatment of sepsis. Because we believed this would delay our application process in the United States for at least one year, we decided to temporarily cease proceedings with the FDA and instead commenced the application process of seeking CE Mark approval of our products in the European market. The CE Mark approval process in Europe involves clinical studies and is still lengthy and costly, even though we believe it is faster than the FDA approval process. The failure to obtain the CE Mark approvals for our polymer products, or to comply with ongoing governmental regulations could prevent, delay or limit introduction or sale of our products and result in the failure to achieve revenues or maintain our operations.

After we obtain the CE Mark approval for our products in Europe, we will consider resuming the application process with the FDA. Even if the clinical protocol for our European clinical study has been designed to allow us to gather information to support future studies, there is no assurance that we will eventually obtain the FDA approval. In addition, there can be no assurance that government regulations applicable to our products or the interpretation of those regulations will not change.

To commercialize our products in the U.S. Market, we also will be subject to other Federal, state, and local laws, regulations and recommendations relating to laboratory and manufacturing practices as well as Medicare, Medicaid and anti-kickback laws. Non-compliance with applicable requirements can result in civil penalties, the recall, injunction or seizure of products, an inability to import products into the United States, the refusal by the government to approve or clear product approval applications, the withdrawal of previously approved product applications and criminal prosecution. The extent of potentially adverse government regulation that might arise from future legislation or administrative action cannot be predicted.

We have commenced the process of seeking regulatory approval of our products, but the approval process will involve clinical studies and is lengthy and costly. The failure to obtain government approvals, internationally or domestically, for our polymer products, or to comply with ongoing governmental regulations could prevent, delay or limit introduction or sale of our products and result in the failure to achieve revenues or maintain our operations.

The manufacturing and marketing of our products will be subject to extensive and rigorous government regulation in the European market, the United States, in various states and in other foreign countries. In the United States and other countries, the process of obtaining and maintaining required regulatory approvals is lengthy, expensive, and uncertain. There can be no assurance that we will ever obtain the necessary approvals to sell our products. Even if we do ultimately receive CE Mark and/or FDA approval for any of our products, we will be subject to extensive ongoing regulation.

Our products will be subject to international regulation as medical devices under the Medical Device Directive. In Europe, which we expect to provide the initial market for our products, the Notified Body and Competent Authority govern, where applicable, development, clinical studies, labeling, manufacturing, registration, notification, clearance or approval, marketing, distribution, record keeping, and reporting requirements for medical devices. Different regulatory requirements may apply to our products depending on how they are categorized by the Notified Body under these laws. Current international regulations classify our CytoSorb™ device (the first product we intend to seek international approval for) as a Class IIb device. Concurrent with the clinical trial in Germany, we plan to pursue CE Mark certification of the CytoSorb™ device. There can be no assurance that the clinical studies we conduct will demonstrate sufficient safety and efficacy to obtain the required regulatory approvals for marketing, or that we will be able to comply with international regulatory requirements. In addition, there can be no assurance that government regulations applicable to our products or the interpretation of those regulations will not change. The extent of potentially adverse government regulation that might arise from future legislation or administrative action cannot be predicted. There can be no assurances that reimbursement will be granted or that additional clinical data may be required to establish reimbursement.

We have conducted limited clinical studies of our BetaSorb™ device and have commenced our first clinical study of our CytoSorb™ device. Clinical and pre-clinical data is susceptible to varying interpretations, which could delay, limit or prevent regulatory clearances.

To date, we have conducted limited clinical studies on our products. Patient enrollment in our current study has been slower than originally anticipated. The Company has initiated additional hospital units, but there can be no assurance that these sites will be able to enroll patients and meet the projected enrollment. There can be no assurance that we will successfully complete the clinical studies necessary to receive regulatory approvals. While studies conducted by us and others have produced results we believe to be encouraging and indicative of the potential efficacy of our products and technology, data already obtained, or in the future obtained, from pre-clinical studies and clinical studies

do not necessarily predict the results that will be obtained from later pre-clinical studies and clinical studies. Moreover, pre-clinical and clinical data are susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. A number of companies in the medical device and pharmaceutical industries have suffered significant setbacks in advanced clinical studies, even after promising results in earlier studies. The failure to adequately demonstrate the safety and effectiveness of an intended product under development could delay or prevent regulatory clearance of the device, resulting in delays to commercialization, and could materially harm our business.

We rely extensively on research and testing facilities at various universities and institutions, which could adversely affect us should we lose access to those facilities.

Although we have our own research laboratories and clinical facilities, we collaborate with numerous institutions, universities and commercial entities to conduct research and studies of our products. We currently maintain a good working relationship with these parties. However, should the situation change, the cost and time to establish or locate alternative research and development could be substantial and delay gaining CE Mark and/or FDA approval and commercializing our products.

We are and will be exposed to product liability risks, and clinical and preclinical liability risks, which could place a substantial financial burden upon us should we be sued.

Our business exposes us to potential product liability and other liability risks that are inherent in the testing, manufacturing and marketing of medical devices. We cannot be sure that claims will not be asserted against us. A successful liability claim or series of claims brought against us could have a material adverse effect on our business, financial condition and results of operations.

We cannot give assurances that we will be able to continue to obtain or maintain adequate product liability insurance on acceptable terms, if at all, or that such insurance will provide adequate coverage against potential liabilities. Claims or losses in excess of any product liability insurance coverage that we may obtain could have a material adverse effect on our business, financial condition and results of operations.

Certain university and other relationships are important to our business and may potentially result in conflicts of interests.

Dr. John Kellum and others, are critical care advisors and consultants of ours and are associated with institutions such as the University of Pittsburgh Medical Center. Their association with these institutions may currently or in the future involve conflicting interests in the event they or these institutions enter into consulting or other arrangements with competitors of ours.

We have limited manufacturing experience, and once our products are approved, we may not be able to manufacture sufficient quantities at an acceptable cost, or without shut-downs or delays.

We remain in the research and development and clinical study phase of product commercialization. Accordingly, once our products are approved for commercial sale, we will need to establish the capability to commercially manufacture our products in accordance with international regulatory requirements. We have limited experience in establishing, supervising and conducting commercial manufacturing. If we or the third-party manufacturers of our products fail to adequately establish, supervise and conduct all aspects of the manufacturing processes, we may not be able to commercialize our products.

Due to our limited marketing, sales and distribution experience, we may be unsuccessful in our efforts to sell our products.

We expect to enter into agreements with third parties for the commercial manufacture and distribution of our products. There can be no assurance that parties we may engage to market and distribute our products will:

- satisfy their financial or contractual obligations to us;
- adequately market our products; or
- not offer, design, manufacture or promote competing products.

If for any reason any party we engage is unable or chooses not to perform its obligations under our marketing and distribution agreement, we would experience delays in product sales and incur increased costs, which would harm our business and financial results.

If we are unable to convince physicians and other health care providers as to the benefits of our products, we may incur delays or additional expense in our attempt to establish market acceptance.

Broad use of our products may require physicians and other health care providers to be informed about our products and their intended benefits. The time and cost of such an educational process may be substantial. Inability to successfully carry out this education process may adversely affect market acceptance of our products. We may be unable to educate physicians regarding our products in sufficient numbers or in a timely manner to achieve our marketing plans or to achieve product acceptance. Any delay in physician education may materially delay or reduce demand for our products. In addition, we may expend significant funds towards physician education before any acceptance or demand for our products is created, if at all.

The market for our products is rapidly changing and competitive, and new devices and drugs which may be developed by others could impair our ability to maintain and grow our business and remain competitive.

The medical device and pharmaceutical industries are subject to rapid and substantial technological change. Developments by others may render our technologies and products noncompetitive or obsolete. We also may be unable to keep pace with technological developments and other market factors. Technological competition from medical device, pharmaceutical and biotechnology companies, universities, governmental entities and others diversifying into the field is intense and is expected to increase. Many of these entities have significantly greater research and development capabilities and budgets than we do, as well as substantially more marketing, manufacturing, financial and managerial resources. These entities represent significant competition for us.

If users of our products are unable to obtain adequate reimbursement from third-party payers, or if new restrictive legislation is adopted, market acceptance of our products may be limited and we may not achieve anticipated revenues.

The continuing efforts of government and insurance companies, health maintenance organizations and other payers of healthcare costs to contain or reduce costs of health care may affect our future revenues and profitability, and the future revenues and profitability of our potential customers, suppliers and collaborative partners and the availability of capital. For example, in certain foreign markets, pricing or profitability of medical devices is subject to government control. In the United States, given recent federal and state government initiatives directed at lowering the total cost of health care, the U.S. Congress and state legislatures will likely continue to focus on health care reform, the cost of medical devices and on the reform of the Medicare and Medicaid systems. While we cannot predict whether any such legislative or regulatory proposals will be adopted, the announcement or adoption of these proposals could materially harm our business, financial condition and results of operations.

Our ability to commercialize our products will depend in part on the extent to which appropriate reimbursement levels for the cost of our products and related treatment are obtained by governmental authorities, private health insurers and other organizations, such as health maintenance organizations (“HMOs”). Third-party payers are increasingly challenging the prices charged for medical care. Also, the trend toward managed health care in the United States and the concurrent growth of organizations such as HMOs, which could control or significantly influence the purchase of health care services and medical devices, as well as legislative proposals to reform health care or reduce government

insurance programs, may all result in lower prices for our products. The cost containment measures that health care payers and providers are instituting and the effect of any health care reform could materially harm our ability to operate profitably.

INVESTMENT RISKS

Directors, executive officers and principal stockholders own a significant percentage of the shares of Common Stock, which will limit your ability to influence corporate matters.

As of May 28, 2010 our directors, executive officers and principal stockholders together beneficially own approximately 18.1% of our outstanding shares of Common Stock. Accordingly, these stockholders could have a significant influence over the outcome of any corporate transaction or other matter submitted to stockholders for approval, including mergers, consolidations and the sale of all or substantially all of our assets and also could prevent or cause a change in control. The interests of these stockholders may differ from the interests of our other stockholders. Third parties may be discouraged from making a tender offer or bid to acquire us because of this concentration of ownership.

Our Series A Preferred Stock provides for the payment of penalties.

Immediately following our June 30, 2006 merger, we issued 5,250,000 shares of Series A 10% Cumulative Convertible Preferred Stock with an aggregate stated value of $5,250,000. We issued an additional 4,895,948 shares of Series A Preferred Stock through December 31, 2009 to additional investors, as dividends and in connection with the settlement of amounts owed to certain investors due to our failure to timely register shares of Common Stock issuable upon conversion of Series A Preferred Stock. We will likely issue additional shares of this series of preferred stock in the future as dividends. The Certificate of Designation designating the Series A Preferred Stock provides that upon the following events, among others, the dividend rate with respect to the Series A Preferred Stock increases to 20% per annum, which dividends would then be required to be paid in cash:

- the occurrence of “Non-Registration Events”;
- an uncured breach by us of any material covenant, term or condition in the Certificate of Designation or any of the related transaction documents; and
- any money judgment or similar final process being filed against us for more than $100,000.

In addition, the registration rights provided for in the subscription agreement we entered into with the purchasers in this offering:

- required us to file a registration statement with the SEC on or before 120 days from the closing to register the shares of Common Stock issuable upon conversion of the Series A Preferred Stock and exercise of the Warrants, and cause such registration statement to be effective by February 25, 2007 (240 days following the closing); and
- entitles each of these investors to liquidated damages in an amount equal to two percent (2%) of the purchase price of the Series A Preferred Stock if we fail to timely file that registration statement with, or have it declared effective by, the SEC.

Because the registration statement we agreed to file was not declared effective within the time required under our agreements with the June 30, 2006 purchasers of the Series A Preferred Stock, dividends on the shares of Series A Preferred Stock issued to those purchasers accrued at the rate of 20% per annum from February 26, 2007 until May 7, 2007, the date the registration statement was declared effective. Additionally during this time period, we were obligated to pay those purchasers cash dividends and an aggregate of $105,000 per 30-day period from February 26, 2007 through the date such registration statement was declared effective. Pursuant to a settlement agreement with the June 30, 2006 purchasers of Series A Preferred Stock, all cash dividends and damages were paid for in full with additional shares of Series A Preferred Stock.

The Certificate of Designation, Subscription Agreement and related transaction documents also provide for various penalties and fees for breaches or failures to comply with provisions of those documents, such as the timely payment of dividends, delivery of stock certificates, and obtaining and maintaining an effective registration statement with respect to the shares of Common Stock underlying the Series A Preferred Stock and Warrants sold in the offering. We may in the future default in our contractual obligations to the holders of our Series A Preferred Stock, and in such event we may be required to pay liquidated damages in cash or additional shares of Preferred Stock.

Our Series B Preferred Stock provides for the payment of penalties.

Immediately following our June 2008 and August 2008 private placement, we issued a total of 52,931.47 shares of Series B 10% Cumulative Convertible Preferred Stock with an aggregate stated value of $5,293,147. We issued an additional 22,420.96 shares of Series B Preferred Stock through December 31, 2009 to additional investors, and as dividends. We will likely issue additional shares of this series of preferred stock in the future as dividends. The Certificate of Designation designating the Series B Preferred Stock provides that upon the following events, among others, the dividend rate with respect to the Series A Preferred Stock increases to 20% per annum:

- the occurrence of “Non-Registration Events”;
- an uncured breach by us of any material covenant, term or condition in the Certificate of Designation or any of the related transaction documents; and
- any money judgment or similar final process being filed against us for more than $100,000.

In addition, the registration rights provided for in the subscription agreement we entered into with the purchasers in this offering:

- required us to file a registration statement with the SEC on or before 180 days from the Initial Closing to register the shares of Common Stock issuable upon conversion of the Series B Preferred Stock, and cause such registration statement to be effective by February 21, 2009 (240 days following the Initial Closing) or March 23, 2009 if the reasons for delay are solely due to SEC delay; and
- entitles each of these investors to liquidated damages in an amount equal to two percent (2%) of the purchase price of the Series A Preferred Stock if we fail to timely file that registration statement with, or have it declared effective by, the SEC.

We submitted an original S-1 registration statement to the SEC on December 12, 2008. On May 7, 2010, we filed a Registration Withdrawal Request, requesting that the December 12, 2008 Form S-1 registration statement be withdrawn. We withdrew the original registration statement as a result of the amount of time which had lapsed since the original issuance date of the shares related to the December 12, 2008 registration statement. Since the shares were issued to affiliates of the company and were held for more than six months, the shares were no longer restricted under Rule 144(b)(1)(i) of the Securities Act. Thus, any continuing efforts aimed at the original December 12, 2008 registration statement became futile. The Company has received a waiver from a majority of the Series B holders for the non-registration event. Pursuant to the waiver, the Majority series B Holders waive any liabilities, and penalties, that result from any default arising from or in connection with the occurrence of a Non-Registration Event as provided in Section 11.4 of the Series B Subscription Agreement. There can be no assurance that the Company will receive such waiver from investors for any future items and no assurance the Company will still not incur penalties or prevent an Event of Default from occurring.

The Certificate of Designation, Subscription Agreement and related transaction documents also provide for various penalties and fees for breaches or failures to comply with provisions of those documents, such as the timely payment of dividends, delivery of stock certificates, and obtaining and maintaining an effective registration statement with respect to the shares of Common Stock underlying the Series B Preferred Stock sold in the offering. We may in the future default in our contractual obligations to the holders of our Series B Preferred Stock, and in such event we may be required to pay liquidated damages in cash or additional shares of Preferred Stock.

Anti-Dilution Provisions Of The Series B Preferred Stock

The conversion price of the Series B Preferred Stock issued to the June and August 2008 purchasers of our Series B Preferred Stock are subject to anti-dilution provisions, so that upon future non-excepted issuances of our Common Stock or equivalents thereof, subject to specified customary exceptions, at a price below the conversion price of the Series B Preferred Stock, such conversion price will be reduced on a weighted average basis, further diluting holders of our Common Stock.

Future Sales of Common Stock Could Result in a Decline in Market Price.

This registration statement covers the sale of up to 24,653,846 shares of Common Stock. Sales of a significant number of shares of Common Stock in the public market could result in a decline in the market price of our Common Stock.

Our Board of Directors may, without stockholder approval, issue and fix the terms of shares of preferred stock and issue additional shares of common stock adversely affecting the rights of holders of our common stock.

Our certificate of incorporation authorizes the issuance of up to 100,000,000 shares of “blank check” preferred stock, with such designation rights and preferences as may be determined from time to time by the Board of Directors. We have designated 12,000,000 shares of Series A Preferred Stock and 200,000 shares of Series B Preferred Stock as described above. Subject to the rights of the holders of the Series A and Series B Preferred Stock, our Board of Directors is empowered, without stockholder approval, to issue up to 87,800,000 additional shares of preferred stock with dividend, liquidation, conversion, voting or other rights, which could adversely affect the rights of the holders of our common stock. In addition, our certificate of incorporation authorizes the issuance of up to 500,000,000 shares of common stock, of which approximately 399,000,000 shares remain available for issuance and may be issued by us without stockholder approval. Issuances of additional shares of common stock and/or preferred stock may be utilized as a method of discouraging, delaying or preventing a change in control of our company.

Our Charter Documents and Nevada Law May Inhibit A Takeover That Stockholders May Consider Favorable.

Provisions in our articles of incorporation and bylaws, and Nevada law, could delay or prevent a change of control or change in management that would provide stockholders with a premium to the market price of their Common Stock. The authorization of undesignated preferred stock, for example, gives our board the ability to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to effect a change in control of us, or otherwise adversely affect holders of Common Stock in relation to holders of preferred stock.

Compliance with changing corporate governance and public disclosure regulations may result in additional expense.

Keeping abreast of, and in compliance with, changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002, new SEC regulations will require an increased amount of management attention and external resources. In addition, prior to the merger, our current management team was not subject to these laws and regulations, as MedaSorb was a private corporation. We intend to continue to invest all reasonably necessary resources to comply with evolving standards, which may result in increased general and administrative expense and a diversion of management time and attention from revenue-generating activities to

compliance activities.

Our Common Stock is thinly traded on the OTC Bulletin Board, and we may be unable to obtain listing of our common stock on a more liquid market.

Our Common Stock is quoted on the OTC Bulletin Board, which provides significantly less liquidity than a securities exchange (such as the American or New York Stock Exchange) or an automated quotation system (such as the Nasdaq Stock Market). There is uncertainty that we will ever be accepted for a listing on an automated quotation system or securities exchange.

The sale of our common stock to LPC may cause dilution and the sale of the shares of common stock acquired by LPC could cause the price of our common stock to decline.

In connection with entering into the Purchase Agreement with LPC, we authorized the sale to LPC of up to 23,500,000 shares of our common stock and the issuance of an additional 2,307,692 shares of our common stock as a commitment fee. The number of shares ultimately offered for sale by LPC hereunder is dependent upon the number of shares purchased by LPC under the Purchase Agreement. The purchase price for the common stock to be sold to LPC pursuant to the Purchase Agreement will fluctuate based on the price of our common stock. All 23,500,000 shares registered in this offering which may be sold by us to LPC under the Purchase Agreement are expected to be freely tradable. It is anticipated that shares registered in this offering will be sold over a period of up to 750 days (25 monthly periods), from the date of this prospectus. Depending upon market liquidity at the time, a sale of shares under this offering at any given time could cause the trading price of our common stock to decline. We can elect to direct purchases by LPC in our sole discretion but no sales to LPC may occur if the purchase price for our common stock under the Purchase Agreement is below $0.10 per share and therefore, LPC may ultimately purchase all, some or none of the 23,500,000 shares of common stock not yet issued but registered in this offering. After LPC has acquired such shares, it may sell all, some or none of such shares. Therefore, sales to LPC by us under the Purchase Agreement may result in substantial dilution to the interests of other holders of our common stock. The sale of a substantial number of shares of our common stock under this offering, or anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

Our stock is a penny stock. Trading of our stock may be restricted by the SEC's penny stock regulations and the FINRA's sales practice requirements, which may limit a stockholder's ability to buy and sell our stock.

Our common stock is a penny stock. The SEC has adopted Rule 15g-9 which generally defines "penny stock" to be any equity security that has a market price less than $5.00 per share or an exercise price of less than $5.00 per share, subject to certain exceptions. Our securities are covered by the penny stock rules, which impose additional sales practice requirements on broker-dealers who sell to persons other than established customers and institutional accredited investors. The penny stock rules require a broker-dealer, prior to a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document in a form prepared by the SEC which provides information about penny stocks and the nature and level of risks in the penny stock market. The broker-dealer also must provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker-dealer and its salesperson in the transaction and monthly account statements showing the market value of each penny stock held in the customer's account. The bid and offer quotations, and the broker- dealer and salesperson compensation information, must be given to the customer orally or in writing prior to effecting the transaction and must be given to the customer in writing before or with the customer's confirmation. In addition, the penny stock rules require that prior to a transaction in a penny stock not otherwise exempt from these rules, the broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser's written agreement to the transaction. These disclosure requirements may have the effect of reducing the level of trading activity in the secondary market for the stock that is subject to these penny stock rules. Consequently, these penny stock rules may affect the ability of broker-dealers to trade our securities. We believe that the penny stock rules discourage investor interest in and limit the marketability of our common stock.

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In addition to the “penny stock” rules promulgated by the SEC, the Financial Industry Regulatory Authority, or FINRA, has adopted rules that require that in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer. Prior to recommending speculative low priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer’s financial status, tax status, investment objectives and other information. Under interpretations of these rules, the FINRA believes that there is a high probability that speculative low priced securities will not be suitable for at least some customers. The FINRA requirements make it more difficult for broker-dealers to recommend that their customers buy our common stock, which may limit your ability to buy and sell our stock.

USE OF PROCEEDS

This prospectus relates to shares of our common stock that may be offered and sold from time to time by the selling stockholder. We will receive no proceeds from the sale of shares of common stock in this offering. However, we may receive proceeds of up to $6,000,000 under the Purchase Agreement. Any proceeds from LPC that we receive under the Purchase Agreement will be used for working capital and for other general corporate purposes.

PLAN OF DISTRIBUTION

The common stock offered by this prospectus is being offered by Lincoln Park Capital Fund, LLC, or LPC, the selling stockholder. The common stock may be sold or distributed from time to time by the selling stockholder directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The sale of the common stock offered by this prospectus may be effected in one or more of the following methods:

- ordinary brokers' transactions;
- transactions involving cross or block trades;
- through brokers, dealers, or underwriters who may act solely as agents
- "at the market" into an existing market for the common stock;
- in other ways not involving market makers or established business markets, including direct sales to purchasers or sales effected through agents;
- in privately negotiated transactions; or
- any combination of the foregoing.

In order to comply with the securities laws of certain states, if applicable, the shares may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the shares may not be sold unless they have been registered or qualified for sale in the state or an exemption from the registration or qualification requirement is available and complied with.

Brokers, dealers, underwriters or agents participating in the distribution of the shares as agents may receive compensation in the form of commissions, discounts, or concessions from the selling stockholder and/or purchasers of the common stock for whom the broker-dealers may act as agent. The compensation paid to a particular broker-dealer may be less than or in excess of customary commissions.

LPC is an "underwriter" within the meaning of the Securities Act.

Neither we nor LPC can presently estimate the amount of compensation that any agent will receive. We know of no existing arrangements between LPC or any other stockholder, broker, dealer, underwriter or agent relating to the sale or distribution of the shares offered by this prospectus. At the time a particular offer of shares is made, a prospectus supplement, if required, will be distributed that will set forth the names of any agents, underwriters or dealers and any compensation from the selling stockholder, and any other required information.

We will pay all of the expenses incident to the registration, offering and sale of the shares to the public other than commissions or discounts of underwriters, broker-dealers or agents. We have also agreed to indemnify LPC and related persons against specified liabilities, including liabilities under the Securities Act.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons, we have been advised that in the opinion of the SEC this indemnification is against public policy as expressed in the Securities Act and is therefore, unenforceable.

LPC and its affiliates have agreed not to engage in any direct or indirect short selling or hedging of our common stock during the term of the Purchase Agreement.

We have advised LPC that while it is engaged in a distribution of the shares included in this prospectus it is required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes the selling stockholder, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the shares offered by this prospectus.

DESCRIPTION OF SECURITIES

Our total authorized capital stock consists of 500,000,000 shares of Common Stock, par value $.001 per share and 100,000,000 shares of preferred stock, par value $0.001 per share. We have designated 12,000,000 shares of our preferred stock as Series A 10% Cumulative Convertible Preferred Stock and 200,000 shares of our preferred stock as Series B 10% Cumulative Convertible Preferred Stock. As of May 28, 2010, there were 101,175,222 shares of our Common Stock outstanding, 60,044.6 shares of our Series B Preferred Stock and 5,903,306 shares of Series A Preferred outstanding.

The following description of our capital stock does not purport to be complete and is subject to and qualified by our Articles of Incorporation and By-laws, and by the provisions of applicable Nevada law.

Common Stock

Holders of our Common Stock are entitled to receive dividends out of assets legally available therefore at such times and in such amounts as the Board of Directors from time to time may determine. Holders of our Common Stock are entitled to one vote for each share held on all matters submitted to a vote of the stockholders. Cumulative voting with respect to the election of directors is not permitted by our Articles of Incorporation. Our Common Stock is not entitled to preemptive rights and is not subject to conversion or redemption. Upon our liquidation, dissolution or winding-up, the assets legally available for distribution to stockholders are distributable ratably among the holders of the Common Stock after payment of liquidation preferences, if any, on any outstanding stock having prior rights on such distributions and payment of other claims of creditors.

Preferred Stock

Our Articles of Incorporation authorize the issuance of shares of preferred stock in one or more series. Our Board of Directors has the authority, without any vote or action by the stockholders, to create one or more series of preferred stock up to the limit of our authorized but unissued shares of preferred stock and to fix the number of shares constituting such series and the designation of such series, the voting powers (if any) of the shares of such series and the relative participating, option or other special rights (if any), and any qualifications, preferences, limitations or restrictions pertaining to such series which may be fixed by the Board of Directors pursuant to a resolution or resolutions providing for the issuance of such series adopted by the Board of Directors. Our Board of Directors authorized the creation of both Series A and Series B preferred stock. Each Series is further described herein.

Series A 10% Cumulative Convertible Preferred Stock

We have designated 12,000,000 shares of our preferred stock as Series A 10% Cumulative Convertible Preferred Stock (the “ Series A Preferred Stock ”), of which 5,903,306 shares were issued and outstanding as of May 12, 2010. Each share of Series A Preferred Stock has a stated value of $1.00. For the period from January 22, 1997 (date of inception) to March 31, 2010, 4,390,135 Series A Preferred Shares were converted into 28,424,170 Common Shares.

Dilution and Subordination

We entered into an Agreement and Consent as of the same date with the holders of more than 80% of our Series A Preferred Stock, par value 0.001 per share and the holders of more than 80% of the outstanding common stock purchase warrants issued to the purchasers of our Series A Preferred Stock (the “ Class A Warrant ”) on June 25, 2008. Pursuant to the Agreement and Consent, our holders of the Series A Preferred Stock consented to the permanent waiver of the anti-dilution protection previously provided to the holders of the Series A Preferred Stock and the holders of the Class A Warrant.

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Dividends

The holders of outstanding shares of Series A Preferred Stock shall be entitled to receive preferential dividends in cash out of any funds of the company together with the holders of the Series B Preferred Stock, before any dividend or other distribution will be paid or declared and set apart for payment on any shares of any Common Stock, or other class of junior stock at the rate of 10% per annum on the Series A Stated Value from the date of issue of such shares. Such dividends shall be payable on the last day of each calendar quarter. The rate of such preferential dividends shall be increased to 20% per annum upon the occurrence of any "Event of Default" as defined in Section 6 of the Certificate of Amendment to Certificate of Designation.

Voting Rights

Holders of Series A Preferred Stock do not have the right to vote on matters submitted to the holders of our Common Stock. However, consent of the holders of at least 80% of the shares of Series A preferred Stock, voting as a separate class, shall be required for amending the rights related to Series A Preferred Stock in our certificate of incorporation.

Liquidation

Upon our liquidation, dissolution or winding-up, the assets legally available for distribution to stockholders are distributable ratably among the holders of the Series A Preferred Stock after payment of liquidation to the Series B Preferred Stock, if any.

Redemption

Commencing on June 30, 2009, if an "Event of Default" as defined in the Certificate of Designation of Series A Preferred Stock has not occurred and is not then continuing, we have the option to redeem the Obligation Amount of the Series A Preferred Stock, in whole or in part, by paying to the holders of the Series A Preferred Stock a sum of money equal to 120% of the Obligation Amount to be redeemed. An Event of Default has not occurred as of the date of this prospectus.

Series B 10% Cumulative Convertible Preferred Stock

Each share of Series B Preferred Stock has a stated value of $100.00, and is convertible at the holder's option into that number of shares of Common Stock equal to the Series B stated value at a conversion price of $0.0362, subject to certain adjustments. Additionally, upon the occurrence of a stock split, stock dividend, combination of the Common Stock into a smaller number of shares, issuance of any of shares of Common Stock or other securities by reclassification of the Common Stock, merger or sale of substantially all of our assets, the conversion rate will be adjusted so that the conversion rights of the Series B Preferred Stock stockholders will remain equivalent to those prior to such event. For the period from January 22, 1997 (date of inception) to March 31, 2010, 9,596.95 Series B Preferred Shares were converted into 26,510,911 Common Shares.

Dividend

The holders of Series B Preferred Stock are entitled to receive preferential dividends payable in shares of additional Series B Preferred Stock. Any dividends payable to both the Series A and Series B Preferred shareholders shall be paid before any dividend or other distribution will be paid to any Common Stock shareholder. The Series B Preferred Stock dividend is based payable at a rate of 10% per annum on the Series B Stated Value payable on the last day of each calendar quarter after June 30, 2008. However, upon the occurrence of any "Event of Default" as defined in the Certificate of Designation of Series B Preferred Stock, the dividend rate increases to 20% per annum, and revert back to 10% after the "Event of Default" is cured. An Event of Default includes, but is not limited to,

- the occurrence of "Non-Registration Events";
- an uncured breach by us of any material covenant, term or condition in the Certificate of Designation or any of the related transaction documents; and
- any money judgment or similar final process being filed against us for more than $100,000.

