



live well

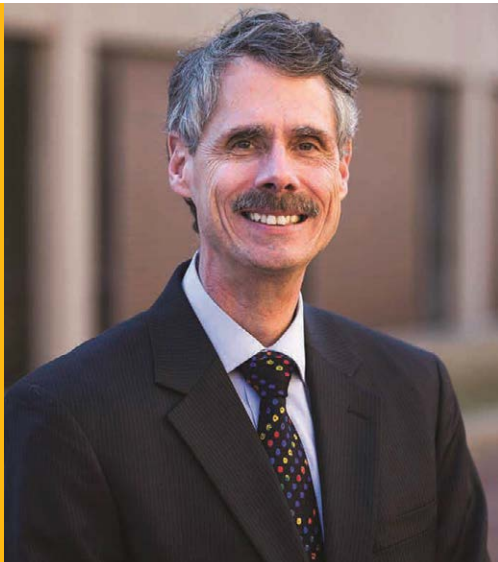
SMARTER HEALTHCARE FOR SOUTHERN CALIFORNIA



**WITHIN
REACH**

SOPHISTICATED NEW
THERAPIES FOR BRAIN
TUMORS OFFER HOPE

WELCOME TO UC IRVINE HEALTH



Thomas Walkup is a little boy from New Jersey who loves his hometown hero, Angels slugger Mike Trout, and who hopes someday to experience the thrill of hitting a baseball out of the park. Thanks to pioneering research at UC Irvine Health that saved his eyesight, Thomas may one day do exactly that, just like his idol. Every day at UC Irvine Health, we strive to “hit it out of the park” for our patients by providing the finest, personalized healthcare treatments and preventive services.

I’m delighted to introduce myself as the new vice chancellor for health affairs at UC Irvine Health. I come to Orange County from Georgetown University, where I served as executive vice president for health sciences and executive dean of the school of medicine. Since coming on board July 1, I’m already impressed by the highly regarded medical and research programs and history of community involvement by UC Irvine Health. My goal at UC Irvine Health is to meet the needs of the Southern California community in the form of patient-centered care that is powered by the most compelling science.

It’s also my pleasure to introduce you to the inaugural issue of our new magazine, *Live Well*, which is published three times a year. This issue reflects our commitment to leading-edge healthcare. The story on page 6 describes advances in treating brain tumors, while our Discoveries column on page 3 focuses on promising research aimed at treating one of the most dangerous complications of colon surgery. And don’t miss the inspiring story of Thomas Walkup, beginning on page 12.

We are here to serve you. We invite you to attend any of the free lectures, classes and events (see page 6) aimed at fostering your good health and well-being. ■

Sincerely,

Dr. Howard Federoff
UC Irvine Health Vice Chancellor, Health Affairs
Dean, School of Medicine



UC Irvine Health

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The information contained in this magazine is not meant to
replace the advice of your physician.

PREVENTING A DANGEROUS COMPLICATION OF COLON SURGERY

WRITTEN BY SHARI ROAN

As the only university medical center in Orange County, UC Irvine Health researchers help test and introduce some of the most innovative treatments in the world—much to the benefit of our patients. In this issue's Discoveries column, our physicians describe an innovative solution they devised for a complication of colon surgery.

300,000

U.S. COLON SURGERIES PER YEAR

25,000

CASES OF ANASTOMOTIC LEAK

About 300,000 Americans undergo colon surgery each year, oftentimes to remove cancer or polyps. For most patients, the surgery is uneventful. But a baffling and dangerous complication of colon and rectal surgery has plagued the field for years. It involves a leak from the colon where the incision was made and reconstructed.

The condition, called an anastomotic leak, affects at least 25,000 patients a year in the United States, including about 10 to 15 percent of patients who have rectal cancer surgery. Dr. Michael J. Stamos, a UC Irvine Health surgeon and chair of the Department of Surgery, is leading a large, national study on a way to prevent anastomotic leaks. He compares the problem to a leak that springs after a plumber comes to your house to fix a pipe.

"He takes the pipes apart and clears the trap and puts it back together again," he says. "Then you run water and look down and see water on the ground. The same thing happens with an anastomotic leak. The intestinal contents are leaking outside of the bowel after you remove a segment and reattach it."

With standard operating-room light, the surgeon can't visualize where there is diminished blood supply to the colon, a long purported cause of leaks. When a leak occurs, the consequences to patients are dire, Stamos says. More than half of the deaths following colon and rectal surgery are caused by anastomotic leaks. Some patients need a second or even third operation and may be left with scarring or a colostomy.

"For many decades we've struggled with how to prevent leaks and understand why they occur," Stamos says.

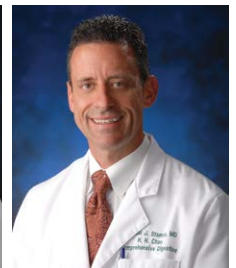
However, the potential solution lies in an imaging technology called fluorescence angiography. This technology has been used for years to make sure the blood is flowing normally after heart surgery. A fluorescent dye is injected into the bloodstream that can be seen with a special light source and camera to show how the blood to the colon is flowing. A few years ago, Stamos and representatives of the company that makes the device decided to test its ability to prevent anastomotic leaks. The results of that study, called the PILLAR II study, showed poor blood supply in nine of 139 patients.

"In those patients, it looked like they had good blood supply, from what we could tell by feeling, touching and using standard

"IT'S OUR MISSION TO DISCOVER, TEACH AND HEAL. 'DISCOVER' IS FIRST FOR A REASON. IT'S WHAT DIFFERENTIATES US."



Dr. Alessio Pigazzi
Chief of the Division of
Colon & Rectal Surgery



Dr. Michael J. Stamos
Chair of the
Department of Surgery

white light. But in fact there was inadequate blood supply," which can cause a leak, he says. In those nine cases, surgeons removed an additional inch or so of the colon to ensure optimal blood supply, and none of the patients developed a leak.

"The first set of data was quite encouraging. The rate of leaks was very low compared to historical data. We were surprised and encouraged to do more studies," says Dr. Alessio Pigazzi, chief of the Division of Colon & Rectal Surgery.

