RARE TRANSPLANT THERAPY RESTORES VISION

BOOSTING MATERNAL SURVIVAL FOR BLACK WOMEN

UCI Health

SPRING 2023

live well

EXCEPTIONAL HEALTHCARE FOR SOUTHERN CALIFORNIA

Empowered and Unafraid

Fighting Lynch syndrome with information and vigilance

EMBRACING IT ALL: EDUCATION, RESEARCH AND HEALING

A bit north of the UC Irvine campus, passersby can spot the construction of UCI Health — Irvine. Each day, we are closer to bringing this exemplary medical complex to life. The result will be the region's most advanced healthcare campus, making our world-class services more accessible to the people of coastal and southern Orange County. The complex will include a 144-bed acute care hospital and emergency room, the Joe C. Wen & Family Center for Advanced Care for outpatient primary and specialty care, such as the Center for Autism and Neurodevelopmental Disorders, as well as the Chao Family Comprehensive Cancer Center and Ambulatory Care building.

When the University of California Board of Regents approved this project more than two years ago, they endorsed the UCI Health vision of expanding our community's access to evidence-based academic medicine. In this issue of *Live Well*, we offer examples of the exceptional care delivered daily by our multidisciplinary teams of clinicians, research scientists and other highly trained caregivers.

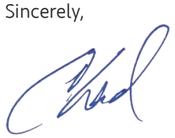
Our cover story, on page 6, details the Digestive Health Institute's effort to raise awareness about the most prevalent inherited cancer disorder, Lynch syndrome. People with these genetic mutations have a far higher risk of developing colorectal, uterine and many other cancers. By detecting Lynch mutations early, we can provide extensive screenings to prevent cancers or catch them at their earliest, most treatable stage. We not only care for people with Lynch syndrome — our colorectal cancer prevention services are among the nation's best — we also offer genetic testing and counseling, and we strive to educate our peers and the public about the importance of gathering family health histories to help identify people who may unknowingly carry these mutations.

Research and clinical trials are the engines that drive medical advances. On page 3, learn about a novel clinical trial to test stem-cell derived proteins that may reverse muscle atrophy in people with severe knee osteoarthritis, potentially offering a minimally invasive alternative to knee replacement.

On page 10, read about a rare treatment that restores sight in those whose eyes have been damaged. Our Gavin Herbert Eye Institute is only the second U.S. center to offer ocular stem cell transplantation.

UCI Health is home to our Regional Burn Center — the only one in Orange County verified by the American College of Surgeons and the American Burn Association. We also are Orange County's only Level 1 trauma center. These teams give essential life-saving care to people injured in catastrophic accidents, like Jackson Gutierrez, who suffered severe injuries in a fiery car crash. On page 12, the college student recounts how both teams cared for him body and spirit. We are heartened by his progress and courage.

Sincerely,



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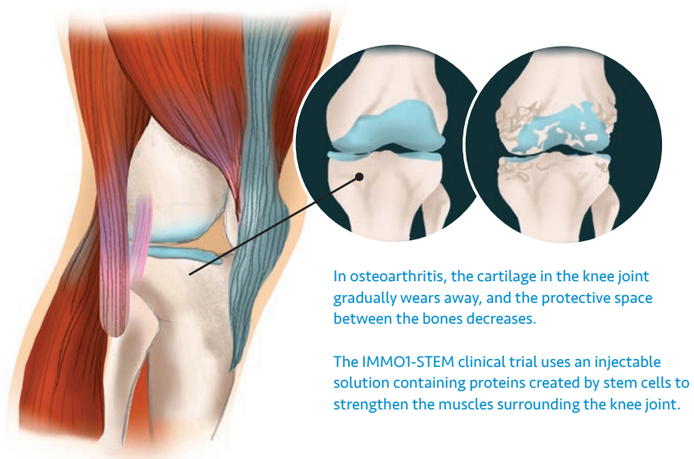
Information in this magazine is not meant to replace the advice of your physician.

INNOVATIVE RESEARCH MAY YIELD A SIMPLER WAY TO TREAT KNEE OSTEOARTHRITIS

WRITTEN BY PATRICK J. KIGER



In osteoarthritis, the cartilage in the knee joint gradually wears away, and the protective space between the bones decreases.

The IMMO1-STEM clinical trial uses an injectable solution containing proteins created by stem cells to strengthen the muscles surrounding the knee joint.

About 13% of women and 10% of men ages 60 or older have knee osteoarthritis, a leading cause of disability among Americans. UCI Health researchers are conducting the first-in-human clinical trial of a minimally invasive, stem cell-derived treatment that could help keep aging knees strong and pain-free.

Sponsored by Immunis Inc., the IMMO1-STEM study tests an injectable solution to target muscle atrophy in patients with mild to moderate knee osteoarthritis, says orthopedic surgeon Dr. Dean Wang, who is leading the novel trial at the UCI Sue and Bill Gross Stem Cell Research Center's Alpha Clinic.

By strengthening the leg muscles surrounding the knee, which helps reduce the pain, the investigational treatment developed by the biotech firm has the potential to become an alternative to other therapies, including joint replacement, for the degenerative condition that often strikes physically active people in their 50s and 60s, says Wang.