We received waivers from the holders of Series B Preferred Stock with regard to the requirement to register the shares. The original Form S1 December 12, 2008 Registration Statement was withdrawn on May 7, 2010. Dividends must be delivered to the holder of the Series B Preferred Stock no later than five (5) business days after the end of each period for which dividends are payable. Dividends on the Series B Preferred Stock will be made in additional shares of Series B Preferred Stock, valued at the Series B Preferred Stock stated value. Notwithstanding the foregoing, during the first three-years following the initial closing, upon the approval of the holders of a majority of the Series B Preferred Stock, including the lead investor, NJTC Venture Fund, if it then owns 25% of the shares of Series B Preferred Stock initially purchased by it, we may pay dividends in cash instead of additional shares of Series B Preferred Stock, and after such three-year period, the holders of a majority of the Series B Preferred Stock, including NJTC if it then owns the 25% of the shares of the Series B Preferred Stock initially purchased by it, may require us to make such payments in cash.

Liquidation

In the event of the Company's dissolution, liquidation or winding up, the holders of the Series B Preferred Stock will receive, in priority over the holders of Series A Preferred Stock and Common Stock, a liquidation preference equal to the stated value of such shares plus accrued dividends on the shares.

Voting Rights; Board Rights

Holders of Series B Preferred Stock have the right to vote on matters submitted to the holders of Common Stock on an as converted basis. However, the consent of the holders of at least a majority of the shares of the Series B Preferred Stock as a separate class shall be required on matters related to the rights of the Series B Preferred Stock.

Registration Rights

We agreed to file a registration statement under the Securities Act covering the Common Stock issuable upon conversion of the Series B Preferred Stock within 180 days following the initial closing and to cause it to become effective within 240 days of such closing. We also granted the investors demand and piggyback registration rights with respect to such Common Stock. The investors in the Series B Financing are entitled to liquidated damages in an amount equal to two percent (2%) of the purchase price of the Series B Preferred Stock if we fail to timely file that registration statement with, or have it declared effective by, the SEC.

The Company has received a waiver from a majority of the Series B holders for the non-registration event and the timing of the Series B registration does not create a cross-default of the Series A Preferred Series.

Redemption Rights

Following the fifth anniversary of the initial closing, the holders of a majority of the Series B Preferred Stock, including NJTC if it then holds 25% of the shares of Series B Preferred Stock initially purchased by it, may elect to require us to redeem all, but not less than all, of their shares of Series B Preferred Stock at the original purchase price for such shares plus all accrued and unpaid dividends whether or not declared, if the market price of our Common Stock is then below the conversion price of the Series B Preferred Stock.

Anti-Takeover Provisions

Certain anti-takeover provisions in our Certificate of Incorporation may make a change in control of the Company more difficult, even if a change in control would be beneficial to our stockholders. In particular, our board of directors will be able to issue shares of preferred stock with rights and privileges that might be senior to our Common Stock, without the consent of the holders of our Common Stock, and has the authority to determine the price, rights, preferences, privileges and restrictions of the preferred stock. Although the ability to issue preferred stock may provide us with flexibility in connection with possible acquisitions and other corporate purposes, this issuance may make it more difficult for a third party to acquire a majority of our outstanding voting stock.

Transfer Agent

The transfer agent for our Common Stock is American Stock Transfer & Trust Company, located at 6201 15th Avenue, Brooklyn, New York 11219. American Stock Transfer & Trust Company's telephone number is 718-921-8143.

THE TRANSACTION

General

On May 5, 2010, we executed a purchase agreement, or the Purchase Agreement, and a registration rights agreement, or the Registration Rights Agreement, with LPC. Under the Purchase Agreement, LPC is obligated, under certain conditions, to purchase from us up to $6 million of our common stock, from time to time over a 750 day (twenty-five (25) monthly) period.

Pursuant to the Registration Rights Agreement, we have filed a registration statement that includes this prospectus with the U.S. Securities and Exchange Commission or SEC covering the shares that have been issued or may be issued to LPC under the Purchase Agreement. Except for the initial 1,153,846 shares issued as a commitment fee (which shares are not included in this offering), we do not have the right to commence any sales of our shares to LPC until the SEC has declared effective the registration statement of which this prospectus is a part. Thereafter, over 750 days (25 months), generally we have the right to direct LPC to purchase up to $6,000,000 of our common stock in amounts up to $50,000 as often as every two business days under certain conditions. We can also accelerate the amount of our common stock to be purchased under certain circumstances. No sales of shares may occur at a purchase price below $0.10 per share. The price of our stock as of May 28, 2010 was $0.07 and accordingly no sales of shares may occur until such time as the price is again at or above $0.10. The purchase price of the shares will be based on the market prices of our shares at the time of sale as computed under the Purchase Agreement without any fixed discount. We may at any time in our sole discretion terminate the Purchase Agreement without fee, penalty or cost upon one business days notice. We issued 1,153,846 shares of our common stock to LPC as a commitment fee for entering into the agreement (which shares are not a part of this offering), and we are obligated to issue up to an additional 1,153,846 shares pro rata as LPC purchases up to $6,000,000 of our common stock as directed by us. LPC may not assign any of its rights or obligations under the Purchase Agreement.

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Purchase Of Shares Under The Purchase Agreement

Under the Purchase Agreement, on any business day selected by us and as often as every two business days, we may direct LPC to purchase up to $50,000 of our common stock. The purchase price per share is equal to the lesser of:

- the lowest sale price of our common stock on the purchase date; or
- the average of the two (2) lowest closing sale prices of our common stock during the seven (7) consecutive business days prior to the date of a purchase by LPC.

The purchase price will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction occurring during the business days used to compute the purchase price.

In addition to purchases of up to $50,000, we may direct LPC as often as every two business days to purchase up to $75,000 of our common stock provided that our closing share price on the purchase date is not below $.15 per share. We may increase this amount: up to $150,000 of our common stock provided that our closing share price on the purchase date is not below $.20 per share; up to $225,000 of our common stock provided that our closing share price on the purchase date is not below $.30 per share; up to $300,000 of our common stock provided that our closing share price on the purchase date is not below $.40 per share; and up to $750,000 of our common stock provided that our closing share price on the purchase date is not below $.60. The price at which LPC would purchase these accelerated amounts of our common stock will be the lesser of (i) the lowest sale price of our common stock on the purchase date or (ii) the lowest purchase price (as described in the first paragraph of this section above) during the three (3) consecutive business days prior to the purchase date.

Minimum Purchase Price

Under the Purchase Agreement, we have set a floor price of $0.10 per share. However, LPC shall not have the right nor the obligation to purchase any shares of our common stock in the event that the purchase price per share would be less than the floor price.

Events of Default

Generally, LPC may terminate the Purchase Agreement without any liability or payment to the Company upon the occurrence of any of the following events of default:

- while any registration statement is required to be maintained effective pursuant to the terms of the Registration Rights Agreement, the effectiveness of the registration statement of which this prospectus is a part of lapses for any reason (including, without limitation, the issuance of a stop order) or is unavailable to LPC for sale of our common stock offered hereby and such lapse or unavailability continues for a period of ten (10) consecutive business days or for more than an aggregate of thirty (30) business days in any 365-day period;
- suspension by our principal market of our common stock from trading for a period of three (3) consecutive business days;
- the de-listing of our common stock from our principal market provided our common stock is not immediately thereafter trading on the Nasdaq Global Market, the Nasdaq Global Select Market, the Nasdaq Capital market, the New York Stock Exchange or the NYSE AMEX;
- the transfer agent’s failure for five (5) business days to issue to LPC shares of our common stock which LPC is entitled to under the Purchase Agreement;

- any material breach of the representations or warranties or covenants contained in the Purchase Agreement or any related agreements which has or which could have a material adverse effect on us subject to a cure period of five (5) business days;

- any participation or threatened participation in insolvency or bankruptcy proceedings by or against us; or
- a material adverse change in the business, properties, operations, financial condition or results of operations of the Company and its Subsidiaries taken as a whole.

Our Termination Rights

We have the unconditional right at any time for any reason to give notice to LPC terminating the Purchase Agreement without any cost to us.

No Short-Selling or Hedging by LPC

LPC has agreed that neither it nor any of its affiliates shall engage in any direct or indirect short-selling or hedging of our common stock during any time prior to the termination of the Purchase Agreement.

Effect of Performance of the Purchase Agreement on Our Stockholders

All 23,500,000 shares registered in this offering which may be sold by us to LPC under the Purchase Agreement are expected to be freely tradable. It is anticipated that shares registered in this offering will be sold over a period of up to 750 days (25 months) from the date of this prospectus. The sale by LPC of a significant amount of shares registered in this offering at any given time could cause the market price of our common stock to decline and to be highly volatile. LPC may ultimately purchase all, some or none of the 24,653,846 shares of common stock not yet issued but registered in this offering. After it has acquired such shares, it may sell all, some or none of such shares.

Therefore, sales to LPC by us under the agreement may result in substantial dilution to the interests of other holders of our common stock. However, we have the right to control the timing and amount of any sales of our shares to LPC and the agreement may be terminated by us at any time at our discretion without any cost to us.

In connection with entering into the Purchase Agreement, we authorized the issuance to LPC of up to 25,807,692 shares of our common stock inclusive of both the initial commitment shares already issued and the additional commitment shares to be issued. We have the right to terminate the agreement without any payment or liability to LPC at any time, including in the event that all $6,000,000 is sold to LPC under the Purchase Agreement. Subject to approval by our board of directors, we have the right but not the obligation to sell more than 23,500,000 shares to LPC. In the event we elect to issue more than the 23,500,000 shares (not including the commitment shares) offered hereby, we will be required to file a new registration statement and have it declared effective by the SEC. The number of shares ultimately offered for sale by LPC under this prospectus is dependent upon the number of shares purchased by LPC under the Purchase Agreement. The following table sets forth the amount of proceeds we would receive from LPC from the sale of shares at varying purchase prices:

Assumed Average Purchase Price		Number of Shares to be Issued if Full Purchase(1)	Percentage of Outstanding Shares After Giving Effect to the Issuance to LPC(2)	Proceeds from the Sale of Shares to LPC Under the Purchase Agreement (in millions)
$ 0.10	(3)	23,951,923	19.14%	$ 2.35
$ 0.15		24,177,885	19.29%	$ 3.525
$ 0.20		24,403,846	19.43%	$ 4.70
$ 0.30		21,153,846	17.29%	$ 6.00
$ 0.40		16,153,846	13.77%	$ 6.00
$ 0.60		11,153,846	9.93%	$ 6.00

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(1) The number of shares to be issued includes the additional commitment shares issuable to LPC (but not the initial commitment shares), and no proceeds will be attributable to such commitment shares.

(2) The denominator is based on 101,175,222 shares outstanding as of May 28, 2010, which includes the 1,153,846 shares previously issued to LPC plus the number of shares set forth in the adjacent column which includes the commitment fee issued pro rata as up to $6,000,000 of our stock is purchased by LPC. The numerator is based on the number of shares issuable under the Purchase Agreement at the corresponding assumed purchase price set forth in the adjacent column, including the additional commitment shares, but excluding the 1,153,846 shares previously issued to LPC.

(3) Under the Purchase Agreement, we may not sell and LPC cannot purchase any shares in the event the purchase price thereof is below $0.10 per share.

THE SELLING STOCKHOLDER

The following table presents information regarding the selling stockholder. Neither the selling stockholder nor any of its affiliates has held a position or office, or had any other material relationship, with us.

Selling Stockholder	Shares Beneficially Owned Before Offering	Percentage of Outstanding Shares Beneficially Owned Before Offering	Shares to be Issued in the Offering Assuming The Company Issues The Maximum Number of Shares Under the Purchase Agreement	Percentage of Outstanding Shares Beneficially Owned After Offering
Lincoln Park Capital Fund, LLC (1)	1,153,846(2)	1.14%(2)	24,653,846(3)	0.91%

(1) Josh Scheinfeld and Jonathan Cope, the principals of LPC, are deemed to be beneficial owners of all of the shares of common stock owned by LPC. Messrs. Scheinfeld and Cope have shared voting and disposition power over the shares being offered under this Prospectus.

(2) 1,153,846 shares of our common stock have been previously issued to LPC as a commitment fee under the Purchase Agreement. We may at our discretion elect to issue to LPC up to an additional 24,653,846 shares of our common stock under the Purchase Agreement but LPC does not beneficially own any such shares that may be issued by us at our sole discretion and such shares are not included in determining the percentage of shares beneficially owned before the offering.

(3) This number includes 23,500,000 shares of common stock, the maximum number of shares to be sold in the offering, plus 1,153,846, the additional commitment shares to be issued assuming the Company offers the maximum number of shares under the Purchase Agreement. The 1,153,846 shares previously issued to LPC are not a part of this offering.

INTERESTS OF NAMED EXPERTS AND COUNSEL

No expert or counsel named in this prospectus as having prepared or certified any part of this prospectus or having given an opinion upon the validity of the securities being registered or upon other legal matters in connection with the registration or offering of the common stock was employed on a contingency basis, or had, or is to receive, in connection with the offering, a substantial interest, direct or indirect, in the registrant or any of its parents or subsidiaries. Nor was any such person connected with the registrant or any of its parents or subsidiaries as a promoter, managing or principal underwriter, voting trustee, director, officer, or employee.

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The December 31, 2009 financial statements included in this prospectus and the registration statement have been audited by WithumSmith+Brown, PC, independent registered public accounting firm, to the extent and for the periods set forth in their report appearing elsewhere herein and in the registration statement, and are included in reliance upon such report given upon the authority of said firm as experts in auditing and accounting.

DESCRIPTION OF BUSINESS

Corporate History

CytoSorbents Corporation was incorporated in Nevada on April 25, 2002 as Gilder Enterprises, Inc. and was originally engaged in the business of installing and operating computer networks that provided high-speed access to the Internet. On June 30, 2006, we disposed of our original business, and pursuant to an Agreement and Plan of Merger, acquired all of the stock of MedaSorb Technologies, Inc., a Delaware corporation in a merger, and its business became our business. Following the merger, in July 2006 we changed our name to MedaSorb Technologies Corporation. In November 2008 we changed the name of our operating subsidiary from MedaSorb Technologies, Inc. to CytoSorbents, Inc. In May 2010 we finalized the name change of MedaSorb Technologies Corporation to CytoSorbents Corporation. Unless otherwise indicated, all references in this Annual Report to “MedaSorb,”, “CytoSorbents”, “us” or “we” with respect to events prior to June 30, 2006 are references to CytoSorbents, Inc. and its predecessors. Our executive offices are located at 7 Deer Park Drive, Suite K, Monmouth Junction, New Jersey 08852. Our telephone number is (732) 329-8885.

CytoSorbents was originally organized as a Delaware limited liability company in August 1997 as Advanced Renal Technologies, LLC. MedaSorb changed its name to RenalTech International, LLC in November 1998, and to MedaSorb Technologies, LLC in October 2003. In December 2005, CytoSorbents converted from a limited liability company to a corporation.

CytoSorbents has been engaged in research and development since its inception, and prior to the merger, had raised approximately $53 million from investors. These proceeds have been used to fund the development of multiple product applications and to conduct clinical studies. These funds have also been used to establish in-house manufacturing capacity to meet clinical testing needs, expand our intellectual property through additional patents and to develop extensive proprietary know-how with regard to our products.

Immediately prior to the merger, CytoSorbents had 292 stockholders that held an aggregate of 20,340,929 shares of common stock. In connection with the merger, certain stockholders of ours (i.e., persons who were stockholders of Gilder Enterprises prior to the merger), including Joseph Bowes, a former principal stockholder and the sole director and officer of Gilder prior to the merger, sold an aggregate of 3,617,500 shares of our Common Stock to several purchasers, and forfeited 4,105,000 shares of Common Stock, which we cancelled. As a result, prior to giving effect to the merger, we had outstanding 3,750,000 shares of Common Stock and, after giving effect to the merger, we had outstanding 24,090,929 shares of Common Stock.

The principal stockholders of CytoSorbents immediately prior to the merger were Margie Chassman, Guillermina Montiel, Al Kraus and Robert Shipley, who respectively beneficially owned 10,000,000 shares (49.2%), 5,052,456 shares (24.6%), 1,393,631 shares (6.9%) and 1,248,372 shares (6%), of the outstanding common stock of CytoSorbents. Immediately following the merger and the closing of the Series A Preferred Stock financing described below, Ms. Chassman beneficially owned an additional 630,000 shares of Common Stock underlying the warrant we issued to her in connection with her pledge of stock to the purchasers of the Series A Preferred Stock, as described below. On July 5, 2006, Ms. Chassman transferred 2,005,000 shares of Common Stock owned by her to her designees. In addition, following the closing of the Series A Preferred Stock financing, without giving effect to applicable restrictions that prohibit conversion of the Series A Preferred Stock or exercise of warrants if as a result the holder would hold in excess of 4.99% of our Common Stock, Longview Fund, LP beneficially owned 3,600,000 shares

(13%) of our Common Stock.

Principal Terms of the Reverse Merger

In connection with the merger, the stockholders of CytoSorbents prior to the merger were issued an aggregate of 20,340,929 shares of Common Stock in exchange for the shares of CytoSorbents common stock previously held by them. In addition, pursuant to the terms of the merger, outstanding warrants and options to purchase a total of 1,697,648 shares of the common stock of CytoSorbents prior to the merger were cancelled in exchange for warrants and options to purchase the same number of shares of our Common Stock at the same exercise prices and otherwise on the same general terms as the CytoSorbents options and warrants that were cancelled. Certain providers of legal services to CytoSorbents who previously had the right to be issued approximately 997,000 shares of CytoSorbents common stock as payment toward accrued legal fees, became entitled to instead be issued the same number of shares of our Common Stock as payment toward such services.

Concurrently with the closing of the merger, Joseph G. Bowes, the sole director and officer of CytoSorbents Corporation (then Gilder Enterprises) prior to the merger, appointed Al Kraus, Joseph Rubin, Esq., and Kurt Katz to the Board of Directors, and then resigned from the Board and from his positions as an officer. In addition, at such time, Al Kraus was appointed our President and Chief Executive Officer, Vincent Capponi was appointed our Chief Operating Officer, David Lamadrid was appointed our Chief Financial Officer and James Winchester, MD was appointed our Chief Medical Officer.

For accounting purposes, the merger has been accounted for as a reverse merger, since CytoSorbents Corporation (then Gilder Enterprises) was a shell company prior to the merger, the stockholders of CytoSorbents prior to the merger own a majority of the issued and outstanding shares of our Common Stock after the merger, and the directors and executive officers of CytoSorbents prior to the merger became our directors and executive officers. Accordingly, pre-merger CytoSorbents is treated as the acquiror in the merger, which is treated as a recapitalization of pre-merger CytoSorbents, and the pre-merger financial statements of CytoSorbents are now deemed to be our historical financial statements.

Principal Terms of the Series A Financing Consummated upon the Closing of the Merger

On June 30, 2006, immediately following the merger, we sold to four institutional investors, in a private offering generating gross proceeds of $5.25 million, an aggregate of 5,250,000 shares of our Series A 10% Cumulative Convertible Preferred Stock initially convertible into 4,200,000 shares of Common Stock, and five-year warrants to purchase an aggregate of 2,100,000 shares of our Common Stock.

The Series A Preferred Stock has a stated value of $1.00 per share. The Series A Preferred Stock is not redeemable at the holder’s option but may be redeemed by us at our option following the third anniversary of the issuance of the Series A Preferred Stock for 120% of the stated value thereof plus any accrued but unpaid dividends upon 30 days' prior written notice (during which time the Series A Preferred Stock may be converted), provided a registration statement is effective under the Securities Act with respect to the shares of our Common Stock into which such Series A Preferred Stock is then convertible, and an event of default, as defined in the Certificate of Designations relating to the Series A Preferred Stock is not then continuing.

The Series A Preferred Stock has a dividend rate of 10% per annum, payable quarterly. The dividend rate increases to 20% per annum upon the occurrence of the events of default specified in the Certificate of Designations. Dividends may be paid in cash or, provided no event of default is then continuing, with additional shares of Series A Preferred Stock valued at the stated value thereof. The Series A Preferred Stock is convertible into Common Stock at the conversion rate of one share of Common Stock for each $1.25 of stated value or accrued but unpaid dividends converted.

The warrants issued in the private placement have an initial exercise price of $2.00 per share. The aggregate number of shares of Common Stock covered by the Warrants equaled, at the date of issuance, one-half the number of shares of Common Stock issuable upon the full conversion of the Series A Preferred Stock issued to the investors on that date.

We agreed to file a registration statement under the Securities Act covering the Common Stock issuable upon conversion of the Series A Preferred Stock and exercise of the warrants within 120 days following closing of the private placement and to cause it to become effective within 240 days of that closing. We also granted the investors demand and piggyback registration rights with respect to such Common Stock.

Because the registration statement we agreed to file was not declared effective within the time required under our agreements with the June 30, 2006 purchasers of the Series A Preferred Stock, dividends on the shares of Series A Preferred Stock issued to those purchasers accrued at the rate of 20% per annum from February 26, 2007 until May 7, 2007, the date the registration statement was declared effective. During this time period, we were obligated to pay those purchasers cash dividends and an aggregate of $105,000 per 30-day period from February 26, 2007 through the date such registration statement was declared effective (May 7,2007) in cash. Pursuant to a settlement agreement with the June 30, 2006 purchasers of Series A Preferred Stock, all cash dividends and damages were paid for in full with additional shares of Series A Preferred Stock.

Both the conversion price for the June 30, 2006 purchasers of the Series A Preferred Stock and the exercise price of the warrants were subject to “full-ratchet” anti-dilution provisions, so that upon future issuances of our Common Stock or equivalents thereof, subject to specified customary exceptions, at a price below the conversion price of the Series A Preferred Stock and/or exercise price of the warrants, the conversion price and/or exercise price will be reduced to the lower price. As of the “Qualified Closing” of our Series B Preferred Stock private placement in August of 2008, these investors’ agreed to a modification of their rights and pricing and gave up their anti-dilution protection – see Qualified Closing description in Series B Preferred Stock section)

In connection with the sale of the Series A Preferred Stock and warrants to the four institutional investors, to induce those investors to make the investment, Margie Chassman pledged to those investors securities of other publicly traded companies. The pledged securities consisted of a $400,000 promissory note of Xechem International, Inc. convertible into Xechem common stock at $.005 per share, and 250,000 shares of the common stock of Novelos Therapeutics, Inc. Based on the market value of the Xechem common stock ($0.07 per share) and the Novelos common stock ($1.03) per share, on June 30, 2006, the aggregate fair market value of the pledged securities at the date of pledge was approximately $5,857,500.

The terms of the pledge provided that in the event those investors suffered a loss on their investment in our securities as of June 30, 2007 (as determined by actual sales by those investors or the market price of our Common Stock on such date), the investors would be entitled to sell all or a portion of the pledged securities so that the investors receive proceeds from such sale in an amount equal to their loss on their investment in our securities. In consideration of her pledge to these investors, we paid Ms. Chassman (i) $525,000 in cash (representing 10% of the cash amount raised from the institutional investors), and (ii) five-year warrants to purchase

- 525,000 shares of Series A Preferred Stock (representing 10% of the Series A Preferred Stock purchased by those investors), and

- warrants to purchase 210,000 shares of Common Stock at an exercise price of $2.00 per share (representing 10% of the Series A Preferred Stock purchased by those investors),

for an aggregate exercise price of $525,000.

As of the "Qualified Closing" of our Series B Preferred Stock private placement in August of 2008, Ms. Chassman agreed to a modification of her rights and pricing and gave up her anti-dilution protection – see Qualified Closing description in Series B Preferred Stock section)

Principal Terms of the Series B Financing Consummated in 2008

Each share of Series B Preferred Stock has a stated value of $100.00, and is convertible at the holder's option into that number of shares of Common Stock equal to the Series B stated value at a conversion price of $0.0362, subject to certain adjustments. Additionally, upon the occurrence of a stock split, stock dividend, combination of the Common Stock into a smaller number of shares, issuance of any of shares of Common Stock or other securities by reclassification of the Common Stock, merger or sale of substantially all of our assets, the conversion rate will be adjusted so that the conversion rights of the Series B Preferred Stock stockholders will remain equivalent to those prior to such event.

Dividend

The holders of Series B Preferred Stock are entitled to receive preferential dividends payable in shares of additional Series B Preferred Stock . Any dividends payable to both the Series A and Series B Preferred shareholders shall be paid before any dividend or other distribution will be paid to any Common Stock shareholder. The Series B Preferred Stock dividend is based payable at a rate of 10% per annum on the Series B Stated Value payable on the last day of each calendar quarter after June 30, 2008. However, upon the occurrence of any "Event of Default" as defined in the Certificate of Designation of Series B Preferred Stock, the dividend rate increases to 20% per annum, and revert back to 10% after the "Event of Default" is cured. An Event of Default includes, but is not limited to,

- the occurrence of "Non-Registration Events";
- an uncured breach by us of any material covenant, term or condition in the Certificate of Designation or any of the related transaction documents; and
- any money judgment or similar final process being filed against us for more than $100,000.

Dividends must be delivered to the holder of the Series B Preferred Stock no later than five (5) business days after the end of each period for which dividends are payable. Dividends on the Series B Preferred Stock will be made in additional shares of Series B Preferred Stock, valued at the Series B Preferred Stock stated value. Notwithstanding the foregoing, during the first three-years following the initial closing, upon the approval of the holders of a majority of the Series B Preferred Stock, including the lead investor, NJTC Venture Fund, if it then owns 25% of the shares of Series B Preferred Stock initially purchased by it, we may pay dividends in cash instead of additional shares of Series B Preferred Stock, and after such three-year period, the holders of a majority of the Series B Preferred Stock, including NJTC if it then owns the 25% of the shares of the Series B Preferred Stock initially purchased by it, may require us to make such payments in cash.

Liquidation

In the event of the Company's dissolution, liquidation or winding up, the holders of the Series B Preferred Stock will receive, in priority over the holders of Series A Preferred Stock and Common Stock, a liquidation preference equal to the stated value of such shares plus accrued dividends on the shares.

Voting Rights; Board Rights

Holders of Series B Preferred Stock have the right to vote on matters submitted to the holders of Common Stock on an as converted basis. However, the consent of the holders of at least a majority of the shares of the Series B Preferred Stock as a separate class, including NJTC if it is then a holders of at least 25% of the shares of Series B Preferred Stock purchased by it on the Initial Closing Date, shall be required on matters related to the rights of the Series B Preferred Stock.

In addition, so long as NJTC holds 25% of the Series B Preferred Stock it purchased before the initial closing, NJTC is entitled to elect (i) two directors to our Board of Directors, which shall consist of six members, and (ii) two members to our compensation committee, which shall consist of no less than three members. Within the first twelve (12) months following the Initial Closing, the Company must reduce the Board of Directors to five (5) members.

Moreover, so long as Cahn Medical Technologies, LLC is the holder of at least 25% of the shares of the Series B Preferred Stock purchased by it on the initial closing date, it has the right to have its designee receive notices of, and attend as an observer, all meetings of our Board of Directors.

Registration Rights

We filed a registration statement under the Securities Act covering the Common Stock issuable upon conversion of the Series B Preferred Stock on December 12, 2008. On May 7, 2010, we filed a Registration Withdrawal Request, requesting that the December 12, 2008 Form S-1 registration statement be withdrawn. We withdrew the original registration statement as a result of the amount of time which had lapsed since the original issuance date of the shares related to the December 12, 2008 registration statement. Since the shares were issued to affiliates of the company and were held for more than six months, the shares were no longer restricted under Rule 144(b)(1)(i) of the Securities Act. Thus, any continuing efforts aimed at the original December 12, 2008 registration statement became futile. Pursuant to the terms of the Registration Rights Agreement, we were required to cause the Registration Statement to become effective within 240 days of such closing. Since it was determined that ceasing efforts aimed at registering the Series B common stock shares was in the best interests of the Company, we received a waiver from a majority of the Series B holders for the non-registration event . Pursuant to the waiver, the Majority series B Holders waive any liabilities, and penalties, that result from any default arising from or in connection with the occurrence of a Non-Registration Event as provided in Section 11.4 of the Series B Subscription Agreement.

Redemption Rights

Following the fifth anniversary of the initial closing, the holders of a majority of the Series B Preferred Stock, including NJTC, if it then holds 25% of the shares of Series B Preferred Stock initially purchased by it, may elect to require us to redeem all, but not less than all, of their shares of Series B Preferred Stock at the original purchase price for such shares plus all accrued and unpaid dividends whether or not declared, if the market price of our Common Stock is then below the conversion price of the Series B Preferred Stock.

Dilution and Subordination

As one of the conditions to the closing of the Series B financing with an initial closing on June 25, 2008, we entered into an Agreement and Consent as of the same date with the holders of more than 80% of our Series A Preferred Stock, par value 0.001 per share and the holders of more than 80% of the outstanding common stock purchase warrants issued to the purchasers of our Series A Preferred Stock (the “Class A Warrant”). Pursuant to the Agreement and Consent, our holders of the Series A Preferred Stock consented to the permanent waiver of the anti-dilution protection previously provided to the holders of the Series A Preferred Stock and the holders of the Class A Warrant.

In connection with such Agreement and Consent, the conversion price with respect to the June 30, 2006 purchasers of Series A Preferred Stock held by the Holders was reduced effective June 25, 2008, the initial closing of the Series B Financing according to the Schedule A to the Agreement and Consent as set forth below. In the event that within the 60-day period following the Initial Closing, at additional closings, the Company issued additional shares of Series B Preferred Stock so that the aggregate gross proceeds that were raised on the Initial Closing and such additional closings (excluding the principal amount of our outstanding debt converted into the Series B Preferred Stock) from the holders of the Series A Preferred Stock or their affiliates, is $1,500,000 or more, the conversion price with respect to the Series A Preferred Stock held by these holders was agreed to be further reduced in accordance with Schedule A to the Agreement and Consent as set forth below. Based on the total amount raised and in accordance with our investor

agreements, MedaSorb's Series B Preferred Stock private placement was considered a "Qualified" closing.

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In addition, June 30, 2006 purchasers of the Series A Preferred Stock also agreed the conversion price with respect to the Class A Warrant shall be reduced effectively on the initial closing. Pursuant to our agreement for a Qualified closing, Conversion pricing and warrant exercise pricing was further reduced as disclosed in the following chart.

