

Grace Note | It Takes a Team | Heart of the Matter

# USC health

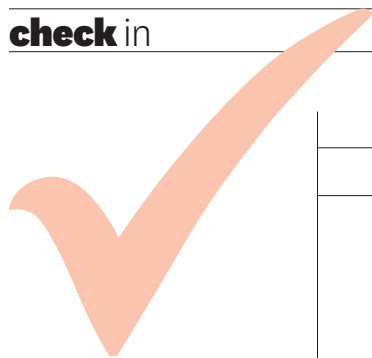
2021  
ISSUE ONE

A PUBLICATION OF  
KECK MEDICINE OF USC

Keck  
Medicine  
of USC

BEYOND EXCEPTIONAL MEDICINE™

USC VERDUGO  
HILLS HOSPITAL  
SPECIAL EDITION



## vitals

News from around  
Keck Medicine of USC

2

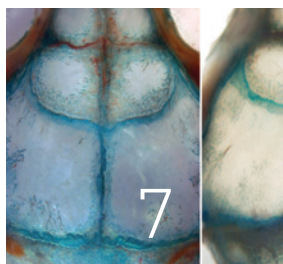
**Perimenopause**  
Three signs to look for

## The Big Question

What's the best way to  
care for my eyes if my  
screen time has increased?

4

**6 Making the  
Dream a Reality**  
Diversity & Inclusion



**The Art of Imaging**  
Medicine can be beautiful.

## examinations

Stories from Keck Medicine's patients and physicians



Cover Story

8

## grace note

Richard Smith was helping his sister  
move back to their hometown in Oregon  
when he felt a twinge in his neck. That  
twinge was an early sign of cancer.

## USC VERDUGO HILLS HOSPITAL *Special Section*

13

### Lessons Learned

USC Verdugo Hills Hospital's emergency  
department has developed special  
measures to protect the health of all  
patients and staff during the pandemic  
and beyond.

14

### Better Days Ahead

Nathreen Bonnet found healing  
through an advanced, highly precise  
surgical procedure at USC-VHH



16

### Beyond Borders

A prominent physician at  
USC-VHH rallies colleagues and  
community members to answer a  
call for help from Artsakh.



## It Takes a Team 17

It took a team of experts working together to heal Jose Aguiar and prepare his body for a lifesaving cancer diagnosis and treatment.



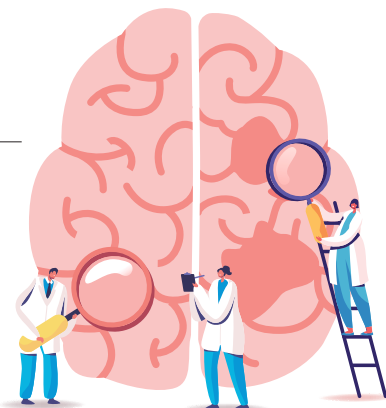
## Heart of the Matter 20

With the help of an innovative treatment and the expert care, Kent Demaine has been able to defy the odds in treating his atrial fibrillation.



## 22 Coming Together for Patients

At Keck Medicine's USC Brain Tumor Center, the team is ready for anything.



## 24 labwork

A look at the latest innovative research from the Keck School of Medicine of USC and Keck Medicine

### Prostate Cancer Study

### Alcohol and Tobacco sales during COVID

### AI and COVID

Find us online  
ushealth.  
KeckMedicine.org



## 26 clinical trials

## 28 consultations

### Outpatient Locations

Treating sports-related injuries in El Segundo

# USC health

A PUBLICATION OF KECK MEDICINE OF USC

Keck Medicine of USC is one of only two university-based medical systems in the Los Angeles area. Its internationally renowned physicians and scientists provide world-class patient care at Keck Hospital of USC, USC Norris Cancer Hospital, USC Verdugo Hills Hospital and more than 80 outpatient locations throughout Los Angeles, Orange, Kern, Tulare and Ventura counties.

Keck Medical Center was ranked No. 18 on U.S. News & World Report's 2020-21 Best Hospitals Honor Roll and among the top 3 hospitals in Los Angeles and top 5 in California. The hospital also ranked in the top 10 in geriatrics and urology; top 15 in pulmonology & lung surgery, ophthalmology, cardiology & heart surgery and gastroenterology & GI surgery; top 20 in neurology & neurosurgery; top 30 in nephrology, cancer and orthopedics; and top 45 in otolaryngology.

#### Editor-in-Chief

Amanda Busick

#### Managing Editor

Kate Faye

#### Art Director

Julie Matzaganian

#### Production Coordinator

Tasha Arana

#### Editorial Advisers

Sara Reeve

Jeana Rettig

#### Contributing Writers

Hope Hamashige, Robin Heffler, Wayne Lewis, Melissa Masatani, Candace Pearson, Alison Rainey, Avni Shah

#### Photography

Ricardo Carrasco III, Kremer Johnson Photography, Shutterstock

#### Printer

Lithographix

Permission to reprint articles is available upon request. No artwork may be reproduced without the artist's consent. Our mailing list comes from several sources. If you receive duplicate copies of this magazine, please send us all the label information and we will strive to eliminate the duplication. Direct inquiries to

Keck Medicine of USC  
Health System Marketing and Communications,  
2011 N. Soto St., SST-2830, Los Angeles, CA 90032  
(323) 442-2830

The content of this magazine is not intended to be a substitute for medical advice, diagnosis or treatment. Always seek the advice of your physician or other qualified health provider with questions you have regarding a medical condition.

Keck Medicine of USC complies with applicable federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex. Keck Medicine of USC does not exclude people or treat them differently because of race, color, national origin, age, disability, or sex.

**ATTENTION:** If you speak Spanish, Chinese, Vietnamese, Tagalog, Korean, Armenian, Persian-Farsi, Russian, Japanese, Arabic, Punjabi, Cambodian, Hmong, Hindi, or Thai — call (800) 872-2273 for free language assistance services.

**ATENCIÓN:** Si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al (800) 872-2273.

注意：如果您使用繁體中文，您可以免費獲得語言援助服務。請致電 (800) 872-2273。

## In Charge of the Change

MENOPAUSE AND PERIMENOPAUSE OFTEN COME WITH DISRUPTIVE SYMPTOMS DUE TO FLUCTUATING HORMONES. EVELYN MITCHELL, MD, AN OB/GYN WITH KECK MEDICINE OF USC, BREAKS DOWN THREE COMMON PHYSICAL SYMPTOMS — AND WHAT CAN BE DONE TO MAKE LIFE EASIER.



### Hot flashes

“A hot flash is a sudden feeling of intense heat that rushes to the upper body and face,” Dr. Mitchell explains. “It may last a couple of seconds to minutes and may occur daily or a few times a month. Hot flashes at night can cause night sweats, which can impact sleep.”

Many women recommend carrying a personal fan (a simple cloth or paper fan will do) for daytime flashes. For night sweats, try a cool shower or slipping a cold pack into your pillowcase.

### Irregular periods

“Fluctuating estrogen levels can influence your periods,” Dr. Mitchell says. “You may experience shorter or longer cycles with lighter or heavier flow. You may also skip periods. It’s important to discuss irregular bleeding with your gynecologist to rule out an underlying issue.”

It’s also a good idea to keep tampons or pads in varied sizes with you — just in case.

### Vaginal dryness

“Vaginal dryness is due to the tissue becoming thinner, drier and less flexible,” Dr. Mitchell states. “This may cause discomfort during daily activities or pain during sex. It also increases your risk of vaginal and urinary tract infections.”

To counteract this, try a good personal lubricant.

### Finding relief

There are several options available to help mitigate these and other symptoms.

“Estrogen replacement prescribed by your physician will help address these symptoms,” Dr. Mitchell explains. “While you wait, over-the-counter herbal remedies can assist with relief. These include soy, black cohosh, and Chinese herbal remedies. These are not regulated and only a few have been studied for complete safety, so it’s important to let your physician know you are taking them.”

## Strengthening relationships for heart health

Keck Medicine of USC recently announced the launch of the USC Cardiac and Vascular Institute, which brings its cardiovascular services together under one unified structure. Vaughn Starnes, MD, surgeon-in-chief at Keck Hospital of USC and USC Norris Cancer Hospital, serves as executive director.

“The institute will enhance the strong, integrated working relationship between the cardiology and cardiac and vascular surgery teams,” says Dr. Starnes, who also serves as Distinguished Professor, chair of the USC Department of Surgery and H. Russell Smith Foundation Chair for Stem Cell and Cardiovascular Thoracic Research at the Keck School of Medicine of USC.

Ray Matthews, MD, director of CVI outreach and network development, will oversee the continued development of relationships with community physician groups and hospitals.

