Paying it Forward: The UCLA Kidney Exchange Program

If you didn't know any better, you might have thought the party held at the home of Fern and Ross Bloom was a typical gathering of close friends – approximately 20 families laughing, mingling and catching up on each other’s lives.

But this was no ordinary party: These 20 families had been strangers until they were brought together by extraordinary circumstances. In each case, one of the family members had desperately needed a kidney transplant to resume a normal life, but spouses and other relatives willing to donate were incompatible. So, as part of a donor chain spearheaded by UCLA Urology’s kidney transplant team, a compatible donor was found from a different family in the same situation, and in return for the life-changing transplant, the recipient's incompatible loved one donated his or her kidney to another family in need, continuing the chain.

In the case of the families that gathered at the home of the Blooms, a Michigan firefighter started it all. Harry Damon wanted to honor the memory of his son, who died at age 24 in a tragic snowmobile accident. So he gave a kidney to a mother he had never met, whose incompatible son passed on the generosity by donating a kidney to another recipient, and so on. "It was like we were instant family, all hugging each other as if we were long-lost friends," says Fern Bloom, who "paid it forward" by donated her kidney to a man she had never met shortly after her husband, Ross, received a kidney from another stranger. "It is incredible to see how one altruistic act can change so many lives."

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For more information on the UCLA Kidney Exchange Program call (310) 794-0696.

1. Fern Bloom (right) donated a kidney to Joe Seruto (seated) in 2009 as part of a chain involving 20 families, including Mr. Seruto’s wife, Nancy (left), and Mrs. Bloom’s husband, Ross (second from right). Also pictured is Dr. Jeffrey Veale, director of the UCLA Kidney Exchange Program.

2. From left to right: Fern Bloom; Gabriel Danovitch, MD, UCLA nephrologist and member of the transplant team; Dr. Danovitch’s wife, Nada; Ross Bloom; and Dr. Veale.

3. Dr. Veale and Ross Bloom with a diagram of the 20-family chain.

4. Steven Shaevel (right) gave a kidney to Allan Soriano (second from left) after Mr. Shaevel’s wife, Gail (second from right) received a kidney from another stranger. Also pictured: Josie Soriano, who donated a kidney to another stranger after her husband received his.

People are so grateful their loved one received a kidney from a stranger that they can’t wait to pass on the generosity to the next person.” Dr. Veale recently published the largest study to date of living kidney transplant donor chains, in which he found that 46 percent of recipients are ethnic minorities and nearly half are women – two groups that have historically had a harder time finding matches.

It’s a winning situation for everyone, Dr. Veale notes: Instead of waiting years for a cadaveric donor, patients can immediately get a living-donor kidney – which lasts, on average, twice as long as a deceased one – reducing the waiting list for others. Moreover, if both donor and recipient agree, they can meet each other, as in the case of the nearly two-dozen families in Fern and Ross Bloom’s chain.

Keenan Cheung will never forget meeting the Long Beach man who donated a kidney to Cheung so that the man’s mother could get a kidney from another stranger. “You just fall to pieces,” says the 47-year-old Mr. Cheung, who is director of housing at USC. “None of the awkwardness of first meeting someone was there at all. I just started sobbing. It’s an amazing act of humanity.”

Cheung was born with polycystic kidney, an inherited disease in which many cysts form in the kidneys. He was fine until his 40th birthday, when his kidneys started to fail. He put his name on a waiting list for a donor kidney and began continuous ambulatory peritoneal dialysis, a four-times-a-day process that required a tube in his peritoneum by which waste products were removed from the blood and excess fluid drained from his body. After several years on dialysis, he suffered a grand mal seizure in January of 2009. His health quickly deteriorated.

When kidneys are no longer able to function – typically as a result of a genetic disorder, high blood pressure or, as in Ross Bloom’s case, diabetes – the only way to survive is to go on dialysis or to get a new kidney transplanted, either from a deceased donor or from a living donor. Dialysis involves a three-times-a-week blood-cleansing treatment that lasts several hours and is extremely draining. But with demand for donor kidneys far outstripping the supply, approximately 92,000 people are on the waiting list and some wait as long as a decade for a suitable donor.