06/30/06 Purchasers of Series A Preferred Stock	Initial Closing (06/25/08)		Qualified Closing (08/25/08)	
	Preferred Stock Conversion Price	Warrant Exercise Price	Preferred Stock Conversion Price	Warrant Exercise Price
Alpha Capital Aktiengesellschaft	$ 0.26	$ 0.52	$ 0.20	$ 0.40
Longview Fund, LP	$ 1.25	$ 2.00	$ 0.45	$ 0.90
Platinum Partners Long Term Growth III LLC	$ 1.25	$ 2.00	$ 0.10	$ 0.40
Ellis International Ltd.	$ 0.26	$ 0.52	$ 0.20	$ 0.40
Margie Chassman	$ 1.25	$ 2.00	$ 0.10	$ 0.40

Overview of Our Business

We are a therapeutic medical device company that is currently in the development stage, headquartered in Monmouth Junction, New Jersey (near Princeton). We have developed and will seek to commercialize a blood purification technology that we believe will be able to efficiently remove middle molecular weight toxins from circulating blood and physiologic fluids. We will be required to obtain required regulatory approvals from a Notified Body for the European Community (CE Mark) and the United States Food and Drug Administration before we can sell our products in Europe and the United States, respectively. The Company is currently focusing our efforts on obtaining regulatory approval in Europe before proceeding with the FDA.

Research and Development

We have been engaged in research and development since inception. Our research and development costs were approximately $1,962,000 and $1,983,000 for the years ended December 31, 2009 and 2008, respectively.

Technology, Products and Applications

For approximately the past half-century, the field of blood purification has been focused on hemodialysis, a mature, well accepted medical technique primarily used to sustain the lives of patients with permanent or temporary loss of kidney function. It is widely understood by the medical community that dialysis has inherent limitations in that its ability to remove toxic substances from blood drops precipitously as the size of toxins increases. Our hemocompatible adsorbent technology is expected to address this shortcoming by removing toxins and toxic compounds largely untouched by dialysis technology.

Our initial products, CytoSorb™ and BetaSorb™, are known in the medical field as hemoperfusion devices. During hemoperfusion, blood is removed from the body via a catheter or other blood access device, perfused through a filter medium where toxic compounds are removed, and returned to the body.

We believe that our polymer adsorbent technology may remove middle molecular weight toxins and toxic compounds, such as cytokines, from blood and physiologic fluids. We believe that our technology may have many applications in the treatment of common, chronic and acute healthcare complications including the adjunctive treatment and/or prevention of sepsis; the treatment of chronic kidney failure; the treatment of liver failure; the prevention of post-operative complications of cardiopulmonary bypass surgery; and the prevention of damage to organs donated by brain-dead donors prior to organ harvest. These applications vary by cause and complexity as well as by severity but share a common characteristic i.e. high concentrations of toxins in the circulating blood.

Both the CytoSorb™ and BetaSorb™ devices consist of a cartridge containing adsorbent polymer beads, although the polymers used in the two devices are physically different. The cartridges in both devices incorporate industry standard connectors at either end of the device, which connect directly to the extra-corporeal circuit (bloodlines) in series with a dialyzer, in the case of the BetaSorb™ device, or as a stand alone device in the case of the CytoSorb™ device. Both devices will require no additional expensive equipment, and will require minimal training.

The extra-corporeal circuit consists of plastic blood tubing, our CytoSorb™ or BetaSorb™ cartridge, as applicable, containing adsorbent polymer beads, pressure monitoring gauges, and a blood pump to maintain blood flow. The patient's blood is accessed through a catheter inserted into his or her veins. The catheter is connected to the extra-corporeal circuit and the blood pump draws blood from the patient, pumps it through the cartridge and returns it back to the patient in a closed loop system.

Markets

Sepsis

Sepsis is characterized by a systemic inflammatory response in response to severe infection or trauma. There are generally three categories of sepsis, including mild to moderate sepsis, severe sepsis and septic shock. Mild to moderate sepsis typically occurs with an infection that is responsive to antibiotics or antiviral medication. An example is a patient with self-limiting influenza or a treatable community acquired pneumonia. Mortality is generally very low. Severe sepsis is sepsis with evidence of organ dysfunction. An example is a patient who develops respiratory failure due to a severe pneumonia and requires mechanical ventilation in the intensive care unit. Severe sepsis has a mortality rate of approximately 30-35%. Septic shock, or severe sepsis with low blood pressure that is not responsive to fluid resuscitation, is the most serious form of sepsis with an expected mortality in excess of 50%.

In sepsis, the body produces large amounts of inflammatory mediators called cytokines in response to infection. In severe infection, many people suffer from a massive, unregulated overproduction of cytokines, often termed "cytokine storm" that can kill cells and damage organs, leading to multi-organ failure and in many cases death. CytoSorb™ is an investigational device designed to act as a broad spectrum cytokine filter. It is intended to play a critical role in treating patients with severe sepsis or septic shock by reducing cytokine storm, while antibiotics work to control the actual infection. CytoSorb is currently being evaluated in patients with acute respiratory distress syndrome or acute lung injury in the setting of sepsis in a 100 patient randomized, controlled clinical trial in Europe.

In the United States alone, there are more than one million new cases of severe sepsis and septic shock annually. Based on the reported incidence in a number of developed countries, the worldwide incidence is estimated to be 18 million cases per year. . The Company estimates that the market potential in Europe for its products is substantially equivalent to that in the U.S.

Severe sepsis and septic shock patients are amongst the most expensive patients to treat in a hospital. Because of this, we believe that efficacy rather than cost will be the determining factor in the adoption of CytoSorb™ in the treatment of sepsis. Based on the limited number of available treatments for this disease, and based on current pricing of charcoal hemoperfusion devices in the market today, we estimate that our CytoSorb™ device will sell for at least $500 per unit.

Our current pricing model represents a fraction of what is currently spent on the treatment of a sepsis patient.

Cardiopulmonary Bypass Procedures

There are approximately 400,000 cardiopulmonary bypass (CPB) and cardiac surgery procedures performed annually in the U.S. and more than 800,000 worldwide. Some patients, nearly one-third, suffer from post-operative complications of cardiopulmonary bypass surgery, including complications from infection, pneumonia, pulmonary, and neurological dysfunction. A common characteristic of these post operative complications is the presence of high amounts of cytokines in the blood. Extended surgery time leads to longer ICU recovery time and hospital stays, both leading to higher costs – approximately $32,000 per coronary artery bypass graft procedure. We believe that the use of CytoSorb™ during and after the surgical procedure may prevent or mitigate post-operative complications for many CPB patients.

We anticipate that the CytoSorb™ device, incorporated into the extra-corporeal circuit used with the by-pass equipment during surgery, and/or employed post-operatively for a period of time, will mitigate inflammation and speed recovery.

Chronic Kidney Failure

The National Kidney Foundation estimates that more than 20 million Americans have chronic kidney disease. Left untreated, chronic kidney disease can ultimately lead to chronic kidney failure, which requires a kidney transplant or chronic dialysis (generally three times per week) to sustain life. There are more than 340,000 patients in the United States currently receiving chronic dialysis and more than 1.5 million worldwide. Approximately 66% of patients with chronic kidney disease are treated with hemodialysis.

One of the problems with standard high-flux dialysis is the limited ability to remove certain mid-molecular weight toxins such as B2-microglobulin. Over time, B2-microglobulin can accumulate and cause amyloidosis in joints and elsewhere in the musculoskeletal system, leading to pain and disability.
Our BetaSorb™ device has been designed to remove these mid-molecular weight toxins when used in conjunction with standard dialysis. Standard dialysis care typically involves three sessions per week, averaging approximately 150 sessions per year. Assuming BetaSorb™ use in each session, every 100,000 patients would require approximately 15 million devices annually.

Brain-Dead Organ Donors

There are in excess of 6,000 brain dead organ donors each year in the United States; worldwide, the number of these organ donors is estimated to be at least double the U.S. brain dead organ donor population. There is a severe shortage of donor organs. Currently, there are more than 100,000 individuals on transplant waiting lists in the United States. Cytokine storm is common in these organ donors, resulting in reduced viability of potential donor organs. The potential use of CytoSorb™ hemoperfusion to control cytokine storm in brain dead organ donors could increase the number of viable organs harvested from the donor pool and improve the survival of transplanted organs. A proof-of-concept pilot study using the Company's technology in human brain dead donors has been published.

Products

We believe that the polymer adsorbent technology used in our products has the potential to remove middle molecular weight toxins, such as cytokines, from blood and physiologic fluids. All of the potential applications described below (i.e., the adjunctive treatment and/or prevention of sepsis; the treatment of chronic kidney failure; the treatment of liver failure; the prevention of post-operative complications of cardiopulmonary bypass surgery; and the prevention of damage to organs donated by brain-dead donors prior to organ harvest) share in common high concentrations of toxins in the circulating blood. However, because of the limited studies we have conducted to date, we are subject to substantial risk that our technology will have little or no effect on the treatment of any of these indications. We are currently enrolling patients in a European Sepsis Trial to evaluate our CytoSorb™ device. The study is a randomized,

open label, controlled clinical study in fourteen (14) sites in Germany of up to one hundred (100) patients with acute respiratory distress syndrome or acute lung injury in the setting of sepsis. If these studies are successful, we obtain European regulatory approval, and given sufficient and timely financial resources, we intend to commercialize in Europe. However, there can be no assurance we will ever obtain regulatory approval for CytoSorb™ or any other device.

The CytoSorb™ Device (Critical Care)

APPLICATION: Adjunctive Therapy in the Treatment of Sepsis

Sepsis is a potentially life threatening disease defined as a systemic inflammatory response in the presence of a known or suspected infection. Sepsis is mediated by high levels of toxic compounds ("cytokines"), which are released into the blood stream as part of the body's auto-immune response to severe infection or injury. These toxins cause severe inflammation and damage healthy tissues, which can lead to organ dysfunction and failure. Sepsis is very expensive to treat and has a high mortality rate.

Potential Benefits: To the extent our adsorbent blood purification technology is able to prevent or reduce the accumulation of cytokines in the circulating blood, we believe our products may be able to prevent or mitigate severe inflammation, organ dysfunction and failure in sepsis patients. Therapeutic goals as an adjunctive therapy include reduced ICU and total hospitalization time.

Background and Rationale: We believe that the effective treatment of sepsis is the most valuable potential application for our technology. Severe sepsis (sepsis with organ dysfunction) and septic shock (severe sepsis with persistent hypotension despite fluid resuscitation) carries mortality rates of between 28% and 80%. Death can occur within hours or days, depending on many variables, including cause, severity, patient age and co-morbidities. Researchers estimate that there are approximately one million new cases of sepsis in the U.S. each year; and based on the reported incidence in a number of developed countries, the worldwide incidence is estimated to be 18 million cases annually. The incidence of sepsis is also rising due to:

1) An aging population
2) Increased incidence of antibiotic resistance
3) Increase in co-morbid conditions like cancer and diabetes
4) Increased use of indwelling medical devices that are susceptible to infection

In the U.S. alone, treatment of sepsis costs nearly $18 billion annually. According to the Centers for Disease Control, sepsis is a top ten cause of death in the U.S. The incidence of sepsis is believed to be under-reported as the primary infection (i.e. pneumonia, pyelonephritis, etc.) is often cited as the cause of death.

An effective treatment for sepsis has been elusive. Pharmaceutical companies have been trying to develop drug therapies to treat the condition. With the exception of a single biologic, Xigris® from Eli Lilly, which demonstrated a small improvement in survival in a small segment of the patient population, to our knowledge, all other efforts to date have failed to significantly improve patient survival in the U.S.

We believe that our technology presents a new therapeutic approach in the treatment of sepsis. The potential benefits of blood purification in the treatment of sepsis patients are widely acknowledged by many medical professionals and have been studied using dialysis and hemofiltration technology. These studies, while encouraging, demonstrated that dialysis alone produced only limited benefit to sepsis patients. The reason for this appears to be rooted in a primary limitation of dialysis technology itself: the inability of standard dialysis to effectively and efficiently remove significant quantities of larger toxins from circulating blood. Limited studies of our CytoSorb™ device have provided us with data consistent with our belief that CytoSorb™ has the ability to remove these larger toxins. CytoSorb's™ ability to interact safely with blood (hemocompatibility) has been demonstrated through ISO 10993 testing. Data collected during the "emergency and compassionate use" treatment of a single sepsis patient has been encouraging to us.

CytoSorb™ has been designed to achieve broad-spectrum removal of both pro- and anti-inflammatory cytokines, preventing or reducing the accumulation of high concentrations in the bloodstream. This approach is intended to modulate the immune response without blocking or suppressing the function of any of its mediators. For this reason, researchers have referred to the approach reflected in our technology as 'immunomodulatory' therapy.

Projected Timeline: Previous clinical studies using our BetaSorb™ device in patients with chronic kidney failure have provided valuable data, which underpin the development of the critical care applications for our technology. The BetaSorb™ device has been used in a total of four human pilot studies, involving 20 patients, in the U.S. and Europe. The studies included approximately 345 treatments, with some patients using the device for up to 24 weeks (in multiple treatment sessions lasting up to four hours, three times per week) in connection with the application of our products to patients suffering from chronic kidney failure. The BetaSorb™ device design was also tested on a single patient with bacterial sepsis, producing results that our management has found encouraging and consistent with our belief that our device design is appropriate for more extensive sepsis study.

We are currently approved by the German Ethics Committee to conduct a clinical study of up to 100 patients with acute respiratory distress syndrome or acute lung injury in the setting of sepsis. By December 31, 2009 we had initiated and opened for enrollment a total of fourteen (14) hospital units to participate in our clinical study.

In April 2009, we submitted a protocol revision to expand the options for anti-coagulation that the clinical sites may use, to include a provision for testing of our targeted endpoints in plasma instead of serum, and to increase the total number of patients that may be enrolled from 80 to 100 patients. This revision has been approved by the German Ethics Committee. We believe that the revised protocol will enable more potential sites to participate in the study, and may help accelerate patient enrollment through greater access to potential candidates.

Additionally, we have updated blood sampling and handling procedures to minimize non-device related artifacts that may potentially arise if the samples are not processed appropriately.

To date we have enrolled sixty-six (66) patients in the clinical study. We may enroll up to an additional thirty-four (34) patients. In conducting the German Clinical study we have utilized our CytoSorb™ device in approximately 200 treatments to date with no Serious Adverse Events attributable to the device.

Depending on the pace of patient recruitment, we anticipate completion of our patient enrollment in the second half of 2010 to the first quarter of 2011. Concurrent with the clinical study, we have commenced our preparation for the CE Mark submission process. If these studies are successful, we obtain CE Mark approval, and given sufficient and timely financial resources, management intends to commercialize in Europe.

Because our technology pertains to a medical device, the regulatory pathway and approval process are faster and more straightforward than the process related to the approval of a drug. However, even if we ultimately obtain the CE Mark, because we cannot control the timing of the regulatory approval process, there can be no assurance as to when such approval will be obtained.

APPLICATION: Prevention and treatment of organ dysfunction in brain-dead organ donors to increase the number and quality of viable organs harvested from donors

Potential Benefits: If CytoSorb™ is able to prevent or reduce high-levels of cytokines from accumulating in the bloodstream of brain-dead organ donors, we believe CytoSorb™ will be able to mitigate organ dysfunction and failure, which results from severe inflammation following brain-death. The primary goals for this application are:

- improving the viability of organs which can be harvested from brain-dead organ donors, and
- increasing the likelihood of organ survival following transplant.

Background and Rationale: When brain death occurs, the body responds by generating large quantities of inflammatory cytokines. This process is similar to sepsis. A high percentage of donated organs are never transplanted due to this response, which damages healthy organs and prevents transplant. In addition, inflammation in the donor may damage organs that are harvested and reduce the probability of graft survival following transplant.

There is a shortage of donated organs worldwide, with approximately 100,000 people currently on the waiting list for organ transplants in the United States alone. Because there are an insufficient number of organs donated to satisfy demand, it is vital to maximize the number of viable organs donated, and optimize the probability of organ survival following transplant.

Projected Timeline: Studies have been conducted under a $1 million grant from the Health Resources and Services Administration (HRSA), an agency of the U.S. Department of Health and Human Services. Researchers at the University of Pittsburgh Medical Center and the University of Texas, Houston Medical Center have completed the observational and dosing phases of the project. The results were published in Critical Care Medicine, January 2008. The next phase of this study, the treatment phase, would involve viable donors treated with the CytoSorb™ device. In this phase of the project, viable donors will be treated and the survival and function of organs in transplant recipients will be tracked and measured. We are not currently focusing our efforts on the commercialization of CytoSorb™ for application in organ donors. The treatment phase would be contingent upon further discussion with the FDA and HRSA regarding study design, as well as obtaining additional funding.

APPLICATION: Prevention and treatment of post-operative complications of cardiopulmonary bypass surgery

Potential Benefits: If CytoSorb™ is able to prevent or reduce high-levels of cytokines from accumulating in the blood system during and following cardiac surgery, we anticipate that post-operative complications of cardiopulmonary bypass surgery may be able to be prevented or mitigated. The primary goals for this application are to:

- reduce ventilator and oxygen therapy requirements;
- reduce incidence of multi-organ failure in the peri- and post-operative periods
- reduce length of stay in hospital intensive care units; and
- reduce the total cost of patient care.

Background and Rationale: Due to the highly invasive nature of cardiopulmonary bypass surgery, high levels of cytokines are produced by the body, triggering severe inflammation. If our products are able to prevent or reduce the accumulation of cytokines in a patient’s blood stream, we expect to prevent or mitigate post-operative complications caused by an excessive or protracted inflammatory response to the surgery. While not all patients undergoing cardiac surgery suffer these complications, it is impossible to predict before surgery which patients will be affected.

Projected Timeline: We commissioned the University of Pittsburgh to conduct a study to characterize the production of cytokines as a function of the surgical timeline for cardiopulmonary bypass surgery. An observational study of 32 patients was completed, and information was obtained with respect to the onset and duration of cytokine release. We expect that this information will aid us in defining the appropriate time to apply the CytoSorb™ device to maximize therapeutic impact. We are not currently focusing our efforts on the commercialization of CytoSorb™ for application to cardiac surgery. Upon successful commercialization of the sepsis application, we will pursue the use of our polymer adsorbent technology for other critical care uses, such as cardiopulmonary bypass surgery.

The BetaSorb™ Device (Chronic Care)

APPLICATION: Prevention and treatment of health complications caused by the accumulation of metabolic toxins in patients with chronic renal failure

Potential Benefits: If BetaSorb™ is able to prevent or reduce high levels of metabolic waste products from accumulating in the blood and tissues of long-term dialysis patients, we anticipate that the health complications characteristic to these patients can be prevented or mitigated. The primary goals for this application are to

- improve and maintain the general health of dialysis patients;
- improve the quality of life of these patients
- reduce the total cost of patient care; and
- increase life expectancy.

Background and Rationale: Our BetaSorb™ device is intended for use on patients suffering from chronic kidney failure who rely on long-term dialysis therapy to sustain life. Due to the widely recognized inability of dialysis to remove larger proteins from blood, metabolic waste products, such as Beta-2 microglobulin, accumulate to toxic levels and are deposited in the joints and tissues of patients. Specific toxins known to accumulate in these patients have been linked to their severe health complications, increased healthcare costs, and reduced quality of life.

Researchers also believe that the accumulation of toxins may play an important role in the significantly reduced life expectancy experienced by dialysis patients. In the U.S., the average life expectancy of a dialysis patient is five years. Industry research has identified links between many of these toxins and poor patient outcomes. If our BetaSorb™ device is able to routinely remove these toxins during dialysis and prevent or reduce their accumulation, we expect our BetaSorb™ device to maintain or improve patient health in the long-term. We believe that by reducing the incidence of health complications, the annual cost of patient care will be reduced and life expectancy increased.

The poor health experienced by chronic dialysis patients is illustrated by the fact that in the U.S. alone, more than $20 billion is spent annually caring for this patient population. While the cost of providing dialysis therapy alone is approximately $23,000 per patient per year, the total cost of caring for a patient ranges from $60,000 to more than $120,000 annually due to various health complications associated with dialysis.

Projected Timeline: We have collected a significant amount of empirical data for the development of this application. As the developer of this technology, we had to undertake extensive research, as no comparable technology was available for reference purposes. We have completed several pilot studies, including a clinical pilot of six patients in California for up to 24 weeks in which our BetaSorb™ device removed the targeted toxin, beta2-microglobulin, as expected. In total, we have sponsored clinical studies utilizing our BetaSorb™ device on 20 patients involving approximately 345 total treatments. Each study was conducted by a clinic or hospital personnel with MedaSorb providing technical assistance as requested.

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As discussed above, due to practical and economic considerations, we are focusing our efforts and resources on commercializing our CytoSorb™ device for critical care application. Following commercial introduction of the CytoSorb™ device, we expect to conduct additional clinical studies using the BetaSorb™ device in the treatment of end stage renal disease patients.

Commercial and Research Partners

University of Pittsburgh Medical Center

Two government research grants by the National Institutes of Health (NIH) and Health and Human Services (HHS) have been awarded to investigators at the University of Pittsburgh to explore the use of adsorbent polymers in the treatment of sepsis and organ transplant preservation. Under "SubAward Agreements" with the University of Pittsburgh, we have been developing polymers for use in these studies.

A grant of $1 million was awarded to the University of Pittsburgh Medical Center in 2003. The project seeks to improve the quantity and viability of organs donated for transplant by using CytoSorb™ to detoxify the donor's blood. The observational and dosing phases of the study, involving 30 viable donors and eight non-viable donors, respectively, have been completed. The next phase of this study, the treatment phase, will involve viable donors. We are not currently focusing our efforts on the commercialization of CytoSorb™ for application in organ donors. The treatment phase would be contingent upon further discussion with the FDA and HRSA regarding study design, as well as obtaining additional funding.

In addition, in September 2005, the University of Pittsburgh Medical Center was awarded a grant of approximately $7 million from NIH entitled "Systems Engineering of a Pheresis Intervention for Sepsis (SEPSIS)" to study the use of adsorbent polymer technology in the treatment of severe sepsis. The study, expected to last for a total of five years, commenced in September, 2005 and remains in progress. Under a SubAward Agreement, we are working with researchers at the University of Pittsburgh - Critical Care Medicine Department. Currently, we believe that the only polymers being used in this study are polymers we have developed specifically for use in the study, which are similar to the polymers used in our devices. Under the SubAward Agreement, for each of 2006 and 2007, we received approximately $102,000 for our efforts in support of the grant. Additionally for 2008 and 2009 we received an approximate $59,000 and $80,000, respectively for our supporting efforts. We continue to supply UPMC with new samples based on our adsorbent polymer technology under the same terms as the initial SubAward Agreement, and expect to do so for the duration of the study. UPMC has indicated to us that the amount budgeted for our participation under the study is approximately $65,000, for the final grant period ending September 2010. The amount is subject to change on an annual basis by the NIH, and our continued participation in the study is subject to our performance and an annual review by UPMC.

These grants represent a substantial research cost savings to us and demonstrate the strong interest of the medical and scientific communities in our technology.

Researchers at UPMC have participated in nearly every major clinical study of potential sepsis intervention during the past twenty years. Drs. Derek Angus and John Kellum were investigators for Eli Lilly's sepsis drug, Xigris®. Dr. Kellum, a member of the UPMC faculty since 1994, is the Chairman of our Severe Sepsis and Inflammatory Disease Advisory Board. Dr. Kellum's research interests span various aspects of Critical Care Medicine, but center on critical care nephrology (including acid-base, and renal replacement therapy), sepsis and multi-organ failure, and clinical epidemiology. He is Chairman of the Fellow Research Committee at the University of Pittsburgh Medical Center and has authored more than 70 publications and has received numerous research grants from foundations and industry.

Fresenius Medical Care AG

In 1999, we entered into an exclusive, long-term agreement with Fresenius Medical Care for the global marketing and distribution of our BetaSorb™ device and any similar product we may develop for the treatment of renal disease. We currently intend to pursue our BetaSorb™ product after the commercialization of the CytoSorb™ product. At such time as we determine to proceed with our proposed BetaSorb™ product, if ever, we will need to conduct additional clinical studies using the BetaSorb™ device to obtain European or FDA approval.

Fresenius Medical Care is the world's largest, integrated provider of products and services for individuals with chronic kidney failure. Through its network of more than 2,100 dialysis clinics in North America, Europe, Latin America and Asia-Pacific, Fresenius Medical Care provides dialysis treatment to more than 163,000 patients around the globe. Fresenius Medical Care is also the world's largest provider of dialysis products, such as hemodialysis machines, dialyzers and related disposable products.

Advisory Boards

From time to time our management meets with scientific advisors who sit on our Scientific Advisory Board, our Medical Advisory Board – Critical Care Medicine, and our Medical Advisory Board – Chronic Kidney Failure / Dialysis.

Our Scientific Advisory Board consists of three scientists with expertise in the fields of fundamental chemical research, and polymer research and development.

Our Medical Advisory Board for Severe Sepsis / Inflammatory Disease consists of five medical doctors, one of whom is affiliated with UPMC, with expertise in critical care medicine, sepsis, multi-organ failure and related clinical study design.

Our Medical Advisory Board for Chronic Kidney Failure / Dialysis consists of four medical doctors with expertise in kidney function, kidney diseases and their treatment, and dialysis technology.

We compensate members of our Advisory Boards at the rate of $2,000 for each full-day meeting they attend in person; $1,200 if attendance is by telephone. When we consult with members of our Advisory Board (whether in person or by telephone) for a period of less than one day, we compensate them at the rate of $200 per hour. We also reimburse members of our Advisory Boards for their travel expenses for attending our meetings.

Royalty Agreements

With Principal Stockholder

In August 2003, in order to induce Guillermina Vega Montiel, a principal stockholder of ours, to make a $4 million investment in MedaSorb, we granted Ms. Montiel a perpetual royalty equal to three percent of all gross revenues received by us from sales of CytoSorbTM in the applications of sepsis, cardiopulmonary bypass surgery, organ donor, chemotherapy and inflammation control. In addition, for her investment, Ms. Montiel received 1,230,770 membership units of MedaSorb, which at the time was a limited liability company. Those membership units ultimately became 185,477 shares of our Common Stock following our June 30, 2006 merger.

With Purolite

In 2003, Purolite filed a lawsuit against us asserting, among other things, co-ownership and co-inventorship of certain of our patents. On September 1, 2006, the United States District Court for the Eastern District of Pennsylvania approved a Stipulated Order and Settlement Agreement under which we and Purolite agreed to the settlement of the action. The Settlement Agreement provides us with the exclusive right to use our patented technology and proprietary know how relating to adsorbent polymers for a period of 18 years. In particular, the Settlement Agreement relates to several of our issued patents and several of our pending patent applications covering our biocompatible polymeric resins, our methods of producing these polymers, and the methods of using the polymers to remove impurities from physiological fluids, such as blood.

Under the terms of the Settlement Agreement, we have agreed to pay Purolite royalties of 2.5% to 5% on the sale of those of our products, if and when those products are sold commercially, that are used in direct contact with blood. However, if the first product we offer for commercial sale is a biocompatible polymer to be used in direct contact with a physiological fluid other than blood, royalties will be payable with respect to that product as well. The royalty payments provided for under the Settlement Agreement would apply to our currently envisioned CytoSorb™ and BetaSorb™ products.

Following the expiration of the eighteen year term of the Settlement Agreement, the patents and patent applications that are the subject of the Settlement Agreement should have expired under current patent laws, and the technology claimed in them will be available to the public. However, following such time, we would continue to exclusively own any confidential and proprietary know how.

Product Payment & Reimbursement

Critical Care Applications

Europe

Payment for our CytoSorb™ device for the removal of cytokines in patients with acute respiratory distress syndrome or acute lung injury in the setting of sepsis and other related acute care applications is country dependent in Europe. Once CE Mark approval is obtained for the CytoSorb™ device, we plan to market the device initially in Germany where CytoSorb reimbursement is anticipated to fall under the “diagnosis related group” (DRG) acute care reimbursement. Under this system, hospitals would purchase CytoSorb and subtract the cost from a pre-determined lump-sum payment made by the payor to the hospital based on the patient’s diagnosis. No specific reimbursement code would be required for the CytoSorb device. If we are able to successfully introduce the CytoSorb™ device into the German market we intend to apply for reimbursement in France, Italy and Spain representing the four economic leaders in Europe and introduce our products in those countries accordingly. Reimbursement is specific to each country. There can be no assurances that reimbursement will be granted or that additional clinical data may not be required to establish reimbursement.

United States

As in Germany, payment for our CytoSorb™ device in the US for the treatment and prevention of sepsis and other related acute care applications is anticipated to fall under the DRG in-patient reimbursement system, which is currently the predominant basis of hospital medical billing for acute care medicine in the United States. Under this system, predetermined payment amounts are assigned to categories of medical patients with respect to their treatments at medical facilities based on the DRG that they fall within (which is a function of such characteristics as medical condition, age, sex, etc.) and the length of time spent by the patient at the facility. Reimbursement is not determined by the actual procedures used in the treatment of these patients, and a separate reimbursement decision would not be required to be made by Medicare, the HMO or other provider of medical benefits in connection with the actual method used to treat the patient.

Critical care applications such as those targeted by our CytoSorb™ device involve a high mortality rate and extended hospitalization, coupled with extremely expensive ICU time. In view of these high costs and high mortality rates, we believe acceptance of our proprietary technology by critical care practitioners and hospital administrators will primarily depend on safety and efficacy factors rather than cost.

Chronic Renal Failure

In Europe, chronic dialysis is predominately provided by government supported clinics accounting for approximately 75% of dialysis treatments, with the remainder being provided by private clinics. However, these figures vary widely among countries within Europe. For example dialysis clinics in Denmark and Finland are 100% publicly managed facilities while those in Portugal are 90% privately managed facilities. Generally speaking, dialysis services are always regulated and controlled by the healthcare authorities and not homogeneous between the various European countries.

There are three main types of reimbursement in Europe: budget transfer, fee for service and flat rate. In some cases, the reimbursement method varies within the same country depending on the type of provider (public or private). Europe is similar to the U.S. in that a product such as BetaSorb™ may be part of a composite rate or separate line item reimbursement. In either case, a country by country application for reimbursement must be made.

It is expected that in the U.S., Medicare will be the primary payer for the BetaSorb™ device, either through the current "fee for service" mechanism or managed care programs. The large majority of costs not covered by federal programs are covered by the private insurance sector.

While the fee-for-service composite rate system is currently the dominant payment mechanism, many industry participants believe that a managed care system will become the dominant payment mechanism. We believe that movement to a full or shared-risk managed care system would speed market acceptance of BetaSorb™ because, under such a system, providers will have a strong incentive to adopt technologies that lower overall treatment costs. Fresenius is a leading participant in the move to managed care and may play a leading role in the demonstration and introduction of our product to Medicare.