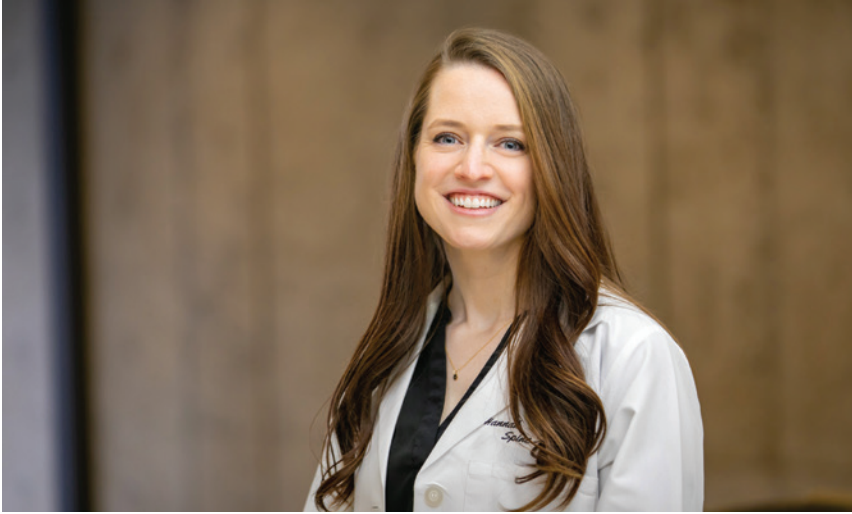
“We look forward to continuing to connect patients with a network of world-class providers, services and facilities to treat cardiovascular disease, while serving as a hub of innovation and a model for other cardiology and heart surgery programs,” Dr. Starnes says.

Find us online  
[uschealth.  
KeckMedicine.org](http://uschealth.KeckMedicine.org)



## THE KECK EFFECT

 Ricardo Carrasco III



## She's got your back

PATIENTS AT KECK MEDICINE'S USC SPINE CENTER WILL FIND A COMPASSIONATE ADVOCATE TO HELP GUIDE THEM THROUGH THEIR PATIENT JOURNEY. WHETHER SHE'S HELPING TO EVALUATE PATIENTS, DEVELOP TREATMENT PLANS OR FOLLOWING UP WITH POST-OPERATIVE PATIENTS, PHYSICIAN ASSISTANT HANNAH LICARI, PA, IS THERE FOR PATIENTS EVERY STEP OF THE WAY.

### For those who don't know, can you explain what physician assistants do?

Generally, a physician assistant is a medical professional who works in conjunction with a physician to diagnose medical issues and then develop treatment plans. At the USC Spine Center, the PAs work with a surgeon and our focus is to counsel patients on conservative treatments and then help them navigate their preoperative and postoperative care. One of the things I'm proudest of as a physician assistant is that we have the ability to really work with patients, create a relationship and advocate for them to make sure they are getting the care they need.

### What kind of moments make your work especially rewarding?

One of the things that we enjoy is seeing how patients do after surgery and watching them get back to activities they enjoy. We have many patients who enjoy gardening or playing with their grandchildren, and it's rewarding to see them get back to those things. It's exciting that we're part of the care from the beginning to end, allowing us to develop special relationships with our patients.

### What drew you to an academic medical center like Keck Medicine?

I really enjoy the academic and research side of medicine. Working at an academic health system like Keck Medicine, you have plenty of opportunities to learn and grow as a provider. We see a large variety of spinal conditions and can truly help people have an improved quality of life. That's incredibly rewarding and something that's very, very special.

Should  
you go  
to the

ER



There are moments that definitely call for an ambulance, such as a possible heart attack or stroke. But how do you know when to go to the emergency room?



### Serious injuries:

- Heavy bleeding
- Broken bones
- Deep wounds
- Serious burns

### Signs of severe illness:

- High fever with headache or stiff neck
- Persistent high fever
- Coughing or vomiting blood
- Persistent vomiting or diarrhea
- Trouble breathing
- Severe abdominal pain



### Other health emergencies:

- Loss of consciousness
- Smoke inhalation
- Severe body pain
- Severe allergic reaction
- Drug or alcohol overdose
- Suicidal thoughts
- Seizures

Sources:

<https://medlineplus.gov/ency/patientinstructions/000593.htm>

<https://www.heart.org/en/health-topics/heart-attack/warning-signs-of-a-heart-attack>

# The Big Question

**What's the best way to care for my eyes if my screen time has increased?**

COVID-19 brought on a year of social distancing and quarantine that included remote work and learning, as well as a substantial uptick in screen-based social gatherings and entertainment. With our eyes focused on our screens more than ever, two physicians from Keck Medicine of USC offer guidance on the Big Question:



If your screen time has increased due to working from home, you may notice symptoms like blurry vision, dry eyes and headaches.

If you work facing a monitor, make sure your eyes are level with the top of your monitor so you can look down at your work. You can reduce glare by setting up your computer so that bright light doesn't hit it.

Take frequent breaks and step away from the screen. There are three methods you can choose from. You can use the 20-20-20 rule described at the right by Dr. Nguyen, the 60-five rule (taking a five-minute break for each hour at your computer), or you can set your own timing — as long as it's consistent.

Also, viewing screens for hours can interfere with sleep cycles. If you stay up late viewing a screen, you may have poor sleep. Try to build the habit of limiting screen time, especially two hours before bedtime.

**Rose Taroyan, MD**  
Primary Care Physician  
USC Family Medicine



While most devices themselves may not damage your eyes permanently, staring at them for extended periods of time can cause digital eye strain, with symptoms including dryness, headaches, blurry vision, watery eyes and discomfort. This occurs since we tend to blink less when we stare at devices.

To avoid eye strain, take frequent breaks with the "20-20-20" rule: every 20 minutes, look about 20 feet down the room for about 20 seconds. If your eyes feel dry, blink several times and use artificial tears. Keep an arm's length from your computer screen and adjust your chair so that you are looking down slightly at the screen. Adjusting the screen brightness to match your surroundings, using a matte screen filter to decrease glare or using a larger screen can also help to reduce eye strain. If your eyes feel dry and irritated with contact lenses, switching to eyeglasses can help.

If you're still experiencing eye strain, please see your eye doctor for a comprehensive eye exam and to see if you may need glasses.

**Annie Nguyen, MD**  
Ophthalmologist  
USC Roski Eye Institute

**To make an appointment, call (800) USC-CARE or visit [KeckMedicine.org](https://www.KeckMedicine.org)**

## Young survivors' road map

More than 90,000 people between 15 and 39 are diagnosed with cancer every year in the United States. As recovery rates increase, more young survivors are dealing with issues such as chronic side effects of treatment and delays in education, career and starting a family.

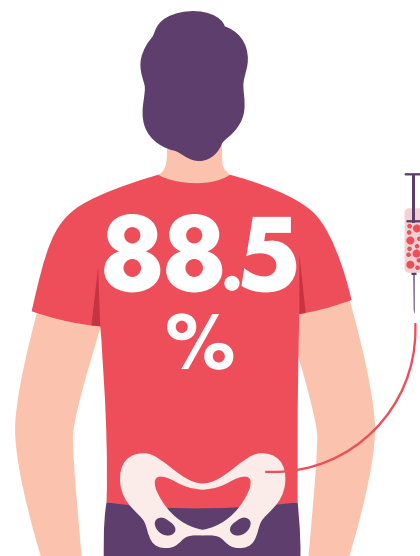


David R. Freyer, DO, MS, an oncologist at Keck Medicine of USC who specializes in cancer survivorship and adolescent and young adult oncology, has developed the LIFE Cancer Survivorship Clinic at USC Norris Comprehensive Cancer Center. The clinic helps patients as they navigate the challenges of early adulthood as a cancer survivor.

Young survivors can go and meet regularly with a doctor, physician assistant (Yasmeen Khan, PA-C) and social worker (Jennifer Parga, MSW), who educate them on how to stay healthy, provide mental health support and connect them to foundations that offer special scholarships.

"Cure is not only getting rid of the cancer. In its fullest sense, cure means regaining the best possible physical and emotional health for continuing life after cancer," Freyer says.

For more information, visit [KeckMedicine.org/lifeclinic](http://KeckMedicine.org/lifeclinic)



According to the Center for International Blood and Marrow Transplant Research, the one-year survival rate among adult allogeneic transplant patients at USC Norris Comprehensive Cancer Center is 88.5%, the best in the nation.

Maintaining a successful bone marrow transplant program requires a combination of factors. For example, the USC Blood and Marrow Transplant program staffs an expert team of medical professionals operating under strict protocols, who closely monitor patients before and after their procedures.

This program treats one of the most underprivileged groups of patients in the nation, and finding a full match can be challenging. The physicians have embraced a procedure called haploidentical transplant, using half-matching donor tissue, to give more patients a chance to receive bone marrow.

