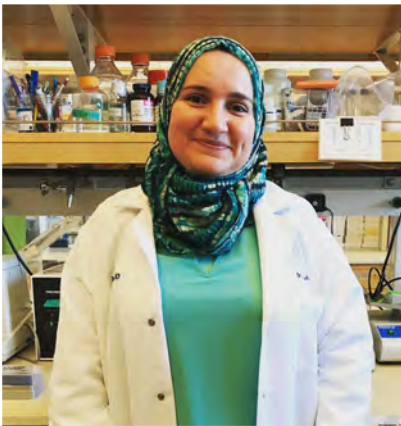


DEPARTMENT OF  
SURGERY  
ANNUAL REPORT  
2021-2022



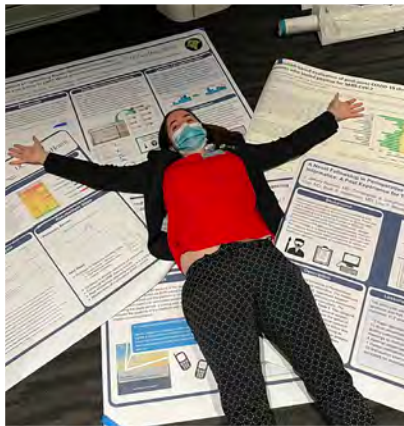
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## LETTER FROM THE CHAIR



Dear Colleagues and Friends,

With yet another year in the past, we are again presented with an opportunity to reflect on what was and what will be. You would be right to conclude from the front and back covers of this year's UC San Diego Department of Surgery Annual Report that we have chosen to focus on our team members. At its core, academic surgery is singularly focused on elevating the human condition. While new medical technologies, great facilities, and increased accessibility to campus via mass transit are important facilitators for patient care, they are insufficient in bringing forth a better today and tomorrow. People are and will remain at the center of this noble pursuit. In this context, recruiting, developing, and retaining individuals who are uniquely talented and best suited to our mission are among the most important functions of a vibrant Department of Surgery. The health of our department – and more importantly, the magnitude of its impact on present and future patients and our communities – are directly connected to our strength as a collective.

One of the highlights of my job is interviewing applicants for our residency positions. I always allot time in each interview for the applicant to ask questions of me regarding the program. During a recent interview, I was asked a question I've never been asked before: *"What will you be remembered for as Chair of the Department of Surgery?"* My reply (which caught the applicant equally off-guard) was that I was not particularly concerned about how I would personally be remembered. Although I do not consider myself to be one, even giants in the field of surgery who have brought forth transformational advances in techniques and treatment approaches are rarely remembered after the passing of a generation or perhaps two. What I hope to leave behind is not a memory of me, but a new generation of surgeons who will improve upon the generation before them and be equally committed to ensuring a legacy of caring for the sick, bringing forth new advances, and teaching others to do the same. I hope, as well, to have positively and substantively contributed to system and facility improvements that will sustainably bring the unique patient care strengths of UC San Diego more broadly to our region and beyond.

In this context, we are right to focus on our people in this year's report, and in particular on the development of our younger generation. I am sure that you will come away from perusing the pages as excited as I am about the future of surgery and the future of UC San Diego.

As always, I thank you on behalf of our patients and our teams for your continued interest in the affairs of the Department of Surgery.

BRYAN M. CLARY, MD, MBA, FACS  
Chair, Department of Surgery  
UC San Diego

**SURGERY  
BY THE NUMBERS**



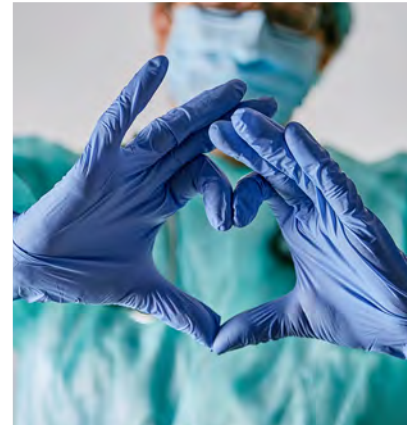
**98  
RESIDENTS AND  
FELLOWS**



**\$12.77  
MILLION  
IN RESEARCH  
FUNDING**



**13  
DIVISIONS**



**34  
ACTIVE  
CLINICAL  
TRIALS**



**154  
FACULTY**



**85  
PUBLISHED  
PAPERS  
IN JOURNALS**

**71,041  
OFFICE VISITS**

**CASES:  
INPATIENT: 13,721  
OUTPATIENTS: 7,693**

**326  
PUBLICATIONS**



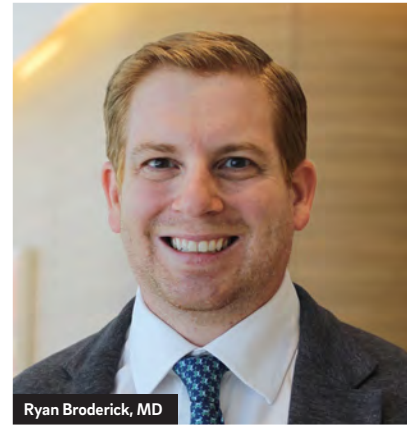
**113  
EMPLOYEES  
AND STAFF**

**32  
ACTIVE  
RESEARCH  
AWARDS**



**PEDIATRIC BY THE NUMBERS:  
NEW OUTPATIENT PEDIATRIC  
PLASTIC SURGERY VISITS: 1182  
ESTABLISHED PEDIATRIC  
PLASTIC SURGERY  
OUTPATIENT VISITS: 1,845  
PEDIATRIC PLASTIC  
SURGICAL PROCEDURES: 2,125**

PRESENT  
NEXT  
GENERATION



Ryan Broderick, MD

“It is commonplace in academic circles to reflect wistfully on the past and espouse a view that things will never be as good. I do not subscribe to such a view, a view which is not only inaccurate, but also defeatist and devoid of hope. To the contrary, I look at our youngest team members and am overflowing with optimism. They are talented, committed, compassionate, and less constrained by the past than my generation. Over the past eight years, the Department has recruited more than 60 new faculty members who have brought energy, new ideas, and diverse experiences that have enriched the present and are certain to usher in a better tomorrow.

In this section of the Annual Report, we take a look at eight of our youngest faculty members who will inspire and fill you with the same sense of hope and optimism that I have. All of us if not already, will be a patient one day. I sleep very well at night knowing that when my time comes to be a patient, that this incredible next generation will be there to care for me, my family, and my community. They will do so in a way that exceeds the capabilities of my generation and with the same dedication.

– Dr Clary, Chair and Professor of Surgery



Aleah Brubaker, MD, PhD



Ann Gaffey, MD

Dr. Ryan Broderick

*Department of Surgery, specializing in General and Gastrointestinal Surgery, Minimally Invasive Surgery*

Ryan Broderick, MD, is a board-certified surgeon who specializes in minimally invasive surgery (laparoscopic, endoscopic, robotic) for treatment of gastroesophageal reflux disease (GERD), hiatal hernia, esophagus and stomach disorders, and obesity. He also specializes in abdominal and inguinal hernia repair as well as general surgery.

As an assistant professor in the Department of Surgery, Dr. Broderick trains medical students, residents and fellows at UC San Diego School of Medicine. Dr. Broderick completed fellowship training in minimally invasive surgery at UC San Diego School of Medicine, where he also did his residency and served as administrative chief resident. He earned his medical degree from University of Cincinnati College of Medicine. He has written book chapters and published many articles in peer-reviewed journals.

Dr. Broderick is a member of the Society of American Gastrointestinal and Endoscopic Surgery, the American College of Surgeons and the American Foregut Society.

In his free time, Dr. Broderick enjoys fly fishing and camping.

Dr. Aleah Brubaker

*Department of Surgery, specializing in Kidney and Liver Transplantation, Cancer Surgery*

Aleah Brubaker, MD, PhD, is a board-certified surgeon who specializes in abdominal (liver and kidney) transplantation in adult and pediatric patients. She also has expertise in surgical treatment of liver tumors, hepatocellular carcinoma, liver cirrhosis and end-stage renal disease.

As an assistant professor in the Department of Surgery, she trains medical students, residents and fellows at UC San Diego School of Medicine. Dr. Brubaker's research interests include transplantation and the human microbiome. Her work has appeared in medical and research publications, including Transplantation and Clinical Transplantation. Dr. Brubaker has co-authored several book chapters on transplantation.

She also has presented her work on transplant outcomes and pediatric transplants at various national meetings.

Dr. Brubaker completed a fellowship in transplant surgery at Stanford Health Care in Stanford, Calif., where she also did her residency in general surgery. She holds both a medical and doctorate degree from the Loyola University Medical Center in Maywood, Ill. She is board certified in general surgery.

Dr. Brubaker is a member of the American Society of Transplant Surgeons and the American College of Surgeons.

In her free time, Dr. Brubaker enjoys hiking, swimming, skiing and cooking.

Dr. Ann Gaffey

*Department of Surgery, specializing in Vascular Surgery*

Ann Gaffey, MD, is a board-certified vascular surgeon who specializes in a wide spectrum of vascular diseases including complex treatment of thoracic and abdominal aortic aneurysms, peripheral arterial disease, carotid disease, thoracic outlet syndrome and hemodialysis access.

Her clinical interests include examining new approaches to peripheral arterial disease and improving the patency of current bypass options.

Dr. Gaffey was drawn to vascular surgery primary for the opportunity to develop lifelong relationships with her patients while working together to manage all aspects of their vascular health. She is able to offer a myriad of treatments from medical management, structured exercise, endovascular interventions and open surgery tailored to each patient. Dr. Gaffey finds nothing more rewarding than earning her patient's trust and becoming part of their healthcare team.

As an assistant professor of surgery at UC San Diego School of Medicine, she trains medical students, residents and fellows in the Division of Vascular and Endovascular Surgery.

Dr. Gaffey completed fellowship training in vascular surgery and endovascular therapy, residency training in general surgery and a master's degree in translational



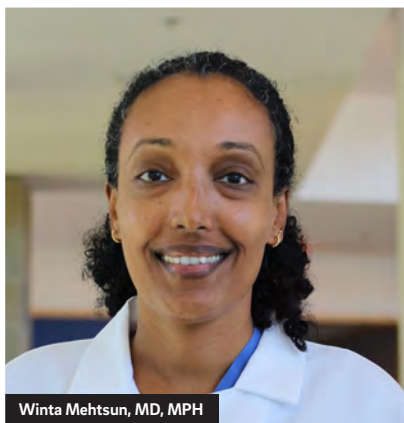
Theresa Guo, MD



Shanglei Liu, MD, MAS



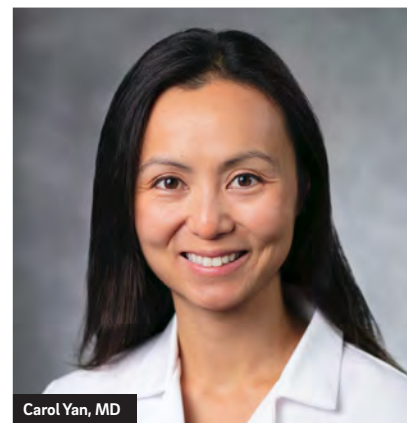
Mark J. Kearns, MD



Winta Mehtsun, MD, MPH



Jessica L. Weaver, MD, PhD



Carol Yan, MD

research at the University of Pennsylvania Perelman School of Medicine in Philadelphia. She earned her medical degree from Georgetown University School of Medicine in Washington, District of Columbia. Dr. Gaffey is board certified in vascular surgery and general surgery.

She is a member of several professional societies including the American Heart Association, the American College of Surgeons and the Society of Vascular Surgeons.

Outside of work, Dr. Gaffey enjoys sailing, mountain biking, skiing, running and gardening. Outside of work, Dr. Gaffey enjoys sailing, mountain biking, skiing, running and gardening.

## Dr. Theresa Guo

*Department of Surgery, specializing in ENT Head and Neck (Otolaryngology) Surgery*

Theresa Guo, MD, is a board-certified head and neck surgeon who treats patients with head and neck tumors, including salivary gland, thyroid and parathyroid disorders, as well as cancer of the face, scalp, nose, mouth, tongue and throat.

Dr. Guo approaches treatment of head and neck cancer by including a whole team of experts. Treatment can be a complex combination of surgery, radiation and/or chemotherapy. Diseases of the head and neck have a significant impact on one's quality of life, so a team approach is essential to achieve comprehensive care and to help patients maximize quality of life throughout their journey.