In osteoarthritis, knee cartilage — the strong, flexible connective tissue that acts as a shock absorber within the joint — gradually wears down with age, inflammation or other factors. Doctors have limited options for treating the condition, says Wang, who specializes in orthopedic sports medicine and joint preservation surgery for the knee, shoulder, hip and elbow.

Knee osteoarthritis patients under age 60 or those whose disease isn't severe enough aren't considered ideal candidates for knee replacement because the artificial implants last only about 15 years. Instead, doctors may prescribe anti-inflammatory medications and physical therapy. Newer treatments, such as platelet-rich plasma injections, have had some success, but Wang says it's difficult to predict who will benefit from them.

That leaves otherwise healthy middle-aged people with few alternatives. "Most of these patients experience some muscle-related atrophy because they've been in pain for a while and can't really exercise to build their strength," he says.

The injectable solution could be a powerful remedy to reverse the atrophy and prevent knee arthritis from worsening. It is created by stimulating stem cells to produce a set of proteins called a secretome. In preclinical research with animals, secretomes not only suppressed cellular wasting processes, they also improved muscle mass and strength — an effect comparable to the way muscles grow from regular workouts.

This therapy also affords greater safety "because we're not injecting stem cells themselves but rather the growth factors they produce," Wang explains. "Anytime you inject foreign cells, an immune reaction is possible."

Intramuscular injections are also less invasive and painful than other therapeutic options, he says. "Most investigational and standard-of-care treatments are injected inside the joint itself. I don't know of any other treatments that target the muscle. That's what is novel about this therapy."

To be eligible for the phase 1/2a trial, participants must have tried at least one standard treatment for knee osteoarthritis without success. Up to 18 patients ages 50 to 75 will receive twice-weekly injections of the compound over a four-week period. Leg strength will be measured before and after the injection regimen, and MRI scans will assess changes in the knee muscles. If the initial research shows the therapy is safe, additional trials will be needed to determine its effectiveness.

Wang is hopeful that this treatment will improve function and decrease his patients' pain. "We have a lot of 50-year-olds who want to be active, who want to bike, surf and run. Right now, these are probably some of my most difficult patients to treat. This could be a big help to them." ■

Learn more about care for knee osteoarthritis at ucihealth.org/knee

HIGH PERFORMING HOSPITALS
U.S.News & WORLD REPORT
2022-2023

MATERNITY

BEST HOSPITAL FOR MATERNITY CARE

For the second year, *U.S. News & World Report* has named UCI Health one of the nation's best hospitals for maternity care, earning a "high performing" rating.

To be recognized among the best maternity hospitals for uncomplicated pregnancies, hospitals had to excel in multiple quality metrics that matter to expectant families, including complication rates, caesarean births, whether births were scheduled too early in pregnancy and how successfully each hospital supported breastfeeding.

They also had to score significantly higher than the national average for additional quality measures, including the rates of episiotomies and vaginal deliveries after a previous caesarean birth.

"We are gratified to receive this award," said Dr. Robert E. Bristow, professor and chair of the UCI School of Medicine's Department of Obstetrics & Gynecology. "At UCI Health, we are dedicated to delivering the highest level of comprehensive care to every one of our patients."

UCI Health is consistently among the nation's top hospitals for gynecology services, ranking No. 24 in the 2022–2023 *U.S. News* America's Best Hospitals report. UCI Health also earned the 2022 Maternity Honor Roll Award from the California Health and Human Services Agency, Hospital Quality Institute and Cal Hospital Compare for reducing births by caesarean section.

And *Newsweek* recognized UCI Health as one of America's Best Maternity Care Hospitals for 2022, further reflecting the unique role the academic health system plays in the region.

LAUDED FOR EXCELLENCE IN CLIMATE CONSERVATION

UCI Health has been honored by leading environmental healthcare organizations for its continuing achievements in sustainability, reducing greenhouse gas emissions and water conservation.

Practice Greenhealth, a U.S. leader in healthcare sustainability, recognized UCI Health for its successes in energy and climate conservation, and its commitment to infusing these efforts into the academic medical system's operations and culture.

UCI Health also was designated a Conservation Champion by the water efficiency group Water Savers Solutions for cutting its water usage 37%, surpassing its 10-year conservation goal in just seven years.

Health Care Without Harm, a global leader in efforts to promote sustainable healthcare, named UCI Health a 2022 Climate Champion for significantly reducing its carbon footprint by:

- Cutting greenhouse gas usage
- Increasing renewable energy use
- Taking a leadership role in promoting climate health and resilience

"We are honored to receive these awards and to be a part of a global community of healthcare institutions leading the transformation to climate-smart healthcare," said UCI Health Chief Operating Officer Nathan Shinagawa. "We celebrate this moment with everyone in our organization and with our colleagues around the world."

TOPS FOR PHYSICIANS OF EXCELLENCE

More than 190 UCI Health doctors have been named 2023 Physicians of Excellence by the Orange County Medical Association (OCMA) — more than any other hospital in the region. OCMA's Physician of Excellence program, now in its 19th year, is regarded as having a fair, unbiased selection process for identifying physicians who have exhibited the skills, training and commitment to their patients and the community to stand above their peers.