## Connect With Keck Medicine

Join us to discover news, tips for healthy living and more at:



website  
[KeckMedicine.org](http://KeckMedicine.org)



facebook  
[facebook.com/KeckMedUSC/](https://facebook.com/KeckMedUSC/)



twitter  
[twitter.com/KeckMedUSC](https://twitter.com/KeckMedUSC)



linkedin  
[linkedin.com/company/keck-medicine-of-usc/](https://linkedin.com/company/keck-medicine-of-usc/)



Sign up for  
KeckHealth  
tips by  
texting  
"Keck" to  
313131



Manage your health care in one easy spot by signing up for myUSCchart:

Text KECKPORTAL to 313131 or visit [myUSCchart.KeckMedicine.org](http://myUSCchart.KeckMedicine.org)

# Making the Dream a Reality

BY KATE FAYE

AS PART OF ITS GOALS TO CONTINUALLY FIND NEW WAYS TO BE A DIVERSE, EQUITABLE AND INCLUSIVE WORKPLACE AND TO PROVIDE CULTURALLY COMPETENT CARE, KECK MEDICINE OF USC HAS FORMED THE DIVERSITY AND INCLUSION EXECUTIVE STEERING COMMITTEE. CONSISTING OF LEADERSHIP VOICES FROM DIFFERENT RACES, GENDERS, SEXUAL ORIENTATIONS AND DISABILITY STATUSES, THE TEAM IS WORKING TO DETERMINE THE BEST WAYS TO HONOR THE DIVERSITY AMONG STAFF AND PATIENTS ALIKE.

“People must feel psychologically safe to be fully present and engaged,” says Awa Jones, RN, BSN, MSHCM, interim associate chief nursing officer for Keck Hospital of USC and member of the committee. “That said, our leadership team and organization are ready for change and will put in the hard work to create a trusting atmosphere. Our efforts around building a more inclusive and equitable environment will be a major cornerstone of our cultural transformation.”

Smitha Ravipudi, MPH, chief executive officer of USC Care Medical Group and chair of the committee, mentions this is one of many changes being made, including enhancing equity in the recruitment process and conducting anti-bias education for staff.

“Bringing the steering committee together was the first step in signaling the organization’s desire to enhance inclusion in a way that cuts across the enterprise in all that we do.”

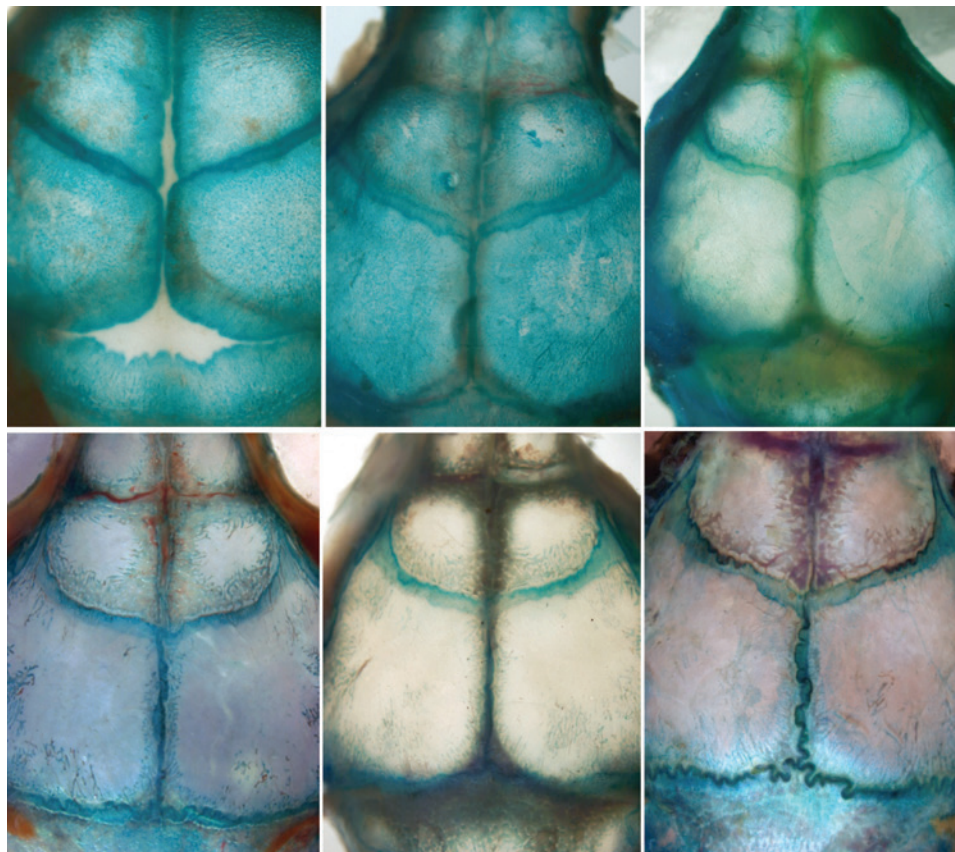




## The **Art** of Imaging

MANY AREAS OF MEDICINE, FROM RESEARCH TO CLINICAL DIAGNOSIS AND TREATMENT, USE ADVANCED TECHNOLOGY TO SEE THINGS THAT THE HUMAN EYE CAN'T — WHETHER IT'S A PATIENT'S INTERNAL ORGANS OR BONES, OR SOMETHING MICROSCOPIC. **MANY TIMES, THESE IMAGES CAN BE BEAUTIFUL AS WELL AS INFORMATIVE.**

In the skull of a newborn, stem cells (aqua blue) can be seen between segments of cranial bones (ivory). These stem cells are important for the continued growth of the skull in response to the brain development after a baby is born. Premature loss of these stem cells may lead to a serious congenital birth defect — craniosynostosis (premature fusion of the skull bones), which limits brain development and can cause neurocognitive disabilities.



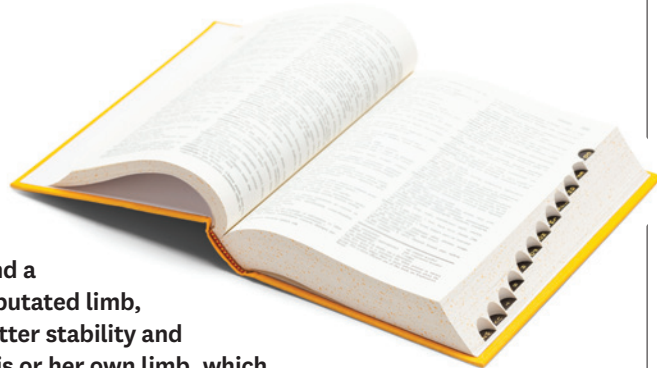
*Image by Hu Zhao in the Yang Chai Lab. Provided by Yang Chai, DDS, PhD, University Professor and George and MaryLou Boone Chair in Craniofacial Molecular Biology at the Ostrow School of Dentistry of USC; University Professor of Stem Cell Biology and Regenerative Medicine at the Keck School of Medicine of USC; and director of the Center for Craniofacial Molecular Biology at USC. Learn more about his work at [chailab.usc.edu](http://chailab.usc.edu).*

## what's the **Word?** **Osseointegration**

noun [äs-ē-ō-int-ə-grā-shən]

A direct structural and functional connection between living bone and a load-carrying artificial implant or prosthesis. For people with an amputated limb, living bone can grow around an implanted prosthetic, resulting in better stability and long-term success. “The patient feels that the prosthesis is part of his or her own limb, which greatly enhances ambulatory function,” says Lawrence Menendez, MD, an orthopaedic surgeon and specialist in limb-saving orthopaedic treatments at Keck Medicine of USC. Keck Medicine is one of 10 medical centers in the U.S. to offer patients with above-knee amputations the option of an osseointegration prosthesis.

**For more information on the prosthetic options available through Keck Medicine, call (800) USC-CARE or visit [ortho.KeckMedicine.org](http://ortho.KeckMedicine.org).**



# grace



Kremer Johnson Photography

# note

BY AMANDA BUSICK

While Richard Smith was helping his sister move back to their hometown in Oregon, he felt a twinge in his neck. When he returned home to Los Angeles, the twinge became an ache, and the ache became a lump.

**R**ichard is a University of Southern California music professor, and former chair of Studio/Jazz Guitar at the USC Thornton School of Music. His Trojan connections include getting his care at Keck Medicine of USC. He made an appointment with his primary care doctor, who immediately referred him to Uttam Sinha, MD, a specialist in head and neck cancer surgery for the USC Caruso Department of Otolaryngology – Head and Neck Surgery. With a PET CT scan and needle biopsy, Dr. Sinha confirmed a diagnosis of squamous cell carcinoma of the head and neck.

