

LifeLink



Patients are at the heart of everything we do.
Read our latest patient stories on page 6

Give blood for life!

At Stanford Blood Center, we lead the fields of transfusion and transplantation medicine by advancing science and technology. We provide hope for the future by teaching the medical leaders of tomorrow. We enhance lives by connecting donors to patients every day.

Interested in learning more about what we do at SBC? Check us out at bloodcenter.stanford.edu

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From The Executive Director



Greetings donors, volunteers and friends,

I'd like to welcome you to the Winter 2015 edition of LifeLink!

Patients are at the heart of everything we do, and this issue represents that focus.

Here are some highlights:

- Four new patient stories
- A look behind the scenes of our Special Donations department
- The story of a father who coordinates blood drives to honor his daughter

Another way we are able to focus on the patient is through an exciting development. We recently entered into an innovative partnership with Stanford Health Care, our primary partner in the healthcare world. We are now a part of the Stanford Health Care family, which enhances our ability to provide patient care through transfusion, transplantation, and innovation. This increased collaboration also lends further clarity to why we develop a product, service and/or test, and how it's used in a clinical setting.

While we are getting to know our Stanford Health Care peers, we are still very much "Team SBC." We remain a community blood center, serving local patients. For us, this transitional time is an opportunity to renew our commitment to the core values that guide Team SBC every day:

Integrity: We adhere to a strict code of ethics and employ honesty and moral behavior in a transparent culture.

Accountability: We assume personal accountability to each other, our donors, patients and the organization for our actions and outcomes resulting from our work.

Collaboration: We involve others to produce something greater than we could by ourselves and leverage our differences to better respond to our customers' needs.

Communication: We provide clear, concise and ongoing communication with respect for all points of view.

I hope you see these values in action whenever you interact with Team SBC. I also hope you see yourself as an important part of Team SBC. Blood donors, volunteers and staff all play an integral part in getting patients the care they need through integrity, accountability, collaboration and communication.

Some things never change: Stanford Blood Center's dedication to patient care through transfusion and transplantation medicine, and our donors' dedication to patient care through blood donation throughout the year. Whether you donate during the critical winter or summer holiday seasons, or keep your regular donation appointments in spring and fall, we're so glad patients can rely upon your answering the call.

Wishing you health and happiness,

Harpreet Sandhu
Executive Director, Stanford Blood Center

Meet the Matchmakers

Stanford Blood Center's Special Donations Department



Lupe Alcantar, Cynthia Evora and Gerlie Bernardino

Stanford Blood Center's Special Donations department is a small office of four cubicles. A large whiteboard takes up an entire wall of the room, and is covered in meticulous handwriting in a rainbow of colors. A good portion of the board is devoted to a numbered list of patients and their blood type. The #1 spot is held by a long-time patient undergoing regular transfusion therapy for sickle cell disease. This patient has a very rare antigen, and requires a specific phenotype match for transfusion. Next to the patient's name is another name - a donor's name - and this top row hasn't changed in years.

"When the patient comes in, we call the donor, and she comes in, too," says **Lupe Alcantar, Special Donations Specialist**. "She is the only donor we can get blood from for this patient. She keeps her alive."

This is just one example of the work done by the Special Donations department. The job of this trio is to find the right product (red cells or platelets, for example) for the right patient at the right time. To do this sometimes requires matching donors to patients based on phenotype (for red cells) or HLA type (for platelets).

Most patients can receive blood products from community donors; but when a patient isn't responding to treatment through a community blood donation, a more specific match is needed. Beyond the ABO/Rh blood group system there are minor blood types, and these hold the secret to finding the right donors to call upon for a patient's red cell transfusion.