To be eligible for OCMA recognition, physicians must meet a number of certification criteria, have maintained their primary practice in Orange County for the last five years and have worked in their specialty for the last five years. Doctors also must demonstrate achievements in at least two of the following criteria: physician leadership, teaching/mentoring, medical research/scientific advances, humanitarian service and unique contributions in community service.

In addition to the medical center campus in Orange, UCI Health physicians practice at primary and specialty care locations across Orange County, including clinical offices in Anaheim, Costa Mesa, Irvine, Laguna Hills, Newport Beach, Orange, Placentia, Santa Ana, Tustin and Yorba Linda.

TECHNOLOGY TO HELP VULNERABLE SENIORS DURING DISASTERS

Southern Californians are all too familiar with the threat of natural disasters, including earthquakes, wildfires and torrential rain. New technology developed by UCI researchers may help safeguard vulnerable seniors during disasters. A team of UCI Health geriatricians and UCI computer science experts has developed and successfully tested a new data exchange system to provide first responders with real-time, critical health information about senior care center residents. Many of them have difficulty evacuating due to medical and mobility problems as well as the need for oxygen, dialysis and special medications.

The system, called CareDEX (Enabling Disaster Resilience in Aging Communities via a secure Data Exchange), helps first responders locate, rescue and treat elderly residents. The information-sharing platform allows the rapid exchange of vital information and can be easily adapted for facilities and communities where large numbers of older U.S. adults live. First responders have access to floor plans, the number of occupants and other information essential for a rapid evacuation plan. The CareDex system was tested successfully during the Great California Shakeout earthquake drill last October.

"When you look at disasters of any kind, a disproportionate number of older adults suffer fatalities and injuries," says Nalini Venkatasubramanian, PhD, the project's principal investigator and professor of computer science at the Donald Bren School of Information and Computer Sciences. "The time to plan and build natural disaster resilience is now."

UCI team leaders Julie Rousseau, left, Nalini Venkatasubramanian, center, and Dr. Lisa Gibbs coordinate CareDex testing with first responders at an Orange County senior care facility.

Sounding the Alarm on Lynch Syndrome

Stricken with cancer at 30, a woman sought to learn why her family seemed plagued by the disease.

WRITTEN BY SHARI ROAN
PHOTOGRAPHED BY MICHAEL DER

In early 1992, Andrea Barnow, then age 30, found herself in the fight of her young life. She was diagnosed with ovarian cancer and underwent surgery to remove one ovary, followed by chemotherapy. Four months after finishing chemo, a noncancerous cyst was found on her remaining ovary.

Stunned by the discovery, Barnow had her uterus, the remaining ovary and fallopian tube removed to prevent cancer from developing in those organs. Then came another blow: Her mother was diagnosed with a second bout of ovarian cancer and died the following year at age 60.

"It was devastating," recalls Barnow. "I also knew that my grandmother — my mother's mother — died when I was a child. All the family knew was that she had cancer all over her abdomen."

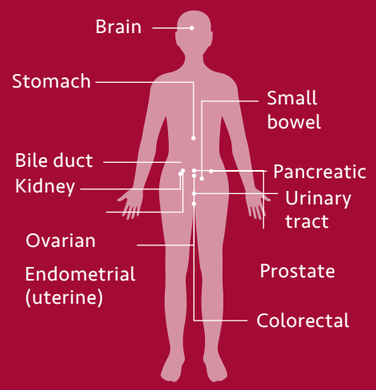
It seemed like rotten luck. But it was more than that. It was genetic destiny. Nearly 20 years after her diagnosis, Barnow learned she had Lynch syndrome, a hereditary condition that puts her at high risk for colon, ovarian and uterine cancer, as well as cancers of the stomach, small intestine, liver, gallbladder ducts, urinary tract, brain and skin. Lynch syndrome, it turns out, was at the root of her family's cancer history.

But that discovery, while sobering, was a gift, Barnow says. Now 60 herself, she successfully manages her heightened cancer risk with regular screenings and tests at UCI Medical Center and with doctors near her home in Westwood.

"Information is power," she says. "I can do the proper surveillance to keep myself alive."

After learning she had Lynch syndrome, Andrea Barnow has taken every precaution to protect her health.

LYNCH SYNDROME INCREASES THE RISK FOR THESE CANCERS:



FACTS ABOUT LYNCH SYNDROME:

- 1 in every 300 people may be carriers of Lynch syndrome gene mutations.
- People with Lynch syndrome have up to an 80% lifetime risk of colorectal cancer.
- A child who has a parent with a mutation has a 50% chance of inheriting that mutation.

LYNCH SYNDROME WARNING SIGNS:

- Developing colorectal or uterine cancer before age 50
- Colorectal cancer in one or more first-degree relatives who also had another Lynch-syndrome related cancer they developed before age 50.
- Colorectal cancer in two or more first- or second-degree relatives with another Lynch syndrome-related cancer

THE MOST COMMON FAMILIAL CANCER SYNDROME

As unsettling as Barnow's story is — a multigenerational family plagued by cancer — it is not unusual. Lynch syndrome is far more common than the better-known BRCA gene mutations, which predispose an estimated 1 in 500 U.S. women to breast and ovarian cancer.