Competition

General

We believe that our products represent a unique approach to disease states and health complications associated with the presence of larger toxins (often referred to as middle molecular weight toxins) in the bloodstream, including sepsis, post-operative complications of cardiac surgery (cardiopulmonary bypass surgery), damage to organs donated for transplant prior to organ harvest, and renal disease. Researchers have explored the potential of using existing membrane-based dialysis technology to treat patients suffering from sepsis. These techniques are unable to effectively remove the middle molecular weight toxins. We believe that our devices may be able to remove middle molecular weight toxins from circulating blood. This concept has been successfully tested at the University of Pittsburgh using septic rat models with our CytoSorb™ polymer, which were based on lipopolysaccharide (a particular kind of toxin, known as a bacterial endotoxin) and cecal ligation puncture.

Both the CytoSorb™ and BetaSorb™ devices consist of a cartridge containing adsorbent polymer beads. The cartridge incorporates industry standard connectors at either end of the device which connect directly to an extra-corporeal circuit (bloodlines) on a stand alone basis. The extra-corporeal circuit consists of plastic tubing through which the blood flows, our cartridge (CytoSorb™ or BetaSorb™ depending on the condition being treated) containing our adsorbent polymer beads, pressure monitoring gauges, and a blood pump to maintain blood flow. The patient's blood is accessed through a catheter inserted into his or her veins. The catheter is connected to the extra-corporeal circuit and the blood pump draws blood from the patient, pumps it through the cartridge and returns it back to the patient in a closed loop system. As blood passes over the polymer beads in the cartridge, toxins are adsorbed from the blood, without filtering any fluids from the blood or the need for replacement fluid or dialysate.

Although standard dialysis also uses extra-corporeal circuits and blood pumps, the technology used in dialysis to remove toxins (osmosis and convection) drains fluids out of the bloodstream in a process called ultrafiltration, and

uses semi-permeable membranes as a filter, allowing the passage of certain sized molecules across the membrane, but preventing the passage of other, larger molecules.

MedaSorb's technology uses the same extra-corporeal circuits as dialysis, however, our devices do not rely on membrane technology but instead use an adsorbent of specified pore size, which controls the size of the molecules which can pass into the adsorbent. As blood flows over our polymer adsorbent, middle molecules such as cytokines flow into the polymer adsorbent and are adsorbed. Our devices do not use semipermeable membranes or dialysate. In addition, our devices do not remove fluids from the blood like a dialyzer. Accordingly, we believe that our technology has significant advantages as compared to traditional dialysis techniques.

Sepsis

Researchers have explored the potential of using existing membrane-based dialysis technology to treat patients suffering from sepsis. These techniques are unable to effectively remove middle molecular weight toxins, which leading researchers have shown to cause and complicate sepsis. The same experts believe that a blood purification technique that efficiently removes, or significantly reduces, the circulating concentrations of such toxins might represent a successful therapeutic option. We believe that the CytoSorb™ device may have the ability to treat sepsis by the removal of middle molecular weight toxins from circulating blood.

Medical research during the past two decades has focused on drug interventions aimed at chemically blocking or suppressing the function of one or two inflammatory agents. In hindsight, some researchers now believe this approach has little chance of significantly improving patient outcomes because of the complex pathways and multiple chemical factors at play. Clinical studies of these drug therapies have been largely unsuccessful. An Eli Lilly drug, Xigris®, cleared by the FDA in November 2001, is the first and only drug to be approved for the treatment of severe sepsis. Clinical studies demonstrated that use of Xigris® resulted in an average absolute 6% reduction in 28-day mortality, and an absolute 13% reduction in 28-day mortality in the most severe sepsis patients. The drug remains controversial due to potentially dangerous adverse events and questions of efficacy and is considered expensive when compared to the percentage of patients who benefit.

Pharmaceutical research for the treatment of sepsis continues with a number of clinical stage drug trials being presently conducted including, but not limited to, drug and biologic candidates from Eisai, AM-Pharma B.V., Agennix AG and BTG plc. Using a medical device to treat sepsis remains a relatively novel approach for the treatment of sepsis. There are a number of companies that claim enabling blood purification technology for the treatment of sepsis. Toray Industries currently markets an endotoxin removal cartridge called Toraymyxin™ for the treatment of sepsis in Europe and Japan. To date, it has been used to treat more than 70,000 patients since 1994. However, the ability of Toraymyxin to remove cytokines, the key mediators of sepsis, has not been well documented. Spectral Diagnostics, Inc has obtained exclusive development and commercial rights in the U.S. for Toraymyxin, with plans to combine the use of its endotoxin activity assay to create a theranostic product. In March 2010, Spectral announced plans to conduct a U.S. pivotal study to diagnose endotoxemia and treat sepsis with this theranostic product. Toraymyxin has not yet been approved for use in the U.S. Kaneka Corporation currently markets Lixelle™, a modified porous cellulosic bead, for the removal of beta2–microglobulin during hemodialysis in Japan. Lixelle has been used in several small human pilot studies including a 5 patient pilot study in 2002 and a 4 patient pilot study in 2009. Though these studies correlate Lixelle use with cytokine reduction, they are not randomized, controlled studies and so do not control for natural cytokine clearance. To our knowledge, no large, randomized, controlled trials have been conducted with Lixelle as a treatment for sepsis. Kaneka has since developed a modified cellulosic resin called CTR that can also remove cytokines from experimental pre-clinical systems. To our knowledge, Kaneka has not conducted or published any study using CTR to treat human sepsis patients. Ube Industries, LTD is currently developing an adsorbent resin called CF-X for the removal of cytokines. To our knowledge, Ube has not published any study using CF-X to treat human sepsis patients. Other potential competitors include the now defunct Arbios Systems, Inc. Hemolife Medical, Inc. and Hemocleanse Technologies, LLC. We believe our CytoSorb™ cartridge has significant competitive, technological, and economic advantages over systems by these other companies.

Cardiopulmonary Bypass Surgery

We are not aware of any practical competitive approaches for removing cytokines in CPB patients. Alternative therapies such as “off-pump” surgeries are available but “post-bypass” syndrome and cytokine production still remain a problem in this less invasive, but more technically challenging procedure. If successful, CytoSorb™ is expected to be useful in both on-pump and off-pump procedures.

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Chronic Dialysis

Although standard dialysis treatment effectively removes urea and creatinine from the blood stream (which are normally filtered by functioning kidneys), standard dialysis has not been effective in removing beta2-microglobulin toxins from the blood of patients suffering from chronic kidney failure. High flux dialyzers by Gambro, Fresenius, Nephros and others are capable of removing some beta2-microglobulin. However, we believe our technology would significantly improve clearance of this and other toxins. Kaneka markets Lixelle™ outside the US to remove beta2-microglobulin in dialysis patients. We know of no other device, medication or therapy considered directly competitive with our technology. Research and development in the field has focused primarily on improving existing dialysis technologies. The introduction of the high-flux dialyzer in the mid-1980s and the approval of Amgen's Epogen™, a recombinant protein used to treat anemia, are the two most significant developments in the field over the last two decades.

Efforts to improve removal of middle molecular weight toxins with enhanced dialyzer designs have achieved modest success. Many experts believe that dialyzer technology has reached its limit in this respect. A variation of high-flux hemodialysis, known as hemodiafiltration, has existed for many years. However, due to the complexity, cost and increased risks, this dialysis technique is less widely used. In addition, many larger toxins are not effectively filtered by hemodiafiltration, despite its more open pore structure. As a result, hemodiafiltration is expected to be less efficient in large toxin removal compared with the BetaSorb™ device. In terms of resin technology, Kaneka Corporation is the only company currently marketing a resin cartridge (Lixelle) in Japan designed to address this need.

Treatment of Organ Dysfunction in Brain-Dead Organ Donors

We are not aware of any directly competitive products to address the application of our technology for the mitigation of organ dysfunction and failure resulting from severe inflammation following brain-death.

Clinical Studies

Our first clinical studies were conducted in patients with chronic renal failure. The health of these patients is challenged by high levels of toxins circulating in their blood but, unlike sepsis patients, they are not at imminent risk of death. The toxins involved in chronic renal failure are generally different from those involved in sepsis, eroding health gradually over time. The treatment of patients with chronic renal failure is a significant target market for us, although not the current focus of our efforts and resources. Our clinical studies and product development work in this application functioned as a low risk method of evaluating the safety of the technology in a clinical setting, with direct benefit to the development of the critical care applications on which we are now focusing our efforts.

The Company is focusing its research efforts on critical care applications of it technology. We are currently enrolling patients in a European Sepsis clinical study.

We received approval from the German Ethics Committee in October of 2007 to conduct a clinical study of up to 80 patients with acute respiratory distress syndrome or acute lung injury in the setting of sepsis.

In April 2009, we submitted a protocol revision to expand the options for anti-coagulation that the clinical sites may use, and to increase the total number of patients that may be enrolled from 80 to 100 patients. This revision has been approved by the German Ethics Committee. We believe that the revised protocol will enable more potential sites to participate in the study, and may help accelerate patient enrollment through greater access to potential candidates.

Additionally, we have updated blood sampling and handling procedures to minimize non-device related artifacts that may potentially arise if the samples are not processed appropriately.

By December 31, 2009 we had initiated and opened for enrollment a total of fourteen (14) hospital units to participate in our clinical study. To date we have enrolled sixty-six (66) patients in the clinical study. We may enroll up to an additional thirty-four (34) additional patients. In conducting the German Clinical study we have utilized our CytoSorb™ device in approximately 200 treatments to date with no Serious Adverse Events attributable to the device.

Depending on the rate of enrollment, we expect to complete the patient enrollment in the second half of 2010 to the first quarter of 2011. Concurrent with the clinical study, we have commenced our preparation for the CE Mark submission process. Assuming availability of adequate and timely funding, a successful outcome of the study, and CE Mark regulatory approval, the Company intends to commercialize its product in Europe.

Because of the limited studies we have conducted, we are subject to substantial risk that our technology will have little or no effect on the treatment of any indications that we have targeted.

Government Research Grants

Two government research grants by the National Institutes of Health (NIH) and Health and Human Services (HHS) have been awarded to investigators at the University of Pittsburgh to explore the use of adsorbent polymers in the treatment of sepsis and organ transplant preservation. Under “SubAward Agreements” with the University of Pittsburgh, we have been developing polymers for use in these studies.

A grant of $1 million was awarded to the University of Pittsburgh Medical Center in 2003. The project seeks to improve the quantity and viability of organs donated for transplant by using CytoSorb™ to detoxify the donor’s blood. The observational and dosing phases of the study, involving 30 viable donors and eight non-viable donors, respectively, have been completed. The next phase of this study, the treatment phase, will involve viable donors. We are not currently focusing our efforts on the commercialization of CytoSorb™ for application in organ donors. The treatment phase would be contingent upon further discussion with the FDA and HRSA regarding study design, as well as obtaining additional funding.

In addition, in September 2005, the University of Pittsburgh Medical Center was awarded a grant of approximately $7 million from NIH entitled “Systems Engineering of a Pheresis Intervention for Sepsis (SEPsIS)” to study the use of adsorbent polymer technology in the treatment of severe sepsis. The study, expected to last for a total of five years, commenced in September, 2005 and remains in progress. Under a SubAward Agreement, we are working with researchers at the University of Pittsburgh - Critical Care Medicine Department. Currently, we believe that the only polymers being used in this study are polymers we have developed specifically for use in the study, which are similar to the polymers used in our devices. Under the SubAward Agreement, for each of 2006 and 2007, we received approximately $102,000 for our efforts in support of the grant. Additionally for 2008 and 2009 we received an approximate $59,000 and $80,000, respectively for our supporting efforts. We continue to supply UPMC with new samples based on our adsorbent polymer technology under the same terms as the initial SubAward Agreement, and expect to do so for the duration of the study. UPMC has indicated to us that the amount budgeted for our participation under the study is approximately $65,000, for the final grant period ending September 2010. The amount is subject to change on an annual basis by the NIH, and our continued participation in the study is subject to our performance and an annual review by UPMC. These grants represent a substantial research cost savings to us and demonstrate the strong interest of the medical and scientific communities in our technology.

Regulation

The medical devices that we manufacture are subject to regulation by numerous regulatory bodies, including the FDA and comparable international regulatory agencies. These agencies require manufacturers of medical devices to comply with applicable laws and regulations governing the development, testing, manufacturing, labeling, marketing and distribution of medical devices. Devices are generally subject to varying levels of regulatory control, the most comprehensive of which requires that a clinical evaluation program be conducted before a device receives approval for commercial distribution.

In the European Union, medical devices are required to comply with the Medical Devices Directive and obtain CE Mark certification in order to market medical devices. The CE Mark certification, granted following approval from an independent Notified Body, is an international symbol of adherence to quality assurance standards and compliance with applicable European Medical Devices Directives. Distributors of medical devices may also be required to comply with other foreign regulations such as Ministry of Health Labor and Welfare approval in Japan. The time required to obtain these foreign approvals to market our products may be longer or shorter than that required in the U.S., and requirements for those approvals may differ from those required by the FDA.

As discussed above, we intend to initially pursue CE Mark certification for the CytoSorb™ device in conjunction with German clinical studies before continuing with the approval process in the United States.

In the U.S., permission to distribute a new device generally can be met in one of two ways. The first process requires that a pre-market notification (510(k) Submission) be made to the FDA to demonstrate that the device is as safe and effective as, or substantially equivalent to, a legally marketed device that is not subject to pre-market approval (PMA). A legally marketed device is a device that (i) was legally marketed prior to May 28, 1976, (ii) has been reclassified from Class III to Class II or I, or (iii) has been found to be substantially equivalent to another legally marketed device following a 510(k) Submission. The legally marketed device to which equivalence is drawn is known as the “predicate” device. Applicants must submit descriptive data and, when necessary, performance data to establish that the device is substantially equivalent to a predicate device. In some instances, data from human clinical studies must also be submitted in support of a 510(k) Submission. If so, these data must be collected in a manner that conforms with specific requirements in accordance with federal regulations. The FDA must issue an order finding substantial equivalence before commercial distribution can occur. Changes to existing devices covered by a 510(k) Submission which do not significantly affect safety or effectiveness can generally be made by us without additional 510(k) Submissions.

The second process requires that an application for PMA be made to the FDA to demonstrate that the device is safe and effective for its intended use as manufactured. This approval process applies to certain Class III devices. In this case, two steps of FDA approval are generally required before marketing in the U.S. can begin. First, investigational device exemption (IDE) regulations must be complied with in connection with any human clinical investigation of the device in the U.S. Second, the FDA must review the PMA application that contains, among other things, clinical information acquired under the IDE. The FDA will approve the PMA application if it finds that there is a reasonable assurance that the device is safe and effective for its intended purpose.

In the United States, our CytoSorb™ and BetaSorb™ devices are classified as Class III (CFR 876.5870—Sorbent Hemoperfusion System) 510(k) devices, but may require pre-market approval (PMA) by the FDA. In Europe, our devices are classified as Class IIb, and will conform to the ISO 13485 Quality Standard in support of our planned applications to obtain CE Mark certification in Europe.

The process of obtaining clearance to market products is costly and time-consuming in virtually all of the major markets in which we expect to sell products and may delay the marketing and sale of our products. Countries around

the world have recently adopted more stringent regulatory requirements, which are expected to add to the delays and uncertainties associated with new product releases, as well as the clinical and regulatory costs of supporting those releases. No assurance can be given that any of our medical devices will be approved on a timely basis, if at all. In addition, regulations regarding the development, manufacture and sale of medical devices are subject to future change. We cannot predict what impact, if any, those changes might have on our business. Failure to comply with regulatory requirements could have a material adverse effect on our business, financial condition and results of operations.

Exported devices are subject to the regulatory requirements of each country to which the device is exported. Some countries do not have medical device regulations, but in most foreign countries medical devices are regulated. Frequently, regulatory approval may first be obtained in a foreign country prior to application in the U.S. to take advantage of differing regulatory requirements.

Sales and Marketing

We currently estimate, provided that we receive adequate and timely funding to support our planned activities, that our products perform as expected in clinical studies, and that we obtain CE Mark approval of our CytoSorb™ device in the treatment of sepsis, that we will commercialize in Europe. We plan to initiate sales in several European countries, which are known as early adopters of new medical device technology. These countries primarily include German, Italy, France, and Spain. We plan to initially operate through local distributors in each European country where we launch sales operations. Only after establishment of a limited network of local distributors and actual generation of sales, will we formulate a broader distribution strategy on a global basis.

Intellectual Property and Patent Litigation

The medical device market in which we primarily participate is in large part technology driven. As a result, intellectual property rights, particularly patents and trade secrets, play a significant role in product development and differentiation. However, intellectual property litigation to defend or create market advantage is inherently complex, unpredictable and is expensive to pursue. Litigation often is not ultimately resolved until an appeal process is completed and appellate courts frequently overturn lower court patent decisions.

Moreover, competing parties frequently file multiple suits to leverage patent portfolios across product lines, technologies and geographies and to balance risk and exposure between the parties. In some cases, several competitors are parties in the same proceeding, or in a series of related proceedings, or litigate multiple features of a single class of devices. These forces frequently drive settlement not only of individual cases, but also of a series of pending and potentially related and unrelated cases. In addition, although monetary and injunctive relief is typically sought, remedies are generally not determined until the conclusion of the proceedings, and are frequently modified on appeal. Accordingly, the outcomes of individual cases are difficult to time, predict or quantify and are often dependent upon the outcomes of other cases in other forums, both domestic and international.

We rely on a combination of patents, trademarks, trade secrets and non-disclosure agreements to protect our intellectual property. We hold 27 U.S. patents, some of which have foreign counterparts, and additional patent applications pending worldwide that cover various aspects of our technology. There can be no assurance that pending patent applications will result in issued patents, that patents issued to us will not be challenged or circumvented by competitors, or that such patents will be found to be valid or sufficiently broad to protect our technology or to provide us with a competitive advantage.

We also rely on non-disclosure and non-competition agreements with employees, consultants and other parties to protect, in part, trade secrets and other proprietary technology. There can be no assurance that these agreements will not be breached, that we will have adequate remedies for any breach, that others will not independently develop equivalent proprietary information or that third parties will not otherwise gain access to our trade secrets and proprietary knowledge.

Several years ago we engaged in discussions with the Dow Chemical Company, which had indicated a strong interest in being our polymer manufacturer. After a Dow representative on our Advisory Board resigned, Dow filed and received five patents naming our former Advisory Board member as an inventor. These patents, two of which subsequently lapsed for failure to pay maintenance fees, concern the area of coating high divinylbenzene-content polymers to render them hemocompatible, and using such coated polymers to treat blood or plasma. In management's view the Dow patents improperly incorporate our technology, are based on our proprietary technology, and should not have been granted to Dow. While we believe that our own patents would prevent Dow from producing our products as they are currently envisioned, Dow could attempt to assert its patents against us. To date, to our knowledge, Dow has not utilized their patents for the commercial manufacture of products that would be competitive with us, and we currently have no plans to challenge Dow's patents. However, the existence of these Dow patents could result in a potential dispute with Dow in the future and additional expenses for us.

We may find it necessary to initiate litigation to enforce our patent rights, to protect our trade secrets or know-how and to determine the scope and validity of the proprietary rights of others. Patent litigation can be costly and time-consuming, and there can be no assurance that our litigation expenses will not be significant in the future or that the outcome of litigation will be favorable to us. Accordingly, we may seek to settle some or all of our pending litigation described below. Settlement may include cross-licensing of the patents which are the subject of the litigation as well as our other intellectual property and may involve monetary payments to or from third parties.

Employees

As of December 31, 2009, we had seven employees. None of our employees are represented by a labor union or are subject to collective-bargaining agreements. We believe that we maintain good relationships with our employees.

DESCRIPTION OF PROPERTY

We operate a 6,575 sq. ft. facility near Princeton, New Jersey, housing research laboratories, clinical manufacturing operations and administrative offices. In the opinion of management, the leased properties are adequately insured, are in good condition and suitable for the conduct of our business. We also collaborate with numerous institutions, universities and commercial entities who conduct research and testing of our products at their facilities. Our principal place of business is at 7 Deer Park Drive, Suite K, Monmouth Junction, New Jersey 08852.

DESCRIPTION OF LEGAL PROCEEDINGS

We are currently not involved, but may at times be involved in various claims and legal actions. Management is currently of the opinion that these claims and legal actions would have no merit, and any ultimate outcome will not have a material adverse impact on the consolidated financial position of the Company and/or the results of its operations.

In February 2008, Alkermes, Inc. commenced an action against us in the United States District Court for the District of Massachusetts, alleging that our use of the name MedaSorb infringes on Alkermes' registered trademark "MEDISORB." In the action, Alkermes sought an injunction against our further use of the name MedaSorb. Pursuant to a Settlement Agreement dated June 18, 2008, to avoid any potential confusion with Alkermes' similarly named product, the Company has ceased using the "MedaSorb" name in its wholly-owned subsidiary, through which the Company conducts all of its operational activities, and renamed our operating subsidiary CytoSorbents, Inc. as of November 2008. In May 2010 the Company has finalized the change of the parent company name from MedaSorb Technologies Corporation to CytoSorbents Corporation.

MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Our Common Stock began trading on the OTCBB on August 9, 2006 under the symbol “MSBT”. It currently trades under the symbol “CTSO.” Our Common Stock began trading on such market on August 9, 2006. The quotations listed below reflect inter-dealer prices, without retail mark-ups, mark-downs or commissions and may not necessarily represent actual transactions.

	Price	
	High	Low
2008		
First quarter	$ 0.32	$ 0.15
Second quarter	$ 0.23	$ 0.10
Third quarter	$ 0.20	$ 0.07
Fourth quarter	$ 0.17	$ 0.03
2009		
First quarter	$ 0.21	$ 0.08
Second quarter	$ 0.16	$ 0.05
Third quarter	$ 0.20	$ 0.04
Fourth quarter	$ 0.44	$ 0.13
2010		
First quarter	$ 0.30	0.14

The Securities and Exchange Commission has adopted Rule 15g-9 which establishes the definition of a “penny stock,” for purposes relevant to us, as any equity security that has a market price of less than $5.00 per share or with an exercise price of less than $5.00 per share, subject to certain exceptions. For any transaction involving a penny stock, unless exempt, the rules require: (i) that a broker or dealer approve a person’s account for transactions in penny stocks and (ii) the broker or dealer receive from the investor a written agreement to the transaction, setting forth the identity and quantity of the penny stock to be purchased. In order to approve a person’s account for transactions in penny stocks, the broker or dealer must (i) obtain financial information and investment experience and objectives of the person; and (ii) make a reasonable determination that the transactions in penny stocks are suitable for that person and that person has sufficient knowledge and experience in financial matters to be capable of evaluating the risks of transactions in penny stocks. The broker or dealer must also deliver, prior to any transaction in a penny stock, a disclosure schedule prepared by the Commission relating to the penny stock market, which, in highlight form, (i) sets forth the basis on which the broker or dealer made the suitability determination and (ii) that the broker or dealer received a signed, written agreement from the investor prior to the transaction. Disclosure also has to be made about the risks of investing in penny stocks in both public offerings and in secondary trading, and about commissions payable to both the broker-dealer and the registered representative, current quotations for the securities and the rights and remedies available to an investor in cases of fraud in penny stock transactions. Finally, monthly statements have to be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks.

The number of holders of record for our Common Stock as of May 28, 2010 was approximately 330. This number excludes individual stockholders holding stock under nominee security position listings.

Dividends

We have not paid any cash dividends on our Common Stock and do not anticipate declaring or paying any cash dividends in the foreseeable future.

MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

These unaudited condensed consolidated financial statements and management’s discussion should be read in conjunction with the audited financial statements of the Company and the notes thereto as of and for the year ended December 31, 2009 as included in the Company’s Form 10-K filed with the Securities and Exchange Commission (the “Commission”) on April 9, 2010.

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Plan of Operations

We are a development stage company and expect to remain so for at least the next several quarters. We have not generated revenues to date and do not expect to do so until we commercialize and receive the necessary regulatory approvals to sell our proposed products. We will seek to commercialize a blood purification technology that efficiently removes middle molecular weight toxins from circulating blood and physiologic fluids.

We are focusing our efforts on the commercialization of our CytoSorb™ product. The first indication for CytoSorb™ will be in the adjunctive treatment of sepsis (bacterial infection of the blood), which causes systemic inflammatory response syndrome. CytoSorb™ has been designed to prevent or reduce the accumulation of high concentrations of cytokines in the bloodstream associated with sepsis. It is intended for short term use as an adjunctive device to the standard treatment of sepsis. To date, we have manufactured the CytoSorb™ device on a limited basis for testing purposes, including for use in clinical studies. We believe that current state of the art blood purification technology (such as dialysis) is incapable of effectively clearing the toxins intended to be adsorbed by our CytoSorb™ device.

Following the sepsis indication, we intend to continue our research in other acute conditions where CytoSorb™ has indicated potential in preliminary studies to prevent or reduce the accumulation of cytokines in the bloodstream. These conditions include, but are not limited to, the prevention of post-operative complications of cardiac surgery (cardiopulmonary bypass surgery), damage to organs donated for transplant prior to organ harvest, and removing drugs from blood.

In December 2006, we submitted a proposed pilot study for approval to the FDA with respect to our CytoSorb™ device. In the first quarter of 2007, we received FDA approval of our IDE application to conduct a limited study of five patients in the adjunctive treatment of sepsis. Based on management's belief that proceeding with the approved limited study would add at least one year to the approval process for the United States, we made a determination to focus our efforts on obtaining regulatory approval in Europe before proceeding with the FDA.

We estimate that the market potential in Europe for our products is substantially equivalent to that in the U.S. Given the opportunity to conduct a much larger clinical study in Europe, and management's belief that the path to a CE Mark should be faster than FDA approval, we have targeted Europe as the introductory market for our CytoSorb™ product. In July 2007 we prepared and filed a request for a clinical trial with a German Central Ethics Committee. We received approval of the final study design in October of 2007.

We are currently approved by the German Ethics Committee to conduct a clinical study of up to 100 patients with acute respiratory distress syndrome or acute lung injury in the setting of sepsis. The primary endpoint of our clinical trial is cytokine reduction and is the basis of a planned CE Mark application to approve our device for clinical use in Europe.

After reviewing the initial cytokine data from the first 22 patients enrolled in our original protocol, our medical advisors recommended revisions to our protocol to minimize non-device related artifacts that may potentially arise if the samples are not processed or handled appropriately. The revisions to the protocol also include a provision for testing of our targeted endpoints in plasma instead of serum, changes in cytokine processing and analysis, additional options for anti-coagulation that the clinical sites may use, and an increase in the number of patients we may enroll into the study from 80 to 100.

These changes are intended to optimize the accuracy of our cytokine data for CE Mark submission. The proposed protocol changes and rationale for change were submitted to the German Ethics Committee and approved. Given these changes, cytokine data will not be statistically comparable between these first 22 patients and those enrolled subsequently in the study. While the company will continue to review all patient data in the aggregate, including secondary and exploratory endpoints, the primary use of the data from the first 22 patients will be used to support the

planned CE Mark application from a safety perspective. Cytokine data from all patients enrolled subsequent to these first 22 patients, as well as safety data on all patients enrolled in the study, will be used for submission to the CE Mark authority.

While we are currently observing an improvement in our enrollment rate, to date patient enrollment has been slower than originally anticipated. The Company has taken a number of steps to improve recruitment, the most significant of which is the increase in the number of our clinical trial sites. With more sites actively seeking to enroll patients, we expect the patient enrollment rate to continue to increase going forward.

By December 31, 2009 we had initiated and opened for enrollment a total of fourteen (14) hospital units to participate in our clinical study. To date the Company has enrolled sixty six (66) patients in the clinical study. We may enroll up to an additional thirty four (34) patients. In conducting the German Clinical study we have utilized our CytoSorb™ device in approximately 200 treatments to date with no Serious Adverse Events attributable to the device.

Depending on the rate of enrollment, we expect to complete the patient enrollment between the second half of 2010 to the first quarter of 2011. Concurrent with the clinical study, we have commenced our preparation for the CE Mark submission process. Assuming availability of adequate and timely funding, a successful outcome of the study, and CE Mark regulatory approval, the Company intends to commercialize its product in Europe.

The clinical protocol for our European clinical study has been designed to allow us to gather information to support future U.S. studies. In the event we receive the CE Mark and are able to successfully commercialize our products in the European market, we will review our plans for the United States to determine whether to conduct clinical trials in support of 510(k) or PMA registration. No assurance can be given that our proposed CytoSorb™ product will work as intended or that we will be able to obtain CE Mark (or FDA) approval to sell CytoSorb™. Even if we ultimately obtain CE Mark approval, because we cannot control the timing of responses from regulators to our submissions, there can be no assurance as to when such approval will be obtained.

Results of Operations

For the three months ended March 31, 2010 and 2009

Our research and development costs were, $681,215 and $488,555, for the three months ended March 31, 2010 and 2009 respectively. We have experienced substantial operating losses since inception. As of March 31, 2010, we had an accumulated deficit of $80,652,936, which included losses of $969,051 for the three month period ended March 31, 2010. In comparison, we had losses of $760,151 for the three month period ended March 31, 2009. Historically, our losses have resulted principally from costs incurred in the research and development of our polymer technology, and general and administrative expenses, which together were $894,845 and $716,889 for the three month periods ended March 31, 2010 and 2009, respectively.

For the years ended December 31, 2009 and 2008

Our research and development costs were $1,961,960 and $1,983,483 for the years ended December 31, 2009 and 2008, respectively. We have experienced substantial operating losses since inception. As of December 31, 2009, we had an accumulated deficit of $78,902,521, which included net losses of $2,736,715 and $3,017,890 for the years ended December 31, 2009 and December 31, 2008 respectively. Historically, our losses have resulted principally from costs incurred in the research and development of our polymer technology, and general and administrative expenses, which together were $2,719,410 and $2,892,855 for the years ended December 31, 2009 and December 31, 2008 respectively. Legal, financial, and other consulting costs were $307,952 and $351,357 for the years ended December 31, 2009 and 2008, respectively.

Interest (income) expense, net, in the amounts of $8,142 and $22,207 include interest and dividend income in the amounts of $10,484 and $25,162 for the years ended December 31, 2009 and 2008, respectively.

Liquidity and Capital Resources

Since inception, our operations have been financed through the private placement of our debt and equity securities. At December 31, 2009 we had cash of $1,595,628. As of March 31, 2010 we had cash on hand of $1,346,301, and current liabilities of $1,320,771.