In addition to patient care, she is also engaged in research that seeks to deliver precision cancer care. Her research uses computational biology to study complex post-transcriptional genomic changes that occur in head and neck tumors.

Dr. Guo completed a fellowship in head and neck surgical oncology at University of Texas MD Anderson Cancer Center in Houston. She completed her residency training in otolaryngology at The Johns Hopkins Hospital, Baltimore, Maryland.

Dr. Guo earned her medical degree at Cleveland Clinic Lerner College of Medicine, a program of Case Western Reserve University

School of Medicine. She is board certified in otolaryngology. She is a member of the American Medical Association, American

Academy of Otolaryngology-Head and Neck Surgery and American Head and Neck Society.

Dr. Guo's personal interests include running, hiking and painting. She speaks Mandarin in addition to English.

## Dr. Shanglei Liu

*Department of Surgery, specializing in Colon and Rectal Surgery*

Shanglei Liu, MD, MAS, is a colon and rectal surgeon who specializes in surgeries of the colon and rectum including colon cancer, rectal cancer, anal cancer, inflammatory bowel disease, intestinal and anal fistulas, rectal prolapse, fecal incontinence, and an array of other benign anorectal conditions.

As an assistant professor of surgery in the UC San Diego School of Medicine, Dr. Liu also trains medical students, residents, and fellows. His research passion is rooted in advancing the field of surgery through modern technology including robotic surgery, natural orifice surgery, fluorescence image guided surgery, medical informatics, and more.

Dr. Liu completed a fellowship in colon and rectal surgery at the Mayo Clinic in Rochester, Minn. He completed his general surgery residency at UC San Diego Health. During this time, he completed an additional research fellowship in minimally invasive surgery, with a focus on novel medical devices and robotic surgery.

Dr. Liu earned his medical degree at UC San Diego School of Medicine. He is board certified in general surgery. He also holds a Master's Degree in Advanced Studies in medical device engineering from UC San Diego Jacob School of Engineering.

Dr. Liu speaks Mandarin fluently.

## Dr. Mark Kearns

*Department of Surgery, specializes in adult cardiac surgery*

Mark J. Kearns, MD, is a cardiothoracic surgeon who specializes in adult cardiac surgery, heart transplantation, mechanical circulatory support and aortic surgery. Dr. Kearns is focused on the delivery of high-quality patient-centered surgical care.

As an assistant professor of surgery at UC San Diego School of Medicine, he is involved in training medical students, residents and cardiothoracic fellows. His research interests

center on clinical and translational aspects of donation after circulatory death heart transplantation. Dr. Kearns is co-investigator on a number of clinical trials in transplant and mechanical circulatory support.

Dr. Kearns completed a fellowship in complex adult cardiac surgery at UC San Diego School of Medicine and a fellowship in surgical heart failure at Cedars-Sinai Medical Center in Los Angeles. He completed residency training in cardiac surgery at University of British Columbia in Vancouver, Canada. Dr. Kearns earned his medical degree from University of Alberta in Edmonton, Canada.

He is a member of Royal College of Physicians and Surgeons of Canada and a fellow of the Royal College of Surgeons of Canada.

## Dr. Winta Mehtsun

*Department of Surgery, specializing in Surgical Oncology*

Winta Mehtsun, MD, MPH, board-certified surgical oncologist whose practice spans gastric cancer, sarcoma, and general surgical oncology.

Dr. Mehtsun enjoys helping her patients through a team-based, multi-disciplinary approach to care, and she is an advocate for patients at all stages of their cancer treatment.

As an assistant professor at UC San Diego School of Medicine, she conducts public health research to improve the quality of cancer care. Her research findings have been published in several high-impact journals, including *Annals of Surgery*, *Health Affairs*, and *JAMA Oncology*.

Prior to joining UC San Diego Health, Dr. Mehtsun was a clinical fellow in complex surgical oncology at the Mass General Brigham/Dana-Farber Complex General Surgical Oncology Fellowship at Harvard Medical School. She completed a research fellowship in health policy and surgical outcomes research at the Harvard T. Chan School of Public Health. She completed residency training in general surgery at Massachusetts General Hospital and earned her medical degree from the University of Virginia School of Medicine. She also earned a master's in public health at the Johns Hopkins Bloomberg School of Public Health.

Dr. Mehtsun is a member of the Surgical Outcomes Club, American College of Surgeons, Association of Academic Surgery, Society of Surgical Oncology, Society of

Black Academic Surgeons, and American Society of Clinical Oncology.

Outside of work, Dr. Mehtsun enjoys running, hiking, collecting music and spending time with her son.

## Dr. Jessica Weaver

*Department of Surgery, specializing in Trauma Surgery*

Jessica L. Weaver, MD, PhD, is a board-certified surgeon who cares for people who have experienced traumatic injuries, such as a fall or motor vehicle collision, as well as those requiring elective or emergency surgery for general surgical issues, such as appendicitis, gallstones and hernias. She also provides elective general surgery consultations at the outpatient clinic in Hillcrest medical offices.

As an assistant professor in the Department of Surgery, Dr. Weaver trains medical students, residents and fellows at UC San Diego School of Medicine. Her research is focused on finding new and better methods to treat traumatic brain injury. She is currently studying how selective serotonin reuptake inhibitors could be used to treat TBI patients. Dr. Weaver's work has appeared in medical and research publications, including the *American Journal of Surgery*, the *Journal of Trauma and Acute Care Surgery*, the *Journal of Investigative Surgery*, and the *American Journal of Physiology-Lung Cellular and Molecular Physiology*.

She has won awards recognizing her clinical and academic excellence, including the Star Research Award from the Society of Critical Care Medicine and the Critical Care Award from the American Association for the Surgery of Trauma.

Dr. Weaver completed a fellowship in surgical critical care at the University of Pennsylvania Perelman School of Medicine in Philadelphia. She completed her residency in general surgery at the University of Louisville School of Medicine in Louisville, Ky., where she earned a PhD in physiology and biophysics. Dr. Weaver holds a medical degree from the Medical College of Wisconsin in Milwaukee. She is board certified in general surgery and in surgical critical care.

Dr. Weaver is a member of the American College of Surgeons, the Society of Critical Care Medicine and the Eastern Association for the Surgery of Trauma.

In her free time, she enjoys running and international travel.

## Dr. Carol Yan

*Department of Surgery, specializing in ENT Head and Neck (Otolaryngology) Surgery*

Carol Yan, MD, is a board-certified head and neck surgeon who specializes in treating sinonasal disease and skull base tumors. She treats a wide range of conditions, including sinus infections (sinusitis), nasal polyps, nasal obstruction, deviated septum, enlarged turbinates, rhinitis, smell loss, and cerebrospinal fluid leak. She also treats patients with tumors and cancers of the nose and sinuses, as well as skull base tumors.

Dr. Yan performs primary and revision endoscopic sinus and nasal surgery, as well as endoscopic skull base surgery in collaboration with the neurosurgical team at UC San Diego Health. Dr. Yan's goal is to deliver state of the art research and evidence-based care to people who suffer from sinonasal disease and tumors. In an effort to continue to improve patient care, Dr. Yan actively conducts research on inflammatory profiles in chronic rhinosinusitis patients and novel treatments for patients with olfactory dysfunction (loss of sense of smell). She is involved in the national academic rhinologic group, the American Rhinologic Society, and serves in several committees.

As an assistant professor in the Department of Surgery, Dr. Yan trains medical students, residents and fellows at UC San Diego School of Medicine. Her work has been widely published in professional journals and book chapters.

Dr. Yan completed a rhinology and skull base surgery fellowship at Stanford University School of Medicine where she completed both a research and clinical fellowship, training under internationally recognized surgeons. She completed a residency in otorhinolaryngology at University of Pennsylvania Perelman School of Medicine, where she also earned her medical degree.

Dr. Yan is a member of the American Academy of Otolaryngology - Head and Neck Surgery.

In her free time, she enjoys spending time with her family and dog, hiking, skiing, swimming and traveling. Dr. Yan is fluent in Shanghainese (Chinese dialect) and has conversational ability in Mandarin.



## BLUE LINE TROLLEY



### FEATURED STORY

## Trolley Stations Open on Campus, Connecting the University Like Never Before

One of the largest infrastructure projects in San Diego's history, the \$2.1 billion Mid-Coast Trolley Extension started as a line on a piece of paper in 1986.

After decades of planning, construction of the 11-mile extension of the Blue Line trolley began in the fall of 2016 leading to a grand opening on November 21, 2021.

This cost-effective and efficient transportation option expands the accessibility of our facilities to patients, learners, and team members of the Department of Surgery.

"Two of nine new trolley stations are at UC San Diego, connecting our university to the greater region like never before," said UC San Diego Chancellor Pradeep K. Khosla. "Students and employees who live throughout San Diego now have direct access to the heart of our campus, and students now have direct access to employment centers, shopping and area cultural attractions. Direct, fast and cost-effective trolley service enables everyone to take advantage of the educational, cultural, employment and health care opportunities offered by UC San Diego."

The stations at the main campus and UC San Diego Health offer faculty, staff and students an additional safe, reliable and inexpensive alternative to driving, while helping to reduce roadway congestion and ease parking demands. Riders can also take the UC San Diego Blue Line trolley to Old Town Transit Center and transfer to a free electric shuttle to the San Diego International Airport.

The UC San Diego Blue Line helps patients benefit from UC San Diego Health's world-class patient care and wealth of top-ranked specialty healthcare. "UC San Diego Health is a global destination for world-class

health care, but access can be a problem, especially and ironically for local, under-served communities and residents who may struggle with real, daily issues like transportation. The new trolley line, which can bring patients almost to the front doors of Jacobs Medical Center, Moores Cancer Center, the Sulpizio Cardiovascular Center, Shiley Eye Institute and the rest of the La Jolla health campus, means San Diegans, our families, friends and neighbors, will enjoy greater access to the health care they need and deserve," said Patty Maysent, CEO, UC San Diego Health.

The mood was celebratory at the grand opening party, as thousands of guests were welcomed by UC San Diego Cheerleading, the Dance Team, Pep Band, Lion Dance and King Triton. In addition to enjoying free food and musical performances, the crowd heard from a wide variety of local and national leaders who spoke at the event, including San Diego Mayor Todd Gloria, National City Mayor Alejandra Sotelo-Solis, Administrator of the Federal Transit Administration Nuria Fernandez and Ambassador Carlos González Gutiérrez, Consul General of Mexico in San Diego.

In his remarks, undergraduate student Manu Agni, a fourth year Urban Studies and Planning major and president of Associated Students

of UC San Diego shared, "The trolley brings the community closer to UC San Diego, and brings us into the community. I believe that community is about seeing a piece of myself in someone else, and I hope that for every single UC San Diego student, this will help us see ourselves in the entire San Diego region."

During the celebration, people cheered as a blue line trolley burst through a banner at the UC San Diego Central Campus station, marking the historic opening moment.

### A welcome alternative transportation option

Currently, 60 percent of UC San Diego's faculty, staff and students use alternative transportation for their daily commute. The university expects this percentage to increase, contributing to cleaner air and overall sustainability efforts.

The university has more than 1,500 students and 3,000 employees who commute from Chula Vista, Imperial Beach and National City. Mario Aguilera, director of communications for the Division of Biological Sciences, is one of them. As a teenager, he rode the trolley to his first job at a hotel in downtown San Diego, and

now looks forward to riding it to campus. "As a Chula Vista resident, UC San Diego alum and longtime commuting university employee, I've experienced the freeway traffic to La Jolla growing increasingly congested year by year," said Aguilera. "The trolley extension to campus will be a most welcome gamechanger for me and many of my South Bay neighbors and colleagues."

In July, the Blue Line trolley celebrated its 40th anniversary. Alumnus Scott Paulson, Exhibits and Events Coordinator at the UC San Diego Library, can remember the arrival of the first red trolley fleet when he was an undergraduate at the university in the early 1980s, commuting from Golden Hill. He recently created an exhibit on the first floor of the library to celebrate this unique piece of San Diego history.

"One of the new stations is a block or two from where I live," said Paulson, who plans to do more downtown, including attending a variety of programs at UC San Diego Park & Market. "I'm also excited for our students because I think this is going to open up housing options and help them explore San Diego."

### Supporting San Diego's dynamic binational region

The Blue Line allows for travel to the Mexican border in a little over an hour. This new access will also strengthen ties with educational institutions in Mexico and UC San Diego's Health Frontiers in Tijuana Student-run Free Clinic and cross border Community Stations.

