

Transfusion Related Acute Lung Injury (TRALI)

FOR OVER HALF A CENTURY, transfusion researchers have developed many tests and processes designed to keep the blood supply safe. As a result of their efforts, blood banks have virtually eliminated the transmission risk of bacterial contamination and many potentially fatal blood-borne pathogens, including HIV and Hepatitis B and C.

Recently, researchers have been investigating transfusion related lung injury (TRALI). In recent years, TRALI has replaced incompatible blood type transfusion error as the number one cause of transfusion mortality. The FDA reports that there is currently a one unit in 220,000 transmission rate of TRALI. Because of this potential risk, the FDA is encouraging blood centers and transfusion facilities to address this threat.

TRALI is characterized by a rapid onset of lung-related illness following the transfusion of blood products. In most cases, symptoms appear within one to six hours of transfusion and appear very similar to ARDS, or acute respiratory distress syndrome. The patient may experience shortness of breath, fever, and accelerated heart rate. In severe cases, the patient may require mechanical ventilation to assist breathing. Approximately six to ten percent of TRALI cases prove fatal to the recipient.

Exactly why TRALI is acquired and who will contract the disease is still under investigation. One theory speculates that antibodies present in the donor blood product attack the blood recipient's immune defense, or white blood cells. Antibodies are unique proteins created by an individual's immune system that identify and neutralize any foreign components, such as bacteria and viruses, in the body. These antibodies apparently attack the specific white cells that contain either Human Leukocyte Antigens (HLA), or Human Neutrophil Antigens (HNA), which in turn release substances that damage the lining of the lungs, resulting in non-cardiac pulmonary edema, or the build up of fluid in the lungs.

According to this model, for the transfusion recipient to be at risk of TRALI his or her white blood cells must express the specific HLA or HNA receptors to which the blood donor has formed antibodies. Women who have had multiple births, as well as people who've received transfusions, transplants, or tissue grafts are more likely to have developed antibodies that will be present in their donated blood. Antibodies are more concentrated in high plasma blood products such as apheresis platelets and FFP (fresh frozen plasma). Whole blood and cryoprecipitate contain lesser amounts of antibody concentrations.

Another less likely TRALI theory suggests that lipids, or fat cells, present in donated blood products somehow become activated during storage and form antibodies to the recipient's neutrophils, causing the resultant lung injury.

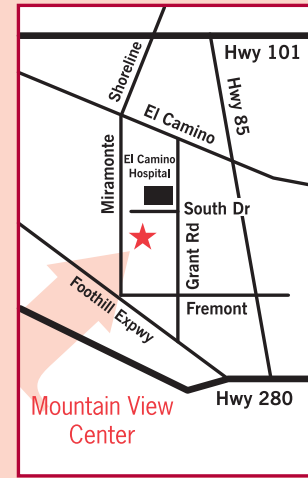
The AABB (American Association of Blood Banks) has conferred over the issue of how to take preventive measures to reduce the incidence of TRALI. As a result, a TRALI incidence tracking system, where incidences of the disease are carefully recorded and monitored, is to be immediately implemented. In addition, there is a mandate for blood banks nationwide to reduce the number of high-antibody containing donations in whole blood products and FFP by November 2007, and in platelets by November 2008.

Currently, there is no consensus decision on exactly how to reduce the collection of high antibody containing blood products. The FDA may require blood banks to take actions to minimize collecting high plasma products from high-risk donors. Such actions may include changes to donor screening questionnaires or the recruitment of specific donors for high-plasma blood products.

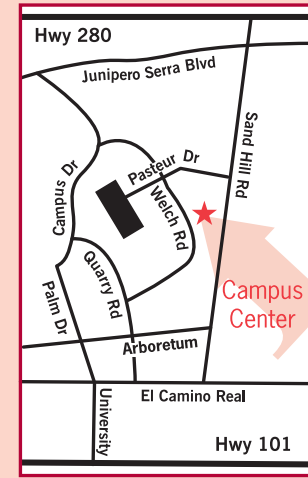
Stanford Blood Center is responding to TRALI by forming a task team to address these upcoming requirements. Meetings will be held between HLA lab personnel, our medical directors, and transfusion services physicians. Best practices will be mapped out in order to our compliance with these FDA and AABB regulations and to enhance the safety of the blood components we provide to our patients.