All red cells have antigens on the surface. An antigen is a protein or carbohydrate substance that is recognized by the body as foreign that stimulates an immune response. If a patient is missing an antigen that most donors have, there is the potential for transfusion complications if the minor blood type is not matched. (Read "The Small Polynesian Pool" on page 8 to learn more about one of many minor blood types)

When platelets are needed, an HLA match might be in order. HLA, or Human Leukocyte Antigens, are found on the surface of white cells. Patients in need of HLA-matched platelets include those in treatment for cancer, blood disorders, or aplastic anemia. In these cases, a tube of blood is taken from the patient, tested, and then our existing database is searched for a match.

These database searches are made one patient at a time, in a small office at Stanford Blood Center. If Lupe calls, you might just be a match!



Looking for another way to support SBC? Consider being a canteen volunteer!

- Canteen volunteers have flexible schedules, helping at centers and mobiles
- It is a great way to meet other donors and interact with staff
- You can even schedule your donations around your shift

To learn more, contact Volunteer Services at 650-498-4794 or sbc-volunteers@stanford.edu.

milestone donors

Congratulations to those who have made noteworthy donations since our last issue

100 Donations

- | | |
|-------------------|-------------------|
| Carolos Avila | Todd Riddle |
| John Benoit | Juan Saucedo |
| Ann Bilodeau | Robert Shinney |
| James Blain | Constance Slemmer |
| Brian Blassingame | Joel Storm |
| Bruce Blau | Raymundo Talavera |
| Drina Bogusch | Melissa Targgart |
| Jeffrey Booth | Nancy Wittels |
| Scott Chegwidden | Ronald Zielinski |
| Jim Cowie | Douglas Zongker |

200 Donations

- | | |
|----------------|----------------------|
| Lawrence Coy | Rosemarie Heitzinger |
| Susan Crane | Dean Lowell |
| Gary Davis | Rafael Ornes |
| Richard Dvorak | Ted Wallace |
| Daniel Fisher | |
| James Geers | |

300 Donations

- | | |
|--------------------|------------------|
| Melinda Graff | Jeffrey Alford |
| Jonathan Halderman | Fernando Enciso |
| Neil Hamilton | Raghavendra Loka |

400 Donations

- | | |
|--------------|--------------|
| Valerie Hing | Ben Brian |
| Eric Holden | Craig Lunow |
| Russell Hora | Mark Passeur |

500 Donations

- | | |
|-----------------|-------------------|
| Melanie Johnson | Fred Van den Haak |
|-----------------|-------------------|

600 Donations

- | | |
|------------------|-----------|
| Katherine Keller | Eric Buhr |
|------------------|-----------|

700 Donations

- | | |
|-------------------|--------------|
| Hugh Kenner | Richard Tagg |
| Robert Larocca | |
| Ronald Leedy | |
| Anthony Lizut | |
| Paul Lucero | |
| Jody Maxim | |
| Darin McGrew | |
| Rebekah Mikkelsen | |
| Darrell Nelson | |
| Donna Revelli | |



Richard Tagg
700 Donations
Read Richard's story on page 10!



Eric Buhr
600 Donations



Craig Lunow
400 Donations



Fred Van den Haak
500 Donations



Rosemarie Heitzinger
200 Donations

community heroes

Meet a blood drive coordinator and the employer supporting his cause, and his family



Luis Krystal, Fletcher Jones Motorcars of Fremont

In July 2014, Luis Krystal, corporate manager for Fletcher Jones Motorcars of Fremont, contacted Stanford Blood Center (SBC) for a very personal reason – his daughter Liza was very ill and being treated at Stanford Hospital and Clinics. She was diagnosed with bone cancer and required weekly blood transfusions. Luis wanted to do something to celebrate his daughter and appreciate the blood donors that were so critical to her treatment, so he hosted his first mobile blood drive for employees and customers. They collected 18 units of blood.

Around the time of the blood drive, Liza received an autologous bone marrow transplant, a transplant of her own bone marrow that was previously donated for this purpose. Unfortunately, the procedure was unsuccessful; soon after, Liza received a second transplant, receiving bone marrow from a donor. Sadly, a few weeks later, Liza passed away.

