



**THERMOGENESIS APPLAUDS THE U.S. CONGRESS FOR PASSING  
THE “STEM CELL THERAPEUTIC AND RESEARCH ACT OF 2005”**

**Bill finances a national inventory of 150,000 cryopreserved cord blood stem cell units  
for clinical use, homeland security and critically needed stem cell research.**

**RANCHO CORDOVA, California (December 19, 2005) --ThermoGenesis Corp. (Nasdaq: KOOL)** Chairman & CEO, Philip Coelho, commented on the passage of the **Stem Cell Therapeutic and Research Act of 2005**. “This Bill, sponsored in the Senate (S-1317) by Senator Orrin Hatch and in the House of Representatives (HR-2520), by Representatives Chris Smith and Artur Davis, amends the Public Health Service Act to establish a National Cord Blood Stem Cell Bank Network to prepare, store and distribute 150,000 units of human umbilical cord blood stem cells for the treatment of patients and to support peer-reviewed research using such cells. This authorizing legislation provides \$79 million in funds to follow the previous \$19 million already appropriated as direct grants to qualified cord blood banks to manufacture the national inventory. The Office of Management and Budget has projected the full cost of the authorized inventory to be \$225 million over the next several years.”

Neonatal cord blood stem cells are used in the treatment of more than 60 malignant, genetic and acquired blood diseases, such as leukemia, lymphoma, sickle cell anemia, thalassemia, and immunodeficiency (boy in the bubble disease). Cord blood as a source of stem cells is more rapidly available than bone marrow, a critical factor should a radiation incident occur, and provides survival rates for patients with these usually fatal diseases that can be as good, or better, than those following adult donor bone marrow stem cell transplants. Cord blood stem cell transplants are already curing hundreds of U.S. patients from lethal diseases each year and this 150,000-unit inventory will provide life saving stem cell transplants for the more than ten thousand patients each year who need them and cannot currently get them from the “walking donor” bone marrow registries (as disclosed in the GAO Report, October 2002). Recent peer reviewed articles have underscored that stem cells residing in cord blood can differentiate into other tissues of the body, thereby becoming candidate cells to explore treatments such as diabetes, spinal cord damage and Parkinson’s.

According to Mr. Coelho, “ThermoGenesis has actively supported this legislation since its initiation in 2003. Beyond the important funding, we have long anticipated that federal oversight will mandate critical processing standards that will assure that the National Inventory includes only the highest quality cord blood stem cell units. We have worked toward this goal and assisted the evolution of this new stem cell therapy by developing “enabling technologies” such as the BioArchive® and the AutoXpress™ Systems. The BioArchive System is utilized by the major cord blood stem cell banks in 26 countries to automate the precision cryopreservation and archiving of units of cord blood stem cells. The AutoXpress System, scheduled for market launch in January 2006, automates the harvesting of stem cells from cord blood in a closed sterile process. Both the BioArchive and the AutoXpress Systems are marketed and serviced globally by GE Healthcare.”

## **History of Cord Blood Transplants**

Following the first sibling-donor cord blood transplant in 1988, the National Institute of Health (NIH) awarded Dr. Pablo Rubinstein a grant to develop the world's first cord blood program at the New York Blood Center (NYBC), in order to establish the inventory of stem cell units necessary to provide unrelated, matched grafts for patients (1992). In 1993, Dr. Joanne Kurtzberg, Duke University Medical Center, performed the first two successful cord blood transplants, in the unrelated setting, one of which cured a patient with acute lymphoblastic leukemia (ALL). Currently, more than 7,000 unrelated transplants have been provided to patients worldwide.

## **FDA Regulation**

By 1996, with more than 300 unrelated transplants accomplished, the FDA accepted the NYBC's request for an Investigational New Drug (IND) Exemption which allowed the expansion of the clinical use of cord blood under conditions that documented the critical processing protocols and the clinical outcome data which would allow the FDA to understand how best to regulate this promising cell therapy. Today, the FDA is preparing to license this cell therapy product and, therefore, assure that this national inventory will be in compliance with the highest quality standards.

## **About THERMOGENESIS CORP.**

ThermoGenesis Corp. is a leader in enabling technologies for cell therapeutics. The Company's technology platforms lead the world in their ability to produce biological products from single units of blood.

- The **BioArchive System**, an automated robotic cryogenic device, is used by major cord blood stem cell banks in 26 countries as a key enabling technology for cryopreserving and archiving cord blood stem cell units for transplant.
- The **AutoXpress System**, is a semi-automated robotic device and companion sterile closed blood processing disposable, to harvest stem cells from cord blood.
- The **CryoSeal<sup>®</sup> FS System**, a semi-automated device and companion sterile blood processing disposable, is used to prepare hemostatic and adhesive surgical sealants from the patient's blood in about an hour. Enrollment in a 150 patient U.S. pivotal clinical trial has been completed and a PMA is being prepared.
- The **Thrombin Processing Device<sup>™</sup> (TPD<sup>™</sup>)** is a sterile blood processing disposable that prepares activated thrombin from a small aliquot of patient blood, or blood plasma in 25 minutes. The TPD market launch is underway in Europe.

*The statements contained in this release which are not historical facts are forward-looking statements that are subject to risks and uncertainties that could cause actual results to differ materially from those expressed in the forward-looking statements, including, but not limited to, certain delays beyond the company's control with respect to market acceptance of new technologies and products, delays in testing and evaluation of products, and other risks detailed from time to time in the Company's filings with the Securities and Exchange Commission.*

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