An estimated 1 in 300 U.S. men and women carry Lynch syndrome mutations, giving them up to an 80% lifetime risk of developing colorectal cancer. Women have up to a 60% lifetime risk of developing endometrial cancer and a 38% risk for ovarian cancer. The risk of developing cancers of the stomach, urinary tract, pancreas and brain ranges from 1% to 18%.

UCI Health gastroenterologist Dr. William E. Karnes laments the lack of awareness about the syndrome — also called hereditary nonpolyposis colorectal cancer — among patients as well as doctors.

"Primary care practices are extremely busy, and while a whole family history is important to get, it often isn't gathered," says Karnes, a professor at the UCI School of Medicine who has made raising awareness about Lynch syndrome a priority.

"Patients often don't know their family history. This genetic syndrome is a lot more common than anyone realizes, and the vast majority of people have no clue they have it."

Karnes recommends talking to a physician or genetic counselor if three or more of your relatives had cancer across a few generations — especially if one of them had colon, uterine or ovarian cancer before age 50.

Barnow's case illustrates how warning signs are often missed. Early in her medical device sales career, she learned about Lynch syndrome. At doctor's appointments, she always mentioned her family's cancer history and a potential Lynch connection. Besides two bouts with ovarian cancer, her mother also had colon cancer. Barnow's father had colon and prostate cancer. He died before undergoing any genetic testing, so she doesn't know if he, too, carried Lynch syndrome gene mutations.

"I remember talking to my doctors about Lynch syndrome, and no one would listen to me," she recalls.

Finally, at age 50, Barnow saw a gastrointestinal specialist in Santa Monica for a routine colonoscopy who suggested she get tested for Lynch syndrome after learning about her personal and family history. He had a saliva-based test kit in his office and within minutes she was on the road to personal health empowerment.

"When I learned the result, I was not completely surprised, but I was frustrated that more healthcare professionals didn't know about this syndrome," she says.

A FAMILY AFFAIR

When people test positive for Lynch syndrome, genetic counselors not only educate the patient on ways to manage their own risk but also help them understand the potential risk for other family members.

"Genetics is a family affair," says genetic counselor Deepika Nathan, an associate professor at the UCI School of Medicine. "You test one person, and depending on how big your family is, you can be helping one or two dozen people."

But at-risk family members also need to know what they can do to catch cancer early or prevent it, Nathan adds. Barnow's brother and sister were eager to be tested, knowing they had a 50–50 chance of inheriting the condition. Her sister tested negative; her brother, who tested positive, now follows a rigorous screening protocol like Barnow.

Knowing you have a higher risk for multiple cancers can be daunting, but regular physical exams, blood and urine tests, skin checks and other cancer screenings can change those odds. "The screenings can be broadly classified into colon cancer screening and extracolonic screening, which includes other gastrointestinal screening tests," Nathan says. "We also refer women to high-risk uterine and ovarian cancer clinics."

People with Lynch syndrome undergo colonoscopy more frequently — annually in Barnow's case — because benign polyps found in the colon can become cancerous far faster than in people who do not carry Lynch syndrome mutations. The polyps also tend to be flat and more difficult to detect.

> "I am an advocate for myself. If I get cancer, we'll catch it early. I'll do everything I can. I am vigilant."

"The genes involved in Lynch syndrome normally work together to ensure that your DNA is replicated accurately," Karnes explains. "It's like a machine that looks for mistakes. If it finds a mistake, it will cut it out and repair it. If you have the Lynch mutations, however, the whole machine doesn't work as well and these mistakes slip by."

Karnes says Lynch syndrome patients who get regular colonoscopies, often annually, can significantly lower their risk of developing advanced colorectal cancer. "The goal is to catch things early. Every polyp that is removed during a colonoscopy can't turn into cancer."

The UCI Health Digestive Health Institute is home to some of the most innovative work in digestive disease and cancer prevention in the United States. Karnes has developed an application for performing colonoscopies using artificial intelligence — a technology that is rapidly gaining acceptance across the country.

"Artificial intelligence has been shown to increase the detection rate for polyps, including hard-to-find flat polyps," he notes. Karnes and his colleagues have also led a national effort to help doctors improve their colonoscopy skills.

"If you look at national adenoma (polyps) detection rates, they can vary from 7% to 50%," he says. "The adenoma detection rate should be 40% to 50% for a good colonoscopist. We keep very close tabs on the quality of our colonoscopies."

Barnow chooses her physicians carefully, selecting Karnes for his expertise in Lynch syndrome and skill in performing colonoscopies. "He takes his time," she says. "When he is looking, he is expecting to find something. I know this is the person who will help keep me alive."

Now retired, Barnow is busy raising her 16-year-old twins with her husband of 21 years. They created their family with the help of egg donation and surrogacy. Although her calendar is dotted with myriad medical appointments and screenings, she still has plenty of time to play pickleball with family and friends and lives life to its fullest.

"I know what cancer does to a person. I've seen two parents die from it," she says. "I am an advocate for myself. If I get cancer, we'll catch it early. I'll do everything I can. I am vigilant." ■


Barnow long wondered why she and so many of her family members developed cancer.