The Science of blood

STANFORD BLOOD CENTER LOCATIONS



MOUNTAIN VIEW DONOR CENTER
515 SOUTH DRIVE, SUITE 20
MOUNTAIN VIEW, CA 94040



CAMPUS DONOR CENTER
780 WELCH ROAD, SUITE 100
PALO ALTO, CA 94304



HILLVIEW DONOR CENTER
3373 HILLVIEW AVENUE
PALO ALTO, CA 94304

How To Reach Us

Appointment Office
650-723-7831 or 888-723-7831

Administration
650-723-7994

Autologous and Designated Donations
650-723-6667

National Marrow Donor Program
650-723-5532

Web site
<http://bloodcenter.stanford.edu>

E-mail
giveblood@med.stanford.edu

Give blood for life!
STANFORD BLOOD CENTER

FALL 2006

LifeLink

A link between donors, volunteers, staff & friends of the Stanford Blood Center

In this issue of Life Link... The holidays are fast approaching; we urge donors to please remember that donations drop off sharply during the winter holidays and New Year. We ask our eligible donors to help us maintain our life-giving blood supply during this critical time. We also appreciate your help in spreading the word to family, friends, and coworkers about how easy it is to donate blood and what a wonderful gift of life their donation will be. Patients and their families can't thank you enough for the best holiday gift of the season! Thank you!

Give blood for life!

CALENDAR

holiday hours: >> *Wednesday, November 22* – All Centers 7:30 a.m. – 3 p.m.
>> *Thursday, November 23* – CLOSED
>> *Friday, November 24* – ONLY DONATION HOURS WILL BE ABC APPOINTMENTS TAKEN FOR HILLVIEW, 7 a.m. – 1 p.m.
>> *Monday, December 25 and Monday, January 1* – CLOSED

promotions & events:

Healing HeARTs T-shirts

Saturday, 12/16 through Saturday, 1/6/07

All Centers

Donate blood between the dates above and you'll receive a T-shirt designed by a patient at Lucile Packard Children's Hospital as a thank you gift!

Gas Card Prize Drawings

Tuesday, 1/2/07 through Saturday, 1/13/07

All Centers

You might win a free fill up with your next donation! During this promotion, enter to win a \$25 Valero gas card. We'll give away one card for each Center location each day!

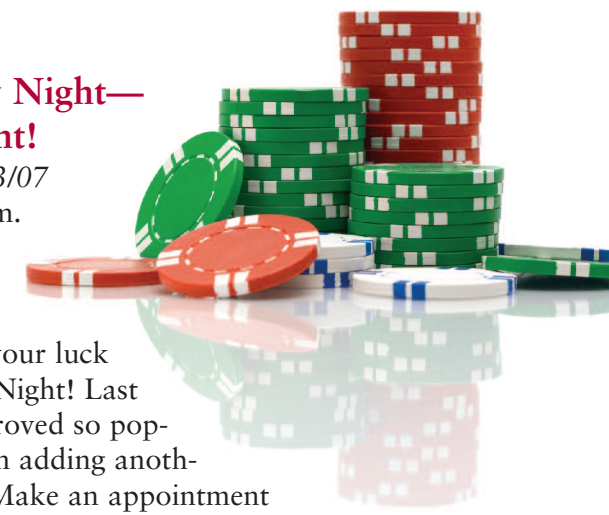


Community Night— Casino Night!

Wednesday, 1/3/07
4:30 – 7:30 p.m.