Stamos is now leading the Phase 3, randomized, controlled study of the technology, which will involve at least 550 patients at 21 sites nationwide. Pigazzi is the lead investigator for the UC Irvine Health arm of the study.

"Because of the magnitude and impact of the problem, there is very broad interest in our research," Pigazzi says.

UC Irvine Health experts are proud to pave the way for this advance, Stamos says. "It's our mission to discover, teach and heal. 'Discover' is first for a reason. It's what differentiates us. It allows us to do a better job of healing." ■



ARM YOURSELF AGAINST COLDS AND FLU

Flu season can begin as early as October, so now's the time to get vaccinated. With rare exceptions, flu vaccination is recommended for everyone 6 months and older. People ages 9 and older can obtain a free flu shot at our annual Super Saturday Health Fair, Oct. 10, 10 a.m. to 1 p.m., UC Irvine Health Manchester Pavilion parking lot, 200 S. Manchester Ave., Orange. (Quantities are limited.)

Many other viruses that cause respiratory illnesses also circulate in the winter months. You can dramatically curb your risk of illness by following these tips from the Centers for Disease Control and Prevention:

- Avoid contact with sick people.
- Wash your hands often with soap and water (for at least 20 seconds).

If soap and water aren't available, use an alcohol-based hand rub.

- Avoid touching your eyes, nose and mouth.
- Clean and disinfect contaminated objects and surfaces. Routinely clean frequently touched objects and surfaces.
- Protect others by staying home when you're sick and covering your mouth with a tissue when you cough or sneeze.

For more ideas and inspiration about living your healthiest possible life, visit the Live Well blog at ucirvinehealth.org/blog and sign up for our monthly newsletter at ucirvinehealth.org/signup



CHOOSING YOUR 2016 HEALTH PLAN

Open enrollment for 2016 is coming up. When selecting a health plan, choose UC Irvine Health for an expansive choice of world-class doctors located at primary and specialty care centers around Orange County. Not only does UC Irvine Health give you the best in primary care, but you also have access to top-notch hospital care and more than 500 world-class specialists.

We accept Medicare Advantage at our Tustin and Orange outpatient locations. For help in understanding Medicare, attend one of our free Medicare 101 seminars.

To register: ucirvinehealth.org/medicare101

Important dates for 2016 enrollment:

Oct. 15 through Dec. 7: Medicare open enrollment period

Nov. 1, through Jan. 31, 2016: Open enrollment period for insurance purchased by individuals under the Affordable Care Act

Jan. 1, 2016: First date 2016 coverage can start, all plans

For more information: ucirvinehealth.org/herenow





UC IRVINE HEALTH EXPANDS URGENT CARE AND WALK-IN SERVICES

Emergency rooms aren't meant for treating ankle sprains, colds and flu, rashes, eye infections and other minor illnesses. You will find more comfortable, convenient and lower-cost care at one of our many outpatient locations around Orange County—all with the high-quality care you expect from us. We coordinate your care with your primary care physician, too. We've recently expanded our services and hours:

Walk-in care (no appointment needed) is now available for people ages 2 and older every day from 8 a.m. to midnight at the Medical Center Pavilion III in Orange. At Gottschalk Medical Plaza in Irvine, walk-in care is available for people ages 2 and older Monday through Friday, 8 to 11:45 a.m. and 1 to 4:45 p.m.

Urgent care is offered at UC Irvine Health—Tustin from 5 to 9 p.m. Monday through Friday, and from 9 a.m. to 5 p.m. weekends and holidays.

Same-day care (call to get a same-day appointment) is available at our locations in Tustin and Orange.

For complete information about same-day and urgent care services and hours at each of our locations, go to ucirvinehealth.org/samedaycare



"AMERICA'S BEST HOSPITALS" HONOR

For the 15th consecutive year, *U.S. News & World Report* has recognized UC Irvine Medical Center as one of "America's Best Hospitals." The rankings recognize hospitals that excel in treating the most challenging cases and include two UC Irvine Health specialties among the top 50 nationally: 39th for ear, nose and throat and 43rd for geriatrics. UC Irvine Medical Center is the only Orange County hospital consistently rated among America's best by *U.S. News*. It's the highest-ranked hospital in the county.



BACK-TO-SCHOOL SPORTS PHYSICALS

Sports participation is wonderful for kids' physical and mental health. We can get your young athlete off to a healthy start this sports season with a quick and convenient, low-cost sports physical. The visit includes:

- A thorough review of your child's medical history
- A review of immunization records to ensure they are current
- A full physical exam, including muscle and joint testing
- Vision and hearing exams
- Information about preventing and recognizing signs of concussion
- Completion of required paperwork

Schedule a same-day appointment or just walk in at UC Irvine Health—Tustin. EKGs, which are required of all high school athletes, are available for an additional charge. To schedule, call 714-838-8878 and mention you are coming for a sports/camp physical.





JAMES
GREEN

**BRAIN
CANCER
SURVIVOR**



A BARRAGE AGAINST BRAIN TUMORS

Leading-edge surgery and innovative vaccines offer more hope than ever.

WRITTEN BY VICTORIA CLAYTON | PHOTOGRAPHED BY PRO PHOTOGRAPHY NETWORK/NICK KOSAN

One morning in January 2012, James R. Green, a retired Veterans Affairs medical technician, stepped into the shower as usual in his Carmichael, Calif., home. When he raised his arm to pull the shower curtain, however, Green knew something was amiss. “I kept trying to pull the curtain shut, but my hand wouldn’t go where it was supposed to and my fingertips were numb.”

Green called for his wife, Donna, who was employed as executive chief of nurses for the VA in Northern California. “I told her I thought I was having a stroke,” he says. But within minutes his functioning returned, and he felt fine.

“I think a lot of people would’ve just waited for something else to happen at that point,” Green says. “But my wife, being a nurse, wouldn’t let me do that.” They headed to the emergency room, where he had a CT scan and MRI. Despite working in healthcare, neither was prepared for the diagnosis.

“The doctor told us I had a large mass on the right side of my brain, near the motor strip, which is extremely dangerous. I was totally shocked. I went from one day being fine to the next hearing that I would need brain surgery,” says Green, now 70.

Donna Green was adamant that her husband have the best care, which meant a trip south to UC Irvine Health. The news, however, got worse.