We believe that we have sufficient cash to fund our operations into the third quarter of 2010, following which we will need additional funding before we can complete our clinical studies and commercialize our products. Assuming we are successful in receiving SEC approval for this registration statement, we believe that we will be able to receive ongoing funding per the terms of this purchase agreement. The agreement with LPC has the potential to significantly extend the time that we may be able to fund our operations. However, we cannot sell any shares of our common stock to LPC in the event that the price is below $0.10. As of May 28, 2010, the market price of our stock was $0.07. Accordingly we cannot sell any shares of our common stock to LPC until the price is again at or above $0.10. We will continue to seek funding for the long term needs of the Company. There can be no assurance that financing will be available on acceptable terms or at all. If adequate funds are unavailable, we may have to suspend, delay or eliminate one or more of our research and development programs or product launches or marketing efforts or cease operations.

CHANGES IN AND DISAGREEMENTS WITH ACCOUTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

There have been no changes in or disagreements with our accountants on accounting or financial disclosure matters.

DIRECTORS AND EXECUTIVE OFFICERS

The following table sets forth our directors and executive officers, their ages and the positions they hold:

Name	Age	Position
Phillip Chan, MD, Ph.D	40	President and Chief Executive Officer, Director
Al Kraus	65	Chairman of the Board
Joseph Rubin, Esq.	71	Director
Edward R. Jones, MD, MBA	61	Director
James Gunton	43	Director
David Lamadrid	39	Chief Financial Officer
Vincent Capponi	52	Chief Operating Officer
Robert Bartlett	70	Chief Medical Officer

Phillip Chan, MD, PhD. Dr. Chan became a director of CytoSorbents in 2008 and since January 2009 is also Chief Executive Officer. Prior to CytoSorbents, Dr. Chan led healthcare and life science investments as Partner for the NJTC Venture Fund. Dr. Chan co-founded Andrew Technologies, a medical device company developing novel surgical instruments for plastic surgery and continues as a Board Director. He is a Board-certified Internal Medicine physician with a strong background in clinical medicine and research. Dr. Chan received his MD and PhD from the Yale University School of Medicine and completed his Internal Medicine residency at Beth Israel Deaconess Medical Center at Harvard. He also holds a BS in cell and molecular biology from Cornell University.

Al Kraus. Mr. Kraus has been a director of CytoSorbents since 2003 and up until the end of 2008 was the Company’s President and CEO. Mr. Kraus currently serves as Chairman of the Board of Directors. Mr. Kraus has more than twenty-five years’ experience managing companies in the dialysis, medical device products, personal computer and

custom software industries. Prior to joining us, from 2001 to 2003, Mr. Kraus was President and CEO of NovoVascular Inc., an early stage company developing coated stent technology. From 1996 to 1998, Mr. Kraus was President and CEO of Althin Healthcare and from 1998 to 2000, of Althin Medical Inc., a manufacturer of products for the treatment of end stage renal disease. While CEO of Althin, he provided strategic direction and management for operations throughout the Americas. From 1979 to 1985, Mr. Kraus was U.S. Subsidiary Manager and Chief Operating Officer of Gambro Inc., a leading medical technology and healthcare company. Mr. Kraus was the Chief Operating Officer of Gambro when it went public in the United States in an offering led by Morgan Stanley.

Joseph Rubin, Esq. Mr. Rubin became a director of CytoSorbents in 1997. Mr. Rubin is a founder and Senior Partner of, Rubin & Bailin, LLP an international and domestic corporate and commercial law firm in New York City, where he has practiced law since 1986. Mr. Rubin also taught at the Columbia University School of International and Public Affairs, where he was also Executive Director of the International Technical Assistance Program for Public Affairs (ITAP). Mr. Rubin was Adjunct Professor at the Columbia University Graduate School of Business from 1973 to 1994, and taught at Columbia Law School in 1996. Mr. Rubin received his law degree from Harvard Law School, and his B.A., MIA, and M.Phil degrees in political science and international relations from Columbia University.

Edward R. Jones, MD, MBA. Dr. Jones has been a director of ours since April 2007. Dr. Jones is an attending physician at the Albert Einstein Medical Center and Chestnut Hill Hospital as well as Clinical Professor of Medicine at Temple University Hospital. Dr. Jones has published or contributed to the publishing of 30 chapters, articles, and abstracts on the subject of treating kidney-related illnesses. He is a sixteen-year member of the Renal Physicians Association, the Philadelphia County Medical Society and a past board member of the National Kidney Foundation of the Delaware Valley. Dr. Jones is also the President of the Renal Physicians Association.

James Gunton. Mr. Gunton became a director of CytoSorbents in 2008. He is a cofounder of the NJTC Venture Fund. Mr. Gunton has been investing in privately-held growth technology companies for fifteen years. Before co-founding in 2001 the $80 million NJTC Venture Fund, Jim was a manager at Oracle Corporation in the Silicon Valley. He represents NJTC Venture Fund at nine portfolio companies and is a former Governor of the National Association of Small Business Investment Companies. Jim earned a BS from Stanford University and an MBA with distinction from Duke University.

David Lamadrid. Mr. Lamadrid joined CytoSorbents as Vice President of Finance in 2000 and has served as its Chief Financial Officer since October 2002. He has over 17 years of business experience in finance and operations. Prior to joining CytoSorbents in 2000, Mr. Lamadrid was a financial analyst at Chase Manhattan Bank working in the Middle Market Banking Group. Mr. Lamadrid received his MBA from New York University, a BS in Finance from St. John’s University, and an AAS in Accounting from S.U.N.Y. Rockland.

Vincent Capponi. Mr. Capponi joined CytoSorbents as Vice President of Operations in 2002 and became its Chief Operating Officer in July 2005. He has more than 20 years of management experience in medical device, pharmaceutical and imaging equipment at companies including Upjohn, Sims Deltec and Sabratek. Prior to joining MedaSorb in 2002, Mr. Capponi held several senior management positions at Sabratek and its diagnostics division GDS, and was interim president of GDS diagnostics in 2001. From 1998 to 2000, Mr. Capponi was Senior Vice President and Chief Operating Officer for Sabratek and Vice President Operations from 1996 to 1998. He received his MS in Chemistry and his BS in Chemistry and Microbiology from Bowling Green State University.

Robert Bartlett, MD. Dr. Bartlett became our Chief Medical Officer in January 2009. He is Professor Emeritus of Surgery at the University of Michigan Health System. Prior to becoming Professor Emeritus in 2005, Dr. Bartlett was Director of the Surgical Intensive Care Unit, Chief of the Trauma/Clinical Care Division and Director of the Extracorporeal Life Support Program at the University of Michigan Medical Center. Dr. Bartlett was the pioneer in the development of the extracorporeal membrane oxygenation machine (ECMO), used to oxygenate blood in critically ill patients worldwide. He received his MD from the University of Michigan Medical School, cum laude. He completed his general surgery residency at Peter Bent Brigham Hospital in Boston, and was Chief resident in thoracic surgery. Dr. Bartlett was also a NIH Trainee in Academic Surgery at Harvard Medical School, and was previously faculty at the University of California, Irvine. Dr. Bartlett is the recipient of 26 separate research grants, 14 from the National Institute of Health, including an RO1 grant for the development of a totally artificial lung. He has also received numerous national and international awards for his contributions to critical care medicine.

Audit Committee Financial Expert

We do not have an Audit Committee, and therefore do not have an “audit committee financial expert.”

EXECUTIVE COMPENSATION

The following table shows for the fiscal year ended December 31, 2009, compensation awarded to or paid to, or earned by, our Chief Executive Officer, our Chief Operating Officer, our Chief Financial Officer, and our Chief Medical Officer (the “ Named Executive Officers ”).

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option Awards (1) ($)	Total ($)
Phillip Chan					
Chief Executive Officer	2009	216,351	-0-	12,971(2)	229,322
Vincent Capponi,					
Chief Operating Officer	2009	205,303	200	510(3)	206,013
	2008	195,527	150	155,795(4)	351,472
	2007	195,527	-0-	-0-	195,527
David Lamadrid,					
Chief Financial Officer	2009	189,992(9)	200	510(5)	190,702
	2008	157,630	150	196,555(6)	354,335
	2007	145,801	-0-	137,781(7)	283,582
Dr. Robert Bartlett					
Chief Medical Officer	2009	50,000	-0-	73(8)	50,073

(1) The value of option awards granted to the Named Executive Officers has been estimated pursuant to recognition requirements of accounting standards for accounting for stock-based compensation for the options described in the footnotes below, except that for purposes of this table, we have assumed that none of the options will be forfeited. The Named Executive Officers will not realize the estimated value of these awards in cash until these awards are vested and exercised or sold. For information regarding our valuation of option awards, see “Stock-Based Compensation” in Note 2 of our financial statements for the period ended December 31, 2009.

(2) Reflects options to purchase 2,503,858 shares of Common Stock at an exercise price of $0.084 per share, which were granted on January 8, 2009 and expire on January 8, 2019. This option vested and became exercisable as to 1,251,929 shares on the date of grant, and vested and became exercisable as to 1,251,929 shares on January 8, 2010.

(3) Reflects options to purchase 400,000 shares of Common Stock at an exercise price of $0.168 per share, which were granted on January 28, 2009 and expire on January 28, 2019. This option vested and became exercisable as to 100,000 shares on the date of grant, vested and became exercisable as to 100,000 shares on January 28, 2010, vests and becomes exercisable as to 100,000 shares on January 28, 2011, and vests and becomes exercisable as to 100,000 shares on January 28, 2012.

(4) Reflects options to purchase 1,100,000 shares of Common Stock at an exercise price of $0.25 per share, which were granted on January 16, 2008 and expire on January 16, 2018. This option vested and became exercisable as to 366,666 shares on the date of grant, vested and became exercisable as to 366,667 shares on January 16, 2009; and vested and became exercisable as to 366,667 shares on January 16, 2010. Reflects options to purchase 2,250,000 shares of Common Stock at an exercise price of $0.035 per share, which were granted on June 25, 2008 and expire on June 25, 2018. This option vested and became exercisable as to 562,500 shares on the date of grant, vested and became exercisable as to 562,500 shares on June 25, 2009, vests and becomes exercisable as to 562,500 shares on June 25, 2010, and vests and becomes exercisable as to 562,500 shares on June 25, 2011.

(5) Reflects options to purchase 400,000 shares of Common Stock at an exercise price of $0.168 per share, which were granted on January 28, 2009 and expire on January 28, 2019. This option vested and became exercisable as to 100,000 shares on the date of grant, vested and became exercisable as to 100,000 shares on January 28, 2010, vests and becomes exercisable as to 100,000 shares on January 28, 2011, and vests and becomes exercisable as to 100,000 shares on January 28, 2012.

(6) Reflects options to purchase 1,400,000 shares of Common Stock at an exercise price of $0.25 per share, which were granted on January 16, 2008 and expire on January 16, 2018. This option vested and became exercisable as to 466,667 shares on the date of grant, vested and became exercisable as to 466,667 shares on January 16, 2009; and vested and became exercisable as to 466,666 shares on January 16, 2010. Reflects options to purchase 2,750,000 shares of Common Stock at an exercise price of $0.035 per share, which were granted on June 25, 2008 and expire on June 25, 2018. This option vested and became exercisable as to 687,500 shares on the date of grant, vested and became exercisable as to 687,500 shares on June 25, 2009, vests and becomes exercisable as to 687,500 shares on June 25, 2010, and vests and becomes exercisable as to 687,500 shares on June 25, 2011.

(7) Reflects options to purchase 150,000 shares of Common Stock at an exercise price of $1.90 per share, which were granted on January 16, 2007 and expire on January 16, 2017. This option vested and became exercisable as to 50,000 shares on the date of grant, vested and became exercisable as to 50,000 shares on January 16, 2008; and vested and became exercisable as to 50,000 shares on January 16, 2009.

(8) Reflects options to purchase 50,000 shares of Common Stock at an exercise price of $0.084 per share, which were granted on January 8, 2009 and expire on January 8, 2014. This option vested and became exercisable as to 12,500 shares on January 8, 2010, vests and becomes exercisable as to 12,500 shares on January 8, 2011; vests and becomes exercisable as to 12,500 shares on January 8, 2012, and vests and becomes exercisable as to 12,500 shares on January 8, 2013.

(9) Amount includes payments in the approximate amount of $14,992 for certain other expenses pursuant to an employment agreement.

Outstanding Equity Awards at Fiscal Year End

The following table shows for the fiscal year ended December 31, 2009, certain information regarding outstanding equity awards at fiscal year end for the Named Executive Officers.

Outstanding Equity Awards At December 31, 2009

	Option Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Phillip Chan	15,000		0.08(1)	12/31/18
	1,251,929	1,251,929	0.084(2)	1/8/19
Vincent Capponi	50,000		1.65(1)	12/31/16
	733,333	366,667	0.25(3)	01/16/18
	1,125,000	1,125,000	0.035(4)	06/25/18
	100,000	300,000	0.168(5)	01/28/19
David Lamadrid	150,000		1.90(1)	01/16/17
	933,333	466,667	0.25(6)	01/16/18
	1,375,000	1,375,000	0.035(7)	06/25/18
	100,000	300,000	0.168(8)	01/28/19
Robert Bartlett		50,000	0.084(9)	01/08/14

(1) Fully vested

(2) Vests and becomes exercisable as to (i) 1,251,929 shares on January 8, 2009; and (ii) 1,251,929 shares on January 8, 2010.

(3) Vests and becomes exercisable as to (i) 366,666 shares on January 16, 2008; (ii) 366,667 shares on January 16, 2009; and (iii) 366,667 shares on January 16, 2010.

(4) Vests and becomes exercisable as to (i) 562,500 shares on June 25, 2008; (ii) 562,500 shares on June 25, 2009; (iii) 562,500 shares on June 25, 2010; and (iv) 562,500 shares on June 25, 2011.

(5) Vests and becomes exercisable as to (i) 100,000 shares on January 28, 2009; (ii) 100,000 shares on January 28, 2010; (iii) 100,000 shares on January 28, 2011; and (iv) 100,000 shares on January 28, 2012.

(6) Vests and becomes exercisable as to (i) 466,666 shares on January 16, 2008; (ii) 466,667 shares on January 16, 2009; and (iii) 466,667 shares on January 16, 2010.

(7) Vests and becomes exercisable as to (i) 687,500 shares on June 25, 2008; (ii) 687,500 shares on June 25, 2009; (iii) 687,500 shares on June 25, 2010; and (iv) 687,500 shares on June 25, 2011.

(8) Vests and becomes exercisable as to (i) 100,000 shares on January 28, 2009; (ii) 100,000 shares on January 28, 2010; (iii) 100,000 shares on January 28, 2011; and (iv) 100,000 shares on January 28, 2012.

(9) Vests and becomes exercisable as to (i) 12,500 shares on January 8, 2010; (ii) 12,500 shares on January 8, 2011; (iii)12,500 shares on January 8, 2012 and (iv) 12,500 shares on January 8, 2013.

Director Compensation

The following table shows for the fiscal year ended December 31, 2009 certain information with respect to the compensation of all non-employee directors of the Company.

Director Compensation for Fiscal 2009

Name	Fees Earned or Paid in Cash ($)	Option Awards ($) (1)	Total ($)
Joseph Rubin	8,000	230(2)(3)	8,230
Edward R. Jones	8,000	230(2)(4)	8,230
James Gunton	—	—(5)	—
Al Kraus	20,000	1,840(6)	21,840
Phillip Chan (7)	—	—	—

(1) The value of option awards granted to directors has been estimated pursuant to SFAS No. 123(R) for the options described in the footnotes below, except that for purposes of this table, we have assumed that none of the options will be forfeited. The directors will not realize the estimated value of these awards in cash until these awards are vested and exercised or sold. For information regarding our valuation of option awards, see "Stock-Based Compensation" in Note 2 of our financial statements for the period ended December 31, 2009.

(2) Fully vested

(3) At December 31, 2009, in connection with his service as a director we had issued Mr. Rubin the following: options to purchase 21,098 shares of our Common Stock at an exercise price of $31.52 per share, which were granted on June 30, 2006 and expire on December 13, 2010; options to purchase 5,274 shares of our Common Stock at an exercise price of $21.57 per share, which were granted on June 30, 2006 and expire on January 26, 2012; options to purchase 3,014 shares of our Common Stock at an exercise price of $21.57 per share, which were granted on June 30, 2006 and expire on December 11, 2012; options to purchase 753 shares of our Common Stock at an exercise price of $21.57 per share, which were granted on June 30, 2006 and expire on December 28, 2013; options to purchase 1,507 shares of our Common Stock at an exercise price of $6.64 per share, which were granted on June 30, 2006 and expire on December 29, 2014; options to purchase 10,000 shares of our Common Stock at an exercise price of $1.25 per share, which were granted on June 30, 2006 and expire on January 30, 2016; options to purchase 15,069 shares of our Common Stock at an exercise price of $1.25 per share, which were granted on June 30, 2006 and expire on June 12, 2016; options to purchase 5,000 shares of our Common Stock at an exercise price of $1.25 per share, which were granted on August 1, 2006 and expire on August 1, 2016; options to purchase 10,000 shares of our Common Stock at an exercise price of $0.22 per share, which were granted on December 31, 2007 and expire on December 31, 2017; options to purchase 45,000 shares of our Common Stock at an exercise price of $0.035 per share, which were granted on June 25, 2008 and expire on June 25, 2018; options to purchase 30,000 shares of our Common Stock at an exercise price of $0.08 per share, which were granted on December 31, 2008 and expire on December 31, 2018; and options to purchase 100,000 shares of our Common Stock at an exercise price of $0.166 per share, which were granted on December 31, 2009 and expire on December 31, 2019.

(4) At December 31, 2009, in connection with his service as a director we had issued Dr. Jones the following: options to purchase 7,500 shares of our Common Stock at an exercise price of $0.22 per share, which were granted on December 31, 2007 and expire on December 31, 2017; options to purchase 45,000 shares of our Common Stock at an exercise price of $0.035 per share, which were granted on June 25, 2008 and expire on June 25, 2018; and options to purchase 30,000 shares of our Common Stock at an exercise price of $0.08 per share, which were granted on December 31, 2008 and expire on December 31, 2018; and options to purchase 100,000 shares of our Common Stock at an exercise price of $0.166 per share, which were granted on December 31, 2009 and expire on December 31, 2019.

(5) As of December 31, 2009, in connection with his service as a director we had issued Mr. Gunton the following: options to purchase 15,000 shares of our Common Stock at an exercise price of $0.08 per share, which were granted on December 31, 2008 and expire on December 31, 2018. In connection with Mr. Gunton's service as a director in 2009, the NJTC Venture Fund was entitled to receive options to purchase 108,000 shares of our Common Stock. These options were issued on January 1, 2010 with an exercise price of $0.166 per share and expire on January 1, 2020.

(6) At December 31, 2009, in connection with his service as a director we had issued Mr. Kraus the following: options to purchase 200,000 shares of our Common Stock at an exercise price of $0.084 per share, which were granted on January 8, 2009 and expire on January 8, 2019; and options to purchase 100,000 shares of our Common Stock at an exercise price of $0.166 per share, which were granted on December 31, 2009 and expire on December 31, 2019.

(7) Effective July 24, 2008, Dr. Chan was appointed to the Company's Board of Directors and Compensation Committee. Effective January 1, 2009, Dr. Chan entered into an employment agreement becoming interim Chief Executive Officer of the Company. In January 2009, Dr. Chan resigned his position as a member on the Compensation Committee. During 2009 Dr. Chan was an employee Director and was not eligible to receive compensation for Director services.

In 2007, we approved arrangements under which each non-employee director receives a fee of $2,000 for each Board meeting attended in person and a fee of $1,000 for each Board meeting participated in by telephone. In addition, our Board approved a policy under which each non-employee director will be eligible to be issued options to purchase up to 10,000 shares of our Common Stock on December 31, 2007 based on attendance at quarterly Board meetings held during 2007. Such options will be exercisable at the closing price of our Common Stock on the date of grant. Our directors are also reimbursed for actual out-of-pocket expenses incurred by them in connection with their attendance at meetings of the Board of Directors.

In 2008, the Board approved the issuance to each non-employee director, with the exception of the Chairman, options to purchase up to 30,000 shares of Common Stock on December 31, 2008 based on attendance at quarterly Board meetings held during 2008.

In 2009, the Board approved the issuance to each non-employee director, with the exception of the Chairman, options to purchase up to 100,000 shares of Common Stock on December 31, 2009 based on attendance at quarterly Board meetings held during 2009.

In connection with his appointment as Chairman of the Board in January 2009, we agreed to compensate Mr. Kraus at the rate of $20,000 per annum, and on January 8, 2009 we issued Mr. Kraus a ten year option to purchase 200,000 shares of our Common Stock at a price of $0.084 per share. In December 2009 we issued Mr. Kraus an additional option to purchase 100,000 shares of Common Stock at an exercise price of $0.166 per share. Additionally for services performed as Chief Executive Office of the company through December 31, 2008, the Board approved a 10 year option to purchase 450,000 shares of our Common Stock at a price of $0.168 per share on January 28, 2009.

In 2010, the Board approved the issuance to each non-employee director, with the exception of the Chairman, options to purchase up to 100,000 shares of Common Stock to be issued on December 31, 2010 based on attendance at quarterly Board meetings held during 2010. For the Chairman, the Board approved the issuance of options to purchase up to 125,000 shares of Common Stock to be issued on December 31, 2010 based on attendance at quarterly Board meeting held during 2010.

Employment Agreement with Named Officers

We entered into employment agreements with the named officer through December 2010. The agreements provide for annual base salaries for varying amounts and different stock upon plans.

Phillip Chan

Effective April 9, 2010, we renewed the employment agreement by and between Dr. Phillip Chan and the Company as full-time Chief Executive Officer retroactive to January 1, 2010. Per the terms of the agreement, we agree to pay Phillip Chan an initial annual base compensation of $216,351 payable in equal semimonthly installments in accordance with our usual practice. This base compensation shall be subject to semiannual review by our Compensation Committee, but his compensation may not be reduced from then current level. He is eligible for employee stock options, which will be adjusted on the same basis as all other shareholders to account for any stock split, stock dividends, combination or recapitalization.

Al Kraus

We entered into an employment agreement with Al Kraus on June 18, 2008 as our Chief Executive Officer. Pursuant to the employment agreement, we agreed to pay Al Kraus an annual base compensation of $216,351 payable in equal semimonthly installments in accordance with our usual practice.

On October 22, 2008, Al Kraus provided notice that he would resign from his position as President and Chief Executive Officer effective as of December 31, 2008.

Effective January 7, 2009, we entered into a new agreement with Al Kraus, pursuant to which he became Chairman of the Board of Directors for a two year term terminating on January 7, 2011. Pursuant to this agreement, we agree to pay Al Kraus compensation at a rate of $20,000 per year, payable in equal payments at the end of each fiscal quarter. He is eligible for stock options, which will be adjusted on the same basis as all other shareholders to account for any stock split, stock dividends, combination or recapitalization.

Vincent Capponi

We entered into an employment agreement with Vincent Capponi on June 18, 2008, which expired on December 31, 2008. Pursuant to this employment agreement, we agree to pay Vincent Capponi an initial annual base compensation of $195,767 payable in equal semimonthly installments in accordance with our usual practice. This base compensation shall be subject to annual review by our Compensation Committee, but his compensation may not be reduced from then current level. He is eligible for employee stock options which will be adjusted on the same basis as all other shareholders to account for any stock split, stock dividends, combination or recapitalization.

Effective April 9, 2010, we renewed the employment agreement by and between Vincent Capponi and the Company as Chief Operating Officer retroactive to January 1, 2010. Per the terms of the agreement, we agree to pay Vincent Capponi an initial annual base compensation of $205,303 payable in equal semimonthly installments in accordance with our usual practice. This base compensation shall be subject to semiannual review by our Compensation Committee, but his compensation may not be reduced from then current level. He is eligible for employee stock options, which will be adjusted on the same basis as all other shareholders to account for any stock split, stock dividends, combination or recapitalization.

David Lamadrid

We entered into an employment agreement with David Lamadrid on June 18, 2008, which expired on December 31, 2008. Pursuant to this employment agreement, we agree to pay David Lamadrid an initial annual base compensation of $145,801 payable in equal semimonthly installments in accordance with our usual practice. This base compensation shall be subject to annual review by our Compensation Committee, but his compensation may not be reduced from then current level. He is eligible for employee stock options, which will be adjusted on the same basis as all other shareholders to account for any stock split, stock dividends, combination or recapitalization.

Effective April 9, 2010, we renewed the employment agreement by and between David Lamadrid and the Company as Chief Financial Officer retroactive to January 1, 2010. Per the terms of the agreement, we agree to pay David Lamadrid an initial annual base compensation of $175,000 payable in equal semimonthly installments in accordance with our usual practice. This base compensation shall be subject to semiannual review by our Compensation Committee. He is eligible for employee stock options, which will be adjusted on the same basis as all other shareholders to account for any stock split, stock dividends, combination or recapitalization.

Robert Bartlett

Effective January 1, 2009, we entered into a new consulting agreement with Dr. Robert Bartlett, pursuant to which his consulting will terminate on December 31, 2009. Pursuant to this consulting agreement, we agree to pay Dr. Robert Bartlett consulting fees at an annualized rate of $50,000 payable in equal monthly installments of $4,166.67 per month. He is eligible for stock options, which will be adjusted on the same basis as all other shareholders to account for any stock split, stock dividends, combination or recapitalization.

Effective April 9, 2010, we renewed the consulting agreement with Dr. Bartlett retroactive to January 1, 2010. Pursuant to this consulting agreement, we agree to pay Dr. Robert Bartlett consulting fees at an annualized rate of $50,000 payable in equal monthly installments of $4,166.67 per month. He is eligible for stock options, which will be adjusted on the same basis as all other shareholders to account for any stock split, stock dividends, combination or recapitalization.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Joseph Rubin is a director of ours and performs legal services for us from time to time. At December 31, 2009, we owed Mr. Rubin’s firm approximately $7,000 in respect of legal services provided by his firm to us.

Director Independence

All members of our Board of Directors, other than Joseph Rubin, who performs legal services for us as disclosed above, Al Kraus, formerly an employee, and Phillip Chan, our Chief Executive Officer, are independent under the standards set forth in Nasdaq Marketplace Rule 4200(a)(15).

PRINCIPAL STOCKHOLDERS

The following table sets forth information known to us with respect to the beneficial ownership of Common Stock held of record as of May 28, 2010, by (1) all persons who are owners of 5% or more of our Common Stock, (2) each of our named executive officers (see “ Summary Compensation Table ”), (3) each director, and (4) all of our executive officers and directors as a group. Each of the stockholders can be reached at our principal executive offices located at 7 Deer Park Drive, Suite K, Monmouth Junction, New Jersey 08852.

	SHARES BENEFICIALLY OWNED1	
	Number	Percent (%)
There are no Beneficial Owners of more than 5% of Common Stock as of May 28, 2010 except for the directors and executive officers listed below.		
Directors and Executive Officers		
Al Kraus(2)	9,932,001	9.1%
Phillip Chan (3)	3,237,504	3.1%
David Lamadrid (4)	3,896,234	3.7%

Vince Capponi (5)	3,555,586	3.4%
Joseph Rubin (6)	1,035,270	1.0%
Robert Bartlett (7)	47,500	*
James Gunton (8)	15,000	*
Edward R. Jones (9)	182,500	*
All directors and executive officers as a group (eight persons)(10)	21,901,595	18.1%

* Less than 1%.

1 Gives effect to the shares of Common Stock issuable upon the exercise of all options exercisable within 60 days of May 28, 2010 and other rights beneficially owned by the indicated stockholders on that date. Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and includes voting and investment power with respect to shares. Unless otherwise indicated, the persons named in the table have sole voting and sole investment control with respect to all shares beneficially owned. Percentage ownership is calculated based on 101,175,222 shares of Common Stock outstanding as of May 28, 2010 plus any Common Stock issuable pursuant to any Series A and Series B Preferred Stock conversion rights or through exercise of any options or warrants owned by the indicated stockholders.

2 Includes 8,538,370 shares of Common Stock issuable upon exercise of stock options.

3 Includes 618,646 shares of Common Stock issuable upon conversion of Series B Preferred Stock, and 2,618,858 shares of Common Stock issuable upon exercise of stock options.

4 Includes 3,892,500 shares of Common Stock issuable upon exercise of stock options.

5 Includes 3,137,500 shares of Common Stock issuable upon exercise of stock options.

6 Includes 2,826 shares of Common Stock issuable upon conversion of Series A Preferred Stock, 428,508 shares of Common Stock issuable upon conversion of Series B Preferred Stock, and 521,672 shares of Common Stock issuable upon exercise of warrants and stock options. Does not include shares of Common Stock beneficially owned by Mr. Rubin’s spouse, as to which he disclaims beneficial ownership.

7 These shares are issuable upon exercise of stock options.

8 These shares are issuable upon exercise of stock options.

9 These shares are issuable upon exercise of stock options.

10 Includes an aggregate of 2,826 shares of Common Stock issuable upon conversion of Series A Preferred Stock, 1,047,154 shares of Common Stock issuable upon conversion of Series B Preferred Stock, and 18,953,900 shares of Common Stock issuable upon exercise of warrants and stock options.

EQUITY COMPENSATION PLAN INFORMATION

The following table summarizes outstanding options as of December 31, 2009, after giving effect to the merger and subsequent grants. The Registrant had no options outstanding prior to the merger, and all of the options below were issued either in connection with the merger to former option holders of MedaSorb or subsequently as new grants to employees, directors, and consultants.

	Number of securities to be issued upon exercise of outstanding options	Weighted-average exercise price of outstanding options	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in first column)
Equity compensation plans approved by stockholders	0	n/a	400,000(1)
Equity compensation plans not approved by stockholders	23,577,704	$ 0.84	16,422,296(2)
Total	23,577,704(3)	$ 0.84(3)	16,822,296

(1) Represents options that may be issued under our 2003 Stock Option Plan.

(2) Represents the unadjusted number of options that may be issued under our 2006 Long-Term Incentive Plan. The options available under the pool may be increased to maintain 15% of the fully diluted share count as needed.

(3) Represents options to purchase (i) 118,667 shares of Common Stock at a price of $41.47 per share, (ii) 232,051 shares of Common Stock at a price of $31.52 per share, (iii) 35,488 shares of Common Stock at a price of $21.57 per share, (iv) 15,944 shares of Common Stock at a price of $19.91 per share, (v) 439,740 shares of Common Stock at a price of $6.64 per share, (vi) 173,000 shares of Common Stock at a price of $1.90 per share, (vii) 306,000 shares of Common Stock at a price of $1.65 per share, (viii) 400,000 shares of Common Stock at a price of $1.26 per share, (ix) 166,756 shares of Common Stock at a price of $1.25 per share, (x) 3,014,000 shares of Common Stock at a price of $0.25, (xi) 137,622 shares of Common Stock at a price of $0.22, (xii) 2,365,000 shares of Common Stock at a price of $0.168, (xiii) 300,000 shares of Common Stock at a price of $0.166, (xiv) 2,753,858 shares of Common Stock at a price of $0.084, (xv) 115,000 shares of Common Stock at a price of $0.08, and (xvi) 13,004,578 shares of Common Stock at a price of $0.035.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports and other information with the SEC. You may read and copy any reports, statements or other information we file at the SEC's public reference rooms in Washington D.C., New York, New York and Chicago, Illinois. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. Our filings are also available to the public from commercial document retrieval services and at the web site maintained by the SEC at http://www.sec.gov.