Hillview Center

Patients win when you try your luck at our Casino Night! Last April's event proved so popular we plan on adding another card table. Make an appointment to secure your chair! We will be serving a lovely buffet in the canteen for your dining enjoyment. If you are poker-wary, never fear; we'll have a prize wheel to spin, too! It's the most fun we can pack into Hillview in three hours, we hope you can join us! Please do make an appointment so we can plan ahead – visit <http://www.membersforlife.org/stanford/schedule.php> or call us at 650-723-7831, toll-free 888-723-7831.



Calendar

CONTINUED FROM FRONT COVER

Art for Life! Art Exhibit

November 14, 2006 through January 2, 2007

Hillview Center (Not a Blood Donation Event! Rest Your Veins!)

View the Blood Center in a new light through the work of local artists. Our first quarterly exhibit features **Shadows and Fog**, "a loosely knit community of San Francisco Bay Area artists who are dedicated to the fine arts. The work of the group ranges from traditional black-and-white photography in the style of Ansel Adams to computer-composed, manipulated mixed media images reflecting our lives in Silicon Valley..."



Give blood for life!

STANFORD BLOOD CENTER

3373 Hillview Avenue
Palo Alto, CA 94304-1204
<http://bloodcenter.stanford.edu>

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save the date!

CONTINUED ON BACK COVER

Heal & Grow

STANFORD BLOOD CENTER recently struck up a partnership with Palo Alto's Ronald McDonald House (RMDH). Children and their families from all over the Western U.S. stay at the House while receiving treatment at Lucile Packard Children's Hospital. Many children at the House have received blood products as a result of therapies or surgeries for various illnesses. The House allows families to stay together in a homelike environment when travel is an impediment to receiving care.

The SBC will host a twice-yearly bone marrow and blood drive at RMDH. In turn, we will share the stories of those visitors whose lives have been touched by blood donors.

at Palo Alto's
Ronald McDonald House

Blood Donors Rock!

Daniel Dale is 17 and, like many teenagers, loves music and playing his guitar every chance he gets. This high school senior from Clovis, CA, works hard to find time for his rock band, soccer, and just hanging out with his friends in between his many trips to Lucile Packard Children's Hospital.

Daniel was diagnosed at birth with Alport's Syndrome, a very rare hereditary disease that affects males more severely than females. People with Alport's generally experience early onset of progressive renal failure, nerve deafness, and abnormalities of the lens of the eye. This syndrome is thought to be caused by a chromosomal defect of a portion of the membrane of the kidneys.

This September, Daniel received a new kidney at LPCH. While Daniel is recovering, he and his mother are staying at Palo Alto's Ronald McDonald House, where they are able to take advantage of the House's many amenities and feel more at home. Daniel's mother, Donna notes that staying at the House allows her and Daniel to make valuable and supportive connections with other families that help ease the difficult times.

Daniel is recovering well, thanks in part to the selfless gift of life blood donors provide. Daniel says that donating blood is a "great thing to do if you can." His mother, a regular blood donor, adds that "giving blood is giving life." We think so, too, and thank each and every donor for saving lives everyday.

"Donna notes that staying at the House allows her and Daniel to make valuable and supportive connections with other families that help ease the difficult times."



for a new Bloodmobile

THE DEMAND FOR BLOOD in the Bay Area continues to grow, and we at Stanford Blood Center need to find ways to meet the need!

We have launched a campaign to raise funds to purchase a new bloodmobile. Adding a new six bed bloodmobile to our fleet will allow us to reach many more donors in the Bay Area and increase our daily mobile collections by 50 percent.

The new bloodmobile will also provide back-up in the event our older five bed bloodmobile requires repairs.

To kick-off our fundraising efforts, Stanford Blood Center is hosting a benefit Gala Event at the Garden Court Hotel, in Palo Alto on November 30 from 6 - 10 p.m.

VISITORS TO OUR HILLVIEW SITE have no doubt noticed Tony Ruiz's striking painting in our waiting room. This colorful and expressive creation is comprised of mixed media applied with a variety of instruments to create unexpected angles and raised surfaces. Tony explains that the work represents the life-giving properties of blood, and those who give and receive blood. Visitors are encouraged to gently touch the three-dimensional piece and feel the intricacies of its structure.