From his first appointment, Richard noticed that not only was Dr. Sinha an expert in treating this type of cancer, but also the entire team at

Keck Medicine was at the top of their game. “Dr. Sinha has put together this amazing group of people,” Richard says. “They were so great. I never felt spoken down to, and I always felt like I was in the room with people who were a team.”

Prior to his surgery, that team helped Richard give himself the best possible shot at a full recovery. His background as a musician and teacher means that he loves to practice — and they put him to work doing vocal exercises to make his throat stronger, along with physical and swallowing therapy. He gained weight in order to prepare for the inevitable loss that comes with post-surgical chemotherapy and radiation therapy.

“There can be a lot of collateral damage with surgery and radiation,” Dr. Sinha, who is an associate professor of otolaryngology – head and neck surgery at the Keck School of

Medicine of USC, says, “which can cause scar formation, which in turn can compromise quality of life in terms of the function of the muscles. If the patient does therapy before and during treatment to combat this, there’s less scar formation, resulting in a better functional outcome.”

While Richard was hard at work preparing himself for surgery, his fiancé, Nancy Lee Grahm, had been working, too — researching every angle of his diagnosis and making sure that everything Richard needed

was taken care of. “I reached out to anyone I could think of who had experience with this type of cancer,” she says. “I listened to their expertise and advice, and then weighed every option with Richard. In a situation this life-threatening, you can feel powerless, and information is power.”

Luckily, Keck Medicine is the home of USC Norris Comprehensive Cancer Center, where the approach to cancer treatment is multidisciplinary, which includes a weekly head and neck tumor board to discuss treatment approaches and how to address each patient’s care on an individual basis. Radiation oncologist Adam Garsa, MD, joined Richard’s care team and was essential to making sure Richard had a better chance at a full recovery.

“One of the main reasons our patients have great outcomes is our team approach,” says Dr.

Garsa, who is also an assistant professor of clinical radiation oncology at the Keck School. “We work together to develop the optimal approach to treat the cancer and minimize the effects of treatment.”

In January of 2020, Dr. Sinha performed a transoral robotic surgery procedure to remove the tumor, along with removal of the lymph nodes in his neck that were affected by the cancer. The surgery was successful, but there was still a long road of recovery.

Medical oncologist Jorge Nieva, MD, was a big part of Richard’s care team and pointed him in the direction of a clinical trial that addresses the problem of treating and preventing the side effects of chemotherapy and radiation for patients with head and neck cancer.

“Patients with head and neck cancer often need the combination of chemotherapy and radiation given at the same time,” Dr. Nieva, who is an associate professor of clinical medicine at the Keck School, says. “That’s because with surgery in many of the areas of the head and neck, it’s difficult or undesirable to remove too much tissue from an area because there are so many vital structures nearby. Chemotherapy and radiation helps to clean up any cancer cells that may be around after surgery.”

The trial involved a class of drugs that help make the effects of the radiation even more pronounced on the tumor but protective of the normal tissue, and at this point, the as yet unpublished study is showing good results.

This is one of benefits of being a patient at an academic medical center like Keck Medicine. Access to clinical

**Right: Richard and Nancy enjoy a quiet moment at home.**

**Opposite page: Richard takes a thoughtful moment in his home studio in Los Angeles.**



## Head and neck cancer:

### What are the signs?

Head and neck cancers account for about 4% of all cancers in the United States. This year alone, almost 67,000 people in the U.S. will develop head and neck cancer. Here's what to look for:

- **Difficulty or pain during swallowing**
- **Lesions or sores in mouth that take a long time to heal**
- **An unexplained sore throat that lasts for more than a few weeks**
- **A mass or swelling in the neck, especially with pain**
- **More rare: ear pain without an infection**

If you or a loved one has any of these symptoms, don't wait! Early detection is one of the greatest tools in beating cancer.

trials can lead to better outcomes for patients who are undergoing cancer treatment. But it was a time commitment of three hours a day, every day,

sometimes I would leave my cell phone in my back pocket because I just didn't want to see more weight loss. But the nurses never, ever lost their flow

**"I always felt like I was in the room with people who were a team."**

for 45 days. And since much of this took place during the initial days of the COVID-19 lockdown, Nancy, who had been Richard's advocate through all of the preparations and immediate recovery from surgery, could not be with him for those daily chemotherapy sessions.

"Before and after my surgery, Nancy was there 150%. She slept in the hospital and she bought everybody In-N-Out burgers. But when COVID really happened, it was very difficult without her there for my appointments. But the nursing staff became family," Richard says. "I would go in, as sort of a zombie, and they have to weigh you every day. I was down about 30 pounds, and

of positivity and kindness. They were just so incredibly cool."

Chemotherapy can cause loss of appetite, weight loss and changes in the ability to taste. Head and neck cancers can increase these side effects just by the nature of their location in the body. This is where the preparations Richard made to strengthen his body before surgery really came into play. "I had no sense of taste or smell, and there was a chance that only a small percentage of my taste would come back. And there was also a chance that I'd lose my hearing."

As a music instructor, this would have been particularly devastating to him. "But, it's

*Continued on pg. 26*



**Uttam Sinha, MD**



**Jorge Nieva, MD**



**Adam Garsa, MD**



# WE TAKE ON THE TOUGHEST CASES

and deliver the best  
possible outcomes

Your well-being is our top priority.  
From routine procedures to the most  
complex cases, our renowned team  
of experts works together to provide  
unmatched care —  
*that's the Keck Effect.*



**(800) USC-CARE**  
**KeckMedicine.org**



Keck Medicine  
of **USC**

**BEYOND EXCEPTIONAL MEDICINE™**

# Lessons Learned

BY ROBIN HEFFLER

Just like other hospitals worldwide, USC Verdugo Hills Hospital faced a new challenge in its emergency department as the pandemic brought patients suffering from COVID-19 through its doors. In response, the department developed special measures to protect the health of all patients and staff during the pandemic and beyond.



**D**avid A. Tashman, MD, medical director of the Emergency Department, says many of the precautions that began with COVID-19 will become permanent to help prevent the spread of other illnesses.

“This is likely to include mask-wearing for all staff encountering patients, temperature screening for everyone entering the building, and keeping possibly contagious patients separate from others,” he says.

Today, the changes are evident when both patients and staff arrive.

“They all go to the main entrance, are screened for possible COVID-19 symptoms and are given a mask in what used to be the waiting room and is now our indoor ‘tent,’” explains Tashman, who is an associate professor of clinical emergency medicine at the Keck School of Medicine of USC. “If we think they may have COVID-19, they are tested, stay in the tent, and have a telehealth consultation. If not, patients go to a non-COVID area for treatment.

He says USC-VHH was one of the first hospitals to introduce this in-house telehealth option during the pandemic. Soon, staff from other hospitals came to see how patients can be assessed by an emergency room physician via computer monitor.

“Next, we’re planning to introduce special stethoscopes and electrocardiogram (EKG) equipment that will enable physicians to assess a patient’s heart remotely,” says Tashman, who adds that very few staff have gotten COVID-19 and urges everyone to get the vaccinations.

Tashman emphasizes that the ER is safe and offers the following advice to the public: “If you would have come when there wasn’t COVID-19, you should still come now.”



**Top: Pre-COVID, David A. Tashman, MD, is pictured outside of the USC-VHH emergency room with Armand Dorian, MD, MMM, and Jessica Thomas, MSN, RN.**

**Bottom: Members of the award-winning emergency department nursing staff keep spirits up during the COVID-19 pandemic. Photo courtesy of Catherine Pradt (Registered Nurse, USC-VHH)**

“If you would have come when there wasn’t COVID-19, you should still come now.”



better  
days  
ahead

BY HOPE HAMASHIGE

Kremer Johnson Photography

## Suffering from a painful yet often misunderstood pelvic disorder, Nathreen Bonnet found healing through an advanced, highly precise surgical procedure at USC Verdugo Hills Hospital.

**T**hough it's common enough to affect an estimated 10% of women in the United States, endometriosis is hard to diagnose. There is no simple test. Its most common symptom, pelvic pain, can be found in a broad range of diseases and disorders. The only way to know for sure if a woman has endometriosis is by diagnostic laparoscopic surgery.

And so, when Nathreen Bonnet began to experience pain in the mid-section of her abdomen a few years ago, her gastroenterologist and gynecologist put her through a slew of imaging tests while trying to manage her pain with medication. After her gynecologist discovered a cyst on one ovary and a mass in a fallopian tube, she sent Nathreen to Marcia Ciccone, MD, who specializes in gynecologic oncology at USC Verdugo Hills Hospital (USC-VHH).

