

SPECTRAL TO BRING ANTI-SEPSIS THERAPY TO THE U.S. MARKET

TORONTO, Canada – September 23, 2008 – Spectral Diagnostics Inc. (TSX: SDI) today announced that it has agreed to key terms with Toray Industries Inc. of Japan to obtain the exclusive development and commercial rights in the U.S. for Toraymyxin™, a therapeutic for the treatment of sepsis that removes endotoxin from the bloodstream. Under the terms of the agreement, the Company will seek FDA approval for a combined product for the treatment of severe sepsis that will include Toraymyxin™ and Spectral's Endotoxin Activity Assay (EAA™), the only FDA cleared diagnostic for the measurement of endotoxin. The conclusion of final commercial agreements is subject only to the completion of due diligence by Spectral and the determination of an approved clinical development pathway with the U.S. FDA.

“Toraymyxin™ is marketed in Japan and Europe and has been used to treat more than 50,000 sepsis patients safely and effectively. Spectral's EAA™ can identify patients that will benefit from Toraymyxin™ and monitor the effects of the treatment,” said Dr. Paul Walker, President and CEO of Spectral. “This combination of the EAA™ diagnostic and the Toraymyxin™ therapeutic has been utilized by clinicians in Europe since November 2007 and has demonstrated the potential to lead to a significant reduction in mortality, as documented in the findings presented at the 28th International Symposium on Intensive Care and Emergency Medicine in March 2008. We believe that this combined treatment can fulfill a major unmet need for the approximately 100,000 patients that develop severe sepsis or septic shock in the U.S. each year.”

“The business alliance with Toray and the specific combination of our approved diagnostic with their therapeutic device represent a significant market opportunity for Spectral,” said Anthony Businskas, Spectral's Executive Vice-President and CFO. “Over the coming months, we expect to complete our due diligence and discuss the clinical development pathway for this combined product with the U.S. FDA. Finalization of the exclusive license and material supply agreements with Toray is anticipated to occur in the first quarter of 2009.”

About Toray

Toray Industries, Inc. is a leading diversified chemicals corporate group that has been technology-focused since its foundation in 1926. The company's operations are underpinned by technological expertise in organic synthetic chemistry, polymer chemistry, and biochemistry. These innovative technologies have yielded “advanced materials” that Toray is now exploiting to provide customers with comprehensive solutions through Fibers and Textiles, Plastics and Chemicals, IT-related Products, Carbon Fiber Composite Materials, Environment and Engineering, Life Science and Other Business divisions. In FY2008, Toray had consolidated sales of 1,650 billion yen (approx \$15 billion US), and over 33,000 employees worldwide. For further information, please check www.toray.co.jp.

About Spectral Diagnostics

Spectral is a leader in the battle against sepsis. Spectral's lead product is its Endotoxin Activity Assay (EAA™), the only FDA cleared assay for the measurement of endotoxin. With the growing awareness for the role of endotoxemia in sepsis and the increasing number of therapies being developed for this indication, Spectral is well-positioned to drive the adoption of the EAA™, which can be used to identify patients, enable therapeutics and monitor treatment. Spectral is listed on TSX under the symbol SDI.

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Forward-looking statement

Information in this news release that is not current or historical factual information may constitute forward-looking information within the meaning of securities laws. Implicit in this information, particularly in respect of the future outlook of Spectral and anticipated events or results, are assumptions based on beliefs of Spectral's senior management as well as information currently available to it. While these assumptions were considered reasonable by Spectral at the time of preparation, they may prove to be incorrect. Readers are cautioned that actual results are subject to a number of risks and uncertainties, including the availability of funds and resources to pursue R&D projects, the successful and timely completion of clinical studies, the ability of Spectral to take advantage of business opportunities in the biomedical industry, the granting of necessary approvals by regulatory authorities as well as general economic, market and business conditions, and could differ materially from what is currently expected.

The TSX has not reviewed and does not accept responsibility for the adequacy or accuracy of this statement.