

# South Central Association of Blood Banks

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## Public Cord Blood Bank Program in Texas

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Each year, over 35,000 children and adults in the U.S. are diagnosed with diseases for which a bone marrow transplant could be a cure. Because tissue types are specific to ethnic groups and marrow donor registry volunteers are mostly Caucasian, it's difficult to locate donors for Hispanic, African-American, Native American and mixed heritage patients. Fewer than twenty public cord blood banks exist in the U.S., and these do not have the ethnic diversity that patients need in the Southwest. Cord blood has the ability to treat the same diseases as bone marrow with less rejection and it is more readily available.

The Texas Cord Blood Bank (TCBB) is a program of the South Texas Blood & Tissue Center (STBTC). The TCBB began collections in 1999 and became a public cord blood bank in 2004. Its mission is to develop and maintain a statewide resource for potentially life-saving cord blood to treat children and adults. The TCBB provides life-saving options to children who may not be able to find a transplantation match to treat diseases such as leukemia, lymphoma and other blood disorders. Cord blood, which is collected following the birth of healthy newborns, is an alternative source of blood-making cells and may be used in place of a riskier and more costly bone marrow transplant. The goals for the TCBB are to build the highest quality inventory of 6,000 to 8,000 cord blood units (CBUs) that captures the rich ethnic diversity of the region.

Cord blood can be collected following the birth of a healthy baby by a healthy mother. The cord is clamped and prior to delivering the placenta, the umbilical vein is phlebotomized and cord blood is collected into a bag with anticoagulant. This collection takes place in the hospital/birthing center delivery room. The cord blood unit and the blood sam-

ples taken from the maternal donor are labeled, weighed, packaged and transported to the Texas Cord Blood Bank for processing. Once the cord blood unit arrives at TCBB it is accessioned, weighed and a preliminary Total Nucleated Cells(TNC) is taken. If the TNC meets banking criteria, the unit will be processed. The unit is then reduced, selecting the buffy coat (rich in hematopoietic stem cells,) for freezing and storage. The cells selected are mixed with a cryoprotectant cocktail and frozen in a rate-controlled freezing chamber. Once a temperature of -180C is achieved, the unit is placed in a quarantine liquid nitrogen freezer until release to active inventory. CBUs in active inventory are listed on the national registry and frozen CBUs are provided to a transplant center upon request.

Hospitals in the Rio Grande Valley, San Antonio, Dallas and other Texas cities have decided to become a participating cord blood collection site. This is a commitment on the part of the hospital and requires training of nurses and physicians, validation of transport methods, International Review Board review of documentation and adequate space. In addition, each hospital is asked to identify a liaison that assists the program in the day-to-day CBU collection activity. To date, the program has collected over 2500 cord blood units, and of these over 870 have met banking criteria. A web-based competency program for obstetrical caregivers has been developed and implemented at each of the collection sites. All persons participating in the collection of cord blood must complete the web-based competency program annually.

The units will be available for transplant for a minimum of twenty years. By banking quality units of mixed ethnicity, the program will be an important resource to transplant centers in Texas and worldwide.

## Functional Quality of Washed Platelets Versus Plasma-Reduced Platelets



**Teresa Gorey,**  
*CLS(NCA) HC(ASCP) SBB*  
2006 Sol Haberman  
Award Winner

### Background

Platelets pheresis, leukocyte-reduced platelets pheresis (LR PP), saline-washed platelets and plasma-reduced platelets are components, which may reduce the risk or frequency for febrile nonhemolytic transfusion reactions (FNHTRs). Manipulated platelets must show activation after physiological stimulation to be effective in vivo. This study compared the in vitro quality of washed platelets versus plasma-reduced platelets.

### Study Design and Methods

Twenty LR PP units were evaluated. Five units were processed with each technique: 1) washed with Plasmalyte-A, 2) washed with 0.9% normal saline (NS), 3) plasma-reduced and volume replaced with Plasmalyte-A and 4) plasma-reduced and volume replaced with 0.9% NS. The pre and post-manipulated LR PP components were evaluated for platelet morphology, metabolic status, platelet function, total protein and immunoglobulin (Ig)-A concentration.

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## Protégé Profile: James Giacoletti Off and Running

By: *Sarah Jones*



"I first met my new Mentor at the SCABB Annual Meeting in Arlington," says James Giacoletti, one of the six Protégés in the 2006/2007 Protégé Mentorship Program. "I believe that having

that first meeting in person was very important, and sets the stage for a great working partnership."

James' first quarter project has involved working with Carter BloodCare's "Employer of Choice" committee, developing an addition to the benefits package that would provide membership to South Central for employees with time-service recognition (currently five years). The new program would help to recognize employees as blood-banking professionals while building up the membership numbers for SCABB.

A pretty impressive start, I would say.

To read more about James and his Protégé journey, visit [www.scabb.org](http://www.scabb.org), click on the Protégé Mentor Page.

[www.scabb.org](http://www.scabb.org)

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