Learn more about screening at ucihealth.org/colonoscopy

Dr. Marjan Farid is an expert in ocular stem cell transplantation, which can restore vision in people with eye surface damage.

GIVING THE GIFT OF SIGHT

Rare stem-cell transplant procedure restores vision in people with damaged corneas.

WRITTEN BY NANCY SOKOLER STEINER | PHOTOGRAPHED BY KIMBERLY PHAM

Each year, severe injuries that scar the eye's surface rob tens of thousands of people of their sight. The UCI Health Gavin Herbert Eye Institute is now the second U.S. medical institution — and the only one west of the Mississippi — to offer vision-restoring treatment for this blinding condition.

Called ocular stem cell transplantation, the procedure involves removing scar tissue from the eye's surface and grafting healthy donor cells from the limbus (the rim of the cornea). These limbal stem cells multiply, replacing the cornea's tissue. UCI Health ophthalmologist Dr. Marjan Farid, a specialist in cataract surgery and cornea disease, is one of only a handful of U.S. surgeons able to perform this complex, sight-saving procedure.

Farid trained under University of Cincinnati ophthalmologist Dr. Edward Holland, who developed the transplant procedure that has restored vision for hundreds of people suffering from severe eye surface damage. The Holland Foundation for Sight Restoration chose the Orange County eye institute to be the first of five planned centers of excellence offering this life-changing treatment. Farid, who leads the UCI Health Severe Ocular Surface Disease Program, discussed the unique stem-cell transplant process with *Live Well*.

What causes ocular surface damage?

It can result from thermal or chemical exposure, such as acid or alkali burns. About 100,000 people experience such sight-impairing accidents annually, often in the workplace. Some autoimmune diseases can burn the eye surface from the inside out. Side effects from chemotherapy and radiation therapy may also cause limbal cell damage. Standard therapeutics or cornea replacement cannot reverse this condition because too many of the eye surface stem cells have been destroyed.

What is ocular stem cell transplantation?

The first step involves extensive surgical removal of the scar tissue. However, the eye surface will scar again without healthy stem cells to replenish the tissue. The next step, done at the same time, is to implant healthy limbal cells, usually harvested from a patient's sibling or another closely related donor. We also use cadaver tissue to supplement the living donor tissue. The donor undergoes a protocol to ensure their limbal cells are healthy, and we also follow a meticulous and detailed process to prepare the cadaver tissue. All this occurs prior to the transplant surgery.

Is there a risk for the donor?

Taking limbal cells from the eyes is a minor procedure. Although the risk is very low, it's still a surgery and donors take about a week to recover. Most people are born with excess limbal cells that regenerate after the procedure. In a healthy donor, we can safely remove 30% to 50% of the limbus without negative consequences.

How did you come to learn this rare procedure?

When I joined the UCI School of Medicine after completing my fellowship in corneal surgery under department chair Dr. Roger Steinert, he suggested I train in ocular stem cell transplantation in Cincinnati with his colleague, Dr. Edward Holland. I've been performing these procedures for more than a decade, treating 40 to 50 patients with varying degrees of ocular damage. These are complex cases that take about 80 hours over the course of a year to manage, so I can only do a few annually.

Because these patients need systemic immunosuppression medications to prevent rejection, a team is required to oversee their care. We are now hiring a nurse coordinator to help patients manage their myriad pre- and postsurgical appointments, frequent blood work and other tests, and even preparatory surgeries. That will enable us to rev up our program and treat more patients going forward.

How soon do you see results?

We usually know within the first week or two if the limbal cells are reproducing nicely. Results often can be dramatic because just by removing scar tissue, patients may see clearly as early as the first day. Depending on the underlying cause, some patients have as high as a 75% success rate. With older techniques, the failure rate was 90%, so this is a huge advance. A recent patient of mine who lost the ability to live independently is now able to manage on her own. It's very gratifying to be able to improve someone's life in such a profound way.

Why is this procedure so successful?

Overcoming tissue rejection was the greatest challenge. Systemic immunosuppression isn't needed for standard cornea transplants. But Dr. Holland realized that ocular cell transplantation was essentially the same as a solid organ transplant, like a kidney transplant, that requires carefully matching patient and donor tissue and antirejection treatment. He not only pioneered the transplant procedure but the entire surgical and postoperative patient management protocols, including two to four years of immunosuppression medication. He and his team have been wonderful in helping us set up our program.

EYE INJURY FACTS

- Every year, an estimated 2.4 million Americans injure their eyes.
- About 90% of these injuries could be prevented with protective eyewear.
- About 125,000 eye injuries involve common but dangerous household products.
- More than 2,000 people a day injure their eyes at work.
- Up to 20% of eye injuries result in temporary or permanent vision loss.

Source: American Academy of Ophthalmology

Why was UCI Health chosen to offer this complex eye treatment?

UCI Health has great infrastructure, a great kidney transplant team and a great ophthalmology team. The Gavin Herbert Eye Institute also has the support of amazing donors, as well as my colleagues and our leadership, all of whom understand how this program changes people's lives by giving them back their sight.