“Once I had the tumor biopsied, I learned I had a glioblastoma. My wife and her nurse friend who accompanied us to the appointment burst into

tears when we got the news. I guess that’s when I knew I was up against something daunting.”

Glioblastoma is a rare and notoriously difficult cancer. Most patients survive less than a year. Green underwent a 10-hour surgery at UC Irvine Medical Center in February 2012. That was followed by 31 days of radiation and chemotherapy at the UC Irvine Health Chao Family Comprehensive Cancer Center. Today he continues treatment as part of an innovative clinical trial. Dr. Daniela Bota, a neuro-oncologist and national authority on emerging treatments for glioblastoma, oversees Green’s care.

Since 2012, treatment of glioblastomas has made tremendous strides. With newer techniques, UC Irvine Health doctors are able to resect only the affected area, without harming normal brain tissue around the tumor, says Dr. Frank P.K. Hsu, chair of the UC Irvine Health Department of Neurological Surgery. Hsu has pioneered many neurosurgical techniques that reduce patient risk and produce better outcomes.

An advanced navigation and brain mapping technology called BrainPath helps surgeons get in and out through the safest route and even allows them to remove previously inoperable tumors seated deep within the brain. Some tumors can now be removed through the nose (called nasal-endoscopic surgery) with use of a guided scope and imaging technology or through much smaller openings in the cranium than previously imaginable (called keyhole surgery).

Other advances, such as intraoperative imaging (imaging done on the

AN INNOVATIVE BRAIN TUMOR VACCINE

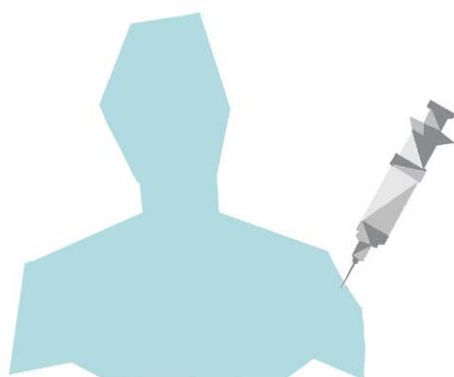
A clinical trial underway by researchers at UC Irvine Health aims to harness the power of the immune system to fight cancer.



1. After a patient's tumor is removed, a sample is taken from the tumor.



2. In the lab, cells from the patient's tumor are broken into pieces and mixed with substances designed to trigger an immune system reaction. Tumor pieces from three other patients with similar diagnoses are also prepared.



3. The resulting immune booster is injected into the patient. Treatments alternate between the patient's own material and the mixture derived from the other three patients.



4. The injection prompts the body's immune system to recognize the cells as foreign and attack the cancer and any recurrences of cancer.

spot during surgery rather than after), robot-assisted surgery and biopsy, and use of special fluorescent dyes to more easily identify cancer cells, all place the UC Irvine Health Comprehensive Brain Tumor Program on the leading edge. "But no matter how advanced we are, treating a brain tumor is never routine," Hsu says. Much depends on surgical skill, technology, radiation, chemotherapy and access to innovative clinical trials.

Glioblastoma is a particularly formidable opponent. It's impossible to remove it entirely because the tumor is surrounded by a zone of migrating cancer cells, which infiltrate surrounding tissue. Traditionally chemotherapy and radiation have been the best bets to stave off new tumors. Unfortunately, the odds have never been tipped in the patient's favor: The recurrence rate for glioblastoma is almost 100 percent, with an average time of recurrence between six and seven months.

Even more challenging, Bota determined that Green is EGFRvIII-positive. This means he has a particular gene mutation, shared by only 33 percent of glioblastoma patients, which causes him to be more prone to tumor regrowth. "Patients who express the EGFRvIII mutation have had even worse long-term survival rates than patients who do not have this mutation," she says.

UC Irvine Health, though, is home to the only National Cancer Institute-designated comprehensive cancer center in Orange County,

IS IT A BRAIN TUMOR?

The signs and symptoms of adult brain and spinal cord tumors are not the same in every person. Symptoms depend on a tumor's size and where it is in the brain. Pay special attention if a headache is accompanied by another symptom.

- Morning headache or headache that goes away after vomiting
- Frequent nausea and vomiting
- Loss of appetite
- Vision, hearing and speech problems
- Loss of balance and trouble walking
- Memory problems
- Weakness or numbness in the arms or legs
- Unusual sleepiness or change in activity level
- Changes in personality, mood, behavior or ability to focus
- Seizures

Sources: Dr. Daniela Bota; National Cancer Institute

with access to the latest postsurgical brain tumor drug and immunotherapy treatments.

“Many of our patients, like Mr. Green, participate in clinical trials. We’re really out there leading the fight for breakthroughs,” says Bota, who is the primary investigator for many of the trials.

Clinical trials must adhere to Food and Drug Administration protocols and progress in phases. Phase 1 trials test new drugs or treatments on small groups of patients to evaluate safety, efficacy and side effects. If successful, the treatments advance to Phase 2 with larger groups to further test efficacy and monitor side effects. Phase 3 trials use even larger groups to confirm effectiveness before the treatment is finally approved for the general public.

Following surgery, Green joined the ReACT study, a Phase 2 trial that hinges on using the patient’s own immune system to fight cancer. In the ReAct study, Green was injected with rindopepimut, a medication that imitates the EGFRvIII protein and stimulates the patient’s immune system to recognize and fight tumor cells that express the gene mutation.

Rindopepimut was administered in the form of an injection every two weeks in the beginning, and then monthly, which Green had along with a chemotherapy infusion. The therapy is intended to boost his immune system to fight off cancer recurrence.

Another clinical trial led by Bota is called the ERC1671 study. It combines samples of a patient’s tumor cells with those of three other patients and mixes them with reagents so that the patient’s immune system will recognize them as foreign. These cell extracts are then injected to prime the patient’s immune system to fight the tumor and possible recurrences.

“The same cancer can take different pathways, and the concept to the ERC1671 study is to prompt the body to fight cancer not only in the way that the patient already had it—stimulated by the patient’s own tumor cells—but in several different ways by introducing the cells of other patients,” Bota says. “It’s exciting to be working in cancer immunotherapy right now. We see so much potential for hope.”