The Community Stations initiative is directed by Fonna Forman, a political scientist in the UC San Diego Division of Social Sciences, with architect-urbanist Teddy Cruz, a professor of visual arts in the Division of Arts and Humanities. There are currently four community stations in the network, at four different sites in the San Diego-Tijuana region, two on each side of the border. Each is a partnership with a different community organization and each is focused on the particular set of challenges facing those communities.

"The trolley enables us to network all of our Community Stations for the first time—it's a dream," said Forman. "For students who are committed to community-based work, this is an amazing asset, and essential to getting students off the campus and into the world, and opening our doors to the community. The university is increasingly committing itself to experiential education for our students. This

connection is going to change the way we do community engaged research and teaching forever."

In November, the San Diego-Tijuana region was selected as the World Design Capital for 2024. UC San Diego Design Lab, Design Forward Alliance and the Burnham Center for Community Advancement were three foundational partners in the community-led effort to secure this prestigious designation.

For San Diego-Tijuana, the World Design Capital initiative has the power to catalyze and transform life in the region through region-wide collaborative projects that will extend past the 2024 designation. One example of this work is the Educators Alliance. Created by UC San Diego Design Lab in 2019, the Educators Alliance includes educators who use human-centered design and design-driven innovation in classes and projects from k-12 through higher education.

"We are committed to instilling design as a way of thinking to equip students from kindergarten through college and beyond with the skills to solve society's most pressing problems," said Mai Thi Nguyen, faculty director of the Design Lab, which is now within the newly opened Design and Innovation Building at the main campus trolley station. "The trolley extending from the border to UC San Diego will propel this designation and make collaboration between the two regions that much stronger."

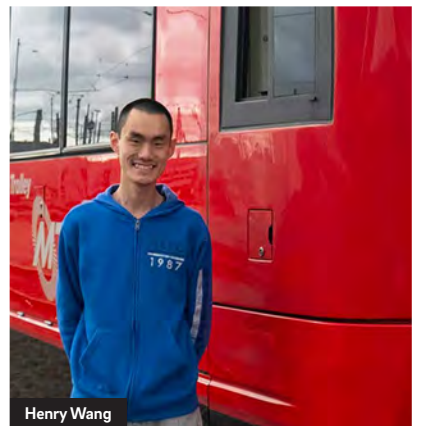
### Triton-tested and approved

Though fascinated by freight trains as a child, UC San Diego Class of 2020 graduate Henry Wang never assumed he would become a train operator. But his experience with Triton Transit as a shuttle driver motivated him to pursue a career in transportation and he is now a trolley operator at MTS training for supervisory



roles. With the new line opening, Wang had the opportunity to test the track on the Blue Line extension, operating the trolley from downtown to UTC and back. "It was just the right moment to join MTS, and a one-of-a-kind experience," he said of getting to drive the trolley to his alma mater.

Wang also had some tips for people new to riding the trolley, but the best tip of all is the fact that the trolley is not impacted by traffic. "I experienced driving the Hillcrest shuttle on I-5," Wang said. "During rush hour, you can't always make it on time."

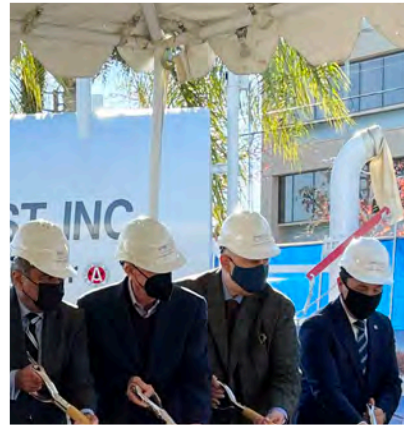


Henry Wang

"Now, with its elevated track, it's smooth ride and a beautiful view."

— Henry Wang  
Train Operator  
UC San Diego Graduate

## A HOSPITAL RE-EMERGES



“The Hillcrest campus project will help ensure San Diegans and their families, friends and neighbors have access to top physicians and the health care they deserve

— Catriona Jamieson, MD, PhD



### FEATURED STORY

## UC San Diego Breaks Ground on Revitalization of Hillcrest Campus

*Project includes a 250,000-square-foot outpatient pavilion, adding more health care services to the region and addressing growing demand for specialized diagnostic, treatment and surgical services to function perfectly.*

In the past academic year, UC San Diego took its first big step in the transformation of the Hillcrest campus by breaking ground on a 250,000 square foot outpatient pavilion. This transformation will ultimately culminate in a new hospital as well as residential and retail spaces that will further our mission to serve the surrounding community and the region more broadly. While a boon to all of the clinical programs in Hillcrest, the new outpatient pavilion — with its new outpatient surgery center, clinics, and advanced imaging — is especially critical to the programs of the Department of Surgery.

Construction for the UC San Diego Long Range Development Plan encompasses approximately 60 acres and the redevelopment of the more than 50-year-old campus. Complementing the new academic medical facilities and services will be new housing

and fitness facilities.

*“The reimagined Hillcrest campus will increase access to UC San Diego Health’s nationally ranked medical specialties and world-class patient care. The revitalization project will form a modern destination medical center that will further improve the exceptional care and medical education UC San Diego is known to deliver,”* said UC San Diego Chancellor Pradeep K. Khosla.

Redevelopment construction on the \$2.5 to \$3 billion project is expected to continue over approximately 15 years in five major phases.

*“UC San Diego Medical Center in Hillcrest is a hospital with tremendous strength and character, and a rich history. The new Hillcrest campus will underscore our status as a premier health care destination for patients, as well as enhance the experiences of our*

*remarkable staff.”* said Patty Maysent, CEO, UC San Diego Health.

Phase 1 includes a 250,000-square-foot outpatient pavilion anticipated to open in 2025, which will house specialty clinical programs, including oncology, neurosurgery, urology, otolaryngology and orthopedics, as well as ambulatory surgery operating rooms, gastroenterology procedure rooms, advanced imaging, infusion and radiation oncology.

During the groundbreaking ceremony, Price Philanthropies Foundation and the Price family will be recognized for helping inaugurate the fundraising effort for the outpatient pavilion with a \$10 million gift.

Robert Price, President of Price Philanthropies, shares his family’s motivation for supporting UC San Diego Health.

*“UC San Diego Medical Center in Hillcrest has been a leader in our community for more than half a century,”* said Price. *“This project will significantly increase access to UC San Diego Health’s outstanding outpatient and specialty care services for families and others who live south of Interstate 8. We encourage others to join in supporting UC San Diego Health in this vital initiative.”*

The outpatient pavilion will address the growing demand for specialized diagnostic, treatment and surgical services. More specifically, new and significant space for multispecialty cancer clinics and infusion centers will allow UC San Diego Health, and its National Cancer Institute-designated Comprehensive Cancer Center, to greatly increase access to cancer care throughout the region.

*“Whether for primary care or specialty care, such as cancer, patients come to UC San Diego Health to receive exceptional medical attention and life-saving treatments,”* said Catriona Jamieson, MD, PhD, professor of medicine at UC San Diego School of Medicine, and director of stem cell research at Moores Cancer Center at UC San Diego Health.

The first phase of construction also includes a new parking structure to provide approximately 1,850 spaces for employees, patients and visitors, plus related road and utility infrastructure.

Planned upgrades for UC San Diego’s Hillcrest campus will be synchronized to reduce impact on the surrounding community while ensuring current, critical campus functions remain operational. Later phases of the project will include the replacement of the main hospital, which once served as the county hospital. The project is necessary to comply with 2030 seismic safety provisions of the California Hospital Code.



The Hillcrest campus includes a Level 1 Trauma Center, a Regional Burn Center and a Comprehensive Stroke Center.

The Emergency Department manages more than 50,000 patient visits per year. Approximately 5,000 nurses, doctors, technicians, staff and administrators serve the needs of the community at the location.

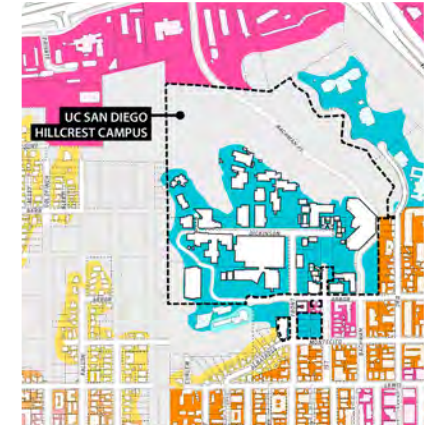
*“I have worked at UC San Diego Health for many years. The Hillcrest hospital and our superb multi-disciplinary staff have been through many severe flu seasons, the AIDS crisis, wildfire disasters and now the COVID-19 pandemic. We show up for each other and our patients every day,”* said Ted Chan, MD, chair of the Department of Emergency Medicine at UC San Diego Health.

*“As our region continues to grow, particularly in the central and south county areas, a new Hillcrest facility will allow us to amplify our advanced care to the community for common illnesses and complex conditions, strengthening our position as the beacon of health care.”*

The UC San Diego Hillcrest campus is located three miles north of downtown San Diego and 13 miles south of the university’s La Jolla Campus. Historically, it has been a critical regional resource, providing care for all patients, including those in under-insured or uninsured communities.

With its first hospital at the Hillcrest campus in 1966, UC San Diego Health has been a driver of innovation and breakthroughs in medical science and health care, from the region’s first kidney transplant in 1968 to testing novel antiviral drugs for treating HIV/AIDS in the 1980s to caring for some of the first patients with COVID-19 in the United States in 2020.

*“Our vision for the community is to create a healthier world — one life at a time — through new science, new medicine and new cures,”* said Maysent. *“The UC San Diego Hillcrest campus project will reinforce and support that vision and our commitment and dedication to the San Diego region and beyond.”*



Patty Maysent

“As the region’s only academic medical center, UC San Diego Health brings the most advanced science and patient care to our communities to help people lead healthier, higher quality lives

— Patty Maysent, CEO, UC San Diego Health

# JACOBS MEDICAL CENTER ANNIVERSARY



## JACOBS MEDICAL CENTER BY THE NUMBERS

- 35,403 surgeries performed
- 14,719 babies born
- 76,172 inpatients treated
- 155,039 emergency room visits
- 1,470,588 patient meals served
- Nearly 6 million pounds of linen/textiles cleaned
- About 11K data cables run throughout the hospital equating to approximately 1,375,000 million feet of cable
- More than 1,100 computers installed

## FEATURED STORY

### Jacobs Medical Center Marks Fifth Anniversary, Achievements and Milestones

The opening of the JMC in 2016 more than doubled the footprint in La Jolla for Department of Surgery Clinical Programs and brought the most advanced technology and patient-centered facilities to our region

When Angie Weight, 44, an artist and mother of four, reflects on the day she was diagnosed with a brain tumor, she says she is overcome with gratitude.

Nearly four years ago, Weight was diagnosed with oligodendroglioma — a rare type of neurological cancer that is difficult to diagnose and treat because of how and where tumors are found in the brain.

Initially, she was told her tumor was inoperable, but was then transferred to UC San Diego Health. Her tumor required the most advanced care in Southern California's first and only intra-operative magnetic resonance imaging surgical suite.

Weight was the first patient at Jacobs Medical Center to undergo an advanced procedure using the high-tech surgical suite, which deploys an MRI scanner at the operating table for real-time imaging of soft-tissue and bone before, during and after a surgical procedure. For brain tumor patients, the technology allows surgeons to safely assess whether a tumor has been fully removed or requires further work.

*"I was nervous but totally trusted my incredible neurosurgeon,"* said Weight. *"When I heard him tell me that he was able to remove 100 percent of the tumor, my heart was bursting with emotion. It felt like a true miracle."*

The intra-operative MRI and Weight's story are one of many achievements that have been recognized and celebrated at Jacobs Medical Center over the past five years. The 10-story, 245-bed hospital is home to specialized inpatient care, outpatient clinics, a blood bank, pharmacy and healing arts collection, as well as:

10 operating rooms, including 4 intraoperative imaging suites, 32 private postpartum rooms, 3 birthing center rooms and 52 private Neonatal Intensive Care Unit (NICU) rooms. Rooftop helicopter landing pad.