Learn more about the eye institute at ucihealth.org/eye

Jackson Gutierrez celebrates his recovery with his UCI Health caregivers. The college student was severely injured in a car crash that severed his lower legs and left him with extensive third-degree burns.

A Celebration of Life

A young man who survived burns and amputation in a car crash gives thanks to the caregivers who gave their all.

WRITTEN BY LAUREL DIGANGI
PHOTOGRAPHED BY KAREN TAPIA

When Jackson Gutierrez first awoke at UCI Medical Center on a December day in 2021 having barely survived a fiery automobile accident in Newport Beach, he heard the news that would change his life. He lost his lower legs and suffered extensive third-degree burns in the crash. He was only 19.

"I was suddenly faced with the reality that my life would never be the same," says the college student from Texas. "The emotional and physical pain were hard to deal with, but thankfully my mother, sisters and father were there to keep me positive."

He also had the example of his maternal grandfather. "He was my biggest role model. He lived with multiple sclerosis and taught me what it means to persevere and be resilient. At some point, I flipped a switch and began to do my best to focus on recovering physically, leaving the hospital and going home to my family."

Last December, a full year after the accident, Gutierrez visited UCI Medical Center to celebrate his remarkable recovery with his team of caregivers. At the time of the crash on a Newport Coast highway, he was visiting a fellow Arizona State University student from Orange County during their winter break. After being stabilized at a Mission Viejo hospital, he was transported to UCI Medical Center, home to Orange County's only Level I trauma center, verified by the American College of Surgeons, and the Regional Burn Center, the only one in the county verified by the American Burn Association to treat such extensive injuries as Gutierrez had.

He was hospitalized for nearly two months.

"My recovery was long and complicated. I had maybe 20 surgeries total and about 10 were skin grafts. Yet everyone on the trauma and burn teams — the doctors, nurses, physical therapists, occupational therapists, social workers and more — was so positive and painted a picture full of hope for my future. A revision amputation surgery of my legs gave me the best chance to use prosthetics successfully to walk again," Gutierrez recalls. "When I visit burn surgeons and plastic surgeons in Texas for follow-up care, they say my UCI Health surgeries are some of the best work they've ever seen."

His future is bright. His doctors have told him he will be able to enjoy all of the activities he loved before the accident, such as swimming, skiing and running. He's considering competing in the international Paralympics Games. But first he wants to finish his college degree.

"The accident was obviously a life-changing event, but a lot of good has come from it, like a new perspective and appreciation for life," says Gutierrez, now 20. "I was originally interested in getting a finance degree. But after having to learn how to deal with traumatic experiences and process my own emotions, I decided to change my major to psychology. Eventually I'd like to work with children who have been through trauma."

The December 2022 reunion was a celebration of the human spirit. Gutierrez met with Dr. Victor Joe, chief of the burn center, and trauma surgeon Dr. Jeffry Nahmias, director of the hospital's surgical intensive care unit.

Joe praised Gutierrez's "warrior spirit," adding, "To see what he has already accomplished is impressive. I have no doubt there are great things ahead for this young man."

No one would fault Gutierrez for never returning to Orange County, the place where his life was so dramatically altered. But he chose to be grateful for his second chance at life.

"I had an awesome reunion with more than a dozen of my UCI Health caregivers," he says of what he calls his staying-alive birthday celebration.

"It was super important to come back and thank all these people — especially the nurses and wound care experts who were in my room every day during my worst times. I needed to show them that I am walking again and how much I appreciate their hard work, the care and especially the courage they gave me." ■

Read about burn and trauma care at ucihealth.org/burn

HOSPITAL RISING

The new UCI Health — Irvine medical complex is quickly taking shape. In the foreground above, the Joe C. Wen & Family Center for Advanced Care is on track to open in early 2024. Behind it at left is the Chao Family Comprehensive Cancer Center and Ambulatory Care facility, which will also open in 2024. At right, UCI Health CEO Chad Lefteris, in a red hard hat, confers with Mara Rosalsky, executive director of perioperative services, during a recent operations team tour to develop workflow plans for the new cancer center.

DRONE PHOTOS COURTESY CONTRACTOR HENSEL PHELPS FOR UCI HEALTH

From left: Anaheim Ducks center Adam Henrique, team president Aaron Teats, cancer survivor Tatum Miller and daughter Payton, UCI Health CEO Chad Lefteris, Detroit Red Wings center Dylan Larkin.

FIGHTING CANCER WITH THE ANAHEIM DUCKS

UCI Health ovarian cancer survivor Tatum Miller's now 11-year-old "miracle baby," Payton, drops the first puck at the Anaheim Ducks game last fall on Hockey Fights Cancer Night, the team's annual event held to build awareness and increase support for cancer care and prevention.