Many patients on the waiting list have a spouse or other loved one who is motivated to donate. But about one-third of the time, these family members or friends are unable to donate because they are immunologically incompatible. The UCLA Kidney Exchange Program, part of a national effort, dramatically expands the donor pool by circumventing this problem. “We utilize the motivated donor by matching him or her with someone else,” says Jeffrey Veale, MD, assistant professor of urology and director of the program. In exchange, the motivated donor’s loved one gets a kidney from another stranger.

UCLA was involved in the first transplant chain in the western United States, in July 2008. Along with Cornell, UCLA is the most active of the nation’s 250 transplant programs in performing chain transplantsations, having done approximately 80 over the last five years. “There’s a real humanity component to this program,” says Dr. Veale. “People

How it Works

Through the UCLA Kidney Exchange Program, two types of exchanges are possible. A paired donor exchange is a straight swap – a willing donor and his or her recipient who are incompatible are matched with another donor and recipient pair in a similar situation. But a donor chain creates opportunities for endless recipient-donor pairings. Typically, it starts when an altruistic donor, out of simple kindness, offers to donate a kidney to a stranger on dialysis. That kidney is transplanted into a recipient who had a donor willing to give a kidney, but was not a match. The recipient’s willing but incompatible donor then passes on the generosity to another stranger, whose willing but incompatible donor does the same, keeping the chain alive. A specialized computer program run by the National Kidney Registry matches donors and recipients across the country.

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already knew that his wife, brother and mother were not compatible donors. Joining a kidney chain became the ideal solution for him. After Cheung received a kidney from an African American man who couldn’t donate to his mother, Cheung’s wife, Jeanne, donated her kidney to a Latino woman who needed an organ but wasn’t compatible with her willing-donor friend.

“I was miserable,” Cheung says of his life prior to the transplant. “And today, I could not be better. I’m healthy, I exercise, I coach my sons’ teams. I can golf, swim, hike – all of the things I couldn’t do on dialysis. Getting this kidney was life-changing.”

Steven Shaevel wanted more than anything to give a kidney to his wife, Gail, but he wasn’t compatible. So he watched in dismay as Gail went through dialysis. “It keeps you alive but it really drains you,” says Mr. Shaevel. “She was totally wiped out all the time.”

In July 2008, an altruistic individual launched a chain that would change 15 families’ lives. Realizing through a friend’s experience how life-changing a kidney transplant can be and how quickly her own recovery would be now that the surgery is laparoscopic, a 40-year-old New York woman donated to a stranger, whose cousin proceeded to donate to another stranger. In October the chain reached Gail. Today she is healthy, as is Steven, who gave up one of his healthy kidneys a month after his wife got hers.

Eventually, the Shaevels met the woman who donated to Gail. “She could see, physically, what her kidney was doing for my wife and she was really touched,” Steven Shaevel says. When Mr. Shaevel met the man in whom his kidney now resides, he too was moved. “When your kidneys are working, you don’t think about them,” he says. “I looked at this man who had been on dialysis just like my wife, and to know that my kidney was keeping him alive and healthy was just a remarkable thing.”

Interested participants in the UCLA Kidney Exchange Program can call (310) 794-0696 for more information.

Keenan Cheung received a kidney from an African American man he had never met. In turn, his wife, Jeanne, donated a kidney to a Latino woman she had never met.

Letter from the Chair

We at UCLA Urology are committed to one goal above all others – extending and improving the lives of people with urologic conditions. We achieve this in part by delivering the best and most humane patient care possible. But providing state-of-the-art treatment isn’t enough. Through a research enterprise that is second to none, we are advancing the state of the art.

UCLA Urology is fully engaged in all three elements of the research mission of the David Geffen School of Medicine at UCLA:

Basic Science. The main driver of the advancement of knowledge about urologic diseases – and ultimately the foundation for better treatments and cures – is the research conducted in scientific laboratories. The strength of our basic science programs lies not just in the outstanding research teams within UCLA Urology, but also in the ability of these investigators to draw on the vast resources of the entire campus, forging collaborations that bring the expertise of diverse fields to bear on complex urological problems.

