Independent Data Safety Monitoring Board Recommends Continuation of CytoSorbents REFRESH I Trial

MONMOUTH JUNCTION, NJ – May 27, 2016 - CytoSorbents Corporation (NASDAQ: CTSO), a critical care immunotherapy leader commercializing its flagship CytoSorb® blood purification cartridge to prevent or treat deadly inflammation and organ failure in critically-ill and cardiac surgery patients around the world, announced that the independent Data Safety Monitoring Board (DSMB) of the current U.S. REFRESH I cardiac surgery trial positively evaluated the safety data from the first 24 patients in a scheduled meeting, found no safety concerns, and recommended continuation of the trial to completion without changes.

REFRESH (REduction in FREe Hemoglobin) I is a company-sponsored 40-patient, multi-center, randomized, controlled safety and feasibility study using CytoSorb® intra-operatively during elective, non-emergent complex cardiac surgery where cardiopulmonary bypass is expected to last longer than 3 hours. The primary endpoints are safety of treatment and efficacy of plasma free hemoglobin removal from blood. The study is being performed by eight major U.S. cardiac surgery centers under the guidance of the Company's cardiac surgery advisory board. With a successful conclusion of REFRESH I and a meeting with the U.S. Food and Drug Administration (FDA), the company plans to submit an investigational device exemption (IDE) application later this year to initiate a pivotal, registration REFRESH 2 trial.

Dr. Robert Bartlett, Chief Medical Officer of CytoSorbents, stated, "We are pleased that the DSMB has recommended continuation of the REFRESH I trial without modifications. Their conclusion mirrors the general experience in more than 1,500 cardiac surgeries in Europe to date, where CytoSorb® has been used safely intra-operatively, with the goals of controlling inflammation, stabilizing patients, and reducing the risk of serious post-operative complications such as shock, acute kidney injury, and lung failure. With more than two-thirds of the patients enrolled, we remain focused on enrolling this important study to completion in the next several months."

There are more than 1.5 million open heart surgery procedures performed worldwide each year, with approximately 500 thousand in the United States alone. Approximately 20-25% of all cardiac surgeries requiring cardiopulmonary bypass are considered complex, which includes extensive procedures such as aortic reconstruction, multiple valve replacement, coronary artery bypass graft (CABG) re-do operations, left ventricular assist device (LVAD) implantation, heart

transplantation, lung transplantation, and congenital defect repair. Complex cardiac surgery generates high levels of plasma free hemoglobin, cytokines, and other inflammatory mediators that can trigger severe peri-operative inflammation and complications such as organ dysfunction and organ failure in more than a third of patients. In Europe, CytoSorb® is being frequently used both during and after cardiac surgery to help prevent or treat these dangerous sequelae.

About CytoSorbents Corporation (NASDAQ: CTSO)

CytoSorb® is approved in the European Union with distribution in 32 countries around the world, as a safe and effective extracorporeal cytokine adsorber, designed to reduce the "cytokine storm" or "cytokine release syndrome" that could otherwise cause massive inflammation, organ failure and death in common critical illnesses such as sepsis, burn injury, trauma, lung injury, and pancreatitis, as well as in cancer immunotherapy. These are conditions where the risk of death is extremely high, yet no effective treatments exist. CytoSorb® is also being used during and after cardiac surgery to remove inflammatory mediators, such as cytokines and free hemoglobin, which can lead to post-operative complications, including multiple organ failure. CytoSorb® has been used safely in more than 12,000 human treatments to date, of which more than 1,500 devices have been used during open heart surgery.

CytoSorbents' purification technologies are based on biocompatible, highly porous polymer beads that can actively remove toxic substances from blood and other bodily fluids by pore capture and surface adsorption. The Company has numerous products under development based upon this unique blood purification technology, protected by 32 issued U.S. patents and multiple applications pending, including HemoDefend™, ContrastSorb, DrugSorb, and others. Additional information is available for download on the Company's websites: http://www.cytosorbents.com and http://www.cytosorb.com

Forward-Looking Statements

This press release includes forward-looking statements intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, but are not limited to, statements about our plans, objectives, representations and contentions and are not historical facts and typically are identified by use of terms such as "may," "should," "could," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential," "continue" and similar words, although some forward-looking statements are expressed differently. You should be aware that the forward-looking statements in this press release represent management's current judgment and expectations, but our actual results, events and performance could differ materially from those in the forward-

looking statements. Factors which could cause or contribute to such differences include, but are not limited to, the risks discussed in our Annual Report on Form 10-K, filed with the SEC on March 9, 2016, as updated by the risks reported in our Quarterly Reports on Form 10-Q, and in the press releases and other communications to shareholders issued by us from time to time which attempt to advise interested parties of the risks and factors which may affect our business. We caution you not to place undue reliance upon any such forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise, other than as required under the Federal securities laws.

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