Dr. Ciccone, who is also an assistant professor of clinical obstetrics and gynecology at the Keck School of Medicine of USC, notes that gynecologic patients like Nathreen are often referred to oncologists like those at USC Norris Comprehensive Cancer Center. They tend to have experience with more complex surgeries, as well as the removal of ovarian cysts. As she used a minimally invasive procedure to remove the cyst and blocked

fallopian tube from Nathreen's body, she spotted the patient's endometriosis.

Endometriosis occurs when the type of tissue that normally lines the uterus tries to grow elsewhere. These growths are typically found within the pelvis — including on the ovaries, fallopian tubes and the outer surface of the uterus — and can cause pain throughout the lower body. If not treated, endometriosis can cause cysts and lead to scarring, which Dr. Ciccone says is a possible source of the blockage in her fallopian tubes. It can also lead to infertility.

"That was the first time I had ever heard of endometriosis, but the more I did research, the more things made sense," says Nathreen, who had severe pain and cramping during menstruation and heavier than normal periods for decades. It would turn out that both symptoms are commonly associated with endometriosis.

Fortunately, treating endometriosis is beginning to emerge as a focus for some gynecologists, including Keck Medicine physician Anna Reinert, MD, an expert in minimally invasive women's health surgery at USC-VHH. Dr. Reinert notes that new surgical technology allows doctors to remove endometriosis throughout the pelvis and abdomen and to remove more of the disease through small incisions.



Marcia Ciccone, MD



Anna Reinert, MD

Dr. Reinert, an assistant professor of clinical obstetrics and gynecology at the Keck School, says that endometriosis typically sits atop pelvic structures, such as an ovary, but it can also infiltrate them, requiring more extensive surgery. When Nathreen's pain and cysts recurred, knowing that she had endometriosis was a benefit. Dr. Ciccone teamed up with Dr. Reinert, and they determined that Nathreen needed another surgery. For this procedure, they used a surgical robot at USC-VHH.

Though not available at most community hospitals, robotic surgery allows surgeons to see the endometriosis more clearly and provides the dexterity needed to remove the growths effectively.

"I think this is one of the surgeries in which the robot really shines," Dr. Ciccone says.

Though her second surgery more extensive than her first, Nathreen went home the same day. She felt ready to return to her yoga practice in a few days but held off for a few weeks just to be safe. She also went to physical therapy to help with any future bouts of pelvic pain that might occur.

"Everything is healing well, and I have had no complications or problems," Nathreen says.

**To learn more or schedule an appointment, call (800) USC-CARE or visit [uscvhh.org/betterdays](http://uscvhh.org/betterdays).**



# Beyond Borders

BY CANDACE PEARSON

A prominent physician at USC Verdugo Hills Hospital rallies colleagues and community members to answer a call for help from Artsakh.

As Armand Dorian, MD, MMM, interim chief executive officer and chief medical officer for USC Verdugo Hills Hospital, was driving home from work last September, he received an unexpected call from the Minister of Health in Armenia.

She needed Dr. Dorian's help in obtaining critical medical supplies. Their conversation would lead to a community-wide effort to help wounded civilians 7,240 miles from Southern California in the war-torn Republic of Artsakh.

What the region needed most was a 7,500-pound CT scanner.

Dr. Dorian, who is also an associate professor of clinical emergency medicine at the Keck School of Medicine of USC, immediately reached out to his colleagues. Their goal was a first for many of them: to purchase a scanner and coordinate its transport to the hospital in Artsakh's capital, Stepanakert.

Born in Los Angeles, Dr. Dorian has strong family roots in Armenia. "But this became a grassroots effort," he says, "involving people who had ties to the region and those who didn't."

The physicians networked via social media, texts, phone calls and emails. It wasn't long before other clinicians and community members joined them.

An associate of Dr. Dorian's located a scanner for a reduced price of \$80,000. Soon enough, the group raised that amount plus \$20,000 more for peripheral supplies.

Next came the challenge of transportation. Obstacles to be cleared included Turkey denying use of its airspace and the scanner being qualified as a "dangerous good," which made a certificate of safety necessary.

Finally, with special flight clearance from the Emir of Qatar, a cargo plane took off from LAX for Yerevan, Armenia, on Oct. 19, 2020.

From there, a truck was set to carry the equipment to Stepanakert, but at the same time, the hospital there was under bombardment. The scanner was quickly rerouted to another facility — this one on the border of Armenia and Artsakh. It wasn't the original choice, but this hospital would at least be safe enough to keep the machine from getting destroyed.

The relationships that made this possible have continued to grow, and in February they arranged to follow up the CT scanner donation with the contribution of an O-arm imaging system. Dr. Dorian feels pride in the effort and relief that civilians in the area now have access to life-saving scans.

"It was inspiring to see everyone come together to make a huge difference for people in need," he says.



**Top: The CT scanner is packed and loaded for transport.**

**Bottom: The Armenian monument Tatik and Papik, also known as the grandmother and grandfather of Artsakh.**

# it takes a team

BY HOPE HAMASHIGE

When doctors found a mass in José Aguiar's colon, he was also experiencing serious symptoms in his heart, foot and endocrine levels. It would take experts from Keck Medicine of USC in a multidisciplinary team working together to heal and prepare his body for a lifesaving cancer diagnosis and treatment.

It's hard to imagine a heart attack saving someone's life instead of potentially ending it, but that's exactly what happened to José Aguiar in the summer of 2019.

José's left foot was swollen and painful, so he made an appointment to see his primary care physician. His doctor performed an electrocardiogram (EKG), then soon after announced to José and his wife, Maria, that an ambulance was on its way to take him to a hospital. He was having a heart attack. This hospital visit would reveal an even bigger problem: a potentially cancerous mass in his colon.

Doctors would need to do a biopsy to determine if the mass was cancerous, but the physicians at the community hospital felt the procedure was too risky to perform given his fragile state. The medical staff reached out to area hospitals capable of taking on more complex cases, and José was transferred to Keck Medicine of USC.

One benefit of having access to an academic medical center is that it provides patients with a higher level of care than most community hospitals. Advanced treatments, breakthroughs in research and access to clinical trials tend to set them apart from other health systems.

José also benefited from Keck Medicine's approach: A team of doctors coordinate care and center their treatment plan

around the unique needs of each patient.

José needed a colorectal surgeon, a cardiologist and a podiatrist. The team triaged his needs, developed a treatment plan and coordinated efforts so they could quickly deal with his most threatening conditions first.

It turned out that José had ischemic cardiomyopathy, a condition caused by a narrowing of the coronary arteries. As a result, José's heart was only operating at about 20%. He also had a blood clot in one ventricle, rendering him too weak for surgery.

Eugene DePasquale, MD, medical director of the Heart Failure, Heart Transplantation and Mechanical Circulatory Support Program at Keck Medicine, was up first. To get José's heart strong enough for surgery, a stent was placed in one of his arteries.

"At the beginning, it was a very time sensitive situation where a lot of coordination was needed to treat his heart attack and get him well enough to treat his colon," says DePasquale, who's also an assistant professor of clinical medicine at the Keck School of Medicine of USC.

Within a month, Dr. DePasquale notified Joongho Shin, MD, a colorectal surgeon at Keck Medicine, that José was strong enough to undergo colorectal surgery. By this time, it had been determined that the mass in José's colon was cancerous.



© Kremer Johnson Photography

When Dr. Shin operated, he discovered that there was even more to be worried about. José had sigmoid colon cancer, and it had spread to the outer layer of his bladder. This meant bringing in a urologist to help remove part of his bladder.

Though José's colon cancer was stage 3 and had invaded another organ, the fact that he did not know about it is not unusual. Dr. Shin, also an assistant professor of clinical surgery at the Keck School, notes that colon cancer is often asymptomatic or minimally symptomatic, which is why some patients are not aware of it until it is advanced.

Colorectal surgeons at Keck Medicine's USC Norris Comprehensive Cancer Center are accustomed to doing multi-organ resection when colon cancer invades other areas. They work with a multispecialty group of

surgeons such as urologists and plastic surgeons to remove cancer in various organs, provide reconstruction surgery when necessary and give patients the best shot at survival and a high quality of life after cancer.

José's surgery under Dr. Shin was a success. Not only was the team able to remove the cancer from his colon and bladder, but they were able to preserve his colon so that he wouldn't need a colostomy.

According to Dr. Shin, colon cancer recurs more frequently among patients with more advanced cancer, but adding chemotherapy to patients with stage 3 colon cancer reduces the recurrence rate. The risk is highest in the first three years after treatment, but rarely recurs if a patient survives five years without its return. For this reason, José's team would grow to include a medical

## "I can't say enough good things about the team at USC."

oncologist who oversaw José's chemotherapy.