Clinical Research. Bringing scientific discoveries to fruition – in the form of new therapies – is the focus of clinical research. With dedicated teams of basic and clinical researchers and an active clinical trials program, we ensure that important findings are translated from the laboratory bench to the urologist’s office and operating room, providing our patients with the earliest access to the most promising treatments.

Population Science. Advances in treatment are valuable only to the extent that they reach the people who need them. Population science endeavors to translate clinical advances to the communities in need – getting the right therapies to the right people in a quality, accessible and cost-effective manner.

Research is the cornerstone of progress in urology, as in all biomedical fields. From the laboratory to the clinic to the community, UCLA Urology’s research is making life better for countless individuals.

– Mark S. Litwin, MD, MPH
Professor and Chair
UCLA Urology
In two separate but related new studies, UCLA Urology researchers are part of ambitious efforts to overcome the major cause of death from prostate cancer, which claims the lives of approximately 30,000 men in the United States each year.

The primary treatment for patients with prostate cancer that has spread throughout the body involves blocking the production of male hormones through medical castration. But although this approach can be effective for a certain period of time, eventually most patients’ tumors become resistant to the treatment and resume their progression. This is the case despite the recent introduction of two new drugs, MDV3100 and abiraterone, that have extended survival by several months.

As part of a collaborative multi-institutional effort funded by Stand Up To Cancer (SU2C) and the Prostate Cancer Foundation (PCF), as well as the generous donations of UCLA prostate cancer research supporters, a UCLA group is seeking to gain a better grasp of how metastatic prostate cancers become resistant to hormone therapy as they are being treated with the existing drugs. UCLA and five West Coast institutions form one of two “Dream Team” sites to receive funding. “This is a great example of team science, and it demonstrates that we

Curtis Reis was diagnosed with chronic renal failure in the summer of 1999, beginning a decade-long journey that culminated with Mr. Reis receiving a kidney transplant from his wife, Pamela, and the couple becoming generous supporters of UCLA Urology’s Kidney Exchange Program.

After Mr. Reis’s kidney function had deteriorated to the point that he was in need of a transplant, Mrs. Reis was screened as a potential donor, and was found to be compatible. “We were both very optimistic about this,” she says. “UCLA does more than 300 transplants a year and has an excellent success rate – over 98% with a living donor.” The transplant took place on July 14, 2009, and was a success. But the Reises learned that not everyone with a living donor is as fortunate.

Nearly two weeks after the surgery, Curtis Reis wrote in a blog he had started to document the process of becoming a transplant recipient, “My surgeon, Jeffrey Veale of UCLA, among several others, has started the concept of ‘chain’ donations. He tells me that while only about 10 percent of those awaiting a kidney get one within a year, 30-40 percent of potential recipients say they have family or friends willing to donate, even though they are not a match. By finding a donor, you get moved up the ladder and are then eligible for an anonymous match.”

Grateful for their positive experience at UCLA, the Reises established The Reis Foundation Kidney Exchange Program Fund to enrich and expand the Kidney Exchange Program, with the ultimate goal of increasing the donor pool for individuals in need of a kidney. This fund helps to cover the salary and health benefits for a fellow in the program for two academic years, the amount of time required to become an approved transplant surgeon. Such support enables Dr. Veale and his colleagues to attract the best and brightest young people and gives these individuals a dedicated time to pursue a career in academic medicine, doing clinical research and translating it to the bedside. “Training tomorrow’s leaders in this field is vital for the future of medicine and offers a tremendous return on the investment,” Curtis Reis says. “It’s a lot of leverage for a small amount of money.”

“A wise man should consider that health is the greatest of human blessings, and learn how by his own thought to derive benefit from his illnesses.”
– Hippocrates, Regimen in Health, bk. IX
are recognized as one of the leading centers in translational prostate cancer research,” says Robert Reiter, MD, MBA, professor of urology and director of the Prostate Cancer Program. Dr. Reiter is one of the leaders of the UCLA Dream Team site, which is headed by Owen Witte, MD, professor of microbiology, immunology and molecular genetics.