*"The excellent patient care and cutting-edge therapies delivered at Jacobs Medical Center were made possible by the visionary philanthropy of Joan and Irwin Jacobs,"*

said UC San Diego Chancellor Pradeep K. Khosla. *"This truly innovative facility has further elevated UC San Diego Health's stellar reputation as a leader in health care for our region and beyond."*

*"The opening of Jacobs Medical Center was a momentous event that required the herculean efforts of our team members. I will never forget how we gathered in the early morning hours that day as our first patients, from a critically ill bone marrow transplant patient to our tiniest patients in our NICU, arrived at the hospital,"* said Patty Maysent, CEO, UC San Diego Health.

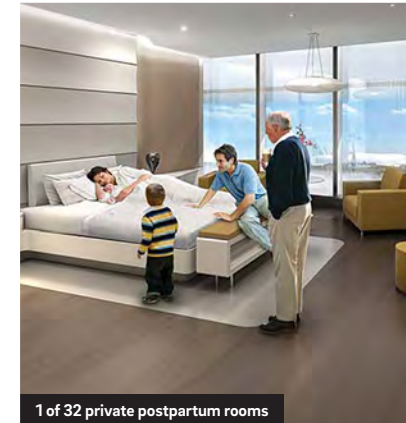
*"Our physicians and staff were ready to greet these patients and their families with the highest of clinical and professional standards that day and have done so every day since."*

UC San Diego Health opened Jacobs Medical Center on November 20, 2016. Named in honor of the \$100 million in contributions from Joan and Irwin Jacobs, the 509,500-square-foot facility combines renowned physician-scientists and care teams, advanced technologies and creative arts and culinary offerings to provide an extraordinary healing experience for patients and families.

*"This hospital brings the vision of UC San Diego's founders who saw a need to integrate groundbreaking research and discovery with outstanding patient care to life,"* said David Brenner, MD, vice chancellor for health sciences. *"Physicians, researchers and nurses work side-by-side to deliver the most outstanding medical and surgical care to patients locally, nationally and globally."*

Several remarkable milestones in health care have taken place within the three-specialty centers located inside Jacobs Medical Center: the Rady Pavilion for Women and Infants, the Pauline and Stanley Foster Pavilion for Cancer Care and the A. Vassiliadis Family Pavilion for Advanced Surgery.

Multi-disciplinary teams in these pavilions have treated everything from the most complex malignancies and chronic diseases



1 of 32 private postpartum rooms

to delivering single and multiple births and providing specialized care to premature babies, some weighing less than a pound. As the only academic medical center in the region, UC San Diego Health is uniquely positioned to offer patients access to clinical trials for emerging therapies and advanced surgical techniques.

Surgeons at Jacobs Medical Center have innovated and refined techniques and procedures that have set the standard for safer surgeries. For example, through research led by the late UC San Diego School of Medicine professor and Nobel Laureate Roger Tsien, UC San Diego Health surgeons have advanced fluorescence-enhanced visualization of nerves to preserve healthy tissue. UC San Diego Health is also recognized for multi-organ transplantation, minimally invasive surgery for weight loss, precision cancer care and hearing preservation in those with acoustic neuromas.

During the global COVID-19 pandemic, UC San Diego Health experts across specialties have led the way regionally in treatment and research with testing, therapeutics and vaccinations. Comprehensive teams continue to work around-the-clock caring for critically ill patients infected with the SARS-CoV-2 virus.

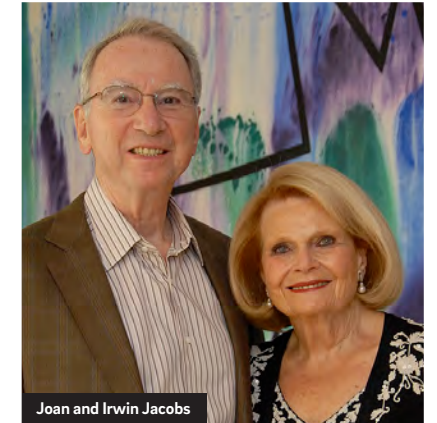
*"I am so unbelievably proud of our multi-disciplinary teams who provide the most exceptional care,"* said Maysent. *"In a most challenging and unprecedented period, they continue to show up every day to give patients more time with their loved ones, bring new life into the world, provide compassion at the bedside and combine research with clinical care that has set national models and guidelines."*

Additionally, Jacobs Medical Center captures the curative power of creativity with an expansive art collection. Paintings, photos and sculptures by renowned artists



**"** I am now living my life more fully and with more purpose. When I walk into Jacobs Medical Center at UC San Diego Health, it feels like home. The building represents hope for me. The center has given me the opportunity to watch my children grow up. **"**

— Angie Weight



Joan and Irwin Jacobs

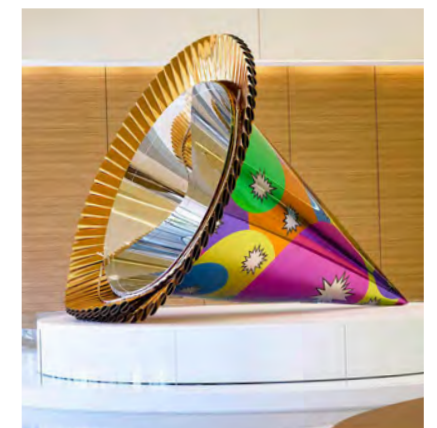
are featured on every floor and inside every patient room to foster an uplifting environment that fosters warmth, comfort and inspiration.

Weight says it was this attention to detail combined with the highest quality of medical care that gave her confidence, strength and a second chance at life. She says that she is not only surviving, but thriving. She has follow-up appointments every three months and continues to be tumor-free.

*"The experts at UC San Diego Health are like a beautiful orchestra working together. I owe my life to them and the incredible efforts that happen inside Jacobs Medical Center,"* said Weight. *"I am able to continue to be all the things I love most — a mom, wife and artist — because of my experience in the hospital that now holds so much special meaning for my entire family."*

U.S. News & World Report named UC San Diego Health the #1 hospital in San Diego and #5 in California with 10 specialties ranked among the nation's best in the 2020-2021 survey.

The annual rankings are designed to assist patients and their doctors in making informed decisions about where to receive care for a variety of health conditions, common elective procedures and complex surgeries.



*In March 2021, a monumental sculpture by prominent artist Jeff Koons debuted in the lobby of Jacobs Medical Center. "Party Hat (Orange)," donated by the Jacobs, is part of the 150-piece Healing Arts Collection at the hospital. The larger-than-life metallic artwork reflects the transformative power of the healing that happens on the premises.*



## CLINICAL HIGHLIGHTS



*The Partridge brothers hold hands in their hospital beds before the liver transplant where surgeons would remove part of Mike's liver and place it in Andy. Regeneration of the liver in both donor and recipient begins immediately.*

## FEATURED STORY

### Powered by the Gift of Donation

*After becoming severely ill, a father of four receives lifesaving liver transplant from his brother through UC San Diego Health's live liver donation program*

The Partridge brothers have spent the past 20 years living thousands of miles apart—Mike in Kidderminster, England where they both grew up, and Andy in the United States, now residing in San Diego. Then came Andy's diagnosis.

A husband and father of four, Andy, age 53, was diagnosed in 2018 with primary sclerosing cholangitis (PSC).

The disease effects the bile ducts, which transports bile from the liver to the small intestine, where the liquid aids digestion. Inflammation produces scarring within the bile ducts, hardening and narrowing them and eventually resulting in serious liver damage. Most people with PSC also experience inflammatory bowel disease, such as ulcerative colitis. Andy did.

After diagnosis, Andy became progressively more ill. He was admitted into different hospitals and underwent a variety of medical evaluations. In time, doctors determined Andy had developed cirrhosis, an irreversible late stage of liver disease.

*"That was a total shock," said Andy. "I felt really overwhelmed."*

Still grappling with the news, Andy accepted a new job offer that relocated his family to San Diego, where he transferred his care to UC San Diego Health. A multidisciplinary medical team there determined Andy needed a liver transplant.

UC San Diego Health's live liver donation program is unique in San Diego County; and one of only two in Southern California. A living-donor liver transplant involves surgically removing a portion of liver from a healthy person and transplanting it into a patient whose liver is failing.

The liver is the only organ in the human body that can regrow tissue. Regeneration of the liver in both donor and recipient begins immediately, with the organs returning to 80 percent of original size within six weeks and up to 90 percent after one year.

Like most transplantable organs, there is a national shortage of donor organs. Patients waiting for a liver from a deceased donor often wait years. Live liver donations can cut into that wait.

Patients most likely to benefit from a living donation are those who require listing for transplantation, but whose Model for End-Stage Liver Disease, or MELD score, is not high enough that a liver will be allocated. MELD is a scoring system for assessing the severity of liver disease with livers allocated by federal policy to those who are the sickest.

*"With live liver donation, we can control the timing of transplant, which means the recipient can be transplanted much sooner and before they become severely ill. This allows patients to better manage the demanding process of liver transplantation,"* said **Dr. Justin Parekh**, transplant and hepatobiliary surgeon at UC San Diego Health.

Andy admitted he initially felt guilty about asking friends and family to get tested to see if they might be a match. *"I just didn't want to put a loved one through anything risky. However, I knew if the tables were turned, I would immediately do the same for them."*

Many family members and one of Andy's best friends were tested. None proved a match.

*"Not only did the donor have to be the right blood type with the right anatomy, the size of the liver was crucial in this case,"* said **Dr. Gabriel Schnickel**, surgical director of liver transplant at UC San Diego Health.

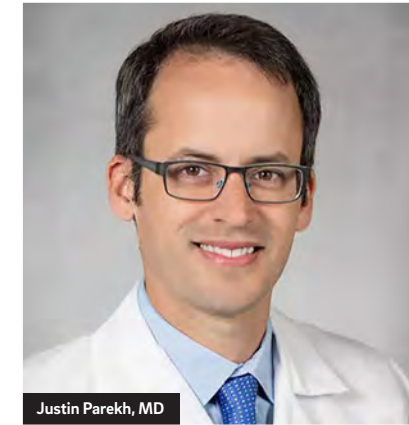
Standing at 6 feet, 5 inches, Andy needed a large liver.

*"I am 6-foot-7, so I knew I would be a strong candidate,"* said Mike, age 51, who flew to San Diego to go through the testing process. *"I would do anything to help my brother."*

Mike was not only a perfect match, but he also stopped drinking, smoking, changed his diet and started exercising in anticipation of the transplant. *"I wanted to be in the best shape possible before we underwent this incredible procedure."*

*"I have never seen him so fit,"* said Andy. *"There have been many silver linings to the clouds, and this was one of them."*

On March 2, 2022, the brothers prepared for the surgery.



Justin Parekh, MD



*"I vividly remember looking at us in our surgical caps and gowns waiting to be wheeled into the operating room. It was nerve-wracking to know what was about to happen,"* said Andy.

During a live liver transplant, the patients are in adjacent operating rooms undergoing simultaneous procedures. Drs. Schnickel and **Bryan Clary**, removed the right side of Mike's liver, which was then placed into Andy by Drs. Parekh and **Jennifer Berumen**. The donor and recipient portions of the surgery took approximately five and six hours, respectively. Proper timing is important. Donor and recipient surgical teams are in constant communication.

*"It went smoothly on both sides,"* said Schnickel.

For Andy, there was only one thing on his mind the second he woke up post-surgery.

*"I asked how my brother was doing. It was a relief when I heard he was doing great."*

*"It was a bit of a blur when I woke up, but I was up and walking around the room soon after the transplant,"* said Mike.

Six days after the transplant, Mike was discharged, with Andy following two weeks later. Michael spent the next six weeks recovering at Andy's house.

*"We have spent two decades apart and have not really been able to visit each other with our busy work lives and family commitments, so to spend that much time together was a godsend,"* said Mike. *"I will treasure that time. It reconnected our whole family. This entire experience was life-changing in every way."*

During a follow-up appointment, Mike and Andy took a photo with Schnickel and Parekh. Andy is wearing a shirt that says, *'Powered by the Gift of Donation.'*

*"That's how I feel. I have new energy,"* said Andy. *"I owe an immense amount of grati-*

**"I cannot thank the health care team enough for what they did for me and Andy."**

— Mike Partridge



Gabriel T. Schnickel, MD, MPH

*tude to my brother and the entire medical team—the surgeons, nurses, nutrition staff, everyone we came into contact with was brilliant."*

Mike is now back home in England continuing to recover and back to doing what he loves, walking and gardening. Andy says he feels great and continues to build his strength. He recently went on a hike with an elevation of 6,000 feet.