About a year after his heart attack, José's blood sugar levels, which had been high prior to his heart attack, became progressively worse until he was diagnosed with type 2 diabetes mellitus. Braden Barnett, MD, an endocrinologist at Keck Medicine, joined José's care team. Dr. Barnett, also a clinical assistant professor of medicine (clinician educator) at the Keck School, notes that controlling diabetes in and of itself is important. In this case, he says, effective treatment was critical to José's overall care because uncontrolled diabetes can strain the heart and can

make cancer treatments less effective.

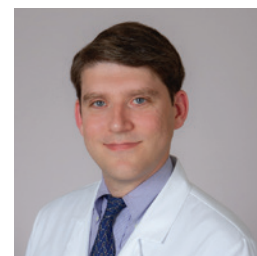
Two years after his heart attack, José's doctors believe his prognosis is good. He is cancer-free and being monitored for signs of recurrence by Dr. Shin and his medical oncologist.

His heart has improved steadily and is now functioning at a normal rate. The blood clot in his heart cleared from his treatment and his blood sugar, which had soared in 2020, has settled back into a normal range. Now José is back to doing what he loves, caring for the fish in his koi pond along with his finches and other birds.

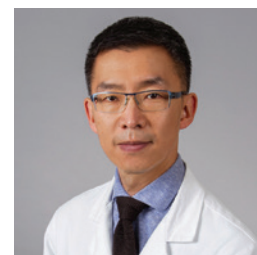
"I can't say enough good things about the team at USC," José says. "I am cancer-free, and my heart is back to normal. I am back to normal. I'm just blown away."

To learn more or schedule an appointment, call (800) USC-CARE or visit [KeckMedicine.org/team](https://www.uschealth.org/team).

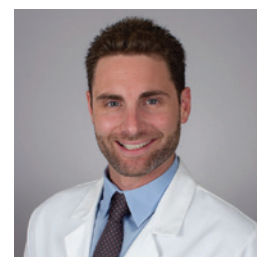
Find us online  
[uschealth.](https://www.uschealth.org)  
[KeckMedicine.org](https://www.KeckMedicine.org)



Eugene DePasquale, MD



Joongho Shin, MD



Braden Barnett, MD



*José relaxes at home, caring for his fish, birds and garden.*

A full-page photograph of a middle-aged man with grey hair and a beard, smiling. He is wearing a dark blue and black horizontally striped button-down shirt over a white t-shirt, and dark trousers. He is holding a lacrosse stick with a silver head and a black shaft. The background is a bright, sunny outdoor field with green grass and trees in the distance under a clear blue sky.

# heart of the matter

BY HOPE HAMASHIGE

With the help of an innovative treatment and the expertise of Ivan Ho, MD, at the USC Cardiac and Vascular Institute, Kent Demaine has been able to defy the odds in treating his atrial fibrillation.

If Kent Demaine could go back in time and change one thing, he would not have waited so long to treat his atrial fibrillation.

“If I had known what I know now — that you can get it done and feel great and get back in the game so quickly — I would have done it much earlier,” Kent says.

In his early 40s, Kent noticed his heart beating irregularly as he was falling asleep. By morning his heartbeat was normal, so he would put it out of mind. As an otherwise healthy person, he didn’t figure those early episodes would become a chronic problem.

Atrial fibrillation, also known as AFib or AF, affects at least 5 million people in the United States. It’s common among older people and those with related heart problems or thyroid issues. There is also a genetic component, which may explain why it also hits young, healthy people.

A primary concern is that AFib increases the risk of stroke five-fold and doubles the risk of heart failure. If left untreated, it can progress from episodic bouts to being in a constant state of AFib.

Ivan Ho, MD, director of electrophysiology for Keck Medicine’s USC Cardiac and Vascular Institute, notes that waiting until the patient is in a permanent state of AFib, or chronic AFib, makes treatment more difficult. He adds that younger patients like Kent are typically the ones who delay treatment.

“Many young people are highly functional with AFib,” says Dr. Ho, who is a clinical associate professor of medicine at the Keck School of Medicine of USC. “For that reason, it often gets picked up later or they don’t seek treatment right away.”

Kent’s episodes increased until, eventually, he was in a persistent state. At that point, the former NCAA Division I swimmer would get winded just by walking his dog. His mind lacked sharpness and — even with drinking increasing amounts of caffeine — he never felt like he was firing on all cylinders.

Some people eventually identify triggers, such as alcohol, and manage their condition by avoiding them whenever possible. There are also medications that can help control the heart rate to reduce

## “From the moment you open your eyes after surgery, you feel instant relief.”

the risk of stroke during AFib episodes.

By the time he saw a doctor, Kent’s condition was extremely advanced; catheter ablation was now his best option to correct his arrhythmia. However, he was warned that putting it off had diminished the likelihood of success.

According to Dr. Ho, catheter ablation returns the patient’s heart to a normal sinus rhythm 85% to 90% of the time when it is performed in the early stages. By the time a patient has been in a persistent state of AFib for a year, the likelihood of achieving a normal rhythm falls to 50%.

The procedure involves inserting catheters to the heart via large veins in the thigh and using radiofrequency energy at

the tip of the catheters to destroy the heart tissue that has abnormal electrical activities causing AFib. Many patients mistakenly assume that the procedure is risky and requires a long recovery, so they put it off.

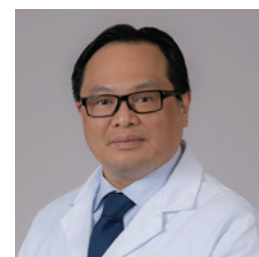
However, intracardiac 3D mapping technology and real-time ultrasound imaging during the procedure now allow doctors to precisely locate the problem in the heart, says Dr. Ho. He adds that serious complications are rare, affecting only about one in 500 to 1,000 patients.

Kent fell back into AFib after his first ablation, which can happen with advanced cases. Dr. Ho performed his second ablation in 2020, and Kent’s heart has been in a

regular rhythm ever since. After a second procedure, the success rate for tough cases goes back up to about 90%. According to Dr. Ho, Kent’s prognosis is good.

“From the moment you open your eyes after surgery, you feel instant relief. I felt 15 years younger,” Kent says.

**To learn more or schedule an appointment, call (800) USC-CARE or visit [KeckMedicine.org/heartmatter](https://www.KeckMedicine.org/heartmatter).**



Ivan Ho, MD

*Since his treatment, Kent has felt well enough to return to sports, including lacrosse — a personal favorite.*



Kremer Johnson Photography

# Coming Together for Patients

BY MELISSA MASATANI



When it comes to brain tumors, Gabriel Zada, MD, has seen it all. For a layperson this might seem like an unusual goal, but for the director of Keck Medicine's USC Brain Tumor Center, this means that he and his team are ready for anything.

**"P**atients often come to us at one of the most challenging points in their lives," Dr. Zada says. "Many have never dealt with a brain tumor before or have recurring tumors that their community doctors don't have the resources to treat. This is where we can really help a patient and family know that they're not alone in their health care journey."

The USC Brain Tumor Center brings together an advanced team of multidisciplinary experts to offer patients a customized treatment plan for all types of brain tumors and related conditions. The USC BTC team also pushes the research envelope in an effort to advance clinical trials and investigate the latest treatments. As a result, patients can expect to be cared for by clinicians who not only specialize in the existing standard of care but are constantly working to make sure that their treatment plans are the most advanced possible.

As with most multidisciplinary teams at Keck Medicine of USC, a nurse navigator leads the patient's experience by making sure they will see the appropriate doctors — including neurosurgeons, radiation oncologists, neuro-oncologists, social workers and more. When possible, all appointments are scheduled for the same day or week to make things easier on the patient.

"Our goal is to educate and guide patients through their entire journey with a brain

tumor, so they can make the best decisions regarding their care," says Frances Chow, MD, a neuro-oncologist at Keck Medicine.

Every patient case is studied at a weekly meeting where an expert panel makes sure that clinicians from each discipline are providing as much help to the patient as possible.

The center's size is an asset; it includes around 70 members from across the spectrum of disciplines. As part of Keck Medicine, including USC Norris Comprehensive Cancer Center, USC BTC also includes faculty from across the University of Southern California and staff from Children's Hospital Los Angeles and the California Institute of Technology in Pasadena.

This gives clinicians access to tools like a specialized MRI at the USC Mark and Mary Stevens Neuroimaging and Informatics Institute, to obtain the most advanced diagnostics and other services for patients.

Because Keck Medicine is located in Southern California, USC BTC is uniquely positioned to treat some of the most complex cases from across the region. This in turn prepares team members for the next case, no matter how rare or complicated.

For Dr. Zada, who is a professor of neurological surgery at the Keck School of Medicine of USC, brain tumor treatments have progressed significantly since he first started practicing, including more minimally invasive approaches and blue



**Gabriel Zada, MD**

light technology to better see tumors and protect the brain during surgery.