UCLA’s SU2C Dream Team will explore its hypothesis that resistance to hormone therapy results from prostate cancer cells activating new pathways to escape the effects of the current drugs. By identifying and inhibiting these pathways, the researchers hope to overcome treatment resistance. They will systematically obtain biopsies from metastatic prostate cancer patients at different points in the treatment process, conduct genomic studies to identify the adaptive pathways, and develop treatment approaches targeted to particular types of tumors based on these findings.

“We are starting from the patient’s tumor and working backward, which is very different from the traditional research approach,” explains Jiaoti Huang, MD, PhD, professor of pathology and urology and a member of the research team. “Rather than working with a cell line or animal model, testing a treatment and then seeing if it works in patients, we are studying the tumor tissue to learn which pathways are activated and which drugs will achieve the best outcome for given patients. The goal is personalized medicine – gaining insight into the ways tumors change when they become resistant and then tailoring treatment to the specific biology of the patient's tumor.”

While the SU2C study is conducting a genome-wide search for mutations that lead to hormone treatment resistance in metastatic prostate cancer, a second study, headed by Dr. Reiter and funded by the Prostate Cancer Foundation, is focusing on a particular pathway that Dr. Reiter and colleagues have previously shown to be significant. They have found that hormone deprivation therapy causes prostate cells to undergo an “epithelial to mesenchymal transition (EMT),” a key process in tumor metastasis that is integral to the development of treatment resistance. With a $1 million PCF “Challenge Award,” Dr. Reiter’s group will launch a clinical trial for men with high-risk prostate cancer (patients unlikely to be cured by surgery alone) to test the impact of blocking the EMT pathway, both before and after surgery, through a new combination of targeted drugs.

“The development of resistance to hormone therapy for patients with advanced prostate cancer has been a problem since castration was first used as a therapy in 1941,” says Matthew Rettig, MD, professor of urology and medicine and a researcher on both grants. “Over the last several years we have begun to better understand the mechanisms of this resistance, but there is still much more to learn. These studies will go a long way toward answering questions about how these tumors become resistant to treatment and will bring us much closer to developing therapies that can prolong the lives of these patients.”

For more information on making a gift to UCLA Urology, please log on to http://giving.ucla.edu/urology or call (310) 206-3079.
Testosterone Deficiency in Older Men

Testosterone deficiency, also known as hypogonadism, affects 5-8 million men in the United States. It is particularly common in older men, as a result of aging or medical problems such as obesity, diabetes or cardiovascular disease. At least one in four men 75 and older have below-normal testosterone levels.

Testosterone is a hormone produced mainly in the testicles. In addition to driving normal growth and development of male sex and reproductive organs, it has a wide-ranging role throughout the lifespan in the development and maintenance of male-sex characteristics, including musculature, bone mass, hair patterns and vocal tone. Normal testosterone levels help to maintain normal sex drive and fertility, as well as energy levels and healthy mood.

Levels of testosterone increase dramatically with the onset of puberty, and begin to decline in middle age. The complications from not producing enough testosterone later in life can include diminished libido, erectile dysfunction, reduced muscle mass and strength – including an increased risk of osteoporosis – as well as depression or other mood disorders.

If your symptoms suggest a deficiency, the level of testosterone in your blood can be measured to make a diagnosis, and further testing can be done to determine the cause. Testosterone replacement therapy, which can be given as pills, gels, creams, patches and injections, is the most common treatment approach for significant testosterone deficiency. Such treatment can be beneficial physically, sexually and psychologically, but there can be side effects – including acne, mood swings and changes in the production of red blood cells – and prostate cancer screening is required for men taking long-term testosterone supplementation.

UCLA Urologists who evaluate and treat testosterone deficiency in older men include Drs. Jacob Rajfer and Christopher Saigal in Westwood and Drs. David Leff and James Orecklin in Santa Monica.