We have filed a registration statement on Form S-1 under the Securities Act with the SEC covering the Common Stock to be offered by the selling stockholders. As permitted by the rules and regulations of the SEC, this document does not contain all information set forth in the registration statement and exhibits thereto, all of which are available for inspection as set forth above. For further information, please refer to the registration statement, including the exhibits thereto. Statements contained in this document relating to the contents of any contract or other document referred to herein are not necessarily complete, and reference is made to the copy of that contract or other document filed as an exhibit to the registration statement or other document, and each statement of this type is qualified in all respects by that reference.

No person is authorized to give any information or make any representation not contained in this document. You should not rely on any information provided to you that is not contained in this document. This prospectus does not constitute an offer to sell or a solicitation of an offer to purchase the securities described herein in any jurisdiction in which, or to any person to whom, it is unlawful to make the offer or solicitation. Neither the delivery of this document nor any distribution of shares of Common Stock made hereunder shall, under any circumstances, create any implication that there has not been any change in our affairs as of any time subsequent to the date hereof.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The estimated expenses of this offering in connection with the issuance and distribution of the securities being registered, all of which are to be paid by the Registrant, are as follows:

Registration Fee	$ 126
Legal Fees and Expenses	$15,000
Accounting Fees and Expenses	$ 8,500
Printing	
Miscellaneous Expenses	
Total	$23,626

Item 14. Indemnification of Directors and Officers.

Our directors and officers are indemnified as provided by the Nevada Revised Statutes and our bylaws. We have been advised that in the opinion of the Securities and Exchange Commission indemnification for liabilities arising under the Securities Act of 1933 is against public policy as expressed in the Securities Act of 1933, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities is asserted by one of our directors, officers, or controlling persons in connection with the securities being registered, we will, unless in the opinion of our legal counsel the matter has been settled by controlling precedent, submit the question of whether such indemnification is against public policy to a court of appropriate jurisdiction. We will then be governed by the court's decision.

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Item 15. Recent Sales of Unregistered Securities.

On June 25, 2008, we sold (i) 44,531.47 shares of our Series B Preferred Stock, at a price of $100 per share and (ii) a security (the " Additional Security ") to purchase additional shares of Series B Preferred Stock within 15 months following the Initial Closing at $100 per share, to a group of ten accredited investors led by NJTC Venture Fund SBIC, L.P. (" NJTC "). On August 25, 2008, we sold 8,400 shares of our Series B Preferred Stock, at a price of $100 per share to a group of seven accredited investors. The 52,931.47 shares of Series B Preferred Stock are initially convertible into 146,219,530 shares our common stock, par value $.001 per share ("Common Stock"). In addition, in connection with the private placement, $50,000 in principal amount of indebtedness plus accrued interest was converted into 576.05 additional shares of Series B Preferred Stock.

In October 2009, investors exercised warrants to purchase 13,357.52 shares of our Series B Preferred Stock, at a price of $100 per share.

In January 2010 the Company issued a 12-month Promissory Note in the principal amount of $172,500, which bears interest at the rate of 5% per annum.

These securities were issued in a private offering exempt from registration pursuant to Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended (the " Securities Act ").

Item 16. Exhibits.

The following exhibits are filed as part of, or incorporated by reference into this document:

Exhibit No.	Description
3.1	Certificate of Amendment to Articles of Incorporation dated February 17, 2010.
4.1	Form of Purchase Agreement, dated May 5, 2010, by and among CytoSorbents Corporation (f/k/a MedaSorb Technologies Corporation) and Lincoln Park Capital Fund, LLC (incorporated by reference to Exhibit 10.1 on Registrant's Current Report on Form 8-K, filed on May 10, 2010).
4.2	Form of Registration Rights Agreement, dated May 5, 2010 by and among CytoSorbents Corporation (f/k/a Medasorb Technologies Corporation) and Lincoln Park Capital Fund, LLC (incorporated by reference to Exhibit 10.2 on on Registrant's Current Report on Form 8-K, filed on May 10, 2010).
5.1	Legal Opinion of Anslow & Jaclin, LLP filed herewith.
23.1	Consent of WithumSmith + Brown, PC
23.2	Consent of Anslow & Jaclin, LLP refer to exhibit 5.1

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which it offers or sells securities, a post-effective amendment to this registration statement to:

(i) Include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) Reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of the securities offered (if the total dollar value of securities offered would not exceed that which

was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of a prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) Include any additional or changed material information on the plan of distribution;

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the bona fide offering thereof.

(3) To file a post-effective amendment to remove from registration any of the securities that remain unsold at the end of the offering.

Insofar as indemnification arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

In accordance with the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-1 and authorized this registration statement to be signed on its behalf by the undersigned in Monmouth Junction, State of New Jersey, on June 4, 2010.

CYTOSORBENTS CORPORATION
(f/k/a MEDASORB TECHNOLOGIESCORPORATION)
(Registrant)

By: /s/ Dr. Phillip Chan
Dr. Phillip Chan
Chief Executive Officer

In accordance with the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

Signature	Title	Date
/s/ Dr. Phillip Chan Dr. Phillip Chan	Chief Executive Officer (Principal Executive Officer) and Director	June 4, 2010
/s/ David Lamadrid David Lamadrid	Chief Financial Officer (Principal Accounting and Financial Officer)	June 4, 2010
/s/ Vincent Capponi Vincent Capponi	Chief Operations Officer	June 4, 2010

/s/ Joseph Rubin, Esq. Joseph Rubin, Esq.	Director	June 4, 2010
/s/ Edward Jones Edward Jones, MD	Director	June 4, 2010
/s/ James Gunton James Gunton	Director	June 4, 2010
/s/Al Kraus Al Kraus	Director	June __, 2010

PART I — FINANCIAL INFORMATION

Item 1. Financial Statements.

CYTOSORBENTS CORPORATION
(f/k/a MedaSorb Technologies Corporation)
(a development stage company)

CONSOLIDATED BALANCE SHEETS

	March 31, 2010 (Unaudited)	December 31, 2009
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 1,346,301	$ 1,595,628
Prepaid expenses and other current assets	72,489	369,091
Total current assets	1,418,790	1,964,719
Property and equipment - net	17,758	18,853
Other assets	251,583	254,908
Total long-term assets	269,341	273,761
Total Assets	$ 1,688,131	$ 2,238,480
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current Liabilities:		
Accounts payable	$ 888,071	$ 852,167
Accrued expenses and other current liabilities	260,200	118,598
Notes payable	172,500	—
Total current liabilities	1,320,771	970,765
Total liabilities	1,320,771	970,765
Stockholders' Equity (Deficit):		
10% Series B Preferred Stock, Par Value $0.001, 200,000 shares authorized at March 31, 2010 and December 31, 2009, respectively; 67,446.24 and 68,723.88 shares issued and outstanding, respectively	67	69
10% Series A Preferred Stock, Par Value $0.001, 12,000,000 shares authorized at March 31, 2010 and December 31, 2009, respectively; 5,903,306 and 6,255,813 shares issued and outstanding, respectively	5,903	6,256
Common Stock, Par Value $0.001, 500,000,000 shares authorized at March 31, 2010 and December 31, 2009, 79,574,856 and 66,374,856 shares issued	79,575	66,375

and outstanding, respectively				
Additional paid-in capital		80,934,751		80,097,536
Deficit accumulated during the development stage		(80,652,936)		(78,902,521)
Total stockholders' equity (deficit)		367,360		1,267,715
Total Liabilities and Stockholders' Equity (Deficit)	$	1,688,131	$	2,238,480

See accompanying notes to consolidated financial statements.

CYTOSORBENTS CORPORATION
(f/k/a MedaSorb Technologies Corporation)
(a development stage company)

CONSOLIDATED STATEMENTS OF OPERATIONS

	Period from January 22,1997 (date of inception) to March 31, 2010 (Unaudited)	Three months ended March 31, 2010 (Unaudited)	2009 (Unaudited)
Revenue	$ —	$ —	$ —
Expenses:			
Research and development	46,934,938	681,215	488,555
Legal, financial and other consulting	7,380,909	72,932	48,733
General and administrative	23,280,527	213,630	228,334
Change in fair value of management and incentive units	(6,055,483)	—	—
Total expenses	71,540,891	967,777	765,622
Other (income)/expense:			
Gain on disposal of property and equipment	(21,663)	—	—
Gain on extinguishment of debt	(216,617)	—	—
Interest expense (income), net	5,608,669	1,274	(5,471)
Penalties associated with non-registration of Series A Preferred Stock	361,495	—	—
Total other (income)/expense, net	5,731,884	1,274	(5,471)
Loss before benefit from income taxes	(77,272,775)	(969,051)	(760,151)
Benefit from income taxes	(547,318)	—	—
Net loss	(76,725,457)	(969,051)	(760,151)
Preferred stock dividend	3,927,479	781,364	170,574
Net loss available to common shareholders	$ (80,652,936)	$ (1,750,415)	$ (930,725)
Basic and diluted net loss per common share		$ (0.02)	$ (0. 03)
Weighted average number of shares of common stock outstanding		72,883,745	29,072,876

See accompanying notes to consolidated financial statements.

CYTOSORBENTS CORPORATION
(f/k/a MedaSorb Technologies Corporation)
(a development stage company)

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT)

Period from
December 31, 2008 to
March 31, 2010
(Unaudited)

	Members Equity (Deficiency)	Deferred Compensation	Common Stock Shares	Common Stock Par value	Preferred Stock B Shares	Preferred Stock B Par Value	Preferred Stock A Shares	Preferred Stock A Par Value	Additional Paid-In Capital	Deficit Accumulated During the Development Stage
Balance at December 31, 2009	$ —	$ —	66,374,856	$ 66,375	68,723.88	$ 69	6,255,813	$ 6,256	$ 80,097,536	$ (78,902,52
Stock based compensation – employees, consultants and directors		—		—	—				68,696	
Issuance of Series A Preferred Stock as dividends		—		—	—		147,493	147	61,943	(62,09
Issuance of Series B Preferred Stock as dividends	—	—		—	—	1,690.76	1		719,273	(719,27
Conversion of Series A and Series B into Common			13,200,000	13,200	(2,968.40)	(3)	(500,000)	(500)	(12,697)	
Net loss	—	—		—	—				—	(969,05
Balance at March 31, 2010	—	—	79,574,856	$ 79,575	67,446.24	$ 67	5,903,306	$ 5,903	$ 80,934,751	$ (80,652,93

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CYTOSORBENTS CORPORATION
(f/k/a MedaSorb Technologies Corporation)
(a development stage company)

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Period from January 22,1997 (date of inception) to March 31, 2010 (Unaudited)	Three months ended March 31, 2010 (Unaudited)	Three months Ended March 31, 2009 (Unaudited)
Cash flows from operating activities:			
Net loss	$ (76,725,457)	$ (969,051)	$ (760,151)
Adjustments to reconcile net loss to net cash used in operating activities:			
Common stock issued as inducement to convert convertible notes payable and accrued interest	3,351,961	—	—
Issuance of common stock to consultant for services	30,000	—	—
Depreciation and amortization	2,396,881	4,420	12,614
Amortization of debt discount	1,000,000	—	—
Gain on disposal of property and equipment	(21,663)	—	—
Gain on extinguishment of debt	(216,617)	—	—
Interest expense paid with Series B Preferred Stock in connection with conversion of notes payable	3,147		
Abandoned patents	183,556	—	—
Bad debts - employee advances	255,882	—	—
Contributed technology expense	4,550,000	—	—
Consulting expense	237,836	—	—
Management unit expense	1,334,285	—	—
Expense for issuance of warrants	533,648	—	—
Expense for issuance of options	1,558,896	68,696	65,287
Amortization of deferred compensation	74,938	—	—
Penalties in connection with non-registration event	361,496	—	—
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets	(344,037)	296,602	27,773
Other assets	(56,394)	__	5,003)
Accounts payable and accrued expenses	2,975,088	177,506	(134,637)
Accrued interest expense	1,823,103	—	—
Net cash used by operating activities	(56,693,451)	(421,827)	(784,111)
Cash flows from investing activities:			
Proceeds from sale of property and equipment	32,491	—	—
Purchases of property and equipment	(2,226,932)	—	(6,411)
Patent costs	(435,647)	—	(3,498)
Purchases of short-term investments	(393,607)	—	—
Proceeds from sale of short-term investments	393,607	—	199,607

Loan receivable	(1,632,168)	—	—
Net cash used by investing activities	(4,262,256)	—	189,698
Cash flows from financing activities:			
Proceeds from issuance of common stock	400,490	—	—
Proceeds from issuance of preferred stock	9,579,040	—	—
Equity contributions - net of fees incurred	43,046,952	—	—
Proceeds from borrowings	8,776,131	172,500	—
Proceeds from subscription receivables	499,395	—	—
Net cash provided by financing activities	62,302,008	172,500	—

See accompanying notes to consolidated financial statements.

Net change in cash and cash equivalents	1,346,301	(249,327)	(594,413)
Cash and cash equivalents - beginning of period	—	1,595,628	2,749,208
Cash and cash equivalents - end of period	$ 1,346,301	$ 1,346,301	$ 2,154,795
Supplemental disclosure of cash flow information:			
Cash paid during the period for interest	$ 590,189	$ —	$ —
Supplemental schedule of noncash investing and financing activities:			
Note payable principal and interest conversion to equity	$ 10,434,319	$ —	$ —
Issuance of member units for leasehold improvements	$ 141,635	$ —	$ —
Issuance of management units in settlement of cost of raising capital	$ 437,206	$ —	$ —
Change in fair value of management units for cost of raising capital	$ 278,087	$ —	$ —
Exchange of loan receivable for member units	$ 1,632,168	$ —	$ —
Issuance of equity in settlement of accounts payable	$ 1,609,446	$ —	$ —
Issuance of common stock in exchange for stock subscribed	$ 399,395	$ —	$ —
Costs paid from proceeds in conjunction with issuance preferred stock	$ 768,063	$ —	$ —
Preferred stock dividends	$ 3,927,479	$ 781,364	$ 170,574
Net effect of conversion of common stock to preferred stock prior to merger	$ 559	$ —	$ —

During the three months ended March 31, 2010 and 2009, 2,968.40 and 300.69 Series B Preferred Shares were converted into 8,200,000 and 830,636 Common shares, respectively. During the three months ended March 31, 2010 and 2009, 500,000 and 441,666 Series A Preferred Shares were converted into 5,000,000 and 4,416,666 Common shares, respectively. For the period from January 22, 1997 (date of inception) to March 31, 2010, 9,596.95 Series B Preferred Shares and 4,390,135 Series A Preferred Shares were converted into 26,510,911 and 28,424,170 Common Shares, respectively.

See accompanying notes to consolidated financial statements.

CytoSorbents Corporation
(f/k/a MedaSorb Technologies Corporation)
Notes to Consolidated Financial Statements
(UNAUDITED)
March 31, 2010

1. BASIS OF PRESENTATION

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with the requirements of Form 10-Q of the Securities and Exchange Commission (the "Commission") and include the results of CytoSorbents Corporation (the "Parent"), formerly known as MedaSorb Technologies Corporation (See Note 7), and CytoSorbents, Inc. (f/k/a MedaSorb Technologies, Inc.), its wholly-owned operating subsidiary (the "Subsidiary"), collectively referred to as "the Company." Accordingly, certain information and footnote disclosures required in financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted. Interim statements are subject to possible adjustments in connection with the annual audit of the Company's accounts for the year ended December 31, 2010. In the opinion of the Company's management, the accompanying unaudited consolidated financial statements contain all adjustments (consisting only of normal recurring adjustments) which the Company considers necessary for the fair presentation of the Company's consolidated financial position as of March 31, 2010 and the results of its operations and cash flows for the three month periods ended March 31, 2010 and 2009, and for the period January 22, 1997 (date of inception) to March 31, 2010. Results for the three months ended are not necessarily indicative of results that may be expected for the entire year. The unaudited condensed consolidated financial statements should be read in conjunction with the audited financial statements of the Company and the notes thereto as of and for the year ended December 31, 2009 as included in the Company's Form 10-K filed with the Commission on April 9, 2010.

The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company has experienced negative cash flows from operations since inception and has a deficit accumulated during the development stage at March 31, 2010 of $80,652,936. The Company is not currently generating revenue and is dependent on the proceeds of present and future financings to fund its research, development and commercialization program. The Company is continuing its fund-raising efforts. Although the Company has historically been successful in raising additional capital through equity and debt financings, there can be no assurance that the Company will be successful in raising additional capital in the future or that it will be on favorable terms. Furthermore, if the Company is successful in raising the additional financing, there can be no assurance that the amount will be sufficient to complete the Company's plans. These consolidated financial statements do not include any adjustments related to the outcome of this uncertainty.

The Company is a development stage company and has not yet generated any revenues. Since inception, the Company's expenses relate primarily to research and development, organizational activities, clinical manufacturing, regulatory compliance and operational strategic planning. Although the Company has made advances on these matters, there can be no assurance that the Company will continue to be successful regarding these issues, nor can there be any assurance that the Company will successfully implement its long-term strategic plans.

The Company has developed an intellectual property portfolio, including 27 issued and multiple pending patents, covering materials, methods of production, systems incorporating the technology and multiple medical uses.

2. PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

Nature of Business
The Company, through its subsidiary, is engaged in the research, development and commercialization of medical devices with its platform blood purification technology incorporating a proprietary adsorbent polymer technology. The Company is focused on developing this technology for multiple applications in the medical field, specifically to provide improved blood purification for the treatment of acute and chronic health complications associated with blood toxicity. As of March 31, 2010, the Company has not commenced commercial operations and, accordingly, is in the development stage. The Company has yet to generate any revenue and has no assurance of future revenue.

Principles of Consolidation
The consolidated financial statements include the accounts of the Parent, CytoSorbents Corporation, and its wholly-owned subsidiary, CytoSorbents, Inc. All significant intercompany transactions and balances have been eliminated in consolidation.

Development Stage Corporation
The accompanying consolidated financial statements have been prepared in accordance with the provisions of accounting and reporting by development stage enterprises.

Cash and Cash Equivalents
The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.

Short Term Investments
Short-term investments include short-term bank certificates of deposit with original maturities of between three and twelve months. These short-term notes are classified as held to maturity and are valued at cost, which approximates fair value. These investments are considered Level 2 investments under accounting standards for fair value measurements.

Property and Equipment
Property and equipment are recorded at cost less accumulated depreciation. Depreciation of property and equipment is provided for by the straight-line method over the estimated useful lives of the related assets. Leasehold improvements are amortized over the lesser of their economic useful lives or the term of the related leases. Gains and losses on depreciable assets retired or sold are recognized in the statements of operations in the year of disposal. Repairs and maintenance expenditures are expensed as incurred.

Patents
Legal costs incurred to establish patents are capitalized. When patents are issued, capitalized costs are amortized on the straight-line method over the related patent term. In the event a patent is abandoned, the net book value of the patent is written off.

Impairment or Disposal of Long-Lived Assets
The Company assesses the impairment of patents and other long-lived assets under accounting standards for the impairment or disposal of long-lived assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. For long-lived assets to be held and used, the Company recognizes an impairment loss only if its carrying amount is not recoverable through its undiscounted cash flows and measures the impairment loss based on the difference between the carrying amount and fair value.

Research and Development
All research and development costs, payments to laboratories and research consultants are expensed when incurred.

Income Taxes

Income taxes are accounted for under the asset and liability method prescribed by accounting standards for accounting for income taxes. Deferred income taxes are recorded for temporary differences between financial statement carrying amounts and the tax basis of assets and liabilities. Deferred tax assets and liabilities reflect the tax rates expected to be in effect for the years in which the differences are expected to reverse. A valuation allowance is provided if it is more likely than not that some or all of the deferred tax asset will not be realized. Under Section 382 of the Internal Revenue Code the net operating losses generated prior to the reverse merger may be limited due to the change in ownership. Additionally, net operating losses generated subsequent to the reverse merger may be limited in the event of changes in ownership.

The Company adopted the accounting standards associated with uncertain tax provisions as of January 1, 2007. The adoption of this standard did not have a material impact on the Company's consolidated statements of operations or financial position. Upon adoption of this accounting standard, the Company had no unrecognized tax benefits. Furthermore, the Company had no unrecognized tax benefits at March 31, 2010. The Company files tax returns in the U.S. federal and state jurisdictions. The Company has no open years prior to December 31, 2006.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities. Actual results could differ from these estimates. Significant estimates in these financials are the valuation of options granted and the valuation of preferred shares issued as stock dividends.

Concentration of Credit Risk

The Company maintains cash balances, at times, with financial institutions in excess of amounts insured by the Federal Deposit Insurance Corporation. Management monitors the soundness of these institutions in an effort to minimize its collection risk of these balances.

Financial Instruments

The carrying values of cash and cash equivalents, short-term investments, accounts payable, notes payable, and other debt obligations approximate their fair values due to their short-term nature.

Net Loss Per Common Share

Basic EPS is computed by dividing income (loss) available to common stockholders by the weighted average number of common shares outstanding during the period. Diluted EPS gives effect to all dilutive potential common shares outstanding during the period. The computation of Diluted EPS does not assume conversion, exercise or contingent exercise of securities that would have an anti-dilutive effect on earnings (See Note 6).

Stock-Based Compensation

The Company accounts for its stock-based compensation under the recognition requirements of accounting standards for accounting for stock-based compensation, for employees and directors whereby each option granted is valued at fair market value on the date of grant. Under these accounting standards, the fair value of each option is estimated on the date of grant using the Black-Scholes option pricing model.

The Company also follows the guidance of accounting standards for accounting for equity instruments that are issued to other than employees for acquiring, or in conjunction with selling, goods or services for equity instruments issued to consultants.

Effects of Recent Accounting Pronouncements

There have been no recently issued accounting standards that have an impact on the Company's financial statements.

3. CONVERTIBLE NOTES

In January 2010 the Company issued a 12-month Promissory Note in the principal amount of $172,500, which bears interest at the rate of 5% per annum. Should the Company complete any financing, debt or equity, which includes any equity component or the right to convert into equity, the entire principal and outstanding interest of the Note shall automatically be converted into the creditor's choice of either 1) the securities issued in such financing under the same terms, conditions, and pricing (the "Conversion Price") or 2) applied toward the exercise of the creditor's existing warrant for Series A Preferred Stock. In addition pursuant to the terms of the Promissory Note, upon conversion, the note holder will receive a five year warrant to purchase that number of shares of Common Stock equal to the quotient obtained by dividing (x) 50% of the principal plus accrued interest of the Note being converted, by (y) the Conversion Price, with the resulting number of shares having an exercise price equal to the Conversion Price. If in the event there is not a new financing prior to the maturity of the Note or the creditor elects to convert the outstanding principal and interest toward the exercise of creditor's existing Series A warrant, then upon conversion, the note holder will receive a five year warrant to purchase that number of shares of Common Stock equal to the quotient obtained by dividing (x) 50% of the principal plus accrued interest of the Note being converted, by (y) $0.10, with the resulting number of shares having an exercise price equal to $0.10 per share of common stock.

4. STOCKHOLDERS' EQUITY (DEFICIT)

During the three months ended March 31, 2010 the Company recorded non-cash stock dividends totaling $781,364 in connection with the issuance of 1,690.76 shares of Series B Preferred Stock and 147,493 shares of Series A Preferred Stock as a stock dividend to its preferred shareholders as of March 31, 2010. Effective January 1, 2010 the Company has changed its basis for estimating the fair market value of the preferred stock dividends from the underlying conversion price of the Series B Preferred Stock to a five day volume weighted average price of actual closing market prices for the Company's common stock. The financial effect of this change in estimating the fair market value resulted in an increase of approximately $598,000 in the non-cash charge taken for stock dividends for the three months ended March 31, 2010.

During the three months ended March 31, 2010 2,968.40 Series B Preferred Shares were converted into 8,200,000 Common shares. During the three months ended March 31, 2010 500,000 Series A Preferred Shares were converted into 5,000,000 Common shares.

During the three months ended March 31, 2010, the Company issued stock options to employees, consultants and directors resulting in aggregate compensation expense of $48,747, of which $25,800 and $22,947 is presented in research and development expenses and general and administrative expenses, respectively.

During the three months ended March 31, 2010, the Company incurred stock-based compensation expense due to the amortization of unvested stock options. The aggregate expense for the three months ended March 31, 2010 is $19,949, of which $9,577 and $10,372 is presented in research and development expenses and general and administrative expenses, respectively. The Company has pre-approved options to purchase in the aggregate, up to a total of 425,000 shares of common stock to be issued and priced at the end of December 2010 to Directors. These options have been valued as of the pre-approval date. The aggregate expense of these options for the three months ended March 31, 2010 is approximately $8,500, all of which is presented in general and administrative expenses.

The summary of the stock option activity for the three months ended March 31, 2010 is as follows:

	Shares	Weighted Average Exercise per Share	Weighted Average Remaining Life (Years)

Outstanding, January 1, 2010	23,577,704	$	0.84	8.3
Granted	2,640,000	$	0.173	9.7
Cancelled	—	$	—	—
Exercised	—	$	—	—
Outstanding March 31, 2010	26,217,704	$	0.77	8.3

The fair value of each stock option was valued using the Black Scholes pricing model which takes into account as of the grant date the exercise price (ranging from $0.154 to $0.173 per share) and expected life of the stock option (ranging from 5-10 years), the current price of the underlying stock and its expected volatility (approximately 27 percent), expected dividends (-0- percent) on the stock and the risk free interest rate (2.5 to 3.8 percent) for the term of the stock option.

At March 31, 2010, the aggregate intrinsic value of options outstanding and currently exercisable amounted to approximately $1,749,000.

The summary of the status of the Company's non-vested options for the three months ended March 31, 2010 is as follows:

	Shares	Weighted Average Grant Date Fair Value
Non-vested, January 1, 2010	6,801,053	$ 0.024
Granted	2,640,000	$ 0.080
Cancelled	—	—
Vested	(3,520,597)	$ 0.047
Exercised	—	—
Non-vested, March 31, 2010	5,920,456	$ .035

As of March 31, 2010, approximately $255,000 of total unrecognized compensation cost related to stock options is expected to be recognized over a weighted average period of 1.3 years.

As of March 31, 2010, the Company has the following warrants to purchase common stock outstanding:

Number of Shares To be Purchased		Warrant Exercise Price per Share	Warrant Expiration Date
15,569	$	6.64	March 31, 2010
816,691	$	4.98	June 30, 2011
1,200,000	$	0.90	June 30, 2011
900,000	$	0.40	June 30, 2011
339,954	$	2.00	September 30, 2011
52,080	$	2.00	July 31, 2011
400,000	$	0.40	October 31, 2011
240,125	$	1.25	October 24, 2016
3,986,429	$	0.035	June 25, 2013
397,825	$	0.0362	September 30, 2014
12,483,665	$	0.107	October 5, 2010
20,832,338			

As of March 31, 2010, the Company has the following warrants to purchase Series A Preferred Stock outstanding:

Number of	Warrant Exercise	Warrant

Shares to be Purchased		Price per Preferred Share	Expiration Date
525,000	$	1.00	June 30, 2011

If the holder of warrants for preferred stock exercises in full, the holder will receive additional five-year warrants to purchase a total of 210,000 shares of common stock at $0.40 per share.

5. COMMITMENTS AND CONTINGENCIES

Employment Agreements

The Company has employment agreements with certain key executives through December 2010. The agreements provide for annual base salaries of varying amounts.

Litigation

The Company is currently not involved, but may at times be involved in various claims and legal actions. Management is currently of the opinion that these claims and legal actions would have no merit, and any ultimate outcome will not have a material adverse impact on the consolidated financial position of the Company and/or the results of its operations.

In February 2008, Alkermes, Inc. commenced an action against us in the United States District Court for the District of Massachusetts, alleging that our use of the name MedaSorb infringes on Alkermes' registered trademark "MEDISORB." In the action, Alkermes sought an injunction against our further use of the name MedaSorb. Pursuant to a Settlement Agreement dated June 18, 2008, to avoid any potential confusion with Alkermes' similarly named product, the Company has ceased using the "MedaSorb" name in its wholly-owned subsidiary, through which the Company conducts all of its operational activities, and renamed our operating subsidiary CytoSorbents, Inc. as of November 2008. The Company has also filed to change the name of the parent company from MedaSorb Technologies Corporation to CytoSorbents Corporation (see Note 7).

Royalty Agreements

Pursuant to an agreement dated August 11, 2003, an existing investor agreed to make a $4 million equity investment in the Company. These amounts were received by the Company in 2003. In connection with this agreement, the Company granted the investor a future royalty of 3% on all gross revenues received by the Company from the sale of its CytoSorb device. The Company has not generated any revenue from this product and has not incurred any royalty costs through March 31, 2010. The amount of future revenue subject to the royalty agreement could not be reasonably estimated nor has a liability been incurred, therefore, an accrual for royalty payments has not been included in the consolidated financial statements.

License Agreements

In an agreement dated September 1, 2006, the Company entered into a license agreement which provides the Company the exclusive right to use its patented technology and proprietary know how relating to adsorbent polymers for a period of 18 years. Under the terms of the agreement, CytoSorbents has agreed to pay royalties of 2.5% to 5% on the sale of certain of its products if and when those products are sold commercially for a term not greater than 18 years commencing with the first sale of such product. The Company has not generated any revenue from its products and has not incurred any royalty costs through March 31, 2010. The amount of future revenue subject to the license agreement could not be reasonably estimated nor has a liability been incurred, therefore, an accrual for royalty payments has not been included in the consolidated financial statements.

Warrant agreement

As inducement to invest additional funds in the private placement of Series B Preferred Stock, additional consideration was granted to the participants of the Series B Preferred Stock offering in the event that litigation is commenced against CytoSorbents prior to June 30, 2018, claiming patent infringement on certain of the Company's issued patents. In the event this litigation arises the Company may be required to issue warrants to purchase in the

aggregate up to a maximum of ten million shares of Common Stock subject to certain adjustments. Through March 31, 2010 no such litigation has arisen and due to the deemed low probability of this potential outcome; the Company has not booked a contingent liability for this agreement.