"The most significant changes have, and will, come from the newest targeted drugs and precision tools that are being developed, to fighting off tumors using the body's own immune system," Dr. Zada says.

The clinical trial portfolio at the USC BTC has recently expanded with an enhanced focus on developing treatments for higher efficacy and fewer side effects, like a mechanism to deliver medicine intranasally into the brain.

"We come together not only to treat patients, but to advance care and provide the latest research that dovetails with that care," Dr. Zada says.

**To learn more or schedule an appointment, call (800) USC-CARE or visit [KeckMedicine.org/btc](http://KeckMedicine.org/btc)**

# Prostate cancer study tackles racial disparities

BY WAYNE LEWIS

SOME RACIAL AND ETHNIC GROUPS SUFFER MORE OFTEN, AND FARE WORSE, FROM CERTAIN AILMENTS COMPARED TO OTHERS. PROSTATE CANCER IS ONE DISEASE WHERE SUCH DISPARITIES OCCUR. IN COMPARISON TO WHITE MEN, BLACK MEN HAVE A 75% HIGHER RISK FOR THE DISEASE AND EXPERIENCE ROUGHLY DOUBLE THE FATALITY RATE. YET WHITE MEN ARE OFTEN OVERREPRESENTED AS RESEARCH PARTICIPANTS, MAKING THESE DIFFERENCES DIFFICULT TO UNDERSTAND AND ADDRESS.



In response, scientists at the Keck School of Medicine of USC's Center for Genetic Epidemiology co-led a study with the Institute for Cancer Research in London. The teams combined data from the majority of current genomic prostate cancer studies globally, covering more than 200,000 men of European, African, Asian and Latino ancestry.

The study's authors identified 86 new genetic variations that increase risk for prostate cancer. The research also showed that men of African ancestry inherit about twice the prostate cancer risk, on average, compared to men of European ancestry — evidence that genetics play some part in the differences in how often cancer occurs in different racial groups.

"Our long-term objective is to develop a genetic risk score that can be used to determine a man's risk of developing prostate cancer," said co-author Christopher Haiman, ScD, director of the Center for Genetic Epidemiology and member of the USC Norris Comprehensive Cancer Center. "Men at higher risk may benefit from earlier and more frequent screening, so the disease can be identified when it's more treatable."

These findings can thus offer significant guidance on how doctors apply precision medicine to early detection in people with a higher genetic risk for prostate cancer.

"No population should get left behind," Haiman said.



## Alcohol and tobacco sales climb during early months of COVID-19 pandemic

BY ALISON RAINEY

A KECK MEDICINE OF USC STUDY SHOWS THAT PEOPLE ACROSS THE NATION USED MORE ALCOHOL AND TOBACCO THAN USUAL EARLY ON IN THE PANDEMIC.

The study, led by Brian P. Lee, MD, MAS, a hepatologist and liver transplant specialist with Keck Medicine and the USC Institute for Addiction Science, looked at alcohol and tobacco sales from April through June 2020, shortly after the pandemic hit in the United States. The findings show an increase of 34% and 13% respectively when compared to the same months in 2019.

Tobacco sales increased in households across all demographics and alcohol sales increased across most demographics. Sales increases for both substances were highest among younger adults, ethnic minorities,

those with younger children or large families and those with higher incomes.

The doctors plan to conduct further studies to see if this three-month trend has continued through the pandemic.

Find us online  
[uschealth.keckmedicine.org](https://uschealth.keckmedicine.org)



## Can AI predict how well a COVID-19 patient will do?

BY AVNI SHAH

USC RESEARCHERS CREATED AN ALGORITHM TO PREDICT A COVID-19 PATIENT'S PROGNOSIS.

Researchers have developed an AI algorithm that can predict a patient's COVID-19 outcomes based on five data points measured when a patient is hospitalized: breathing rate, blood-oxygen level, immune response, vascular health and inflammation levels.

The team was co-led by Neha Nanda, MD, medical director of infection prevention and antimicrobial stewardship at Keck Medicine of USC, Vinay Duddalwar, MD, director of the USC Radiomics Laboratory and Assad Oberai, PhD, Hughes Professor in USC's Department of Aerospace and Mechanical Engineering.

The researchers used 80 pieces of medical and socio-demographic data each for over 200 patients from three Los Angeles area hospitals as inputs in algorithms to determine their prognoses. Once these algorithms accurately predicted how the patients fared, the team homed in further to perfect the model.

Since the measured factors are universal, the team hopes this algorithm can be used in hospitals all over the world and — in the future — with other illnesses.

"Perhaps with time, this proactive approach is something we can adopt universally to all emerging infectious diseases," Nanda said.



There are hundreds of **clinical trials** and **studies** currently taking place at Keck Medicine of USC, giving participants access to novel and potentially promising therapies that may not be available elsewhere. For more information on all of Keck Medicine's open clinical trials, visit [clinicaltrials.KeckMedicine.org](https://clinicaltrials.KeckMedicine.org).

### Lung Cancer

**Title:** Establishing a Diagnosis of Lung Cancer Through a Fluid Biopsy

**Purpose:**

This trial collects and studies blood samples via fluid biopsy for the diagnosis of lung cancer. Studying blood samples in the laboratory may help doctors develop a blood test for lung cancer in the future and provide a better way to screen patients for the disease.

NCT# 04162678  
IRB# HS-19-00694

**Participant criteria:**

Scheduled to undergo a diagnostic biopsy for possible lung cancer or has completed a diagnostic lung cancer biopsy in the prior two weeks and has not yet undergone treatment, or planning to or has completed a CT lung cancer screening in the last two weeks. Must understand and be willing to sign a written informed consent form.

**USC Investigator(s):**

Jorge Nieva, MD

**For details:**

Aaron Mejia, MPH, (323) 409-4359,  
[Aaron.Mejia@med.usc.edu](mailto:Aaron.Mejia@med.usc.edu)

### Neurosciences

**Title:** Help stroke survivors! Join research study on motion, balance and walking

**Purpose:**

85% of survivors of stroke experience walking issues, which limit their activities and participation. These issues include decreased coordination and slower walking, which might make people more prone to falls.

The objective of this study is to measure walking in people shortly after stroke and to identify which aspects of walking early after stroke indicate how well a patient will recover. Identifying these features will help physical therapists customize therapies to promote recovery of walking and help with other balance issues after a stroke. Therefore, we plan to test stroke survivors between 1-6 months after stroke and up to a year after they have suffered a stroke.

IRB# HS-19-00430

**Participant criteria:**

Stroke survivors up to six months after their stroke, ages 18-90. People who have not experienced a stroke are also invited to participate.

**USC Investigator(s):**

Natalia Sanchez Aldana, PhD

**For details:**

Natalia Sanchez Aldana,  
(323) 442-0189, [sanc232@usc.edu](mailto:sanc232@usc.edu)

## grace note

*Continued from page 10*

all coming back. I've got 99% of my taste back. I never lost any hearing, whatsoever. I lost 45 pounds, but it's all coming back. It's incredible, the recovery arc of every week your body coming back."

Nancy credits not only the staff and physicians of Keck Medicine, but Richard's outlook for his recovery. "First and foremost was his level of care at Keck Medicine. Dr. Sinha and Dr. Nieva and Dr. Garsa are at the top of their fields, and we were so lucky to be in their care. Their team was superb as well," she says. "Equally important was Richard's good attitude and resolve to do what was necessary to save his life. He never once complained or resisted any of it. He allowed the process to happen with trust, courage and grace."

Richard's attitude is apparent when he talks about what getting back to teaching has been like for him. "During my treatment, whether I would be able to teach again was a big part of my anxiety. I was thinking that if I couldn't teach, it was going to be pretty bad. At first, I couldn't talk before noon, because my voice was gravelly. But then I started getting my voice back, and doing the exercises, and it came back so quickly that I knew I could teach again."

COVID-19 caused him additional worry. "Teaching music ensemble is like a team sport, and I thought that teaching online would be the end of the game. Instead, I love it. We're developing new ways of teaching online — and just communicating — it's a really incredible way to teach." Richard adds thoughtfully, "So that, I think, is a metaphor for so many things that I thought could go wrong, but have turned out to be right. I'm so full of gratefulness and I feel like grace is a huge part of my new life."

**To learn more or schedule an appointment, call (800) USC-CARE or visit [KeckMedicine.org/grace](https://KeckMedicine.org/grace).**



## Continuing Down the Path

The availability of vaccines against COVID-19 is a big first step in ending a deadly pandemic. In order to make sure everyone stays safe while vaccines are administered, it's crucial to keep masking, physically distancing and respecting screening protocols. First, we have to remember that not everyone who wants the vaccine will be able to get one. While the vaccine is generally safe and recommended in most instances, we're not yet sure how it affects those with certain conditions, such as those with autoimmune disorders.