For more information, visit the Healthy at Every Age section of www.uclaurology.com. To make an appointment, call (310) 794-7700.

Transplant Recipient Still Grateful, 46 Years Later

Today, more than 16,000 life-changing kidney transplants are performed each year in the United States. But when Pamela Davidson Bush went in for surgery at UCLA Medical Center on December 7, 1966, she was a pioneer.

The UCLA Kidney Transplant Program, a leader in the burgeoning field, was barely three years old when Joseph J. Kaufman, MD, who would go on to become UCLA Urology’s second department chair, transplanted a kidney donated by 20-year-old Bill Davidson into his sister, who was 22.

Born with a congenital kidney disorder, Pamela was in college when she began experiencing significantly reduced energy. By the time she was lined up for a transplant, her back hurt so badly she couldn’t sleep without pain medicine.

“After I received that kidney it was like I became a new person.”

Once her brother knew he was compatible, he never hesitated in offering his kidney to his sister. “Bill’s doctor tried to talk him out of it,” Mrs. Davidson Bush recalls. “He said, ‘This is like crossing the street – you can step off the curb and still come back.’ And Bill said, ‘No, let’s go all the way across.’ With that kind of support, what was I going to say?”

Both the donor and the recipient came through with flying colors. Pamela Davidson Bush describes her health as “excellent” in the 46 years since. Now 68, she is in her 30th year as a schoolteacher in Amarillo, Texas. “After I received that kidney it was like I became a new person,” she says. “I’ve always been grateful to the team at UCLA for making everything possible.”
Jiaoti Huang, MD, PhD, professor of pathology and director of urologic pathology, focuses his clinical work on the diagnosis of tumors of the prostate, bladder, kidney and testes. His research aims to unravel the molecular mechanisms of prostate cancer.

Christopher R. King, MD, PhD, associate professor of radiation oncology, is an expert in the radiobiology of prostate cancer, pathological and clinical factors associated with the optimal selection of treatment, prostate cancer imaging, and stereotactic body radiotherapy (SBRT) for prostate cancer.

Sally L. Maliski, PhD, RN, associate professor in the UCLA School of Nursing, studies health-related quality of life after prostate cancer treatment among underserved men, communication about a prostate cancer diagnosis among Latino families, and ways to minimize adverse effects of androgen deprivation therapy.

Steven Raman, MD, professor of radiology, is an expert in urological radiology and a founding member of the UCLA Prostate Imaging Group, which includes physicians and scientists dedicated to advancing the field of prostate imaging.

Christopher Tarnay, MD, chief of UCLA’s Division of Female Pelvic Medicine and Reconstructive Surgery within the Department of Obstetrics and Gynecology, has a special interest in robotic surgery for the treatment of pelvic organ prolapse and is co-chair of UCLA’s robotic surgery program.

Steven G. Wong, MD, associate professor in UCLA’s Division of Hematology Oncology, serves as the medical director of the Bladder Cancer Program at UCLA. Dr. Wong’s clinical and research interests are in prostate, bladder, kidney, testicular and head and neck cancers, as well as in rare endocrine malignancies.
CONSIDER JOINING THE UCLA UROLOGY DOCTOR’S CLUB

The UCLA Urology Doctor’s Club provides networking opportunities for UCLA Urology alumni and current students, as well as opportunities for mentoring and collaboration. Members can connect with other members, participate in events and workshops, and stay up-to-date on the latest developments in urology.

To join the UCLA Urology Doctor’s Club, visit the UCLA Urology website or contact the UCLA Urology Office of Alumni and Development.

CONTRIBUTIONS TO UCLA UROLOGY SUPPORT OUR RESEARCH PROGRAMS AND HELP OUR FACULTY MAKE THE CUTTING-EDGE DISCOVERIES THAT CAN SAVE LIVES.

Give Now. Here’s How.

Contributions to UCLA Urology support our research programs and help our faculty make the cutting-edge discoveries that can save lives. You can make a gift to UCLA Urology by logging on to http://giving.ucla.edu/urology. Please call (310) 206-3079 if you have any questions about making a gift to UCLA Urology.