6. NET LOSS PER SHARE

Basic loss per share and diluted loss per share for the three months ended March 31, 2010 and 2009 have been computed by dividing the net loss for each respective period by the weighted average number of shares outstanding during that period. All outstanding warrants and options representing 47,050,042 and 31,228,552 incremental shares at March 31, 2010 and 2009, respectively, as well as shares issuable upon conversion of Series A and Series B Preferred Stock and Preferred Stock Warrants representing 206,867,686 and 239,010,409 incremental shares at March 31, 2010 and 2009, respectively, as well as potential shares issuable upon Note conversion into Series A Preferred Stock representing approximately 2,587,500 shares have been excluded from the computation of diluted loss per share as they are anti-dilutive.

7. SUBSEQUENT EVENTS

The Company has evaluated subsequent events occurring after the balance sheet date.

During April and May 2010 a total of 6,458.07 shares of Series B Preferred Stock were converted into 17,839,973 shares of Common Stock.

In May 2010 the Company finalized its name change from MedaSorb Technologies Corporation to CytoSorbents Corporation. The Company stock ticker symbol has been changed from MSBT (OTCBB:MSBT) to CTSO (OTCBB:CTSO).

In May 2010, the Company issued stock options to purchase 13,300,000 shares of Common Stock to employees with an exercise price of $0.138 per share as part of a long term incentive plan. None of these options vested upon issuance. The stock options shall vest at the discretion of the Board of Directors based on criteria including (but not limited to) a timely completion of the sepsis trial, raising capital for the Company, and partnering and business development.

On May 5, 2010, the Company executed a purchase agreement, or the Purchase Agreement, and a registration rights agreement, or the Registration Rights Agreement, with Lincoln Park Capital Fund, LLC (“LPC”). Under the Purchase Agreement, LPC is obligated, under certain conditions, to purchase from us up to $6 million of our common stock, from time to time over a 750 day (twenty-five (25) monthly) period.

At such time as the SEC has declared effective a registration statement related to shares underlying this transaction, the Company will have the right to direct LPC to purchase up to $6,000,000 of its common stock in amounts up to $50,000 as often as every two business days under certain conditions. The Company can also accelerate the amount of its common stock to be purchased under certain circumstances. No sales of shares may occur at a purchase price below $.10 per share. The purchase price of the shares will be based on the market prices of our shares at the time of sale as computed under the Purchase Agreement without any fixed discount. The Company may at any time in our sole discretion terminate the Purchase Agreement without fee, penalty or cost upon one business days notice. The Company issued 1,153,846 shares of our common stock to LPC as a commitment fee for entering into the agreement, and is obligated to issue up to 1,153,846 shares pro rata as LPC purchases up to $6,000,000 of its common stock as directed by the Company. LPC may not assign any of its rights or obligations under the Purchase Agreement.

FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders,
MedaSorb Technologies Corporation:

We have audited the accompanying consolidated balance sheets of MedaSorb Technologies Corporation (a development stage company), as of December 31, 2009 and 2008, and the related consolidated statements of operations, stockholders' equity (deficiency) and cash flows for the years then ended and the cumulative period from January 22, 1997 (date of inception) to December 31, 2009. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We did not audit the consolidated financial statements of MedaSorb Technologies Corporation for the period from January 22, 1997 (date of inception) to December 31, 2000. Such statements are included in the cumulative inception to December 31, 2009 totals on the consolidated statements of operations and cash flows and reflect a net loss of 27.7% of the related cumulative total. Those statements were audited by other auditors whose report has been furnished to us and our opinion, insofar as it relates to the amounts for the period from January 22, 1997 (date of inception) to December 31, 2000 included in the cumulative totals, is based solely upon the report of the other auditors.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, based on our audits and the report of other auditors, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of MedaSorb Technologies Corporation as of December 31, 2009 and 2008 and the consolidated results of their operations and their cash flows for the years then ended and the cumulative period from January 22, 1997 (date of inception) to December 31, 2009 in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has suffered recurring net losses and negative cash flows from operations. These matters raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ WithumSmith+Brown, PC

New Brunswick, New Jersey
April 9, 2010

********** This report is a copy of a previously issued report and has not been reissued by Arthur Andersen pursuant to rule 2-02(e) of Regulation SX **********

Report of Independent Public Accountants

To the Board of Directors and Stockholders,
Medasorb Corporation:

We have audited the accompanying balance sheets of MedaSorb Technologies Corporation (a development stage company), as of December 31, 2000 and 1999, and the related statements of operations, changes in members' equity and cash flows for the period from inception (January 22, 1997) through December 31, 2000. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of MedaSorb Technologies Corporation as of December 31, 2000 and 1999, and the results of its operations and its cash flows for the period from inception (January 22, 1997) to December 31, 2000, in conformity with accounting principles generally accepted in the United States.

Arthur Andersen, LLP

New York, New York
December 27, 2001

MEDASORB TECHNOLOGIES CORPORATION
(a development stage company)

CONSOLIDATED BALANCE SHEETS

December 31,	2009	2008
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 1,595,628	$ 2,749,208
Short-term investments	—	199,607
Prepaid expenses and other current assets	369,091	117,003
Total current assets	1,964,719	3,065,818
Property and equipment - net	18,853	52,057
Other assets	254,908	269,310
Total long-term assets	273,761	321,367
Total Assets	$ 2,238,480	$ 3,387,185
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIENCY)		
Current Liabilities:		
Accounts payable	$ 852,167	$ 885,465
Accrued expenses and other current liabilities	118,598	92,239
Total current liabilities	970,765	977,704
Notes Payable:		
Notes payable	—	50,000
Total Long Term Liabilities	—	50,000
Total liabilities	970,765	1,027,704
Stockholders Equity/(Deficiency):		
10% Series B Preferred Stock, Par Value $0.001, 200,000 shares authorized at December 31, 2009 and 2008, respectively; 68,723.88 and 55,558.64 issued and outstanding , respectively	69	55
10% Series A Preferred Stock, Par Value $0.001, 12,000,000 shares authorized at December 31, 2009 and 2008, 6,255,813 and 8,793,060 shares issued and outstanding, respectively	6,256	8,793
	66,375	25,264

Common Stock, Par Value $0.001, 500,000,000 shares authorized at December 31, 2009 and 2008, 66,374,856 and 25,263,517 shares issued and outstanding, respectively		
Additional paid-in capital	80,097,536	77,786,850
Deficit accumulated during the development stage	(78,902,521)	(75,461,481)
Total stockholders’ equity/(deficiency)	1,267,715	2,359,481
Total Liabilities and Stockholders' Equity (Deficiency)	$ 2,238,480	$ 3,387,185

The Notes to Consolidated Financial Statements are an integral part of these statements.

MEDASORB TECHNOLOGIES CORPORATION
(a development stage company)

CONSOLIDATED STATEMENTS OF OPERATIONS

	Period from January 22,1997 (date of inception) to December 31, 2009	Year ended December 31, 2009	Year ended December 31, 2008
Revenue	$ —	$ —	$ —
Expenses:			
Research and development	46,253,723	1,961,960	1,983,483
Legal, financial and other consulting	7,307,977	307,952	351,357
General and administrative	23,066,897	757,450	909,372
Change in fair value of management and incentive units	(6,055,483)	—	—
Total expenses	70,573,114	3,027,362	3,244,212
Other (income) expenses:			
Gain on disposal of property and equipment	(21,663)	—	—
Gain on extinguishment of debt	(216,617)	—	—
Interest (income) expense, net	5,607,395	8,142	22,207
Penalties associated with non-registration of Series A Preferred Stock	361,495	—	—
Total other (income) expense, net	5,730,610	8,142	22,207
Loss before benefit from income taxes	76,303,724	3,035,504	3,266,419
Benefit from income taxes	(547,318)	(298,789)	(248,529)
Net loss	(75,756,406)	(2,736,715)	(3,017,890)
Preferred stock dividend	3,146,115	704,325	905,382
Net loss available to common shareholders	$ (78,902,521)	$ (3,441,040)	$ (3,923,272)
Basic and diluted net loss per common share		$ (0.08)	$ (0.16)
Weighted average number of common stock outstanding		41,593,607	25,121,377

The Notes to Consolidated Financial Statements are an integral part of these statements.

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MEDASORB TECHNOLOGIES CORPORATION
(a development stage company)

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIENCY)

Period from January 22, 1997 (date of inception) to December 31, 2009

	Members Equity (Deficiency)	Deferred Compensation	Common Stock Shares	Common Stock Par value	Preferred Stock Shares	Preferred Stock Par Value	Preferred Stock Shares	Preferred Stock Par Value	Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Equity (Deficit)
Balance at January 22, 1997 (date of inception)	$ —	$ —	—	$ —	—	$ —	—	$ —	$ —	$ —	$ —
Equity contributions	1,143,487	—	—	—					—	—	1,143,487
Subscriptions receivable	440,000	—	—	—					—	—	440,000
Technology contribution	4,550,000	—	—	—					—	—	4,550,000
Net loss	—	—	—	—					—	(5,256,012)	(5,256,012)
Balance at December 31, 1997	6,133,487	—	—	—					—	(5,256,012)	877,475
Equity contributions	2,518,236	—	—	—					—	—	2,518,236
Options issued to consultants	1,671	—	—	—					—	—	1,671
Subscriptions receivable	50,000	—	—	—					—	—	50,000
Net loss	—	—	—	—					—	(1,867,348)	(1,867,348)
	8,703,394	—	—	—					—	(7,123,360)	1,580,034

Balance at December 31, 1998							
Equity contributions	1,382,872	—	—	—	—	—	1,382,872
Equity issued to consultants	88,363	—	—	—	—	—	88,363
Recognition of deferred compensation	47,001	(47,001)	—	—	—	—	—
Amortization of deferred compensation	—	15,667	—	—	—	—	15,667
Subscriptions receivable	100,000	—	—	—	—	—	100,000

Net loss	—	—	—	—	—	(3,066,388)		(3,066,388)
Balance at December 31, 1999	10,321,630	(31,334)	—	—	—	(10,189,748)		100,548
Equity contributions	14,407,916	—	—	—	—	—		14,407,916
Equity issued to consultants	1,070,740	—	—	—	—	—		1,070,740
Warrants issued to consultants	468,526	—	—	—	—	—		468,526
Recognition of deferred compensation	27,937	(27,937)	—	—	—	—		—
Amortization of deferred compensation	—	46,772	—	—	—	—		46,772
Net loss	—	—	—	—	—	(10,753,871)		(10,753,871)
Balance at December 31, 2000	26,296,749	(12,499)	—	—	—	(20,943,619)		5,340,631
Equity contributions	13,411,506	—	—	—	—	—		13,411,506
Equity issued to consultants	161,073	—	—	—	—	—		161,073
Stock options issued to employee	2,847	—	—	—	—	—		2,847
Fees incurred in raising capital	(1,206,730)	—	—	—	—	—		(1,206,730)
Amortization of deferred compensation	—	12,499	—	—	—	—		12,499
Net loss	—	—	—	—	—	(15,392,618)		(15,392,618)

Balance at December 31, 2001	38,665,445	—	—	—	—	—	(36,336,237)	2,329,208
Equity contributions	6,739,189	—	—	—	—	—	—	6,739,189
Equity issued to consultants	156,073	—	—	—	—	—	—	156,073
Options issued to consultant	176,250	—	—	—	—	—	—	176,250
Options issued to employee	2,847	—	—	—	—	—	—	2,847
Fees incurred in raising capital	(556,047)	—	—	—	—	—	—	(556,047)
Forgiveness of loan receivable in exchange for equity	(1,350,828)	—	—	—	—	—	—	(1,350,828)
Net loss	—	—	—	—	—	—	(11,871,668)	(11,871,668)
Balance at December 31, 2002	43,832,929	—	—	—	—	—	(48,207,905)	(4,374,976)
Equity contributions	4,067,250	—	—	—	—	—	—	4,067,250
Equity issued to consultants	16,624	—	—	—	—	—	—	16,624
Change in fair value of management units	2,952,474	—	—	—	—	—	—	2,952,474
Options issued to consultant	65,681	—	—	—	—	—	—	65,681
	(343,737)	—	—	—	—	—	—	(343,737)

Fees incurred in raising capital							
Forgiveness of loan receivable in exchange for equity	(281,340)	—	—	—	—	—	(281,340)
Net loss	—	—	—	—	—	(6,009,283)	(6,009,283)
Balance at December 31, 2003	50,309,881	—	—	—	—	(54,217,188)	(3,907,307)
Equity contributions	512,555	—	—	—	—	—	512,555
Change in fair value of management units	(2,396,291)	—	—	—	—	—	(2,396,291)

Fees incurred in raising capital	(80,218)	—	—	—			—	—	
Net Loss	—	—	—	—			—	(1,096,683)	(
Balance at December 31, 2004	48,345,927	—	—	—			—	(55,313,871)	(
Equity contributions	92,287	—	—	—			—	—	
Settlement of accounts payable in exchange for equity	836,319	—	—	—			—	—	
Conversion of convertible notes payable and accrued interest for equity	51,565	—	—	—			—	—	
Change in fair value of management units	(14,551)	—	—	—			—	—	
Fees incurred in raising capital	(92,287)	—	—	—			—	—	
Reorganization from LLC to "C" Corporation	(49,219,260)	—	4,829,120	4,829			49,214,431		—
Net loss	—	—	—	—			—	(3,665,596)	(
Balance at December 31, 2005	—	—	4,829,120	4,829			49,214,431	(58,979,467)	(
Issuance of common stock for stock subscribed	—	—	240,929	241	—	—	799,644		—
Issuance of common stock to investor group for price protection	—	—	100,000	100	—	—	(100)		—
Issuance of stock options to employees, consultants and directors	—	—	—	—	—	—	143,352		—
Issuance of 10% Series A Preferred Stock for	—	—	—	—	5,300,000	5,300	5,530,143	(235,443)	

cash								
Cost of raising capital associated with issuance of preferred stock	—	—	—	—	—	—	(620,563)	—
Shares held by original stockholders of Parent immediately prior to merger	—	—	3,750,000	3,750	—	—	(3,750)	—
Conversion of convertible debt, related accrued interest and shares to induce conversion into common stock	—	—	5,170,880	5,171	—	—	11,376,939	— 1
Issuance of common stock in consideration for funding $1,000,000 convertible note payable per terms of merger transaction	—	—	10,000,000	10,000	—	—	990,000	—
Issuance of common stock in exchange for accounts payable and services rendered	—	—	778,274	779	—	—	587,035	—
Conversion of common stock issued prior to reverse merger for 10% Series A Preferred Stock	—	—	(240,929)	(241)	799,885	800	30,194	(30,753)
Non-cash stock dividends on 10% Series A Preferred Stock	—	—	—	—	303,700	303	303,397	(303,700)
Issuance of preferred stock for redemption of convertible note	—	—	—	—	1,000,000	1,000	1,204,640	(205,640)

Issuance of warrants to consultants for services	—	—	—	—	—	—	9,883	—	9
Issuance of warrants in exchange for accounts payable	—	—	—	—	—	—	192,311	—	19
Net loss	—	—	—	—	—	—	—	(7,671,580)	(7,67
Balance at December 31, 2006	—	—	24,628,274	24,629	7,403,585	7,403	69,757,556	(67,426,583)	2,36
Issuance of stock options to employees, consultants and directors			—	—	—	—	498,955	—	49
Issuance of common stock in settlement of accounts payable	—	—	11,501	11	—	—	22,991	—	2
Conversion of preferred stock into common stock	—	—	405,157	405	(506,446)	(506)	101	—	
Issuance of Series A Preferred Stock as dividends and settlement of dividends/penalties payable in connection with non-registration event	—	—	—	—	1,122,369	1,122	1,121,246	(760,872)	36
Net loss	—	—	—	—	—	—	—	(3,350,754)	(3,35
Balance at December 31, 2007	—	—	25,044,932	25,045	8,019,508	8,019	71,400,849	(71,538,209)	(10
Stock based compensation - employees, consultants and	—	—	—	—	—	—	363,563	—	36

directors											
Issuance of Series A Preferred Stock as dividends	—	—	—	—			830,384	831	277,087	(277,918)	
Issuance of Series B Preferred Stock for cash and conversion of $175,000 of convertible debt					52,931.47	53			5,657,842	(364,747)	5,29
Cost of raising capital associated with issuance of Series B Preferred Stock	—	—	—	—	—	—	—	—	(215,398)	—	(21
Issuance of Series B Preferred Stock as dividends	—	—	—	—	2,627.17	2	—	—	262,715	(262,717)	
Issuance of warrants upon conversion of convertible notes payable into Series B Preferred Stock	—	—	—	—	—	—	—	—	40,354		4
Conversion of Series A Preferred stock into common	—	—	218,585	219	—	—	(56,832)	(57)	(162)		
Net loss										(3,017,890)	(3,01
Balance at December 31, 2008	—	—	25,263,517	25,264	55,558.64	55	8,793,060	8,793	77,786,850	(75,461,481)	2,35
Stock based compensation - employees, consultants and directors									236,705		23
Issuance of Series A Preferred Stock as dividends							789,610	789	110,809	(111,598)	

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Issuance of Series B Preferred Stock as dividends				5,860.22	6			586,017	(586,023)		
Exercise of warrants				13,357.52	13			1,335,741			1,33
Warrant modification as inducement to exercise								14,885			
Conversion of notes payable and accrued interest to Series B Preferred Shares				576.05	1			64,308	(6,704)		5
Conversion of Series A and B Preferred stock into common			41,111,339	41,111	(6,628.55)	(6)	(3,326,857)	(3,326)	(37,779)		
Net loss	—	—	—	—			—	—	—	(2,736,715)	(2,73
Balance at December 31, 2009	$ -	$ -	66,374,856	$ 66,375	68,723.88	$ 69	6,255,813	$ 6,256	$ 80,097,536	$ (78,902,521)	$ 1,26

The Notes to Consolidated Financial Statements are an integral part of these financial statements.

MEDASORB TECHNOLOGIES CORPORATION
(a development stage company)

CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Period from January 22, 1997 (date of inception) to December 31, 2009	Year ended December 31, 2009	Year ended December 31, 2008
Cash flows from operating activities:			
Net loss	$ (75,756,406)	$ (2,736,715)	$ (3,017,890)
Adjustments to reconcile net loss to net cash used by operating activities:			
Common stock issued as inducement to convert convertible notes payable and accrued interest	3,351,961	—	—
Issuance of common stock to consultants for services	30,000	—	—
Depreciation and amortization	2,392,461	51,695	103,701
Amortization of debt discount	1,000,000	—	—
Gain on disposal of property and equipment	(21,663)	—	—
Gain on extinguishment of debt	(216,617)	—	—
Interest expense paid with Series B Preferred Stock in connection with conversion of notes payable	3,147	—	3,147
Abandoned patents	183,556	—	—
Bad debts - employee advances	255,882	—	—
Contributed technology expense	4,550,000	—	—
Consulting expense	237,836	—	—
Management unit expense	1,334,285	—	—
Expense for issuance of warrants	533,648	14,885	40,354
Expense for issuance of options	1,490,200	236,705	363,563
Amortization of deferred compensation	74,938	—	—
Penalties in connection with non-registration event	361,496	—	—
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets	(640,639)	(252,088)	83,679
Other assets	(56,394)	10,239	(12,740)
Accounts payable and accrued expenses	2,797,582	666	70,837
Accrued interest	1,823,103	—	—
Net cash used by operating activities	(56,271,624)	(2,674,613)	(2,365,349)
Cash flows from investing activities:			
Proceeds from sale of property and equipment	32,491	—	—
Purchases of property and equipment	(2,226,932)	(6,411)	—
Patent costs	(435,647)	(7,917)	(22,052)
Purchases of short-term investments	(393,607)		(393,607)
Proceeds from sale of short-term investments	393,607	199,607	194,000

Loan receivable	(1,632,168)	—	—
Net cash (used) provided by investing activities	(4,262,256)	185,279	(221,659)
Cash flows from financing activities:			
Proceeds from issuance of common stock	400,490	—	—
Proceeds from issuance of preferred stock, net of related issuance costs	9,579,040	—	4,899,603
Equity contributions - net of fees incurred	43,046,952	1,335,754	—
Proceeds from borrowing	8,603,631	—	225,000
Proceeds from subscription receivables	499,395	—	—
Net cash provided by financing activities	62,129,508	1,335,754	5,124,603

The Notes to Consolidated Financial Statements are an integral part of these statements.

MEDASORB TECHNOLOGIES CORPORATION
(a development stage company)

CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Period from January 22, 1997 (date of inception) to December 31, 2009	Year ended December 31, 2009	Year ended December 31, 2008
Net increase (decrease) in cash and cash equivalents	1,595,628	(1,153,580)	2,537,595
Cash and cash equivalents at beginning of period	—	2,749,208	211,613
Cash and cash equivalents at end of period	$ 1,595,628	$ 1,595,628	$ 2,749,208
Supplemental disclosure of cash flow information:			
Cash paid during the period for interest	$ 590,189	$ —	$ —
Supplemental schedule of noncash financing activities:			
Note payable principal and interest conversion to equity	$ 10,434,319	$ 57,605	$ 175,000
Issuance of member units for leasehold improvements	$ 141,635	$ —	$ —
Issuance of management units in settlement of cost of raising capital	$ 437,206	$ —	$ —
Change in fair value of management units for cost of raising capital	$ 278,087	$ —	$ —
Exchange of loan receivable for member units	$ 1,632,168	$ —	$ —
Issuance of equity in settlement of accounts payable	$ 1,609,446	$ —	$ —
Issuance of common stock in exchange for stock subscribed	$ 399,395	$ —	$ —
Costs paid from proceeds in conjunction with issuance of preferred stock	$ 768,063	$ 0	$ 147,500
Preferred stock dividends	$ 3,146,115	$ 704,325	$ 905,382
Net effect of conversion of common stock to preferred stock prior to merger	$ 559	$ —	$ —

During the years ended December 31, 2009 and 2008, 6,628.55 and -0- Series B Preferred Shares were converted into 18,310,911 and -0- Common Shares, respectively. During the years ended December 31, 2009 and 2008, 3,326,857 and 56,832 Series A Preferred Shares were converted into 22,800,428 and 218,585 Common Shares, respectively. For the period from January 22, 1997 (date of inception) to December 31, 2009, 6,628.55 Series B Preferred Shares and 3,890,135 Series A Preferred Shares were converted into 18,310,911 and 23,424,170 Common Shares, respectively.

During the years ended December 31, 2009 and 2008, -0- and -0- Series A Preferred Shares and -0- and -0- Series B Preferred Shares respectively were issued in connection with the non-registration events as settlement of dividends/penalties payable, respectively. For the period from January 22, 1997 (date of inception) to December 31, 2009, 553,629 Series A Preferred Shares and -0- Series B Preferred Shares were issued in connection with non-registration events as settlement of dividends/penalties payable.

The Notes to Consolidated Financial Statements are an integral part of these statements.

1. BASIS OF PRESENTATION

The accompanying consolidated financial statements include the results of MedaSorb Technologies Corporation (the "Parent"), formerly known as Gilder Enterprises, Inc., and CytoSorbents, Inc. its wholly-owned operating subsidiary (the "Subsidiary"), collectively referred to as "the Company."

The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company has experienced negative cash flows from operations since inception and has a deficit accumulated during the development stage at December 31, 2009 of $78,902,521. The Company is not currently generating revenue and is dependent on the proceeds of present and future financings to fund its research, development and commercialization program. The Company is continuing its fund-raising efforts. Although the Company has historically been successful in raising additional capital through equity and debt financings, there can be no assurance that the Company will be successful in raising additional capital in the future or that it will be on favorable terms. Furthermore, if the Company is successful in raising the additional financing, there can be no assurance that the amount will be sufficient to complete the Company's plans. These matters raise substantial doubt about the Company's ability to continue as a going concern. These consolidated financial statements do not include any adjustments related to the outcome of this uncertainty.

The Company is a development stage company and has not yet generated any revenues. Since inception, the Company's expenses relate primarily to research and development, organizational activities, clinical manufacturing, regulatory compliance and operational strategic planning. Although the Company has made advances on these matters, there can be no assurance that the Company will continue to be successful regarding these issues, nor can there be any assurance that the Company will successfully implement its long-term strategic plans.

The Company has developed an intellectual property portfolio, including 27 issued and multiple pending patents, covering materials, methods of production, systems incorporating the technology and multiple medical uses.

2. PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

Nature of Business

The Company, through its subsidiary, is engaged in the research, development and commercialization of medical devices with its platform blood purification technology incorporating a proprietary adsorbent polymer technology. The Company is focused on developing this technology for multiple applications in the medical field, specifically to provide improved blood purification for the treatment of acute and chronic health complications associated with blood toxicity. As of December 31, 2009, the Company has not commenced commercial operations and, accordingly, is in the development stage. The Company has yet to generate any revenue and has no assurance of future revenue.

Principles of Consolidation

The consolidated financial statements include the accounts of the Parent, MedaSorb Technologies Corporation, and its wholly-owned subsidiary, CytoSorbents, Inc. All significant intercompany transactions and balances have been eliminated in consolidation.

Development Stage Corporation

The accompanying consolidated financial statements have been prepared in accordance with the provisions of accounting and reporting by development state enterprises.

Cash and Cash Equivalents

The Company considers all highly liquid debt instruments purchased with an original maturity of three months or less to be cash equivalents.

Short Term Investments

Short-term investments include short-term bank certificates of deposit with original maturities of between three and twelve months. These short-term notes are classified as held to maturity and are valued at cost, which approximates fair value. These investments are considered Level 2 investments under accounting standards for fair value measurements.

Property and Equipment

Property and equipment are recorded at cost less accumulated depreciation. Depreciation of property and equipment is provided for by the straight-line method over the estimated useful lives of the related assets. Leasehold improvements are amortized over the lesser of their economic useful lives or the term of the related leases. Gains and losses on depreciable assets retired or sold are recognized in the statements of operations in the year of disposal. Repairs and maintenance expenditures are expensed as incurred.

Patents

Legal costs incurred to establish patents are capitalized. When patents are issued, capitalized costs are amortized on the straight-line method over the related patent term. In the event a patent is abandoned, the net book value of the patent is written off.

Impairment or Disposal of Long-Lived Assets

The Company assesses the impairment of patents and other long-lived assets under accounting standards for the impairment or disposal of long-lived assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. For long-lived assets to be held and used, the Company recognizes an impairment loss only if its carrying amount is not recoverable through its undiscounted cash flows and measures the impairment loss based on the difference between the carrying amount and fair value.

Research and Development

All research and development costs, payments to laboratories and research consultants are expensed when incurred.

Income Taxes

Income taxes are accounted for under the asset and liability method prescribed by accounting standards for accounting for income taxes. Deferred income taxes are recorded for temporary differences between financial statement carrying amounts and the tax basis of assets and liabilities. Deferred tax assets and liabilities reflect the tax rates expected to be in effect for the years in which the differences are expected to reverse. A valuation allowance is provided if it is more likely than not that some or all of the deferred tax asset will not be realized. Under Section 382 of the Internal Revenue Code the net operating losses generated prior to the reverse merger may be limited due to the change in ownership. Additionally, net operating losses generated subsequent to the reverse merger may be limited in the event of changes in ownership.

The Company adopted the accounting standards associated with uncertain tax positions as of January 1, 2007. The adoption of this standard did not have a material impact on the Company's consolidated statements of operations or financial position. Upon adoption of this accounting standard, the Company had no unrecognized tax benefits. Furthermore, the Company had no unrecognized tax benefits at December 31, 2009. The Company files tax returns in the U.S. federal and state jurisdictions. The Company has no open years prior to December 31, 2006.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities. Actual results could differ from these estimates. Significant estimates in these financials are the valuation of options granted and the valuation of preferred shares issued as stock dividends.

Concentration of Credit Risk

The Company maintains cash balances, at times, with financial institutions in excess of amounts insured by the Federal Deposit Insurance Corporation. Management monitors the soundness of these institutions in an effort to minimize its collection risk of these balances.

Financial Instruments

The carrying values of cash and cash equivalents, short-term investments, accounts payable and other debt obligations approximate their fair values due to their short-term nature.

Net Loss per Common Share

Basic EPS is computed by dividing income (loss) available to common stockholders by the weighted average number of common shares outstanding during the period. Diluted EPS gives effect to all dilutive potential common shares outstanding during the period. The computation of diluted EPS does not assume conversion, exercise or contingent exercise of securities that would have an anti-dilutive effect on earnings. (See Note 10).

Stock-Based Compensation

The Company accounts for its stock-based compensation under the recognition requirements of accounting standards for accounting for stock-based compensation, for employees and directors whereby each option granted is valued at fair market value on the date of grant. Under these accounting standards, the fair value of each option is estimated on the date of grant using the Black-Scholes option pricing model.

The Company also follows the guidance of accounting standards for accounting for equity instruments that are issued to other than employees for acquiring, or in conjunction with selling, goods or services for equity instruments issued to consultants.

Effects of Recent Accounting Pronouncements

In December 2007, the FASB issued an amendment to an existing accounting standard, which provides guidance related to business combinations. The amendment retains its fundamental requirements that the acquisition method of accounting be used for all business combinations and for an acquirer to be identified for each business combination. This amendment also establishes principles and requirements for how the acquirer: a) recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, and any non-controlling interest in the acquiree; b) recognizes and measures the goodwill acquired in the business combination or a gain from a bargain purchase and c) determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. This amendment will apply prospectively to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. An entity may not apply it before that date. The provisions of this amendment did not have a significant impact on the Company's statements of operations or financial position.

In March 2008, the FASB issued a new accounting standard which provides guidance related to disclosures about derivative instruments and hedging activities and amends an existing accounting standard to expand the disclosure requirements to provide greater transparency about (i) how and why an entity uses derivative instruments, (ii) how derivative instruments and related hedge items are accounted for and its related interpretations, and (iii) how derivative instruments and related hedged items affect an entity's financial position, results of operations and cash flows. To meet those objectives, the new accounting standard requires qualitative disclosures about objectives and strategies for using derivatives, quantitative disclosures about fair value amounts of gains and losses on derivative instruments and disclosures about credit-risk-related contingent features in derivative agreements. The new accounting standard is effective for fiscal years and interim periods beginning after November 15, 2008. The provisions of the new accounting standard did not have a significant impact on the Company's statements of operations or financial position.