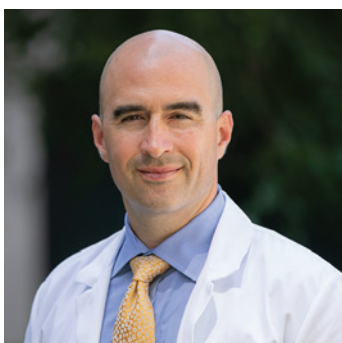
Additionally, we continue to await long-term data points that will better inform us of the duration of effectiveness and how frequently a person may need the vaccine. According to some vaccine manufacturers, with the emergence of variants, booster vaccines will be required in order to extend immunity. While we are now seeing a decrease in the rate of COVID positivity and hospitalization and progressing down the path of vaccination, there are many we know and love who will rely on us to continue safety protocols, at least for now. As we work to get the vaccine to as many people as possible, masking and distancing will make the world a much safer place for all.

**Krist Azizian, PharmD, MHA**, is the chief pharmacy officer at Keck Medicine of USC.

## Outpatient Locations

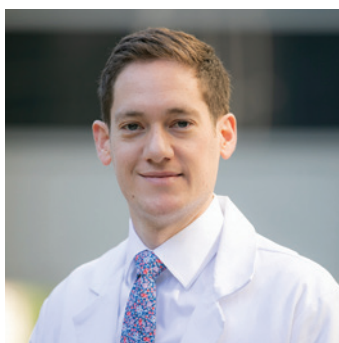
# Treating sports-related injuries in El Segundo

AT A STATE-OF-THE-ART FACILITY IN THE TOYOTA SPORTS PERFORMANCE CENTER, THESE PHYSICIANS ARE READY TO PROVIDE ORTHOPAEDIC AND SPINE CARE TO RESIDENTS OF THE EL SEGUNDO COMMUNITY. AS PART OF AN ACADEMIC HEALTH SYSTEM, THEY STAND READY TO EMPLOY ADVANCED TREATMENT OPTIONS FOR A FULL RANGE OF INJURIES AND CONDITIONS.



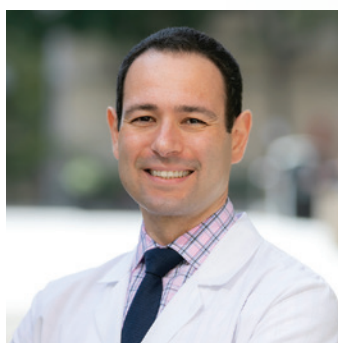
**Frank Petrigliano, MD**  
Associate Professor of Clinical  
Orthopaedic Surgery  
Keck School of Medicine of USC

Dr. Petrigliano serves as chief of the USC Epstein Family Center for Sports Medicine. He's also head team physician for the Los Angeles Kings and team physician for USC Intercollegiate Athletics. His philosophy of care is to treat each patient like a family member and to collaborate with them on the safest, most effective treatment possible.



**Alexander Weber, MD**  
Assistant Professor of Clinical  
Orthopaedic Surgery  
Keck School of Medicine of USC

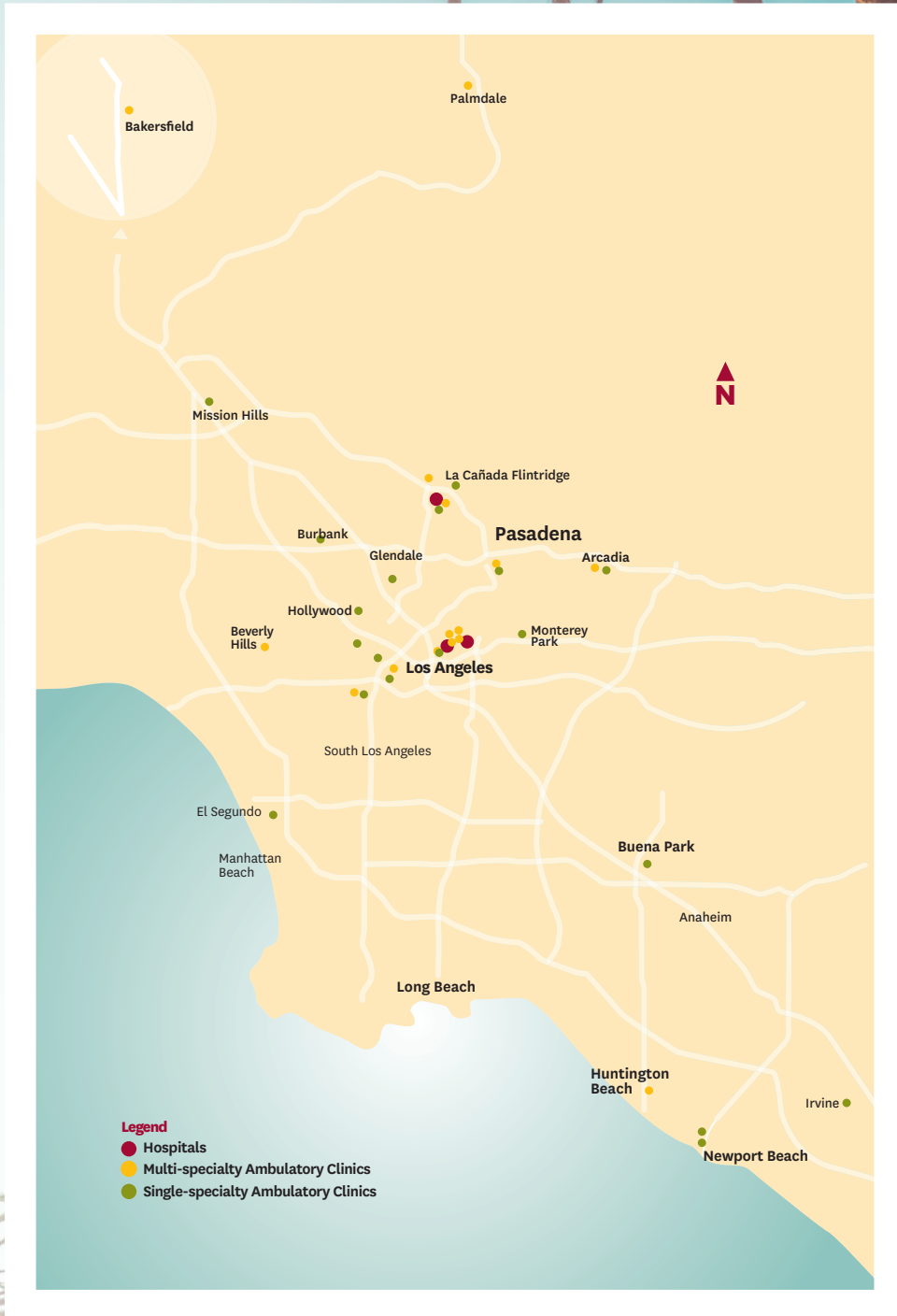
Before coming to Los Angeles, Dr. Weber worked as a team physician for the Chicago White Sox and the Chicago Bulls. At Keck Medicine, he serves as an orthopaedic surgeon and a team physician for USC Intercollegiate Athletics and the LA Kings. He strives to exhaust all nonsurgical options — including biologic and stem cell treatments — before recommending surgery.



**Gene Tekmyster, DO**  
Assistant Professor of Clinical  
Orthopaedic Surgery  
Keck School of Medicine of USC

Dr. Tekmyster is a physical medicine and rehabilitation physician with subspecialty training in interventional spine care and sports medicine. He has a special interest in treating injuries of the neck and back. He's a member of the sports medicine team for USSA and a team physician for U.S. Ski and Snowboard. Dr. Tekmyster focuses on decreasing pain and quickly helping patients return to pre-injury function.

**To make an appointment with any of these doctors, call (800) USC-CARE.**



Keck Medicine of **USC**

**HEALTH SYSTEM MARKETING  
AND COMMUNICATIONS**

2011 N. Soto St.  
SST-2830  
Los Angeles, CA 90032

NON-PROFIT  
ORGANIZATION  
US POSTAGE  
**PAID**  
UNIVERSITY OF  
SOUTHERN  
CALIFORNIA

# WE TAKE ON THE TOUGHEST CASES

As one of the nation's leading health systems, Keck Medicine of USC is relentlessly focused on providing the best possible outcomes for the most complex conditions. That's the Keck Effect.



**(800) USC-CARE**  
**KeckMedicine.org/toughestcases**



Keck Medicine  
of **USC**

**BEYOND EXCEPTIONAL MEDICINE™**