Green believes participating in his trial, which is now heading into Phase 3, has extended his life even under the worst circumstances. Shortly after surgery his wife, Donna, who suffered from a chronic illness, took a turn for the worse and passed away.

“Donna’s death is the reason I’m here,” he says. “She wanted me to move near Irvine to take part in this trial. So I did. I’m convinced the top-notch surgery, the care from everyone here and the vaccines are why I’m alive and feeling well now, more than three years later.”

Hsu says there’s nothing better than hearing that. “We have the very best technology, many promising clinical trials and a world-class team of experts in neuro-oncology, neurosurgery, radiation therapy, clinical trials, nursing and more. But, ultimately, this is all about the patient. Our dream is to help patients reclaim their lives.”

That’s exactly what Green hopes to do. Green’s first career and abiding love is photography. He worked in Southern California for the Gardena Valley News newspaper. “I’m looking forward to getting back to photography and maybe moving full-time to a vacation home we own in Las Vegas,” he says. “A few years ago I thought I had zero chance at a future, but now I see one. That’s pretty amazing.” ■

WHY CHOOSE AN NCI-DESIGNATED COMPREHENSIVE CANCER CENTER?

The UC Irvine Health Chao Family Comprehensive Cancer Center is a treasured community resource because it is the only facility in Orange County—and one of only 45 in the country—that has received a National Cancer Institute (NCI) designation as a comprehensive cancer center.

This designation means the center must meet rigorous criteria aimed at providing world-class patient care and innovative research. The NCI refers to its Cancer Centers Program as “the backbone of NCI’s programs for studying and controlling cancer.”

NCI-designated comprehensive cancer centers:

- Perform laboratory, clinical and population-based research with national impact
- Emphasize research that bridges scientific disciplines
- Pay special attention to the needs and cancer burden of the local population and address these needs through programs and research
- Train and educate the next generation of cancer biomedical researchers and healthcare professionals

LEADERSHIP: Unlike community hospitals, NCI-designated cancer centers have the ability to treat the most challenging patient cases and tackle vitally important research questions. Physicians and scientists in the network of NCI cancer centers work together to establish a national agenda for cancer while the leaders of these centers help form the nation’s strategic vision and initiatives on cancer.

MULTIDISCIPLINARY FOCUS: The Chao Family Comprehensive Cancer Center has a faculty drawn from more than 32 academic departments across six schools at UC Irvine, including the schools of Medicine, Biological Sciences, Physical Sciences, Information & Computer Science, Engineering and Business.

CLINICAL TRIALS AND LEADING-EDGE TREATMENTS: Comprehensive cancer centers receive NCI funding for research and offer eligible patients the opportunity to take part in clinical trials. By participating in a clinical trial, patients have access to leading-edge treatments and therapies long before they are available to the general public.

SCOPE OF OUR WORK



Source: National Cancer Institute

To learn more about UC Irvine Health clinical trials go to ucirvinehealth.org/clinicaltrials





DR. STEPHEN A. FEIG

HIGH-TECH BREAST CARE

Patients benefit from new advances.

WRITTEN BY NANCY BRANDS WARD AND SHARI ROAN

Every day in the United States, thousands of women are screened for breast cancer while thousands more undergo treatment for the disease. Several new technologies employed by UC Irvine Health, however, are easing the experience for patients while improving outcomes.

THREE-DIMENSIONAL MAMMOGRAPHY

A groundbreaking new screening and diagnostic exam that can detect breast cancer earlier and with greater accuracy than standard digital mammography is being used increasingly since it was approved by the Food and Drug Administration in 2011. It's called breast tomosynthesis or three-dimensional mammography. Although it's currently used for fewer than 10 percent of mammograms performed in the country, UC Irvine Health has been offering 3-D mammography to its patients since January.

Three-D mammography allows doctors to examine tissues in much more detail compared to a traditional mammogram. That means detection rates will be substantially higher, says Dr. Stephen A. Feig, a UC Irvine Health radiologist and internationally renowned expert on breast imaging and breast cancer diagnosis.

"Studies have demonstrated increases from 20 to 40 percent in detection of all cancers," he says. "They're even higher for invasive cancers: between 30 to 40 percent."

Research has demonstrated lower false-positive rates compared to traditional mammography. The greater accuracy of 3-D also means fewer women are called back for additional exams.

During 3-D, the machine moves around the breast, taking images of different layers of tissue at various angles. The computer then reconstructs these multiple low-dose images into a 3-D picture of the breast. While every patient can benefit from having 3-D mammography, the technology is especially valuable for women with dense breast tissue, Feig says.

"One of the challenges is that dense breast tissue can obscure abnormalities, similar to the way in which a pool clouded by algae prevents you from seeing fish swimming under the surface," he says. "Three-D solves this problem by revealing abnormalities hidden beneath 'masking' layers of tissue in dense breasts. With 3-D technology, we can see even the smallest abnormalities."

PRECISION LUMPECTOMY

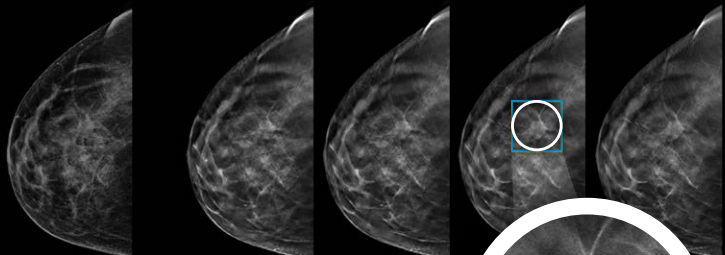
The goal of breast-conserving lumpectomy is to remove all detectable cancer cells while sparing as much healthy tissue as possible. But of the estimated 174,000 women who have breast conservation surgery every year, about 30 percent will require a repeat procedure because cancer cells are not completely removed during the initial surgery.