*"I am back to work and my life is returning to normal. I didn't realize how sick I was until after the transplant,"* said Andy. *"What Mike did for me was a true gift."*



*The liver transplant program at UC San Diego Health performed 82 transplants in 2021 and is No. 3 in the nation for both patient and graft outcomes in the volume category between 100-150 transplants.*





“ Our extraordinary teams are ambassadors of good health, committed to helping all patients experience the very best possible care. ”  
 — Patty Maysent, CEO, UC San Diego Health

- ADDITIONAL RANKING:**
- #20** Cancer
  - #21** Ear, Nose and Throat
  - #11** GI Surgery and Gastroenterology
  - #21** Heart Surgery and Cardiology
  - #10** Lung Surgery and Pulmonology

## UC San Diego Health Ranks #1 Regionally by U.S. News & World Report

Top ranked in 10 medical and surgical specialties, among nation's best

According to the 2022-2023 U.S. News & World Report "Best Hospitals" survey, UC San Diego Health has once again ranked #1 in San Diego and #5 in California, placing it among the nation's best health care providers. Designed to assist patients and doctors in making informed health care decisions, these annual rankings distinguish hospitals that excel in providing multidisciplinary,

comprehensive care for the most challenging health conditions.

"These prestigious data-driven rankings are a tremendous honor and validation of our daily commitment to providing world-class medical and surgical care to our patients," said Patty Maysent, CEO, UC San Diego Health. possible care."

## UC San Diego Health Top Ranked in Nation by Vizient

It is with immense pride that we share the news that UC San Diego Health is ranked #1 in California and #3 in the nation as a top performer in the Bernard A. Birnbaum, MD, Quality Leadership annual rankings of more than 100 comprehensive academic medical centers from Vizient Inc., the country's largest member-driven health care performance improvement organization. As a special point of UC pride, UCLA Health Ronald Reagan and UC Irvine Health also rank in the top 10 nationally at #8 and #9 respectively.

This top performer designation recognizes academic medical centers that demonstrate holistic excellence across multiple service lines, such as cardiac, cancer, neurologic, orthopedic and transplant care, delivering high-quality clinical outcomes based on the Vizient Quality and Accountability ranking system. The ranking helps participating hospitals understand their performance in real-time compared to peers, and identifies structures and processes associated with high performance in quality and safety.

UC San Diego Health excels nationally in measurements of patient centeredness (#5), mortality (#6) and safety (#13). Other significant measures of excellence include equity, effectiveness, and efficiency, representing our comprehensive approach to quality and patient safety.

It is important to note the Vizient rankings are timed to our current performance over

the previous 12 months for all patients in our health system. The inclusivity of all patients in the rankings helps us universally evaluate and improve care for all patients, regardless of insurance status. This scorecard is also aligned with the Institute of Medicine's recommendations for harm reduction, which includes lowering readmissions, infections and falls.

The timeliness of the Vizient rankings make them particularly meaningful because they show we achieved measureable results and improvement during the throes of a global pandemic. Our total picture of safety and quality during COVID-19 is exemplary; our improvement in patient experience, extraordinary. In particular, special efforts were made to improve patient experience through enhanced communication, including additional support for patients who were unable to have visitors, inspirational

notecards added to meal trays and proactive electronic communications through MyUCSDChart.

These Vizient results were possible through the tremendous efforts of our stellar faculty and staff for their singular focus on patient outcomes. We would also like to give special recognition to our safety and quality teams that have helped us visualize our progress with meaningful data, analytics and dashboards. By putting data into the hands of our teams, we have been able to focus on and prioritize areas of opportunity for improvement.

For three years in a row, UC San Diego Health has been ranked among the top 10 health systems in the country. It is evidence and validation that our systems, processes and efforts are producing real, measurable progress on the path to high reliability, and even higher rankings in the coming years.

## UC San Diego Health Physicians Top the List in San Diego County

More than 100 UC San Diego Health physicians have been named "Top Docs" in the 2021 San Diego Magazine "Physicians of Exceptional Excellence" survey, an annual opportunity for doctors across the region to vote for much-admired colleagues.

Ranging from emergency medicine, pulmonary critical care, medical oncology and surgical oncology, to cardiovascular disease, urology and family medicine, the selected physicians represent 48 specialties at UC San Diego Health.

"Our physicians perform extraordinary clinical work in both primary and specialty care. This recognition is from our peers in the San Diego County medical community who honor our physicians and their teams as the very best for their patients and their families. Our research teams are integrated with our physicians, providing the most leading-edge, advanced care," said Christopher Kane, MD, CEO, UC San Diego Health Physician Group.

From clinical trials that tested therapeutics to administering more than 536,000 doses

of the COVID-19 vaccine to our community, UC San Diego Health experts across specialties have also led the way regionally and nationally during the global pandemic in treatment and research, as well as educating the public using evidence-based data.

"As the region's only academic medical center, UC San Diego Health provides the highest and broadest quality of care, from the research lab to a patient's bedside. The pandemic has been an all-hands-on deck effort," said Patty Maysent, CEO, UC San Diego Health.

UC San Diego Health has primary and specialty care centers in Hillcrest and La Jolla, as well as clinics throughout San Diego County, offering services such as pediatrics, urgent care and express care.

## UC SAN DIEGO DEPARTMENT OF SURGERY NAMED "TOP DOCS"

### CARDIOTHORACIC SURGERY

Eugene Golts, MD  
 Michael M. Madani, MD, FACS  
 Victor Pretorius, MBChB

### COLON AND RECTAL SURGERY

Nicole Lopez, MD  
 Sonia Ramamoorthy, MD

### COMPLEX GENERAL SURGICAL ONCOLOGY

Jula Veerapong, MD

### NEUROLOGY

Rick A. Friedman, MD, PhD

### OTOLARYNGOLOGY

Joseph A. Califano, III, MD  
 Adam DeConde, MD  
 David B. Hom, MD, FACS  
 Ryan K. Orosco, MD

### PLASTIC SURGERY

Anne M. Wallace, MD

### SURGICAL CRITICAL CARE

Todd W. Costantini, MD, FACS



“ The "Top Docs" list is another example of the exceptional medical teams in our health system that are committed to caring for all our patients. ”

— Christopher Kane, MD, CEO, UC San Diego Health Physician Group

### SURGICAL ONCOLOGY

Bryan Clary, MD, FACS  
 Andrew M. Lowy, MD, FACS  
 Jason Sicklick, MD, FACS

### THORACIC SURGERY

Mark W. Onaitis, MD

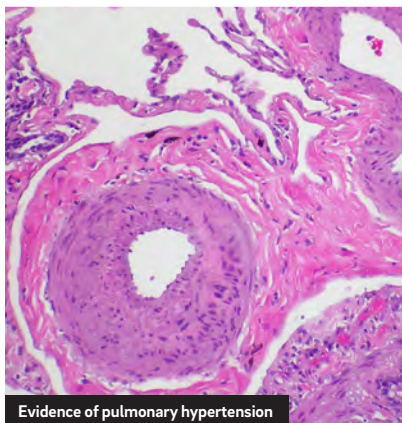
### TRANSPLANTATION SURGERY

Kristin L. Mekeel, MD

“ We had a patient with a Traumatic Brain Injury who was really restless and was having a hard time falling sleep and getting adequate sleep, one of our staff got a quiet kit and placed the lavender aromatherapy patch on the patient's pillow. The patient almost immediately settled and was able to have a really great night's sleep. ”

— Trisha Weers, Nurse Manager

## RESEARCH HIGHLIGHTS



Evidence of pulmonary hypertension

“These findings reveal two opposing roles of NOTCH ligands. Importantly, it opens the door to a potentially new, safe treatment for PAH, using a monoclonal antibody that selectively inhibits NOTCH3 activation in the lung vasculature.

— Patricia A. Thistlethwaite, MD, PhD

### FEATURED STORY

## Targeting Molecular Pathway that Causes Pulmonary Arterial Hypertension

*UC San Diego researchers describe imbalance of opposing cell signals that cause deadly disease, and how a novel monoclonal antibody therapy might treat or prevent it.*

Pulmonary arterial hypertension (PAH) is a type of high blood pressure in the lungs, in which blood vessels are narrowed, blocked or destroyed, causing the heart to work harder and, in time, result in cardiac weakness and failure.

In a study published May 4, 2022 in *Science Translational Medicine*, researchers at the University of California San Diego School of Medicine describe the underlying signaling pathway that results in PAH — and a novel monoclonal antibody therapy that blocks the abnormal blood vessel formation characterizing the disease. At the cellular level, PAH progresses with proliferation of vascular smooth muscle cells (vSMC) that cause small arteries in the lungs to become narrowed, leading to progressively less oxygen in the blood.

A research team, led by senior author **Patricia A. Thistlethwaite, MD, PhD**,

*Co-authors include:*

Yu Zhang, Moises Hernandez, Jonathan Gower, Nolan Winicki, Xena Morataya, Sebastian Alvarez, Jason X.-J. Yuan and John Shyy, all at UC San Diego.

**Photo Caption:**

Evidence of pulmonary hypertension is evidence in the thickening of arterial walls.

*Photo credit: Wikimedia Commons.*

professor of surgery in at UC San Diego School of Medicine and a cardiothoracic surgeon at UC San Diego Health, focused on overexpression of the NOTCH ligand JAGGED-1, a binding protein involved in cell signaling and, in this case, the development of small pulmonary vSMCs.

They found that overexpression of the NOTCH3 ligand, JAGGED-1, spurs vSMC proliferation, but the NOTCH3 ligand DELTA-LIKE 4 inhibits it. The researchers then developed a therapeutic monoclonal antibody that selectively blocks JAGGED-1-induced NOTCH3 signaling, effectively reversing pulmonary hypertension in two rodent models of the disease, without toxic side effects.

*Funding for this research came, in part, from the National Institutes of Health.*

## Rethinking Induction Chemotherapy for Oropharyngeal Cancer

**Dr. Theresa Guo** is the lead author of a study in the journal *Cancer*, entitled “Outcomes of patients with oropharyngeal squamous cell carcinoma treated with induction chemotherapy followed by concurrent chemoradiation compared with those treated with concurrent chemoradiation.” Use of induction chemotherapy has remained controversial in the treatment of locally advanced head and neck squamous cell carcinoma. In this retrospective analysis of 585 patients with oropharyngeal squamous cell carcinoma showed that, in contrast to prior studies, treatment with induction chemotherapy was independently associated with worse overall survival and higher risk of distant metastasis even in multivariate and matched cohort analyses. This study may support moving away from traditional induction strategies for patients with advanced oropharyngeal squamous cell carcinoma as new clinical trials begin to incorporate novel therapeutics, such as including checkpoint inhibitors in the neoadjuvant setting.

## 2022 Awards Translate UC San Diego Technologies to Market

Accelerating Innovations to Market (AIM) Grants provide structured mentoring, resources, funding, and access to partners and investors to advance ideas from UC San Diego labs through feasibility projects and validation prototypes, and ultimately to scale.

Accelerating Innovations to Market (AIM) Grants provide structured mentoring, resources, funding, and access to partners and investors to advance ideas from UC San Diego labs through feasibility projects and validation prototypes, and ultimately to scale.

Although vast and well resourced, the UC San Diego innovation ecosystem is also disparate and can be challenging to navigate for collaborators and innovators alike. AIM is a unique program at UC San Diego where in the tightly linked efforts between private and public resources manifest in a focused effort to advance novel technologies to market.