Tony Ruiz, a part-time SBC courier, is fast becoming an area artist to note. Recently, he has created and displayed pieces at the Mexican Heritage Plaza in San Jose as well as murals for area schools. He hopes to constantly push the envelope and break out of the confines of traditional Mexican art.

Born in Mexico, Tony emigrated as a child to Texas with his family of 13. When he was a young boy, Tony was fascinated with the idea of using color and shape to create art. Relatively late in life, after serving in Vietnam and working for many years as a sales representative, Tony was able to partly retire and devote more time to pursuing his childhood ambitions.

Many donors have commented on how they've enjoyed watching the work slowly evolve over time. We invite everyone to come out to Hillview to see—and feel—this remarkable creation and marvel in the wonder and beauty of life-giving blood.

A PORTRAIT OF Life

THE WORK REPRESENTS THE LIFE-GIVING PROPERTIES OF BLOOD, AND THOSE WHO GIVE AND RECEIVE BLOOD.



Tickets to the event are \$200 and include valet parking, gourmet dinner, full bar, jazz, classical, vocal, opera and magic entertainment. There will be both a silent and live auction with remarkable packages to bid for, including:

- ♥ Lunch with "THE MYTHBUSTERS" of Discovery Channel fame
- ♥ Shark's Goal-Tender Evgeni Nabokov's Personal Luxury Suite for 14 at a San Jose Sharks game
- ♥ Holland America Fall Caribbean Cruise for two (flights included)
- ♥ TheatreWorks performance and dinner at Cascal
- ♥ Two tickets to the San Francisco Symphony and a one night stay at Le Meridien Hotel, San Francisco
- ♥ Personal workout with Roger Craig; signed jersey and MetroSport gift certificate
- ♥ Sothy's of Paris sachet and travel bag by Nefertari
- ♥ LaBelle facial and makeup, Gleim Jewelry gift certificate, and Merry Maids gift certificate
- ♥ Up, Up and Away! with an Above the Wine Country hot air balloon ride, Oakville Grocery gift basket, and champagne

♥ Niebaum Coppola wines, men's facial massage from Body Kneads, and skin care products by Sothy's of Paris

- ♥ One week stay at a luxury condo in Maui
- ♥ Stanford Lively Arts April 2007 performance of *Jupiter* for four
- ♥ Bird Trek for four around Shoreline with Jan Webster; includes a *National Geographic* or *The Sibley Field Guide to Birds of Western North America* and a raffle ticket with a 50/50 chance of winning a good pair of binoculars
- ♥ Fine wines from Vince Yalon's Cellar: Chateau Gruaud Larose 1997 from St. Julien Plateau, France, and Silver Oak 1997 Cabernet Sauvignon from Napa Valley
- ♥ And much, much more!

Please help us pass the word around about this event. We'd love to have a variety of people attend to make this a fun evening. We'd especially like for companies or groups to sponsor a table and participate in some competitive bidding.

For more information or to purchase tickets, please contact: Tessa Moore, SBC Volunteer Coordinator, 650-723-6795

SBC in Action

ALL - HANDS MEETING

Blood donors do make a difference!

ON NOVEMBER 3, 2006 SBC staff convened for the annual All-Hands Meeting. Staff enjoyed many informative and often entertaining presentations, skits, and Q&A Sessions. We learned what it was like "On the Other Side of the Coin" with a presentation from Stanford School of Medicine Transfusion Services. Staff acted out various scenarios designed to remind staff of GMP (Good Manufacturing Practices) and providing excellent service to our valued donors!

Of particular note was hearing Dr. Grace Cheng's, pediatric physician and Director of LPCH's Healing HeARTs Project, personal accounts of her interactions with young patients at Lucile Packard Children's Hospital. Dr. Cheng shared her firsthand knowledge of just what a wonderful difference the gift of blood makes through the words of a young recipient who says that when she gets blood, she magically has energy again and feels like she can run a mile!