UC Irvine Health surgeons are the first in Orange County to use SAVI Scout®, a system that better targets the tumor, increasing the chances of

A MALIGNANCY EASILY MISSED WITH CONVENTIONAL 2-D MAMMOGRAPHY WAS CLEARLY SEEN WITH HOLOGIC 3-D MAMMOGRAPHY

2-D MAMMOGRAPHY

HOLOGIC 3-D MAMMOGRAPHY





FROM LEFT: DR. KAREN LANE,
DR. ALICE POLICE,
DR. FREDDIE J. COMBS

complete cancer removal, says Dr. Alice Police, a surgical oncologist and medical director of the UC Irvine Health Pacific Breast Center. The system, which is approved by the FDA, uses a probe that emits non-radioactive, electromagnetic waves to detect a micro reflector placed in the target tissue. The reflector can be inserted into the target tissue up to a week before surgery. Using the probe, the surgeon locates the reflector and plans the incision. The excised tissue is scanned with the probe to confirm the sensor has been removed.

UC Irvine Medical Center is the only hospital in Orange County to participate in a national, multicenter clinical trial of the SAVI Scout system.

“My focus is always on finding a better breast cancer operation,” Police says. “Precise location of the tumor is crucial for a shorter operation time, smaller incision, speedier recovery and to avoid another surgery.”

REMOVING EVERY TRACE OF THE TUMOR

UC Irvine Health surgeons are the first in the nation to use a device that may reduce the need for a second surgery to remove breast cancer cells missed during an initial lumpectomy. The MarginProbe® system lets the surgeon immediately assess whether cancer cells remain on the margins of excised tissue and remove more tissue, if necessary. Currently, patients have to wait days for the results of a pathology test to see whether the first surgery completely eliminated the tumor.

“Many of my patients know someone who has had to go back into surgery because their doctor didn’t get the entire tumor out,” Police says. “The ability to check tissue in the operating room is a game-changer in surgery for early-stage breast cancer.”

Studies show the MarginProbe system reduced repeat surgeries by 56 percent.

The system comprises a sterile handheld probe and a portable console. The probe emits radiofrequency signals onto the excised lumpectomy specimen. The reflected signals are analyzed using a specialized algorithm to determine whether the tumor margin contains cancer cells.

RADIATION THERAPY ON THE SPOT

Another advance that both improves outcomes and increases patients’ comfort is a system that allows for a concentrated dose of radiation therapy at the time of surgery. Intraoperative radiotherapy (IORT) saves some women from daily rounds of radiation therapy after surgery and spares them the side effects that accompany it. Typically, women who require radiation therapy undergo up to six weeks of treatment after surgery.

“Certain women who have early-stage breast cancer could benefit from receiving a single dose of radiation right in the operating room, during the lumpectomy,” Police says.

UC Irvine Health breast cancer experts aim to match a woman with the therapy that best suits her condition and is sensitive to her concerns, says Dr. Leonard Sender, director of clinical oncology services at the UC Irvine Health Chao Family Comprehensive Cancer Center.

“Women with varying breast density or different sized tumors, for example, require different approaches,” he said. “We have a great responsibility to help each patient choose the right treatment.” ■

UC Irvine Health has two convenient locations in the Newport Beach area and in Orange that offer a variety of breast health services. For more information or to make an appointment, visit ucirvinehealth.org/breast

To learn more about breast cancer treatment, join us for a free presentation entitled “Breast Cancer – Here Today, Cured Tomorrow,” on Oct. 26, 7 p.m., at the Newport Beach Library, 1000 Avocado Ave., Newport Beach.



QUITTING IS **NOT AN OPTION**

A New Jersey child undergoes pioneering vision surgery at the Gavin Herbert Eye Institute.

WRITTEN BY SHARI ROAN | PHOTOGRAPHED BY ENID ALVAREZ

The only item 8-year-old Thomas Walkup insisted on packing for his trip to California in August was his baseball glove. The Millville, N.J., youth knew he would attend an Angels baseball game and planned to snag a foul ball.

His mother and stepfather, Susan and JT Banks, Jr., carried something weightier: a mix of anxiety, hope and gratitude. After several difficult years, Thomas was scheduled to undergo a rare eye surgery at the UC Irvine Health Gavin Herbert Eye Institute to correct a vision problem that left him struggling to see anything more than blurry shapes.

On Aug. 13, Thomas underwent the two-hour surgery to correct congenital nystagmus, a condition sometimes called “shaky eye syndrome,” in which the muscles that control eye movements pulse continually, causing rapid and repetitive eye movements. The eyes move involuntarily either side to side, up and down or in circles, making it impossible to gaze at any object steadily and leaving the child functionally blind. For a child, the condition typically has a dramatic impact on educational and social development. His mother was told Thomas would not be able to play sports or drive a car. He was destined to struggle in school.

Banks passed on a surgery that doctors said would improve the cosmetic look of Thomas’ eyes but would not help his vision. Earlier this year, she hit another roadblock when a New Jersey state commission denied Thomas services for the blind. His vision was deemed not severe enough to qualify for assistance. The school district, meanwhile, wanted to classify the bright second-grader, who saw objects more clearly by peering out of the corner of his eyes, as learning disabled.

That’s when the resolute mother sat down at her computer and began to search for solutions. She hit upon the website of the Gavin Herbert Eye Institute and learned of an experimental surgical procedure offered by Dr. Robert W. Lingua, a UC Irvine Health pediatric ophthalmologist, to restore vision in children with congenital nystagmus. Lingua is the only surgeon in the world to perform the operation, which involves removing part of the muscle that controls eye movement.

“In our profession, there is an expectation that nystagmus cannot be controlled with surgery,” Lingua says. Traditional nystagmus surgery involves detaching, moving, then reattaching the eye muscles to adjust the position of the eyes. But the surgery often does little good because the brain continues to send impulses to those muscles, causing the shaking.

In 2002, however, Dr. Robert Sinsky of Los Angeles devised a different approach to improve the outcome of surgery by removing part of the eye muscle. Removing part of the muscle tends to interrupt the impulses from the brain to the eye muscles, resolving the involuntary shaking. Few ophthalmologists showed interest in developing the procedure before Lingua became intrigued and asked Sinsky about his research.

“It was revolutionary to think that you could remove the front portion of the muscle and not do more harm than good,” Lingua says. But after performing a few cases in early 2013, Lingua realized he could obtain good results. He’s preparing a paper about his first 40 cases and is further



“HE HAS A VISION IMPAIRMENT, NOT A LEARNING DISABILITY. . .IT WAS TIME TO FIGURE OUT WHAT I COULD DO.” –SUSAN BANKS

enhancing the procedure as part of a clinical trial. While the initial surgery typically resolves the shaking, some patients require a second surgery to correct misalignment of the eyes.