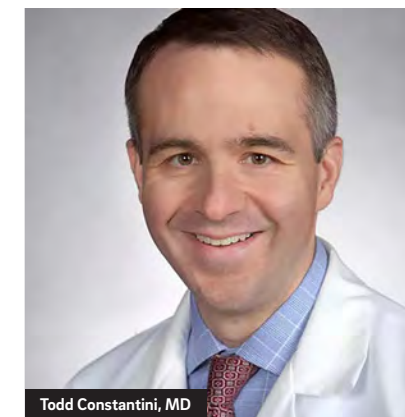
## Two Papers Published in New England Journal of Medicine

Congratulations to **Todd Costantini, MD** and his collaborators in the Departments of Surgery, Medicine (Pulmonary-Critical Care), and Preventive Medicine on publishing two papers in the *New England Journal of Medicine*. In these original research papers, Dr. Costantini and colleagues from around the world quickly mobilized and enrolled patients in this randomized trial to assess therapeutic anticoagulation with heparin in critically ill and non-critically ill patients with COVID-19. Interestingly, the results were different based on the severity of COVID illness. In patients with moderate disease (i.e., not admitted to the ICU and without organ failure), initial treatment with therapeutic dose Lovenox decreased mortality and decreased cardiorespiratory failure as compared to prophylactic dose Lovenox. Conversely, in critically ill patients in the ICU, there was no benefit of therapeutic dose Lovenox versus prophylactic dose Lovenox

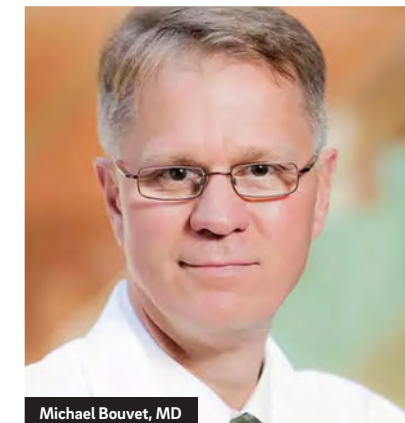
## Improved Equity in Cancer Outcomes within the Veterans Administration

Oftentimes, studies emphasize differences and outcome disparities, but can we find circumstances where previously observed disparities are absent? A diverse, multi-specialized research group led by **Ryan Orosco, MD** set out to explore this question as it pertains to patients with larynx cancer in the journal *Cancer*. The group dug into a novel database from the Veterans Health Administration (VHA) that has not been looked at previously. For decades, a great deal of work has exposed healthcare disparities across numerous realms, and larynx cancer is no exception.

This group looked to see if similar disparities exist within the VHA. Most large database research looking at patients with laryngeal cancer comes from hospitals that her outside of the Veterans health administration. Their study found that black patients in the VHA presented with the same severity of larynx cancers as white patients. Furthermore, these black patients had similar survival and cancer outcomes, which is counter to the expectation based on previous studies from non-VHA data. The research raises important issues in clinical medicine and also serves as a showcase of the collaborative research environment at UC San Diego Health.



Todd Costantini, MD

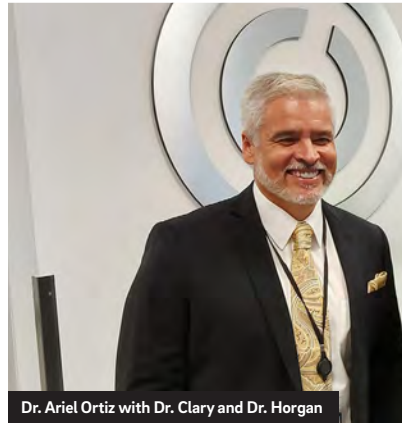


Michael Bouvet, MD

## R-01 Funding for Fluorescent Imaging

**Michael Bouvet, MD** was awarded an NIH R-01 grant to explore the development of fluorescent imaging probes targeting pancreatic cancer. Dr. Bouvet is one of our extraordinary surgical oncology faculty (and former UCSD resident) who maintains busy clinical practices at UC San Diego and the VA hospital focused on endocrine and gastrointestinal malignancies. His research focus has been on the development of fluorescent probes that can more efficiently identify endocrine and GI tumors as a means of enabling better detection and treatment. His efforts are currently supported by two highly competitive VA Merit Review awards which are just as difficult to secure as an R-01 award.

## TRAINING HIGHLIGHTS



Dr. Ariel Ortiz with Dr. Clary and Dr. Horgan



Obesity Control Center

## Center for Future of Surgery Continues to Expand

The UC San Diego Center for the Future of Surgery (CFS), the most comprehensive surgical training center in the country, continues to expand course offerings, with more than 350 courses in 2022.

Located in the T. Denny Sanford Medical Education and Telemedicine Building on the UC San Diego campus, CFS is equipped with the most advanced surgical technologies, including 22 surgical stations, multiple Intuitive Da Vinci surgical robots, a 15-station Microsurgery Suite, and a state-of-the-art hybrid operating room. This past year the CFS, in partnership with UC San Diego faculty, hosted courses for the American College of Surgeons' Annual Clinical Congress, the Association for Academic Surgery, the American Association of Bronchoscopy and Interventional Pulmonology, the Latino Medical Student Association, the World

Congress of Endourology and Uro-Technology, the California Society of Plastic Surgeons, the American Council of Academic Plastic Surgeons, and others. Since it opened in 2011, CFS has made significant strides in training medical students, residents, and practicing surgeons in the latest surgical procedures.

The Center for the Future of Surgery has trained over 25,000 individuals, becoming a national training and innovation hub that is advancing surgical techniques and improving patient care.



The Effect of a non-English language on postoperative course in GI surgery

Student: **Veena Do**  
Mentor: **Dr. Lopez** - Colon and Rectal Surgery

Regulation of the immunological activity of exosomes by targeting cholinergic receptors in a mouse model

Student: **Conner Trimm**  
Mentor: **Dr. Eliceiri** - Trauma, Surgical Critical Care, Burns and Acute Care

## FEATURED STORY

### UC San Diego Collaborates With Bariatric Surgical Center in Tijuana

This academic consulting arrangement will allow UC San Diego surgeons to share clinical expertise in minimally invasive surgical techniques and also in approaches to disseminating these techniques to practitioners throughout Latin America.

The UC San Diego Department of Surgery recently announced a new academic collaboration with a leading bariatric (weight-loss) surgery center based in Tijuana, Mexico. This partnership acknowledges the growing role that medical tourism plays in the border region and the need for enhanced educational training of practitioners in these locations.

While the benefits of bariatric surgery are well established, restrictions on financial coverage imposed by third-party payers in the United States leads many patients to seek alternatives south of the border. Given our proximity to the border, bariatric surgical specialists in our Department are often called upon to manage complications in these patients that arise as a natural consequence of surgical interventions or as a result of the variability in the quality of care received.

"We can either fight it or align to improve patient care on both sides of the border," **Santiago Horgan, MD**, told the San Diego Union-Tribune. In this context, Dr. Horgan – who is Chief of the UC San Diego Division of Minimally Invasive Surgery -- spearheaded a new partnership with the International Institute of Metabolic Medicine (IIMM). The IIMM is one of the premier bariatric surgery centers in Tijuana with new facilities dedicated to patient care, lifestyle modification, and the training of surgeons throughout Latin America.

The center, led by Dr. Ariel Ortiz, is fully accredited by the Joint Commission and follows the established guidelines of the American Society of Metabolic and Bariatric Surgery. "This is a first-of-its-kind partnership and shows the commitment of the UC San Diego Department of Surgery to expand internationally," added Horgan. "It is an exchange of clinical experiences that will help with the needed continuity of care of so many patients crossing the border for bariatric surgery."

This academic consulting arrangement will allow UC San Diego surgeons to share clinical expertise in minimally invasive surgical techniques and also in approaches to disseminating these techniques to practitioners throughout Latin America. The training aspects of this partnership are informed by the established experiences of the UC San Diego Center for the Future of Surgery, which is one of the premier surgical training and simulation facilities in the world.

Images courtesy of Bariatric Surgical Center

## Independent Study Project

The Independent Study Project (ISP) has long been a cornerstone of the elective curriculum at UC San Diego School of Medicine.

The School seeks to "prepare physicians who are scientifically expert, clinically astute, responsive to community problems, and compassionate toward clinical needs." Since its inception, the curriculum at UC San Diego has included an independent academic project as a requirement for graduation, as a mechanism for achieving these goals.

- » The ISP allows the student to exercise independent creativity in a significant part of his or her education. This develops the active, self-directed thought and problem solving ability necessary for the practice of modern medicine thus complementing the core and elective courses.
- » The ISP emphasizes process over outcome. Medical education is a lifelong process; the ISP provides opportunities for the development of self-directed learning habits which will benefit the student in his or her future career as a physician.
- » The ISP provides the opportunity to develop rational and scholarly methods of investigating new information.
- » The ISP is an opportunity to approach a specific topic in depth. In contrast to the core curriculum, which emphasizes learning in breadth. The ISP is a period of concentrated study and supports the formation of a close relationship between a faculty member and a student.

## 2021-22 PROJECTS

Stage at Diagnosis and Management of Gastrointestinal Malignancies during the COVID-19 Pandemic

Student: **Niloofar Radgoudarzi**  
Mentor: **Dr. White** - Surgical Oncology

Psychosocial Burden of Pediatric and Adult Patients with Congenital vs Traumatic Facial Differences: Assessment of Psychiatric Distress and Mental Health Services Utilization in the United States from 2004-2012

Student: **Karen Leung**  
Mentor: **Dr. Gosman** - Plastic and Reconstructive Surgery

National Accreditation Program for Rectal Cancer process and performance measures at an academic, tertiary care colorectal surgery practice pre- and post-accreditation

Student: **Katja Lazar**  
Mentor: **Dr. Lopez** - Colon and Rectal

Surg Health Utility Values of Olfactory Dysfunction in Post-COVID-19 Patients Compared to Chronic Rhinosinusitis Patients

Student: **Thanh Luong**  
Mentor: **Dr. Yan** - Otolaryngology/Head and Neck Surgery

"This partnership rests on a fundamental and aspirational idea that international collaborations are critical to serving the patients of our interconnected societies.

— Bryan Clary, MD,  
Department Chair

## DIVISION OF ANATOMY

The Division of Anatomy is responsible for the anatomy education of all doctors-in-training at UC San Diego. Our teaching approach centers on the dissection laboratory, where student doctors actively learn about human structure from surgeons equipped with an innovative curriculum that emphasizes clinical applications.

The 2021-22 teaching mission of the division was supported by:

Dr. David Rapaport  
Professor Emeritus

Dr. Paul Kingston  
Health Professional Educator Specialist

Dr. Bryan Clary  
Surgeon-In-Chief  
Chair and Professor of Surgery

Dr. Charles Coffey  
Associate Clinical Professor  
Otolaryngology

Dr. Theresa Guo  
Assistant Professor  
Head and Neck Oncology

Dr. Steve Howe  
Cardiothoracic Surgeon  
Associate Professor of Surgery

Dr. Stuart Jamieson  
Distinguished Professor of Surgery  
Cardiovascular Surgery

Dr. Yvette Lacoursiere  
Professor  
Obstetrics, Gynecology and  
Reproductive Sciences

Dr. Kristin Mekeel  
Division Chief  
Transplantation and Hepatobiliary Surgery

Dr. Ryan Orosco  
Assistant Professor in Residence  
Otolaryngology

Dr. Maria Uloko  
Assistant Professor  
Urology

Dr. Sam Ward  
Vice Chairman  
Professor  
Orthopedic Surgery

Larry and Debby Kline  
Artists in Residence

### FACULTY NEWS

The Division benefited from its biggest growth in the last 20 years thanks to the recruitment of the following new members:

**Shelley Metten, PhD**, Emeritus Professor  
**Amir Moradi, MD**, Clinical Instructor  
**Grant Neifeld, MD**, Clinical Instructor  
**Murray Reicher, MD**, Clinical Instructor  
**Joshua Bardin, MD**, Clinical Professor

### RESEARCH TRAINEES

**AUG 2021 - APRIL 2022**  
**Vishesha Kakarla**, 2nd year MD program  
(ISP project)

**MARCH 2021 - PRESENT**  
**Madison Chakoumakos**, 2nd year MD  
program (ISP project, chair)

**DEC 2021 - PRESENT**  
**Chantilly Otto-Smith**, 1st year MD program

**MARCH 2022 - PRESENT**  
**Niveda Rao**, 1st year MD program  
(ISP project, chair)

**Summer Beeson**, 3rd year MD program  
(ISP project)

**MAY 2022 - PRESENT**  
**Caroline Kornelsen**, 1st year MD program  
(ISP project, chair)

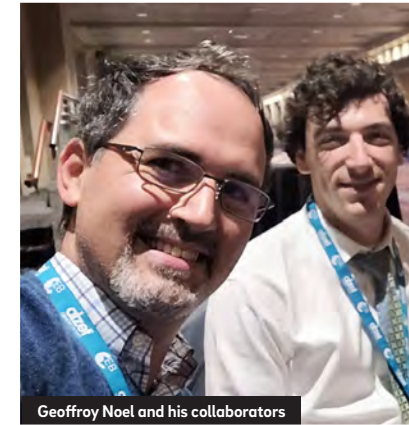
**APRIL 2022 - PRESENT**  
**Thomas Spence**, 4th year B.S. Psychology  
**James Doan**, B.S. Cognitive Behavioral  
Neurosciences  
**Lipika Gangakhedkar**, 4th year  
B.S. Bioengineering: Biotechnology

### FUNDING

Center for Empathy and Compassion Training in Medical Education, V, 16,000\$/y

### AWARDS

2022, Kaiser "Excellence in Teaching" Award, School of Medicine, UC San Diego.