Luis was heartbroken but wanted to turn his sadness into a vehicle for helping others. He decided he would continue to host a blood drive every year at Fletcher Jones to help others and keep his daughter's memory alive. The second drive took place this past October 2015 and collected 28 units. Luis looks forward to continuing to increase the number of units collected each year.

To Luis' surprise, Fletcher Jones, the company's namesake, flew in from Las Vegas to donate blood and also present Luis and SBC with a check for \$1,000 to support the cause. "I'm very proud that Fletcher Jones embraced the blood drive and the motivation behind it. Liza was a tremendous power and there was beauty in her strength. She was a loving creature and would be very proud of what we are doing in her memory," Luis said.

SBC thanks Fletcher Jones for their generosity and support of blood donation and feels honored to be part of keeping Liza's memory alive.



Luis' daughter, Liza

Patient Stories

We enjoy sharing important stories and messages of gratitude from blood recipients to connect donors to patients.



Ryan's Story

The Road to Recovery

Back in July 2004, Ryan Roberts was riding his motorcycle on his high-way route to work. He thinks he must have hit something in the road

that threw him off course enough to hit the guardrail. The last thing he remembers was thinking, "That guardrail is getting close, I am not going to be able to get out of this," before hitting the wall...and then, his bike starting to wobble...and then trying to stand up. But his leg was up by his shoulder.

On that terrible day, Ryan ended up losing his leg above the knee. He also shattered bones in both forearms and broke almost every bone in his hand, nearly losing that arm as well. He lost nearly 80% of his blood lying on the freeway.

He now has two permanent steel plates in his arms as well as his prosthetic leg...but he has overcome a huge adjustment to his new reality. Blood donors made sure blood was on the shelves on the day he needed it, and now Ryan is living life to the fullest.

He is so grateful for the blood donors who were there for him when he needed them. "I don't know how many units I received, but I'm forever thankful for the people who donated blood. I wouldn't be here today without them."



Jen Julian's Story

Call Her a Thriver, Not a Survivor

Jen Julian, 57, was first diagnosed with interstitial lung disease in 1998 from a condition called chronic hypersensitivity pneumonitis. Over the next eight years, her health deteriorated as her right lung failed, followed shortly by her left. Doctors warned a transplant was

her only real chance to survive, as there is no cure for many lung diseases. At just 48 years of age, Jen was told to have a double lung transplant or she probably wouldn't live to see her next birthday.

In 2006, Jen became the recipient of a double lung transplant performed at Stanford University Medical Center. She also received several units of blood and is forever grateful to the donors who helped make surgery possible for her.

This July 2015, she celebrated the nine-year anniversary of her surgery. She is skiing, boating, diving, flying planes and golfing again. She even brought home a gold medal from the 2010 World Transplant Games competition.

How many people will ever get the proverbial second chance at life? If your name is Jen Julian, you recognize how rarely those chances are given and remind yourself by making the most of every single day. For that reason, Jen says she prefers to describe herself as a "thriver" as opposed to a "survivor."

"Every day I wake up I'm reminded life is amazing," said Jen. "The first deep breath I take is for my donor, and the next one reminds me to live the day to the fullest."



Alma's Story

A New Lease on Life for Little Alma

On June 10, 2014, after a long and complicated labor, baby Alma's journey began. At her two-month pediatric appointment, she was diagnosed with biliary atresia, a life-threatening chronic liver disease.

Doctors knew they had to work quickly to give Alma the best chance of survival so they conducted a Kasai portoenterostomy immediately. When that procedure was not successful, they rushed Alma to Lucille Packard Children's Hospital Stanford (LPCH) where she was stabilized and put on the pediatric liver transplant list.

Several months later, a liver was finally found for Alma and the transplant procedure took place. During surgery, Alma received a full blood transfusion because doctors found she had an ABO mismatch liver. But the procedure was successful and the family is now back home in Portland, Oregon and Alma is happy and healthy.