INTEGRATIVE HEALTH INSTITUTE GETS GLEAMING NEW HOME

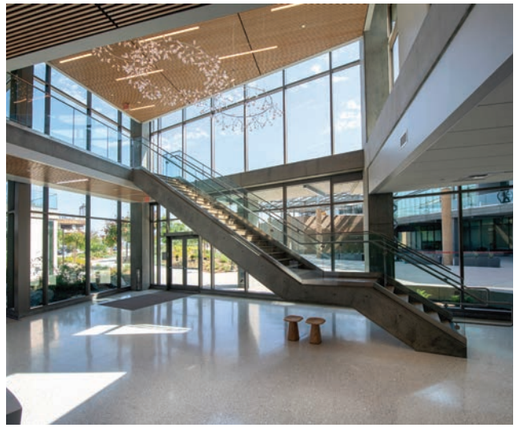
The Susan Samueli Integrative Health Institute has opened a spacious new clinical location on the UCI campus, significantly increasing access to integrative health services. Embedded within the new Susan & Henry Samueli College of Health Sciences' 110,000-square-foot complex at the corner of California Avenue and Michael Drake Drive, the institute provides team-based, whole-person clinical care, as well as space for innovative student instruction, multidisciplinary and collaborative research, and community education. The facility includes:

- 42 exam and treatment rooms
- Lab and pharmacy services
- Infusion services
- Educational nutrition center
- Cardiac rehabilitation services

Community members can attend classes in meditation, yoga, tai chi, mindfulness and nutritional cooking, as well as educational lectures and integrative health events.

"Patients are increasingly choosing the Samueli Institute to support their individual health journeys because they trust the evidence-informed, whole-health services our experts offer," says Dr. Shaista Malik, executive director of the institute. "As an academic institution, we are laser-focused on producing scientific data that increases our understanding of how integrative treatments improve outcomes, who benefits and in what circumstances."

The new center sets a standard for integrative care nationwide, says Susan Samueli, co-chair of the Samueli Foundation's board of directors. "Every person should feel hopeful, seen and heard as an individual when they're engaging with the healthcare system, and the new center's design and approach to care achieves that goal."



HEALTH CLASSES

Improve your well-being and prevent disease with our health classes. Most are free, but some do have fees. Nearly all classes are being held online via Zoom until further notice.

Registration is required. All classes are one session unless otherwise noted.

Visit ucihealth.org/events or call 657-282-6357 for more information.

ACUPRESSURE FOR LABOR PAIN
May 11, June 15, July 13, Aug.10 | 7–8 p.m.

ADVANCE DIRECTIVES
June 1, Sept. 7 | Noon–1:30 p.m.

BARIATRIC SURGERY & WEIGHT LOSS
May 16, June 20, July 18, Aug. 15 | 6–7 p.m.

BREASTFEEDING
May 4, June 1, July 6, Aug. 3 | 6–9 p.m.

DIABETES OVERVIEW
April 26, May 31, June 28 | 3:30–4:30 p.m.

DIABETES PREVENTION
Thursdays | 1–2 p.m. (English); 3–4 p.m. (Spanish)
To register, call 714-456-7514

HEALTHY LIVING
April 25, May 8, 23, June 6 | 3–4 p.m.

NEWBORN CARE
May 11, June 8, July 13, Aug. 10 | 6–8 p.m.

PREPARING FOR SURGERY — MIND, BODY AND SPIRIT
May 8, June 5, July 3, Aug. 7 | Noon–1:30 p.m.

STROKE PREVENTION
English: May 31, July 26 | 4–5 p.m.
Spanish: May 31, July 26 | 4–5 p.m.
To register, call 866-STROKE-3 (866-787-6533).

THE A, B, C & D'S OF MEDICARE

Are you about to become eligible for Medicare? Or are you considering a change to your plan? Join one of our free, virtual classes to learn the basics of Medicare, what is changing and to get details about the new Medicare preferred provider plans that UCI Health is now accepting.

April 19, May 17, June 14, Aug. 16, Sept. 13 | 5–6:30 p.m.

Register at ucihealth.org/medicare or call 714-456-2210.

EVENTS

UCI Health and UCI are proud to sponsor community events that provide information about a variety of health issues. Many of our lectures and events are now being held in person.

NEWPORT BEACH LIBRARY MEDICINE IN OUR BACKYARD LECTURE SERIES

Learn the latest in healthcare from these UCI Health physicians.

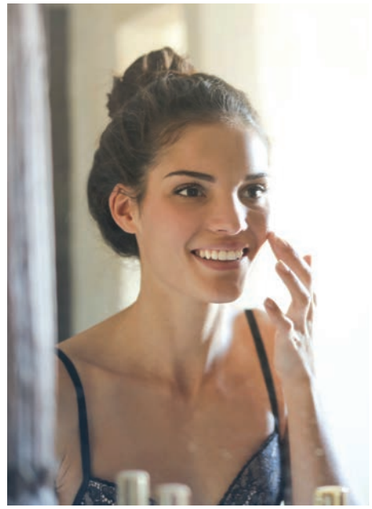
April 24 | Understanding Aging and your Spine — Sohaib Hashmi, MD

May 22 | Is Your Skin Ready for Summer? — Janellen Smith, MD; Jessica Shiu, MD

Presentations begin at 7 p.m. at Newport Beach Central Library, 1000 Avocado Ave., Newport Beach. Doors open at 6:30 p.m. A Q&A will follow the physicians' presentation. Visit nbplf.foundation/programs/medicine-in-our-backyard to register for these free lectures.