Geoffroy Noel and his collaborators



Dr. Geoffroy Noel at the American Association for Anatomists annual conference, Philadelphia, on April 2-5. In the picture his collaborator, Dr. Anette Wu, from Columbia University, as well as two of our mentees, Adedeji Adeniyi, MD Candidate, and Joseph Vigoda, DMD Candidate, also presented at the conference.

### PRESENTATIONS

#### National and International Oral Presentations

Noel GPJC., "Novel Implementation of Compassion Activities in the Anatomy Curriculum" West Coast Consortium of Academic Donation Programs, University of California, Office of the President, 2022

Wu A., Noel GPJC., Wingate R., Kielstein H., Sakurai T., Viranta-Kovanen S., Chien CL., Traxler H., Waschke J., Vielmuth F., Gill M., Kithara S., Keay K., Olsen J., and Bernd P. "Cultural competency preparedness in medical and health professions students" - a collaborative study involving anatomy departments at 20 international universities. Experimental Biology 2022, Philadelphia, USA.

Noël GPJC., Yun Xiao I., Ilie A., O'Brien J. and McWatt S. "The use of Hololens increases the engagement while reducing the cognitive load of senior medical students when overlaying medical imaging of body donors during the dissection". Experimental Biology 2022, Philadelphia, USA.

### SELECTED PUBLICATIONS

1. He K., Ruks F, Valenti D., Noel G., Bessissow A. and Boucher LM (2021) Hepatic hilar nerve block as a novel effective regional analgesia for hepatic interventions: cadaveric anatomy, technique, and retrospective review of initial clinical experience in thermal ablation of liver tumours. Radiology. 301(1):223-228.
2. Gao Q, Henley A, Noël G, Der Khatchadourian Z, Taqi D, Abusamak M, He Z, Grøen S, Taher R, Menassa K, Velly A, Emami E, Mongeau L, Tamimi F Needle-free Mental Incisive Nerve Block: In vitro, Cadaveric, and Pilot Clinical Studies. Int J Pharm. 2021 Nov 20;609:121197
3. McBain K, Chen L, Lee A, O'Brien J, Ventura NM, Noël GPJC. (2021) Evaluating the Integration of Body Donor Imaging into Anatomical Dissection Using Augmented Reality. Anat Sci Educ. doi: 10.1002/ase.2157. Epub ahead of print
4. Balta JY, Venne G, Noël GPJC. (2022) 10 tips on working with human body donors in medical training and research. Anat Sci Int. doi: 10.1007/s12565-022-00651-0. Epub ahead of print. PMID: 35143025
5. Laverdière C., Corban J., Ge SM., Kang Y., Martineau PA., Noël G. Reindl R. (2022) Preclinical Usability Study of Augmented Reality Aided Sliding Hip Screw Guidewire Insertion. Can J Surg/J can chir 2022;65(3)
6. McBain KA, Habid R, Laggis G, Quaiattini A, Ventura N, Noel GPJC. (2021) Scoping Review: The Use of Augmented Reality in Clinical Anatomical Education and Its Assessment Tools. Anat Sci Educ. doi: 10.1002/ase.2155. Epub ahead of print
7. Dhillon J., Ventura N., Noël GPJC, McWatt S. Evaluating In-person and Remote Delivery of Human Anatomy Laboratory Education Among Medicine and Dentistry Students. FASEB J. 36 S1
8. Vigoda J., Adeniyi A., Tudor L., Wu A., Wingate R., Kielstein H., Sakurai T., Viranta-Kovanen S., Chien CL., Traxler H., Waschke J., Vielmuth F., Gill M., Kithara S., Keay K., Olsen J., and Noel GPJC.. Experiential factors affecting the empathy of students in their pre-clinical year(s) of 21 universities. FASEB J. 36 S1
9. Chakoumakos M., Chun J., Tutjer J., Eyler L. and Noël GPJC., Mind and Body Donors: Can Meditation Help Students Maintain Empathy During Cadaveric Dissection? FASEB J. 36 S1

## ANATOMY FACULTY



Geoffroy Noel, PhD

**CHIEF OF DIVISION**  
Geoffroy Noel, PhD

**RECALL FACULTY OF SURGERY**  
David H. Rapaport, PhD  
Nigel Woolf, PhD

**HEALTH SCIENCES EDUCATOR**  
Grant Neifeld, MD

**CLINICAL PROFESSOR**  
Joshua Bardin, MD

**CLINICAL INSTRUCTORS**  
Amir Moradi, MD  
Murray Reicher, MD, FACR

**UC SAN DIEGO SCHOOL OF MEDICINE "ARTISTS IN RESIDENCE"**  
Larry and Debby Kline

# DIVISION OF BREAST SURGERY



The UC San Diego Division of Breast Surgery, combined with the Division Chief's dual responsibility as Director of the Comprehensive Breast Program, has continued to be highly successful in overseeing the activities of the clinic, infusion, and breast imaging, while expanding clinical and translational research opportunities within the breast cancer program.

## FEATURED STORY

### New Imaging Agent Enables Better Cancer Detection, More Accurate Staging

Drug Designed and Developed at UC San Diego School of Medicine receives U.S. Food and Drug Administration (FDA) approval.

Researchers at the University of California, San Diego School of Medicine have shown that a new imaging dye, designed and developed at UC San Diego Moores Cancer Center, is an effective agent in detecting and mapping cancers that have reached the lymph nodes. The radioactive dye called Technetium Tc-99m tilmanocept, successfully identified cancerous lymph nodes and did a better job of marking cancers than the current standard dye. Results of the Phase III clinical trial published online today in the *Annals of Surgical Oncology*.

"Tilmanocept is a novel engineered radiopharmaceutical specifically designed for sentinel lymph node detection," said David R. Vera, PhD, the drug's inventor, who is a professor in the UCSD Department of Radiology. "The molecule, developed at UC San Diego School of Medicine, offers surgeons a new tool to accurately detect and stage melanoma and breast cancers while in the operating room."

After a cancer diagnosis, surgeons want to be sure that the disease has not spread to a patient's lymph nodes, especially the sentinel nodes that may be the first place that a cancer reaches. The lymphatic system is a network of vessels and ducts that carry disease-fighting cells throughout the body, but can also act as a way for cancer cells to access the bloodstream. By surgically removing and examining the sentinel nodes that drain a tumor, doctors can better determine if a cancer has spread.

"Tilmanocept advances the molecular targeting in breast cancer. It's the first agent that is binding to a lymph node because it is a lymph node that plays an important role in metastasis," said Anne Wallace, MD, professor of surgery, UC San Diego School of Medicine and principal investigator of the study.

"Tilmanocept's ability to identify more cancer containing nodes will lead to better post-operative care for patients, especially those patients who had more than one positive sentinel node."

Doctors compared injections of tilmanocept, also called Lymphoseek, and the standard blue dye into the tumor area. Then, using a handheld radiation detector, they found the lymph nodes that had taken up the drugs radioactivity. The researchers found that more than 99 percent of sentinel lymph nodes containing blue dye also contained tilmanocept. Of these nodes, 18 percent were positive for cancer. Ninety-four percent of the malignancies were detected by the new radiopharmaceutical whereas the blue dye only detected 76 percent.

Tilmanocept was originally developed at UC San Diego by Vera. Wallace advanced the agent through Phase 1 clinical trials with funding provided by the Susan G. Komen Breast Cancer Foundation and the American Cancer Society. The Phase III study was supported by Navidea Biopharmaceuticals, Inc. based in Dublin, Ohio.

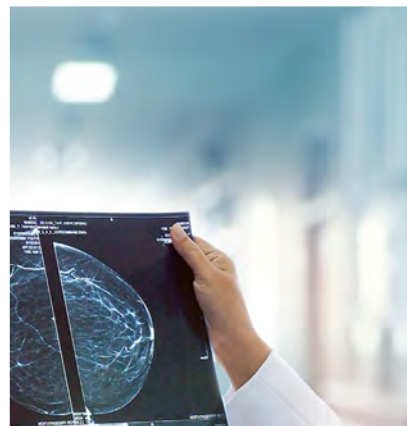
Lymphoseek's safety and effectiveness were established in two clinical trials of 332 patients with melanoma or breast cancer. The Phase III clinical trial took place at 13 medical centers involving 148 patients who had both melanoma and breast cancer. The most common side effects identified in clinical trials was pain or irritation at the injection site reported by two patients.



**MEDICAL BREAKTHROUGH:**  
New imaging dye is effective in detecting and mapping cancer in lymph nodes

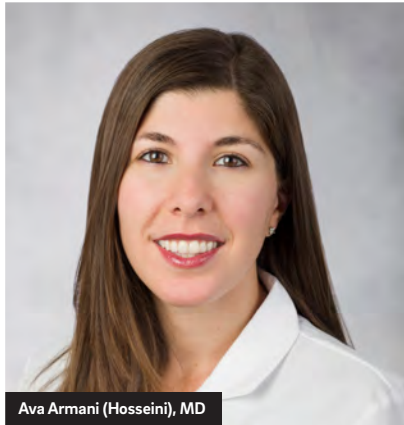
“Tilmanocept is just as accurate as current techniques, simple to use, takes less time to find lymph nodes and is cleared faster from the body. This could standardize the process of lymph node mapping and make the process easier, particularly for less experienced surgeons,

— Anne Wallace, MD





Sarah L. Blair, MD



Ava Armani (Hosseini), MD



“I am grateful to Derek and Shelley Aberle for their generous commitment that has enabled us to expand our social work team and address the complex needs and growing number of breast cancer patients

— Anne Wallace, MD



Vincent T. Genna, MSN, FNP-BC

### New InBody Machine Mitigates Lymphedema

The Division of Breast Surgery recently purchased an InBody machine, a medical-grade bioimpedance device that is non-invasive and can measure body water and muscle-fat composition. This device is currently being used by clinicians at UC San Diego, to assist in detecting and monitoring for early signs of fluid imbalances that may contribute to subclinical lymphedema.

Lymphedema commonly occurs post cancer treatments or surgery. Early detection is key in order to better manage symptoms and prevent further progression of lymphedema. Although the InBody will assist in detecting for subclinical lymphedema, it is not intended to diagnose or treat the disease.

Our Occupational Therapists who are certified in lymphedema care will be able to use this device in conjunction with completing other assessments to monitor for changes in fluid imbalances while patients undergo and recover from surgery or cancer treatments. If

fluid imbalances are detected, our therapist will initiate care consisting of full complete decongestive therapy or recommending compression garments to begin to manage the symptoms of swelling.

Often subclinical lymphedema goes undetected, but with this new device we are hoping to capture early signs of fluid imbalances to prevent the onset of lymphedema in order to improve our patient's quality of life.

### PHILANTHROPY NEWS

## \$2.1 Million Gift Launches Comprehensive Breast Cancer Database

UC San Diego Health initiative will translate clinical data into novel personalized therapies for breast cancer patients.

In an important step that could help answer research questions about breast cancer and develop more personalized solutions for patients, philanthropists Richard and Carol Dean Hertzberg have committed \$2.1 million to develop and maintain the Dean-Hertzberg Breast Cancer Database System (BCDS) at Moores Cancer Center at UC San Diego Health. The gift will support the work of Anne Wallace, MD, director of the Comprehensive Breast Health Center at UC San Diego Health and her collaborators at Moores Cancer Center.

The interactive database will further UC San Diego Health's efforts to advance the understanding of breast disease and develop new treatments. The BCDS will combine biological, biographical and demographic data in novel ways that will allow researchers to study breast cancers with similar clinical features, as well as rare subtypes.

"I am excited about the BCDS's potential to bring research collaborators together with practicing providers to use advanced technologies, data and knowledge to find better ways to improve each patient's experience, based on their specific breast cancer," Wallace said.

The Hertzbergs' generosity has enabled Wallace and colleagues to begin collaborating with the laboratory of Thomas J. Kipps, MD, PhD, deputy director of research operations for UC San Diego Moores Cancer Center. Wallace and Kipps will use the system as flagship for data analysis and accessibility.