“We’re trying to figure out how much muscle is the precise amount to remove to stop the nystagmus but not risk misalignment,” he says. “The perfect result would be to stop the shaking and straighten the eyes in every patient. That’s our dream, and that’s what we’re aiming to do.”

After being told last year that Thomas would have to stop playing T-ball and wrestling, his family is ecstatic at his opportunity for better vision and a normal appearance. While in Orange County, Thomas got to visit Disneyland and meet his hometown hero, Angels center fielder and All-Star MVP Mike Trout. The family’s trip was supported by about \$10,000 in donations from the Millville community.

Thomas has endured much in his short life, Banks notes. He had a tumor removed from his skull in 2014, due to a rare disorder called Langerhans cell histiocytosis. After the surgery he suffered a heart arrhythmia, requiring another surgery. As he entered second grade last fall, questions and teasing from classmates about his eyes began.

But last year, when a doctor told Thomas he needed to stop wrestling due to the nystagmus, he responded: “Quitting is not an option.”

“Thomas is a good-hearted kid, a determined kid,” Banks says. “I had always dreaded telling him that he would never drive a car. The first words out of his mouth when he first learned to speak were ‘57 Chevy.’”

Now, thanks to Lingua and his team at the Gavin Herbert Eye Institute, the town of Millville and many other supporters, Thomas Walkup is in the driver’s seat. ■

For more information: ucirvinehealth.org/thomas



GALA RAISES \$1.75 MILLION

The UC Irvine Health Heroes Gala “Viva!” was held June 6 at the Disneyland Hotel. More than 500 community and business leaders came together to honor wellness advocate Susan Samueli and other health heroes of the Susan Samueli Center for Integrative Medicine. The gala generated \$1.75 million in proceeds, setting a UC Irvine Health Heroes Gala record. The funds will support research and treatment initiatives that help people in Orange County and around the world discover and experience wellness as a path to a longer, healthier life.



Susan Samueli accepts the UC Irvine Health Heroes award for her advocacy of wellness and visionary guidance.



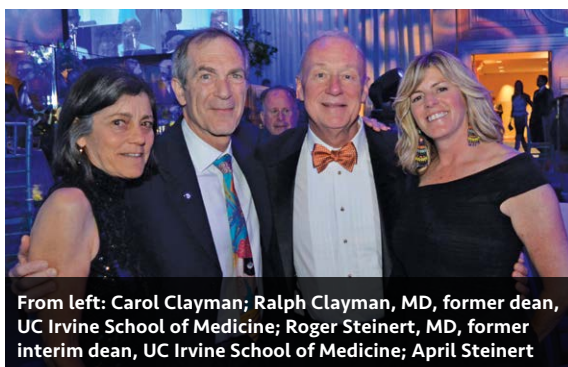
Terry Belmont and Dr. Roger Steinert served as gala co-hosts. Belmont (at the podium) recently retired as the UC Irvine Medical Center CEO while Steinert, former interim dean, is founding director of the Gavin Herbert Eye Institute.



Honorary co-chairs Jim Peterson and Sheila Peterson. Jim is a member of the UC Irvine Foundation Board of Trustees. Sheila chairs the advisory board of the Susan Samueli Center for Integrative Medicine.



From left: UC Irvine Chancellor Howard Gillman, PhD; Ellen Ruskin-Gillman, PhD; Susan Samueli, PhD; Henry Samueli, PhD, Broadcom chairman and chief technology officer



From left: Carol Clayman; Ralph Clayman, MD, former dean, UC Irvine School of Medicine; Roger Steinert, MD, former interim dean, UC Irvine School of Medicine; April Steinert



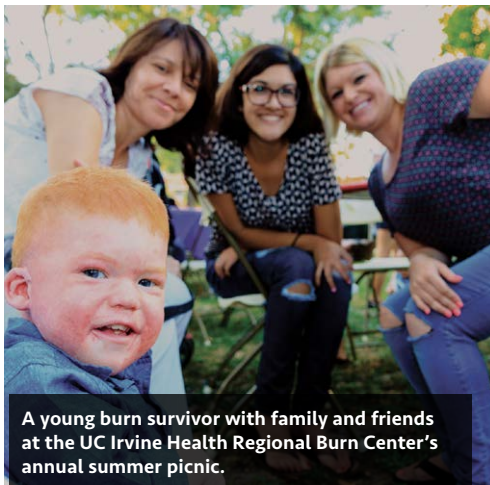
Shaista Malik, MD, PhD, newly named director of the Susan Samueli Center for Integrative Medicine



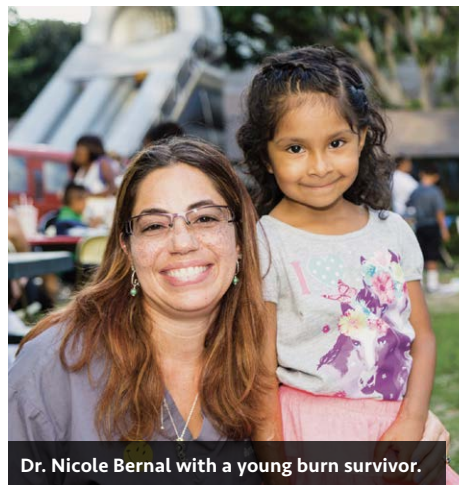
Laura Khouri, president of Western National Property Management

OPENING OF TUSTIN MULTISPECIALTY OFFICES

Orange County residents perused health information booths and enjoyed children's activities on June 27 at an open house for the UC Irvine Health—Tustin multispecialty offices at 1451 Irvine Blvd. The Tustin medical offices consist of primary care as well as specialty care in dermatology, gastroenterology, neurology, otolaryngology, podiatry, pain management, rheumatology and obstetrics/gynecology. The Tustin offices are equipped with on-site laboratory and X-ray services for expedient processing of test results. Patients also can seek after-hours urgent care on evenings and weekends.