SUE & BILL GROSS STEM CENTER COMMUNITY SEMINAR

Hear the latest in stem cell advances.



May 5 | Developmental Metabolism of the Mouse Embryo — Utpal Banerjee, PhD, UCLA

Presentations begin at 11 a.m. and are available online or in person at Gross Hall, 845 Health Sciences Road, Irvine.
To register for this free seminar, email stemcell@uci.edu or call 949-824-3990.

GAVIN HERBERT EYE INSTITUTE COMMUNITY LECTURE SERIES

Learn the causes, symptoms and treatments for eye-related conditions.

May 2 | When Do I Need Cataract Surgery? — Sanjay Kedhar, MD; Matthew Wade, MD

June 6 | Managing Glaucoma: The Latest Treatments — Austin Fox, MD

Visit ophthalmology.uci.edu/events to register for these free online presentations, which begin at 7 p.m. Email ophthalmology@uci.edu for more information.

SUPPORT GROUPS

ADVANCED HEART FAILURE & VAD
714-456-7514

BARIATRIC SURGERY
714-456-6185

BLADDER CANCER
714-456-2846

BRAIN INJURY
714-509-2524

BRAIN TUMOR
714-456-5812

BURN SURVIVORS
714-456-7437

CHRONIC LYMPHOCYTIC LEUKEMIA
tevans@cllsociety.org

DIABETES
diabetessupportgroup@uci.edu

HEAD AND NECK CANCER
714-456-2846

INFLAMMATORY BOWEL DISEASE
714-456-7057

KOREAN WOMEN'S CANCER SUPPORT GROUP
714-456-8319

LIVER DISEASE
714-456-7642

LOW VISION
949-824-9771

MULTIPLE MYELOMA
800-452-2873, ext. 233

NORMAL PRESSURE HYDROCEPHALUS (NPH)
714-456-6966

OSTOMY ASSOCIATION OF ORANGE COUNTY
714-637-7971

PANCREATIC CANCER
714-456-7057

PARKINSON'S DISEASE
blagasse@hs.uci.edu

STROKE
866-STROKE-3 (866-787-6533)

TRIGEMINAL NEURALGIA ASSOCIATION
714-944-3044

YOUNG ADULT CANCER
714-509-6311

To learn more about our support groups, call the numbers listed or visit ucihealth.org/events

Dr. Carol A. Major aims to improve the birthing experience for Black women and their infants.

PHOTO BY MICHAEL DER

IMPROVING THE BLACK BIRTHING EXPERIENCE

Medical professionals' individual life experiences — their cultures, behaviors and unconscious biases — can affect how they care for patients. Providing excellent care requires balancing empathy and understanding with clinical expertise, using knowledge of emotions as well as of the human body. This is especially true during pregnancy and the birthing experience, one of the most emotionally complex medical journeys many women will ever encounter. Unfortunately, this lack of insight contributes significantly to health inequities, especially for Black women, who are three times more likely to die from pregnancy-related complications than white women. As chief of high-risk maternity services at UCI Health, the UCI School of Medicine's director of maternal-fetal medicine and co-director of LEAD-ABC, the medical school's program to increase the number of Black physicians, Dr. Carol A. Major is determined to redress this inequity and develop a new paradigm to help providers recognize, avoid and overcome gaps in care.

Learn about high-risk maternity care at ucihealth.org/highrisk

"Developing awareness of our individual shortcomings and cultivating empathy for our patients is essential to delivering more equitable care.

Empathy is rooted in understanding — but gaining an understanding of the experience of Black patients is not easy. To help, medical students in our Leadership in Education to Advance Diversity for African, Black and Caribbean (LEAD-ABC) communities program created a documentary to highlight the experiences of Black patients, physicians and other healthcare professionals.

The film illuminates the potential for adverse patient experiences when there is a perceived — and sometimes alarmingly real — lack of understanding on the part of medical professionals caring for them. One patient describes her obstetrician "writing off" her request for help in dealing with postpartum depression. Another woman with significant health concerns recounts bringing a trove of records to her appointments to avoid being dismissed or labeled as difficult. A marriage and family counselor tells of patients who needed treatment for pain being dismissed as drug seekers. One patient who was experiencing a traumatic, protracted miscarriage says her obstetrician told her to go home, leaving her feeling that the doctor simply didn't care.

Each story is touching and eye-opening. Taken together, they reveal the persistent challenges faced by Black women before, during and after the birthing process.

A lot of times Black women just get a lower level of care. I know because I have been a patient myself — a patient who was very sick. I wasn't listened to. That is frustrating and really scary.

The film also touches on the benefit of cultural diversity on medical provider teams. Here in California, where only 3% of physicians are Black despite having the fifth-largest African American population of any state, I have seen first-hand the value of having physicians who represent the populations they treat.

Empathy is vital when we as healthcare providers treat and serve all patients. Expectations about how patients from different cultural backgrounds should advocate for themselves, ask questions, and express pain and discomfort can lead to misunderstandings and create a disconnect that can destroy trust and affect outcomes.

In my many years of practice, I have seen that without trust, it's impossible to provide good healthcare. If your patient can't trust you or you can't trust your patient, you have nothing to build on."

— Dr. Carol A. Major

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