"Every day is Christmas Day when I see her smiling and growing strong," said Alma's mom Amy. Alma's family wants donors at Stanford Blood Center to know how thankful they are for their lifesaving gift.



Kristen's Story

Placenta Accreta: A Life-Threatening Attachment

Kristen Terlizzi was a young, healthy mother of one who was thrilled to be pregnant with her second child. The pregnancy was going seem-

ingly well, but at 29 weeks an ultrasound revealed evidence of placenta accreta.

Placenta accreta is a condition during pregnancy in which the placenta attaches too deeply to the uterine wall in varying degrees. Kristen suffered from the most severe form, called precreta, where the placenta grows through the uterine wall and invades surrounding organs.

Despite the extensive preparations made by Kristen and her medical team, doctors were surprised during the delivery at how extensive the invasion of the placenta was. In an unprecedented move, they decided to deliver the baby but leave the placenta inside her body while they evaluated the situation. Ultimately, doctors delivered the placenta and uterus during an emergency surgery lasting 8 hours and requiring Kristen receive 26 units of blood.

Kristen thinks about the donors whose blood was available to save her life that day and is forever grateful. "I consider those donors just as important to my outcome as the many doctors and nurses in the operating room that day," she says. "Without that blood, my story would have a much different ending."



Yaron Carmi, PhD and Ed Engleman, MD

New Discoveries in the Fight Against Cancer

In April 2015, a study lead by Yaron Carmi, PhD and Ed Engleman, MD appeared in *Nature*, a journal that publishes important new findings in science.

SBC founder, Engleman, a professor of pathology and of medicine, was the senior author on the study and postdoctoral scholar Carmi was lead author and identified a problem to solve: how to encourage the immune system to reject cancer.

“Most of the work done on the human side was done with white blood cells from SBC,” Engleman said. “We were also able to study the antibodies from blood donors. SBC played an absolutely critical role in this work, I’m proud to say. The synergies between SBC and the research lab have been critical to the success of this project.”

The Small Polynesian Pool

Diving for a Rare Type

The article “Meet the Matchmakers” on page 3 highlights an important part of what we do at SBC. When a patient has a specific need, our team seeks it out. One very rare blood type, Jk3-negative, is needed once in a long while, and it’s hard to find a match when the times comes.

What Does It Mean to Have Jk3-Negative Blood?

Red blood cells have markers called antigens, and one antigen, called Jk, is found on a protein responsible for transporting urea in the red blood cells and the kidneys. Nearly all people have some Jk antigens on their cells, but a few rare individuals do not — they have what is known as Jk3-negative blood, one of the world’s rarest types. When a patient with Jk3-negative type blood needs a transfusion, it will most likely not be on the shelf, ready to go. For a previous patient who underwent two heart valve surgeries at Lucile Packard Children’s Hospital (read more about Timena on our blog), SBC had to reach all the way to Hawaii to obtain the specific life-saving product needed.

Jk3-negative blood is still rare among American Samoans, and among Polynesians in general, but far less rare than among other population groups in the U.S. Even in Hawaii, only 1 in 10,000 Hawaiians have Jk3-negative blood —.01 percent of the population. However, within the Polynesian community, close to 1 in 100 (0.9%) will have this Jk3-negative blood type. Therefore, it would be much easier to find this blood type within the Polynesian population, if only there were more donors.

Maybe You Have This Rare Blood Type, Too

If you are of Polynesian descent, please consider donating; if it turns out that you have Jk3-negative blood, SBC will place you on a special list of donors to call the next time a patient needs your help.