A young burn survivor with family and friends at the UC Irvine Health Regional Burn Center's annual summer picnic.



Dr. Nicole Bernal with a young burn survivor.

ANNUAL BURN SURVIVORS PICNIC

More than 250 burn survivors and their families attended the UC Irvine Health Regional Burn Center's annual summer picnic, which featured games, face painting and food provided by In-N-Out.

Events for survivors play an important role in recovery. Dr. Victor Joe, burn center director, and burn care specialists say survivors' real healing begins after they're discharged from the hospital. Services like the summer picnic, peer-to-peer support groups and attendance at burn survivor camps all contribute to recovery.

The UC Irvine Health Regional Burn Center is the only burn treatment program in Orange County and one of the few in Southern California verified by the American College of Surgeons and the American Burn Association, and certified by the California Children's Services program.

The center treats the majority of the county's serious burn injuries both in the hospital and its outpatient offices at UC Irvine Medical Center.



EVENTS

UC Irvine Health is proud to sponsor community events that support a variety of health conditions and challenges. Lace up your shoes, join a walk and get moving to raise awareness of these worthy causes.

ANNUAL SUPER SATURDAY COMMUNITY HEALTH FAIR

Oct. 10, 10 a.m. to 1 p.m.

UC Irvine Health Manchester Pavilion Parking Lot, 200 S. Manchester Ave., Orange
 UC Irvine Health is proud to host this popular annual event. Obtain free flu shots (ages 9 and older) plus blood pressure and diabetes risk screening. Visit with our vendors for free health information, talk with a nurse or doctor about your health or medications and enjoy free healthy snacks. Enter a drawing for prizes. For more information, please call Marra Williams at 714-456-8434.



WEBINAR

WEBINAR: THE INCREASE IN YOUNG-ONSET COLORECTAL CANCER

Sept. 16, 4 to 5 p.m.

Dr. Jason Zell will conduct this live webinar on the rising rate of colon cancer in younger people. Zell's study, entitled "Colorectal Cancer Incidence Among Young Adults in California," was published in the Nov. 4, 2014, issue of the *Journal of Adolescent and Young Adult Oncology*.
ucirvinehealth.org/ucihealthchat

LEUKEMIA & LYMPHOMA LIGHT THE NIGHT WALKS

Sept. 19, 4 p.m., at Angels Stadium

Oct. 17, 4 p.m., at California Baptist University in Riverside

For more information: www.lightthenight.org

CONGENITAL HEART WALK, ADULT CONGENITAL HEART ASSOCIATION AND CHILDREN'S HEART ASSOCIATION

Sept. 19, 8 a.m., Irvine Regional Park, Group Area 4

For more information: www.congenitalheartwalk.org

LUNG FORCE WALK, AMERICAN LUNG ASSOCIATION

Nov. 7, 8:30 a.m., Mason Regional Park, Irvine

For more information: www.lung.org

PURPLE STRIDE, PANCREATIC CANCER ACTION NETWORK

Nov. 14, 9 a.m., Mason Regional Park, Irvine

For more information: www.purplestride.org/orangecounty

SUPPORT GROUPS

Learn more about our support groups online at ucirvinehealth.org/events or call the numbers listed.

ART FOR THE SOUL

714-456-5235

BARIATRIC SURGERY SUPPORT GROUP

888-717-4463 or 714-456-7800, ext. 1967

BRAIN TUMOR EDUCATION/ SUPPORT GROUP

714-456-8609

BURN SURVIVORS SUPPORT GROUP

714-456-7437

GRIEF SUPPORT GROUP FOR CHILDREN

714-456-2295

INFLAMMATORY BOWEL DISEASE SUPPORT GROUP

714-456-7057

KIDNEY AND PANCREAS TRANSPLANT SUPPORT GROUP

714-456-8342

KOREAN WOMEN'S SHARE AND CARE GROUP

714-456-5057

LOOK GOOD, FEEL BETTER

800-227-2345

MULTIPLE MYELOMA SUPPORT GROUP

800-452-2873, ext. 233

SUPPORT FOR PEOPLE WITH ORAL AND HEAD AND NECK CANCERS (SPOHNC-UCI-ORANGE)

714-456-5235

TRIGEMINAL NEURALGIA ASSOCIATION SUPPORT GROUP

714-730-1600

YOUNG ADULT CANCER SUPPORT GROUP

714-456-7057



HEALTH CLASSES

Most classes are free. Exceptions are listed. Classes cost \$20 for non-UC Irvine Health patients. Some classes are available in Spanish. Most classes are located at UC Irvine Medical Center, 101 The City Drive South, Orange, above the Grunigen Medical Library in the second-floor classrooms. Parking in the medical center visitor structure will be validated at your health class. Registration is required. Class dates and times can change. If you are registered, we will tell you about any changes. All classes are one session unless otherwise stated.

Visit ucirvinehealth.org/events or call toll free 877-UCI-DOCS or 877-824-3627 for registration and information.

ADVANCE DIRECTIVES

Sept. 17 | 11 a.m. to 12:30 p.m.

ADVANCE DIRECTIVES, SPANISH

Nov. 19 | 11 a.m. to 12:30 p.m.

BREASTFEEDING YOUR BABY

Oct. 8, Nov. 12, Dec. 10, Jan. 14, 2016 | 6 to 9 p.m.

BREASTFEEDING, SPANISH

Oct. 8, Nov. 12, Dec. 10, Jan. 8, 2016
9 to 11:30 a.m.

DIABETIC DIET

Oct. 5, Dec. 7 | 4 to 6 p.m.

DIABETES OVERVIEW

Oct. 14, Nov. 18, Dec. 9, Jan. 13, 2016
4 to 6 p.m.

DIABETES OVERVIEW, SPANISH

Sept. 16, Oct. 21, Nov. 18, Dec. 16, Jan. 20, 2016
5 to 7 p.m.

DIABETES MANAGEMENT SERIES (THREE-CLASS SERIES)

Oct. 14, 21 and 28 | 4 to 6 p.m.



HEART FAILURE

Nov. 9, Jan. 11, 2016 | 2 to 3:30 p.m.

HEART FAILURE, SPANISH

Nov. 10 | 4:30 to 6 p.m.