In May 2009, the FASB issued a new accounting standard related to subsequent events, which provides guidance on events that occur after the balance sheet date but prior to the issuance of the financial statements. The new accounting standard distinguishes events requiring recognition in the financial statements and those that may require disclosure in the financial statements. Furthermore, the new accounting standard requires disclosure of the date through which subsequent events were evaluated. The new accounting standard is effective for interim and annual periods after June 15, 2009. The Company adopted the new accounting standard for the quarter ended June 30, 2009, and have evaluated subsequent events through April 9, 2010.

In June 2009, the FASB issued a new accounting standard, which provides guidance related to the FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles – a replacement of a previously issued standard. The new accounting standard stipulates the FASB Accounting Standards Codification is the source of authoritative U.S. GAAP recognized by the FASB to be applied by nongovernmental entities. The new accounting standard is effective for financial statements issued for interim and annual periods ending after September 15, 2009. The implementation of this standard did not have a material impact on the Company’s statements of operations or financial position.

3. PROPERTY AND EQUIPMENT, NET:

Property and equipment - net, consists of the following:

December 31,	2009	2008	Depreciation/ Amortization Period

Furniture and fixtures	$ 130,015	$ 130,015	7 years
Equipment and computers	1,737,652	1,731,242	3 to 7 years
Leasehold improvements	462,980	462,980	Term of lease
	2,330,647	2,324,237	
Less accumulated depreciation and amortization	2,311,794	2,272,180	
Property and Equipment, Net	$ 18,853	$ 52,057	

Depreciation expense for the years ended December 31, 2009 and 2008 amounted to $39,615 and $92,400, respectively. Depreciation expense from inception to December 31, 2009 amounted to $2,338,883.

4. OTHER ASSETS:

Other assets consist of the following:

December 31,	2009	2008
Intangible assets, net	$ 198,514	$ 202,676
Security deposits	56,394	66,634
Total	$ 254,908	$ 269,310

Intangible assets consist of the following:

December 31,	2009		2008	
	Gross Amount	Accumulated Amortization	Gross Amount	Accumulated Amortization
Patents	$ 252,090	$ 53,576	$ 244,172	$ 41,496

The issued patents that are capitalized are being amortized over the patents remaining legal life. Pending patents are not amortized. Amortization expense amounted to $12,080 and $11,301 for the years ended December 31, 2009 and 2008, respectively. Amortization expense from inception to December 31, 2009 amounted to $53,576.

Amortization expense is anticipated to be approximately $13,000 for the next five years ended December 31, 2014.

5. ACCOUNTS PAYABLE AND ACCRUED EXPENSES:

Accounts Payable and accrued expenses consist of the following:

	December 31, 2009	2008
Other payable	$ 195,527	$ 316,556
Legal, financial and consulting	184,663	367,379
Research and development	590,575	293,769
	$ 970,765	$ 977,704

6. CONVERTIBLE NOTES:

The Company had outstanding Promissory Notes in the aggregate principal amount of $50,000, that were due in September 2009, which bore interest at the rate of 10% per annum. The holder of the Promissory note had the option to convert, on an all-or-none basis, the entire principal and outstanding interest of their Notes into the Series B Preferred Stock issued in June 2008. In addition, pursuant to the terms of such Promissory Notes, upon such conversion, each Note holder will receive five-year warrants to purchase the number of shares of Common Stock equal to the quotient obtained by dividing (x) 25% of the principal amount of the Promissory Notes being converted, by (y) $0.0362, the purchase price per share of Common Stock issuable upon conversion of the Series B Preferred Stock.

In September 2009 the holder of these Promissory Notes elected to convert in full principal and accrued interest totaling $57,605 into equity per the terms of these notes. Accordingly, the Company issued this investor 576.05 shares of Series B Preferred stock and a five-year warrant to purchase 397,825 shares of Common Stock with an exercise price of $0.0362 per share. In addition, Promissory Notes in the aggregate principal amount of $175,000 plus accrued interest were converted into the Series B Preferred Stock in June 2008 (See Note 9).

In accordance with accounting standards for convertible securities with beneficial conversion features, the Company allocates the proceeds associated with the issuance of preferred stock based on the relative fair value of the preferred stock and warrants. Additionally, the Company evaluates if the embedded conversion option results in a beneficial conversion feature by comparing the relative fair value allocated to the preferred stock to the market value of the underlying common stock subject to conversion. In connection with the preferred stock issuance per the Note conversion during June 2008, the Company recorded total proceeds of $178,147. The Company allocated the total proceeds based on the related fair value as follows: $171,500 was allocated to the preferred stock and $6,647 to the warrants. Additionally, the embedded conversion option resulted in a beneficial conversion feature in the amount of $6,647. In connection with the preferred stock issuance per the Note conversion during September 2009, the Company recorded total proceeds of $57,605. The Company allocated the total proceeds based on the related fair value as follows: $54,253 was allocated to the preferred stock and $3,352 to the warrants. Additionally, the embedded conversion option resulted in a beneficial conversion feature in the amount of $3,352. The value assigned to the warrants resulting from the relative fair value calculation as well as the value of the beneficial conversion feature is recorded as a preferred stock dividend and is presented in the consolidated statements of operations. In addition, the Company considers the guidance of accounting standards for accounting for derivative financial instruments indexed to, and potentially settled in, a company’s own common stock and derivative instruments and hedging activities and concluded that the conversion feature embedded in the preferred stock only provides for physical settlement and there are no net settlement features. Accordingly, the Company has concluded that the conversion feature is not considered a derivative.

7. INCOME TAXES:

From inception through December 31, 2005, the Company incurred losses which, as a limited liability company, were passed through to its members. Tax losses amounted to approximately $2,500,000 and $2,600,000 for the years ended December 31, 2009 and December 31, 2008, respectively. The Company’s Federal net operating loss carryforward amounts to approximately $10,690,000 and expires through 2029. These loss carryforwards are subject to limitation in future years should certain ownership changes occur. A full valuation allowance equal to the deferred tax asset has been recorded due to the uncertainty that the Company will have the ability to utilize such asset.

During the years ended December 31, 2009 and December 31, 2008, the Company sold a portion of its New Jersey Net Operating Loss tax carryforwards to an industrial company under provisions in the New Jersey tax code. For the 2009 sale, the Company is entitled to proceeds of approximately $299,000. The Company received approximately

$249,000 for the 2008 sale. The Company has recorded a receivable for the 2009 sale and included the receivable in the consolidated balance sheets at December 31, 2009 under the caption prepaid expenses and other current assets (See Note 11). The Company's remaining New Jersey net operating loss carryforward amounts to approximately $3,798,000 and expires through 2016. There can be no assurance that the Company will be eligible to participate or be successful in future sales of its New Jersey Net Operating Loss tax carryforwards.

For the years ended December 31, 2009 and December 31, 2008, respectively, the Company's effective tax rate differs from the federal statutory rate principally due to net operating losses offset by certain non-deductible expenses for which no benefit has been recorded.

A reconciliation of the Federal statutory rate to the Company's effective tax rate for the years ended December 31, 2009 and December 31, 2008 is as follows:

	2009	2008
Federal statutory rate	(34.0)%	(34.0)%
Decrease resulting from:		
Non-deductible expenses	2.5	4.6
Operating losses	31.5	29.4
Effective tax rate	—%	—%

8. COMMITMENTS AND CONTINGENCIES:

The Company is obligated under non-cancelable operating leases for office space expiring at various dates through February 2011. The aggregate minimum future payments under these leases are approximately as follows:

Year ending December 31,

2010	$ 136,000
2011	22,000
Total	$ 158,000

The preceding data reflects existing leases through the date of this report and does not include replacements upon their expiration. In the normal course of business, operating leases are normally renewed or replaced by other leases.

Rent expense for the years ended December 31, 2009 and 2008 amounted to approximately $258,000 and $251,000, respectively.

Employment Agreements

The Company has employment agreements with certain key executives through December 2009. The agreements provide for annual base salaries of varying amounts.

Litigation

The Company is currently not involved, but may at times be involved in various claims and legal actions. Management is currently of the opinion that these claims and legal actions would have no merit, and any ultimate outcome will not have a material adverse impact on the consolidated financial position of the Company and/or the results of its operations.

In February 2008, Alkermes, Inc. commenced an action against us in the United States District Court for the District of Massachusetts, alleging that our use of the name MedaSorb infringes on Alkermes' registered trademark "MEDISORB." In the action, Alkermes sought an injunction against our further use of the name MedaSorb. Pursuant to a Settlement Agreement dated June 18, 2008, to avoid any potential confusion with Alkermes' similarly named product, the Company has ceased using the "MedaSorb" name in its wholly-owned subsidiary, through which the

Company conducts all of its operational activities, and renamed our operating subsidiary CytoSorbents, Inc. as of November 2008. The Company has also filed to change the name of the parent company from MedaSorb Technologies Corporation to CytoSorbents Corporation.

Royalty Agreements

Pursuant to an agreement dated August 11, 2003 an existing investor agreed to make a $4 million equity investment in the Company. These amounts were received by the Company in 2003. In connection with this agreement the Company granted the investor a future royalty of 3% on all gross revenues received by the Company from the sale of its CytoSorb device. The Company has not generated any revenue from this product and has not incurred any royalty costs through December 31, 2009. The amount of future revenue subject to the royalty agreement could not be reasonably estimated nor has a liability been incurred, therefore, an accrual for royalty payments has not been included in the consolidated financial statements.

License Agreements

In an agreement dated September 1, 2006, the Company entered into a license agreement which provides the Company the exclusive right to use its patented technology and proprietary know how relating to adsorbent polymers for a period of 18 years. Under the terms of the agreement, MedaSorb has agreed to pay royalties of 2.5% to 5% on the sale of certain of its products if and when those products are sold commercially for a term not greater than 18 years commencing with the first sale of such product. The Company has not generated any revenue from its products and has not incurred any royalty costs through December 31, 2009. The amount of future revenue subject to the Settlement Agreement could not be reasonably estimated nor has a liability been incurred, therefore, an accrual for royalty payments has not been included in the consolidated financial statements.

Warrant Agreement

As inducement to invest additional funds in the private placement of Series B Preferred Stock, additional consideration was granted to the participants of the Series B Preferred Stock offering in the event that litigation is commenced against MedaSorb prior to June 30, 2018, claiming patent infringement on certain of the Company’s issued patents. In the event this litigation arises the Company may be required to issue warrants to purchase in the aggregate up to a maximum of ten million shares of Common Stock subject to certain adjustments. Through December 31, 2009 no such litigation has arisen and due to the deemed low probability of this potential outcome, the Company has not booked a contingent liability for this agreement.

9. STOCKHOLDERS' EQUITY

Preferred Stock

Our certificate of incorporation authorizes the issuance of up to 100,000,000 shares of “blank check” preferred stock, with such designation rights and preferences as may be determined from time to time by the Board of Directors. We have designated 12,000,000 shares of Series A Preferred Stock and 200,000 shares of Series B Preferred Stock as described above. Subject to the rights of the holders of the Series A and Series B Preferred Stock, our Board of Directors is empowered, without stockholder approval, to issue up to 87,800,000 additional shares of preferred stock with dividend, liquidation, conversion, voting or other rights.

10% Series A Preferred Stock

Each share of Series A Preferred Stock has a stated value of $1.00, and is convertible at the holder's option into that number of shares of Common Stock equal to the stated value of such share of Series A Preferred Stock divided by an initial conversion price of $1.25. Upon the occurrence of a stock split, stock dividend, combination of the Common Stock into a smaller number of shares, issuance of any of shares of Common Stock or other securities by reclassification of the Common Stock, merger or sale of substantially all of the Company's assets, the conversion rate will be adjusted so that the conversion rights of the Series A Preferred Stock stockholders will be equivalent to the conversion rights of the Series A Preferred Stock stockholders prior to such event. In addition, in the event the Company sells shares of Common Stock (or the equivalent thereof) at a price of less than $1.25 per share, the conversion price of the shares of Series A Preferred Stock will be reduced to such lower price. In addition, in the event the Company sells shares of Common Stock (or the equivalent thereof) at a price of less than $2.00 per share, the exercise price of the warrants issued to the holders of the Series A Preferred Stock will be reduced to such lower price. As of the "Qualified Closing" of our Series B Preferred Stock private placement in August of 2008, these investors' agreed to a modification of their rights and pricing and gave up their anti-dilution protection – see Qualified Closing description in Series B Preferred Stock section.

Pursuant to agreements with the June 30, 2006 purchasers of Series A Preferred Stock that waived rights to anti-dilution price protection upon the completion of the Series B offering, the Company reduced the conversion price for these holders of Series A Preferred Stock from $1.25 per share of Common to prices ranging from $0.10 to $0.45 per share of Common. The June 30, 2006 purchasers of Series A Preferred Stock also received reductions in their corresponding warrant exercise prices from $2.00 per share of Common Stock to exercise prices ranging from $0.40 to $0.90 per share of Common Stock.

The Series A Preferred Stock bears a dividend of 10% per annum payable quarterly, at the Company's election in cash or additional shares of Series A Preferred Stock valued at the stated value thereof; provided, however, that the Company must pay the dividend in cash if an "Event of Default" as defined in the Certificate of Designation designating the Series A Preferred Stock has occurred and is then continuing. In addition, upon an Event of Default, the dividend rate increases to 20% per annum. An Event of Default includes, but is not limited to, the following:

- the occurrence of "Non-Registration Events";
- an uncured breach by the Company of any material covenant, term or condition in the Certificate of Designation or any of the related transaction documents; and
- any money judgment or similar final process being filed against the Company for more than $100,000.

In the event of the Company's dissolution, liquidation or winding up, the holders of the Series A Preferred Stock will receive, in priority over the holders of Common Stock, a liquidation preference equal to the stated value of such shares plus accrued dividends thereon.

The Series A Preferred Stock is not redeemable at the option of the holder but may be redeemed by the Company at its option following the third anniversary of the issuance of the Series A Preferred Stock for 120% of the stated value thereof plus any accrued but unpaid dividends upon 30 days' prior written notice, during which time the Series A Preferred Stock may be converted, provided a registration statement is effective under the Securities Act with respect to the Common Stock into which such Preferred is convertible and an Event of Default is not then continuing.

Holders of Series A Preferred Stock do not have the right to vote on matters submitted to the holders of Common Stock.

The registration rights provided for in the subscription agreements entered into with the purchasers of the Series A Preferred Stock: 1) required that the Company file a registration statement with the SEC on or before 120 days from the closing to register the shares of Common Stock issuable upon conversion of the Series A Preferred Stock and exercise of the warrants, and cause such registration statement to be effective within 240 days following the closing; and 2) entitles each of these investors to liquidated damages in an amount equal to two percent (2%) of the purchase price of the Series A Preferred Stock if the Company fails to timely file that registration statement with, or have it declared effective by, the SEC.

The transaction documents entered into with the purchasers of the Series A Preferred Stock also provide for various penalties and fees for breaches or failures to comply with provisions of those documents, such as the timely payment of dividends, delivery of stock certificates upon conversion of the Series A Preferred Stock or exercise of the warrants, and obtaining and maintaining an effective registration statement with respect to the shares of Common Stock underlying the Series A Preferred Stock and warrants sold in the offering.

The Company has recorded non-cash stock dividends in connection with the issuance of Series A Preferred Stock as a stock dividend to its preferred shareholders as of December 31, 2009. Prior to February 26, 2007 and after May 7, 2007, the dividend rate was 10% per annum. Effective February 26, 2007 due to the Company’s failure to have the registration statement it filed declared effective by the Commission within the time required under agreements with the June 30, 2006 purchasers of the Series A Preferred Stock (i) dividends on the shares of Series A Preferred Stock issued to those purchasers were required to be paid in cash, (ii) the dividend rate increased from 10% per annum to 20% per annum, and (iii) such purchasers were entitled to liquidated damages of 2% of their principal investment payable in cash per 30 day period until the registration statement was declared effective. In connection with such cash dividend and penalty obligations, as modified by the Settlement Agreement described below, the Company’s financial statements for the year ending December 31, 2007 also reflect an aggregate charge of $361,495. On May 7, 2007 the Company’s registration statement filed in connection with the Company’s obligations to the June 30, 2006 purchasers of its Series A Preferred Stock was declared effective by the Commission.

Pursuant to a settlement agreement entered into in August 2007 with the June 30, 2006 purchasers of the Series A Preferred Stock, cash dividends stopped accruing on the Series A Preferred Stock effective on the date the Company’s registration statement was declared effective (May 7, 2007) and all cash dividends and penalties due through that date were paid with additional shares of Series A Preferred Stock at its stated value of $1.00 per share in lieu of cash. The settlement, did not result in a gain or loss on extinguishment of debt for the year ended December 31, 2007. Additionally, as part of the settlement, the dividend rate on the Series A Preferred Stock issued to these purchasers was reset to 10% effective as of May 7, 2007.

During the years ended December 31, 2009 and 2008, the Company issued 789,610 and 830,384 shares of Series A Preferred Stock respectively as payment of stock dividends at the stated value of $1.00 per share.

During the twelve months ended December 31, 2009 the Company recorded non-cash stock dividends totaling $111,599 in connection with the issuance of 789,610 shares of Series A Preferred Stock to its preferred shareholders

as of December 31, 2009.

10 % Series B Cumulative Convertible Preferred Stock

Each share of Series B Preferred Stock has a stated value of $100.00, and is convertible at the holder's option into that number of shares of Common Stock equal to the stated value of such share of Series B Preferred Stock divided by an initial conversion price of $0.035, subject to certain adjustments. Additionally, upon the occurrence of a stock split, stock dividend, combination of the Common Stock into a smaller number of shares, issuance of any of shares of Common Stock or other securities by reclassification of the Common Stock, merger or sale of substantially all of the Company's assets, the conversion rate will be adjusted so that the conversion rights of the Series B Preferred Stock stockholders will be equivalent to the conversion rights of the Series B Preferred Stock stockholders prior to such event.

The Series B Preferred Stock bears a dividend of 10% per annum payable quarterly; provided, that if an "Event of Default" as defined in the Certificate of Designation designating the Series B Preferred Stock has occurred and is then continuing, the dividend rate increases to 20% per annum. An Event of Default includes, but is not limited to, the following:

- the occurrence of "Non-Registration Events";
- an uncured breach by the Company of any material covenant, term or condition in the Certificate of Designation or any of the related transaction documents; and
- any money judgment or similar final process being filed against the Company for more than $100,000.

Dividends on the Series B Preferred Stock will be made in additional shares of Series B Preferred Stock, valued at the stated value thereof. Notwithstanding the foregoing, during the first three-years following the initial closing, upon the approval of the holders of a majority of the Series B Preferred Stock, including the lead investor, NJTC, if it then owns 25% of the shares of Series B Preferred Stock initially purchased by it (the "Required Amount"), the Company may pay dividends in cash instead of additional shares of Series B Preferred Stock, and after such three-year period, the holders of a majority of the Series B Preferred Stock, including NJTC if it then owns the Required Amount, may require that such payments be made in cash.

In the event of the Company's dissolution, liquidation or winding up, the holders of the Series B Preferred Stock will receive, in priority over the holders of Series A Preferred Stock and Common Stock, a liquidation preference equal to the stated value of such shares plus accrued dividends thereon.

Holders of Series B Preferred Stock have the right to vote on matters submitted to the holders of Common Stock on an as converted basis.

The Company has agreed to file a registration statement under the Securities Act covering the Common Stock issuable upon conversion of the Series B Preferred Stock within 180 days following the initial closing and to cause it to become effective within 240 days of such closing. The Company also granted the investors demand and piggyback registration rights with respect to such Common Stock. The investors in the private placement are entitled to liquidated damages in an amount equal to two percent (2%) of the purchase price of the Series B Preferred Stock if the Company fails to timely file that registration statement with, or have it declared effective by, the SEC. The Company has received a waiver from a majority of the Series B holders for the non-registration event and the timing of the Series B registration does not create a cross-default of the Series A Preferred Series.

Following the fifth anniversary of the initial closing, the holders of a majority of the Series B Preferred Stock, including NJTC (if it then holds 25% of the shares of Series B Preferred Stock initially purchased by it) may elect to require the Company to redeem all (but not less than all) of their shares of Series B Preferred Stock at the original purchase price for such shares plus all accrued and unpaid dividends whether or not declared, provided the market price of the Company's Common Stock is then below the conversion price of the Series B Preferred Stock.

Pursuant to the Certificate of Designation designating the Series B Preferred Stock, for so long as NJTC holds the Required Amount, NJTC is entitled to elect (i) two directors to the Company's Board of Directors, which shall initially consist of six members, and (ii) two members to the Company's compensation committee, which shall consist of at least three members. Within twelve months following the initial closing, the Company agreed to reduce the number of Directors on the Company's Board of Directors to five members. Following the initial closing, two affiliates of NJTC joined the Company's Board of Directors and compensation committee pursuant to the foregoing provision.

The transaction documents entered into with the purchasers of the Series B Preferred Stock also provide for various penalties and fees for breaches or failures to comply with provisions of those documents, such as the timely payment of dividends, delivery of stock certificates upon conversion of the Series B Preferred Stock or exercise of the warrants, and obtaining and maintaining an effective registration statement with respect to the shares of Common Stock underlying the Series B Preferred Stock and warrants sold in the offering.

In accordance with accounting standards governing debt with conversion and other options, the Company allocates the proceeds associated with the issuance of preferred stock based on the relative fair value of the preferred stock and warrants. Additionally, the Company evaluates if the embedded conversion option results in a beneficial conversion feature by comparing the relative fair value allocated to the preferred stock to the market value of the underlying common stock subject to conversion. In connection with the preferred stock issuances during the year ended December 31, 2008, the Company received total proceeds of $5,293,147. The Company allocated the total proceeds based on the related fair value as follows: $5,110,773 was allocated to the preferred stock and $182,374 to the warrants. Additionally, the embedded conversion option resulted in a beneficial conversion feature in the amount of $182,374. The value assigned to the warrants resulting from the relative fair value calculation as well as the value of the beneficial conversion feature is recorded as a preferred stock dividend and is presented in the consolidated statements of operations. In addition, the Company considers the guidance of accounting for derivative financial instruments indexed to, and potentially settled in, a company's own common stock, and accounting for derivative instruments and hedging activities and concluded that the conversion feature embedded in the preferred stock only provides for physical settlement and there are no net settlement features. Accordingly, the Company has concluded that the conversion feature is not considered a derivative.

During the years ended December 31, 2009 and 2008, the Company issued 5,860.22 and 2,627.17 shares of Series B Preferred Stock respectively as payment of stock dividends at the stated value of $100.00 per share.

During the twelve months ended December 31, 2009 the Company recorded non-cash stock dividends totaling $586,022 in connection with the issuance of 5,860.22 shares of Series B Preferred Stock to its preferred shareholders as of December 31, 2009.

Determination of Stock Dividend Fair Value

The Company has estimated the fair value of the shares issued as stock dividends based upon the last completed financing transaction involving the underlying common shares, which occurred in June 2008.

Stock Option Plans

As of December 31, 2009, the Company had a Long Term Incentive Plan ("2006 Plan") to attract, retain, and provide incentives to employees, officers, directors, and consultants. The Plan generally provides for the granting of stock, stock options, stock appreciation rights, restricted shares, or any combination of the foregoing to eligible participants.

A total of 40,000,000 shares of common stock are reserved for issuance under the 2006 Plan. As of December 31, 2009 there were outstanding options to purchase 22,687,225 shares of common stock reserved under the plan. Additionally, as of December 31, 2009 there were options to purchase 890,479 shares of Common Stock that were issued outside of the 2006 Plan. The Company may increase the shares in the 2006 Plan as needed to maintain the pool with 15% of the shares outstanding on a fully diluted basis.

The 2006 Plan as well as grants issued outside of the Plan are administered by the Board of Directors. The Board is authorized to select from among eligible employees, directors, advisors and consultants those individuals to whom incentives are to be granted and to determine the number of shares to be subject to, and the terms and conditions of the

options. The Board is also authorized to prescribe, amend and rescind terms relating to options granted under the Plans. Generally, the interpretation and construction of any provision of the Plans or any options granted hereunder is within the discretion of the Board.

The Plan provides that options may or may not be Incentive Stock Options (ISOs) within the meaning of Section 422 of the Internal Revenue Code. Only employees of the Company are eligible to receive ISOs, while employees and non-employee directors, advisors and consultants are eligible to receive options, which are not ISOs, i.e. "Non-Qualified Options." Because the Company has not yet obtained shareholder approval of the 2006 Plan, all options granted thereunder to date are "Non-Qualified Options" and until such shareholder approval is obtained, all future options issued under the 2006 Plan will also be "Non-Qualified Options."

Stock-based Compensation

Share-based employee, director, and consultant compensation in the amounts of approximately $109,000 and $109,000 for the years ended December 31, 2009 and 2008 and approximately $128,000 and $254,000 for the years ended December 31, 2009 and 2008, are included in the net loss of $2,736,715 and $3,017,890, respectively under the captions research and development and general and administrative.

The summary of the stock option activity for the year ended December 31, 2009 is as follows:

	Shares	Weighted Average Exercise per Share	Weighted Average Remaining Contractual Life (Years)
Outstanding January 1, 2008	2,098,502	9.41	7.7
Granted	16,133,578	0.075	9.4
Cancelled	(73,234)	26.42	0.0
Exercised	—	—	—
Outstanding, December 31, 2008	18,158,846	1.05	9.1
Granted	5,418,858	0.125	9.0
Cancelled	—	—	—
Exercised	0	—	—
Outstanding, December 31, 2009	23,577,704	$ 0.84	8.3

The weighted-average grant date fair value for options granted during the years ended December 31, 2009 and 2008 amounted to approximately $0.003 and $0.03 per share, respectively.

At December 31, 2009, the aggregate intrinsic value of options outstanding and options currently exercisable amounted to $15,605. As of December 31, 2009, the Company had options currently exerciseable into an aggregate total of 16,776,651 shares of common stock.

The summary of the status of the Company’s non-vested options for the year ended December 31, 2009 is as follows:

	Shares	Weighted Average Grant Date Fair Value
Non-vested, January 1, 2009	6,280,604	$ 0.05
Granted	5,418,858	$ 0.003
Cancelled	—	$ —
Vested	(4,898,409)	$ 0.039
Exercised	—	—
Non-vested, December 31, 2009	6,801,053	$ 0.024

As of December 31, 2009, approximately $87,772 of total unrecognized compensation cost related to stock options is expected to be recognized over a weighted average period of 0.64 years.

As of December 31, 2009, the Company has the following warrants to purchase common stock outstanding:

Number of Shares To be Purchased	Warrant Exercise Price per Share	Warrant Expiration Date
15,569	$ 6.64	March 31, 2010
816,691	$ 4.98	June 30, 2011
1,200,000	$ 0.90	June 30, 2011
900,000	$ 0.40	June 30, 2011
339,954	$ 2.00	September 30, 2011

52,080	$	2.00	July 31, 2011
400,000	$	0.40	October 31, 2011
240,125	$	1.25	October 24, 2016
3,986,429	$	0.035	June 25, 2013
397,825	$	0.0362	September 30, 2014
12,483,665	$	0.107	October 5, 2010
20,832,338			

As of December 31, 2009, the Company has the following warrant to purchase Series A Preferred Stock outstanding:

Number of Shares to be Purchased	Warrant Exercise Price per Preferred Share	Warrant Expiration Date
525,000	$ 1.00	June 30, 2011

If the holder of warrants for preferred stock exercises in full, the holder will receive additional 5 year warrants to purchase a total of 210,000 shares of common stock at $0.40 per share.

Equity Instruments Issued for Services Rendered

During the years ended December 31, 2009 and 2008 the Company issued stock options, warrants and shares of common stock in exchange for services rendered to the Company. The fair value of each stock option and warrant was valued using the Black Scholes pricing model which takes into account as of the grant date the exercise price (ranging from $0.035 to $0.25 per share) and expected life of the stock option or warrant (5-10 years), the current price of the underlying stock and its expected volatility (approximately 23-27 percent based on the historical volatility of the Company's industry sector), expected dividends (-0- percent) on the stock and the risk free interest rate (ranging from 2.25 to 4.04 percent) for the term of the stock option or warrant. Shares of common stock are valued at the quoted market price on the date of grant. The fair value of each grant was charged to the related expense in the statement of operations for the services received.

10. NET LOSS PER SHARE

Basic earnings per share and diluted earnings per share for the years ended December 31, 2009 and 2008 have been computed by dividing the net loss for each respective period by the weighted average number of shares outstanding during that period. All outstanding warrants and options representing approximately 44,410,042 and 26,109,694 incremental shares, respectively, as well as shares issuable upon conversion of Series A & B Convertible Preferred Stock and Preferred Stock Warrants representing approximately 214,993,901 incremental shares have been excluded from the computation of diluted EPS as they are anti-dilutive.

11. SUBSEQUENT EVENTS

The Company has evaluated subsequent events occurring after the balance sheet through the date of April 9, 2010, which is the date the financial statements were issued.

In January 2010, the Company issued options to purchase 2,530,000 shares of Common Stock to employees and a consultant exercisable at $0.173 per share and options to purchase 108,000 shares of Common Stock to a consultant exercisable at $0.166 per share.

During 2010 a total of 500,000 shares of Series A Preferred Stock were converted into 5,000,000 shares of Common Stock, and a total of 4,054.4 shares of Series B Preferred Stock were converted into 11,200,000 shares of Common Stock.

In January 2010 we received approximately $299,000 as proceeds from the sale during 2009 of our Net Operating Losses as part of a State sponsored program.

In January 2010 the Company issued a 12-month Promissory Note in the principal amount of $172,500, which bears interest at the rate of 5% per annum. Should the Company complete any financing, debt or equity, which includes any

equity component or the right to convert into equity, the entire principal and outstanding interest of the Note shall automatically be converted into the creditor's choice of either 1) the securities issued in such financing under the same terms, conditions, and pricing (the "Conversion Price") or 2) applied toward the exercise of the creditor's existing warrant for Series A Preferred Stock. In addition pursuant to the terms of the Promissory Note, upon conversion, the note holder will receive a five year warrant to purchase that number of shares of Common Stock equal to the quotient obtained by dividing (x) 50% of the principal plus accrued interest of the Note being converted, by (y) the Conversion Price, with the resulting number of shares having an exercise price equal to the Conversion Price. If in the event there is not a new financing prior to the maturity of the Note or the creditor elects to convert the outstanding principal and interest toward the exercise of creditor's existing Series A warrant, then upon conversion, the note holder will receive a five year warrant to purchase that number of shares of Common Stock equal to the quotient obtained by dividing (x) 50% of the principal plus accrued interest of the Note being converted, by (y) $0.10, with the resulting number of shares having an exercise price equal to $0.10 per share of common stock.

In March 2010, the Company filed to change its corporate name from MedaSorb Technologies Corporation to CytoSorbents Corporation.