Award-Winning Science



Dr. Dolly Tyan

Dr. Dolly Tyan, a Professor of Pathology at the Stanford University Medical Center and co-director of the Stanford University Histocompatibility, Immunogenetics & Disease Profiling Laboratory, has been honored with the Paul I. Teraski Clinical Science Award. She has devoted her career to understanding human leukocyte antigens (HLA) antibodies and developing cutting-edge therapies and testing systems that have given hope to patients in need of organ transplants but historically the least likely to get them.

Dr. Tyan pioneered the development and clinical adaptation of using high-dose intravenous immunoglobulin (known as IVIG therapy) to lower high levels of HLA antibodies in patients awaiting solid organ transplants, thereby facilitating successful transplants with organs previously considered incompatible. This therapy opens up the possibility of a transplant for people previously considered poor transplant candidates.

“It is incredibly gratifying to know that patients, who otherwise would not have a chance for a transplant and a normal life, are rescued by the therapies and testing methods that we have been privileged to be part of developing,” said Dr. Tyan.



Dr. Marcelo Fernández-Viña

Dr. Marcelo Fernández-Viña, a Professor for the Department of Pathology at Stanford University Medical School and co-director of the Stanford University Histocompatibility, Immunogenetics & Disease Profiling Laboratory, has been awarded the American Society for Histocompatibility and Immunogenetics (ASHI's) 2015 Distinguished Scientist Award.

ASHI is an international society of professionals dedicated to advancing the science, education and application of immunogenetics and transplant immunology. Its vision is to improve the quality of human life and health through the translation and implementation of scientific innovations to clinical practice.

Among Dr. Fernández-Viña's lengthy list of accomplishments, he has published in over 170 peer-reviewed publications and contributed chapters to 59 books. Recently, the Secretary of Health and Human Services invited him to serve on the Advisory Council on Blood Stem Cell Transplantation (ACBSCT).

New Research By-product

Not Just Chamber-Made

A few years ago, Stanford Blood Center's Flow Cytometry lab manager Lorna Tolentino was extracting white blood cells from leukocyte reduction system (LRS) chambers. These cells were typically discarded and thrown into the trash on a daily basis. Lorna thought, since we already had a research program at SBC, why couldn't we offer these chambers as a research product for in-vitro use? Since her observation, the product has become one of the most sought after by both Stanford and outside research customers.

The product is actually a by-product of the platelet pheresis donation. The lymphocytes (white blood cells) are collected by automated technology at the time of the platelet donation. The white blood cell concentrate chamber is recovered after a platelet pheresis procedure. The cone-like chamber is then heat-sealed and put into a bag at room temperature for delivery to the Components Lab (CL) for research orders. When the product is brought to the CL it requires no manipulation from the laboratory and is ready to be consigned when received.

One thing research customers like about the LRS chambers is that they are human leukocyte antigen (HLA) typed by our HLA Lab. HLA typing is a method to determine how closely the tissues of one person match the tissues of another person. This method is used for organ donation and transplantation. The HLA profile can be generated as a report to customers at the time of donation, and because the data is stored in our database, it can also be requested at a later date.

The LRS chamber also contains red blood cells, plasma and a negligible amount of anticoagulant (ACD-A). This by-product has a shelf-life of 24 hours, however some researchers have claimed cell viability well past that.

Reaching 700 Donations: A Rare Feat



This month Stanford Blood Center (SBC) is celebrating the incredible accomplishment of one of our loyal donors, Mr. Alden Richard Tagg. Richard recently reached his 700th donation with SBC, a rare achievement.

Richard started donating blood about 40 years ago when he saw an advertisement in the local paper asking for people to donate; Stanford Hospital was looking for white blood cells for research to help pediatric leukemia patients. He and his wife had their own small children at the time and wanted to support community patients and their families.

The research project eventually moved to Seattle and there was no longer a blood center in the area where Richard and his wife could donate, until Stanford Blood Center opened in 1978. Richard and his wife made appointments right away to start donating again. After several whole blood donations, they started donating platelets, and Richard has continued to do so approximately every two weeks since. In fact, he is so passionate about donating that he has spent as much time

over the years trying to recruit new platelet donors as he did donating himself. "It was nice to be able to donate platelets and then be able to talk to other donors in the canteen afterward and encourage them to do the same," Richard said.