HEART HEALTHY DIET

Nov. 9, Jan. 11 | 4 to 5:30 p.m.

HIGH BLOOD PRESSURE

Oct. 13, Dec. 8 | 6 to 7:30 p.m.

HIGH BLOOD PRESSURE, SPANISH

Dec. 10 | 4:30 to 6 p.m.

MATERNITY RECEPTION

Oct. 6, Nov. 3, Dec. 1, Jan. 5, 2016 | 6:30 to 7:30 p.m.

MATERNITY RECEPTION, SPANISH

Oct. 6, Nov. 3, Dec. 1, Jan. 5, 2016 |
5:30 to 6:30 p.m.

MEDITATION FOR HEALTH (FOUR-CLASS SERIES)

Cost: \$40

Sept. 14, 21, 28 and Oct. 5 | 6:30 to 7:30 p.m.

Nov. 2, 9, 16 and 23 | 6:30 to 7:30 p.m.

MEDITATION: BREATHING EXERCISES

Cost: \$20

Oct. 19 | 6:30 to 7:30 p.m.

MEDITATION: BODY SCAN

Cost: \$20

Nov. 30 | 6:30 to 7:30 p.m.

NEWBORN CARE

Oct. 2, Nov. 6, Dec. 4 | 6 to 9 p.m.

NEWBORN CARE, SPANISH

Nov. 17 | 6 to 8:30 p.m.

NUTRITION COUNSELING

Individual nutrition counseling with a registered dietitian. Call 877-UCI-DOCS to make an appointment. Cost: Call 877-824-3627 to check current nutrition counseling charges and call your insurance company to check for coverage.

PREPARED CHILDBIRTH – LAMAZE (FIVE-CLASS SERIES)

Sept. 2, 9, 16, 23 and 30 | 7 to 9:30 p.m.

Sept. 3, 10, 17, 24 and Oct. 1 | 7 to 9:30 p.m.

Oct. 21, 28, Nov. 4 and 18 (no class Nov. 11)
7 to 9:30 p.m.

Oct. 22, 29, Nov. 5, 12 and 19 | 7 to 9:30 p.m.

PREPARED CHILDBIRTH, SPANISH (FOUR-CLASS SERIES)

Oct. 20 and 27, Nov. 3 and 10 | 6 to 8:30 p.m.

Jan. 19 and 26, Feb. 2 and 9, 2016 | 6 to 8:30 p.m.

PREPARING FOR SURGERY:

MIND, BODY, SPIRIT

Sept. 21, Oct. 5, Oct. 19, Nov. 2, Nov. 16, Dec. 7
and Dec. 21 | 3 to 4:30 p.m.

SIBLINGS

Nov. 4 | 4 to 5 p.m.

STROKE PREVENTION

Oct. 13, Dec. 8 | 4 to 5 p.m.

NEWPORT BEACH LIBRARY LECTURE SERIES

Join us for informative presentations by UC Irvine Health physicians on health topics that matter to you. All presentations begin at 7 p.m. at the Newport Beach Library, 1000 Avocado Ave., Newport Beach. Admission is free.

STROKE: FLOW OF THE BRAIN

Sept. 28

Presented by Dr. Steven Cramer and Dr. Wengui Yu, neurologists

BREAST CANCER – HERE TODAY, CURED TOMORROW

Oct. 26

Presented by Dr. Alice Police, breast surgeon,
and Dr. Freddie J. Combs, radiologist

GERD AND DIGESTIVE HEALTH

Nov. 30

Presented by Dr. Kenneth Chang,
gastroenterologist



LEARNING TO WALK, THEN DANCE

Alicia Bates, 26, experienced a dream come true on June 24: her marriage to Matthew Bates. But 10 weeks prior to her wedding, Bates' life was upended when she suffered eight strokes over a period of about three weeks. Bates, an ultrasound technician from Murrieta, was transferred to UC Irvine Medical Center, where she was treated by the expert team led by stroke neurologist Dr. Wengui Yu. She underwent advanced testing, received medications, completed stroke rehabilitation and returned home. But three days later Bates suffered two more strokes triggered by a blood clot in her brain. The clot was removed in an extremely delicate surgery, and she spent two weeks at the UC Irvine Health acute rehabilitation unit to once again learn to walk—and dance—in time for her wedding.



After the first strokes, I thought I may not have dodged a bullet completely, but I was not fatally wounded. In rehab, they had me do balance exercises. I had to learn how to walk again basically because my balance was so off. I was there for a week.

The second series of strokes started the morning of April 27. It was about 5:30 in the morning. I had rolled over in bed, and I got incredibly dizzy with my eyes closed. Then I noticed my left foot wasn't working. I was taken to Rancho Springs Medical Center. While I was in the ER, I had the next stroke. I was paralyzed on the left side and had facial droop. I couldn't talk anymore. It was pretty scary.

I was transferred to UC Irvine Health again. In the ER, I started feeling better; I could move my left arm and leg again. But Dr. Yu wanted to keep me for observation for at least a day. On April 28 Matthew was calling in my dinner order. All of a sudden I felt like I couldn't swallow or talk. I was very fortunate that Dr. Yu was on call that night. They discovered a blood clot lodged in my brain stem. They told Matthew and my family I had only a 40 percent chance of surviving, even with the surgery. This is an extremely risky procedure to go through, but Dr. Yu knew it was my only chance. I'm incredibly grateful to him. I'm also thankful to Rancho Springs for realizing they weren't capable of handling my situation and getting me to someplace that could handle it. The care I got at UC Irvine Health was absolutely phenomenal.

After surgery I went to rehab for two weeks. The rehab part was really discouraging because I was having to fight to do the littlest things. I couldn't even brush my hair. I had significant hearing loss because of the strokes, and my left side was incredibly weak. It was hard. But the wedding was approaching, and it kept me focused.

Matthew and I had no dance ready for our wedding reception. But during the last four days I was in rehab, my physical therapist helped us choreograph and practice our dance. I was limited because of my loss of balance, and my hearing was affected. So I had a lot of challenges to overcome. But I felt confident enough to do it because of my physical therapist.

On our wedding day, for the most part, we kept it together emotionally. We were so excited. But during our first dance, there wasn't a dry eye in the house.

— Alicia Bates



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