When asked what has motivated him to continue to donate all these years, Richard said, "It's something to feel proud, it's the right thing to do. And it helps that there is a lot of camaraderie among the donors and staff."

Over the years, he has helped save countless lives and we are honored to be part of his accomplishment. Richard shared some final words of wisdom for future donors: "There are so many reasons for someone to donate if they can. You make such a difference in someone's life every time. All you have to do is get to the blood center."

Patient Blood Usage

Your donations help real people every day. Here is a partial list of just a few of the blood recipients who have benefited from the generosity of Stanford Blood Center donors.

An adult male with severe heart failure underwent heart transplantation and required a large number of O-positive blood products during the surgery.

An adult female with lung disease underwent a bilateral lung transplant and required several O-positive blood products during the surgery.

An adult female with heart and kidney failure underwent a heart and kidney transplant. During the surgery she required several O-positive blood products.

An adult male presented for urgent cardiac surgery and required several B-positive blood products during the procedure.

Featured Rewards Program Items

Check out the latest items in our Rewards Catalog!

Ogio Vault Messenger Bag



Interior laptop compartment and padded mouse pocket
Front zippered pocket and rear magazine sleeve
Side beverage holster
Adjustable, padded shoulder strap

Ogio Laptop Backpack



Fits most 17" laptops
Padded back panel side-entry laptop pocket
Dedicated accessory storage
Weatherproof, fleece-lined audio pocket with headphone exit port and digital media pocket

Visit sbcdonor.org to redeem donation points for these and other great Rewards Program items.

Winter 2015 Promotions

Promotion» Give Good

Monday 12/21/15 – Sunday 1/10/16

All Center and Mobile Locations

Stanford Blood Center has partnered this holiday season with Habitat for Humanity East Bay/Silicon Valley so you can double your impact – donate blood to give the gift of life this holiday season and SBC will make a donation to this year's Give Good partner, Habitat for Humanity, towards building a family's new home. Receive a multi-use tape measure as a thank-you, too!

Ongoing Promotion»

Hobee's Coupons

All Center Locations

Our friends at Hobee's are offering donors generous thank-you gifts. When you visit one of our centers, just ask for the coupons at registration – Hobee's complimentary dinner entree with purchase of another dinner entree.

Ongoing Promotion»

Monday Movie Madness

Mondays from 7:30 a.m. to 3 p.m. at Palo Alto, at Menlo Park (platelet appointments only) from 12:30 p.m. to 6:30 p.m.



We need your help on Mondays. To thank you for coming in when we need you most, we'll give you one *AMC Theatres movie ticket on Mondays when you donate at our Palo Alto Center or give platelets at our Menlo Park Center.

Please note: Menlo Park donors will receive their movie ticket in the mail following donation. *Starting January 2016, we will be using Cinemark Theatres movie tickets for this promotion.

Please call 888-723-7831 or visit our website, bloodcenter.stanford.edu, for more detailed information.

Stay Connected With SBC Via Our Social Channels



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Give Good This Holiday Season!

We are excited to partner with Habitat for Humanity East Bay/Silicon Valley for Give Good Winter 2015! This campaign is a way for you to double your impact: you'll give the gift of life this holiday season, plus SBC will also make a donation towards the building of a family's new home!



Our annual Give Good winter campaign lets us get the word out about the importance of blood donation this time of year, while helping out a local organization with a shared focus on wellbeing in our community.

To participate, donate Mon 12/21/15 – Sun 1/10/16 at any center or mobile location. At the end of the campaign, Habitat for Humanity will receive a donation from SBC based on the number of blood donors that participated in Give Good. The donation to Habitat will go a long way – all the way to San Jose! A local family will be moving into the home our donors help build.