Previously, the Hertzbergs contributed two gifts of \$100,000 and \$200,000 to help create the BCDS. Their latest gift (\$1.8 million) brings the BCDS initiative fully to

### SELECTED PUBLICATIONS

- 1. Large and diffuse ductal carcinoma in situ: potentially lethal subtypes of "preinvasive" disease. O'Keefe TJ, Harismendy O, Wallace AM. Int J Clin Oncol. 2021 Oct 7. PMID: 34618239



Richard and Carol Dean Hertzberg

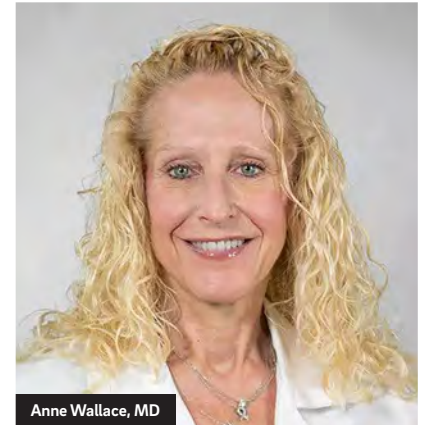


— Anne Wallace, MD, Director, Comprehensive Breast Health Center

life, and includes the addition of a clinic data manager to support work.

"When we asked Dr. Wallace how we could help, she had a wish list of projects that could not be funded by traditional grant sources," said Carol Hertzberg. "She described this project to us and we knew it was something we wanted to support. We are excited to see the impact that this collaboration will make for research and care."

Philanthropic gifts, like the \$2.1 million gift from Richard and Carol Dean Hertzberg, contribute to the Campaign for UC San Diego — a university-wide comprehensive fundraising effort concluding in 2022. Alongside UC San Diego's philanthropic partners, the university is continuing its non-traditional path toward revolutionary ideas, unexpected answers, lifesaving discoveries and planet-changing impact.



Anne Wallace, MD

CHIEF OF DIVISION  
Anne Wallace, MD

PROFESSOR OF SURGERY  
Sarah L. Blair, MD, FACS

SURGICAL ONCOLOGIST  
Ava Armani, MD

## DIVISION OF CARDIOVASCULAR & THORACIC SURGERY



Eugene Golts, MD



The mission of the Division of Cardiovascular and Thoracic Surgery is to deliver outstanding patient care to the community, leadground breaking research, and promote inspired teaching. The continuation of the COVID pandemic has been a challenge, to say the least, and it did truly put our ability to stick to our mission to the test.

### FEATURED STORY

#### Willing Yourself Well

UC San Diego Health patient proves you don't need a functioning heart to function perfectly.

Mandy Berzak recalled recently asking her UC San Diego Health cardiologist whether she should wear a heart monitor, to make sure her heart didn't beat too fast during the long-distance cycling events she took up with her husband, Harry, only a couple months after her second heart surgery.

Then the 59-year-old San Diego resident realized her error.

Mandy's heart is triggered by a pacemaker/defibrillator to beat 70 times per minute, regardless of how much exercise she engages in, because it can no longer conduct electrical signals on its own. Four years ago, Mandy felt extremely anemic. After several rounds of tests, the team at UC San Diego Health identified an aortic valve condition called Heyde syndrome. In June 2018, she underwent valve replacement surgery and was home recovering within five days.

"Eight weeks later, we attended a wedding in Ireland and I was feeling great," Mandy said.

But 18 months later, Mandy suffered a stroke and collapsed in her kitchen. The valve replacement had developed an infection leading to life-threatening endocarditis. (Its cause remains a mystery, though it was unrelated to the original procedure.) Mandy underwent another procedure, performed by **Eugene Golts, MD**, cardiothoracic surgeon, to re-replace her valve and install the pacemaker in April 2020. Nonetheless, her heart was so weak, it stopped three times.

"The CPR went on for so long, I didn't know if she would make it out of the catheterization lab," said **Lori Daniels, MD**, professor and medical director of the Cardiovascular Intensive Care Unit at UC San Diego Health. "And if she did, I didn't know how well her brain and body would recover. I was extremely concerned."

Mandy's husband, Harry, visited every day during the last two weeks of Mandy's six-week ICU stay—an unfortunate visit

limitation imposed by COVID rules—to offer love, support and bagels.

"I got to know all of Mandy's caregivers by name," said the 62-year-old non-Hodgkin's lymphoma survivor, who ran a hotel renovation business before retiring. "They became like my family, every one of them."

This fact became very important once their story took a turn toward the bizarre.

One morning while Mandy recuperated at home with a life vest, milrinone pump, heart monitor and medication, Harry awoke and announced that he could not breathe. Suspecting COVID-19, Mandy shoved him in the back seat, made him stick his head out the window, and raced to the hospital.

"We laugh about it now, but I couldn't catch COVID-19 in my condition," she said.

It wasn't COVID-19, but a heart attack; the worst kind, too: a STEMI, short for ST-elevation myocardial infarction. So Harry found himself in the same UC San Diego Health cardiology unit that had treated his wife.

"Oh man, I think we gave each other a hug when I first saw him after that," said Daniels, who recalled Harry cracking: "You see, I liked you so much, I wanted you for my cardiologist, too."

The Berzaks turned their heart recovery into a joint effort, supporting one another through cardiac rehabilitation exercises, appointments and lifestyle changes. With the help of the team at UC San Diego Health, husband and wife were back on their bikes prepping for a long ride in support of challenged athletes.

## Meet the 'Heart Brothers'

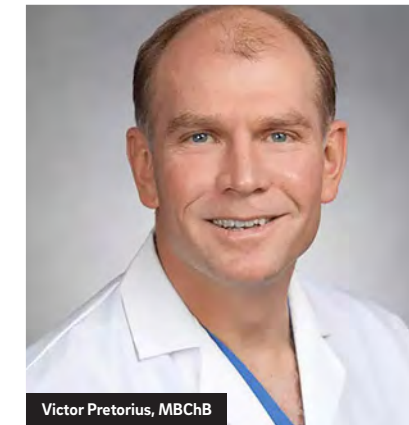
Two UC San Diego Health cardiac transplant recipients forge unique friendship

"I can feel your heart beating, bro!" Isaac Gonzalez, 19, told George Jimenez, 56, while hugging him hello during their first in-person meeting in three months. "I can feel mine, too! With my old heart, I could never feel it because it was so weak."

The unlikely pair refer to each other as "heart brothers," and post every day on social media about their own, and each other's, health milestones and setbacks. Gonzalez's parents are over the moon about their friendship.

This year's 81 successful heart transplants so far continue a multi-year trend in which UC San Diego Health has performed 4 to 9 times as many procedures annually as other local providers. So it doesn't seem surprising that two of this year's recipients should have found each other and organically forged their own personal support group.

"To see them find each other and find inspiration in each other makes me extremely thankful," said **Victor Pretorius, MBChB**,



Victor Pretorius, MBChB

surgical director of cardiac transplant and mechanical circulatory support at UC San Diego Health, who performed both transplants.

This year so far, 43.5 percent of UC San Diego Health's heart transplants have come from DCD donors. Pretorius calls the approach "a total game-changer."

"It's opened up the donor pool significantly for our program," he said. "People who would have waited for years are now getting opportunities to be transplanted right away. Our wait-list mortality and our wait-list time have both decreased significantly."

"It wasn't easy, but I think you can see that for both of them, it was worth going through all of that."

— Victor Pretorius, MD



George Jimenez and Isaac Gonzalez

## Second Breath: Region's First Double Lung Transplant for COVID-19 Patient

After more than 50 days on advanced life support, multi-disciplinary team at UC San Diego Health helps patient become candidate for successful lung transplant to function perfectly.

On a July afternoon, Federico Gomez Gil, 56, is dressed in a short-sleeved, collared shirt, sweatpants and a baseball cap. He sits in a chair in a hospital room, surrounded by his wife and two daughters. Given the past five months, this is the moment of a lifetime — a new lifetime.

"He was on the brink of death when he arrived," said **Travis Pollema, DO**, a cardiothoracic surgeon at UC San Diego Health who assisted Golts. "He would not have survived if he had not come to UC San Diego Health. We were able to provide him care with a combination of advanced technologies and approaches not available at any other hospital system in San Diego."

Gomez Gil was placed on extracorporeal membrane oxygenation, or ECMO. It is used when a ventilator alone is insufficient. ECMO works outside the body, pumping and oxygenating a patient's blood. The patient is connected to an ECMO machine via tubes,

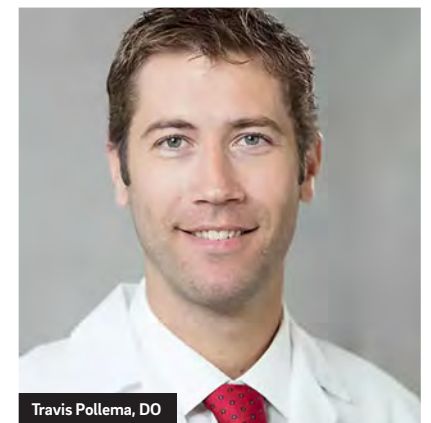
typically inserted into large arteries or veins in the neck and groin by cardiothoracic surgeons like Pollema. With their workload reduced, the patient's heart and lungs are able to rest and heal.

But ECMO is not a permanent remedy. And as the days passed, it became clear that Gomez Gil would require some form of ventilation for the rest of his life. The solution was a double lung transplant. That's when a multi-disciplinary team of physical therapists, respiratory therapists, pulmonologists, surgeons and nursing staff began working around-the-clock to get him strong enough to be a viable candidate for the transplant surgery, which remains relatively rare. COVID-19 added a new and unknown factor.

UC San Diego Health is the only hospital system in San Diego that performs lung transplants.

"Why would I need a device that monitors my heart rate when it's always the same?"

— Mandy Berzak  
UC San Diego Health  
cardiology patient



Travis Pollema, DO





## First Patients in San Diego County to Receive Lungs with Heart-Stopping Approach

*Method expected to help expand pool of potential donors and shorten recipient wait times*

"Recently, the lung transplant team at UC San Diego Health performed San Diego County's first transplant surgery with lungs donated after cardiac death, an approach that could mean more opportunities to save the lives of those in critical need of new lungs.

*"We have successfully performed two lung transplants using lungs from donors whose hearts had stopped functioning prior to organ removal. The recipients of those donated lungs are recovering well, and both have good prognoses,"* said **Eugene Golts, MD**, surgical director of the lung transplant program at UC San Diego Health. *"Organ donation after cardiac death is one possible solution to the current organ shortage we face because it could expand the pool of potential donors."*

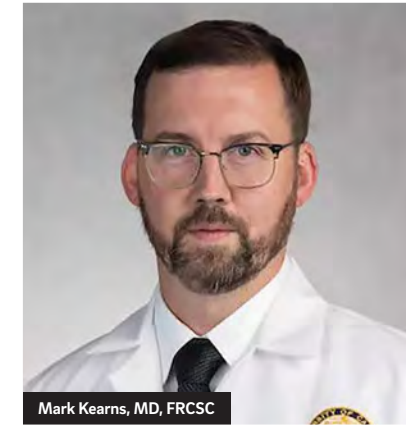
Standard practice for lung transplant requires that all organs, except the brain, be functional at the time of donation. This is known as donation after brain death, or DBD. Brain death is diagnosed when two independent physicians examine the comatose patient and note the absence of brain activity with no possibility of functional recovery and the inability of the patient to breathe without assistance from a mechanical ventilator.

*\*Source: U.S. Department of Health and Human Services*

## PEOPLE NEWS

**Dr. Kearns, MD, FRCS** completed cardiac surgery training at the University of British Columbia (Vancouver, BC, Canada) prior to board certification with the Royal College of Physicians and Surgeons of Canada. To further develop his interest in surgical heart failure therapies, Dr. Kearns pursued an advanced fellowship in cardiac transplantation and mechanical circulatory support at Cedars-Sinai Smidt Heart Institute in Los Angeles, CA in 2019. In 2020, Dr. Kearns joined the Division of Cardiothoracic Surgery at UCSD for an advanced fellowship in cardiac transplantation and mechanical circulatory support, with an additional focus on complex adult cardiac surgery. He joined as faculty of the Cardiothoracic Surgery Division in the Summer of 2021.

Dr. Kearns' clinical interests include the surgical treatment of acquired adult cardiac disease, with a sub-specialty focus on surgical heart failure therapies and cardiac transplantation. He is also focusing on clinical expertise in aortic surgery and adult congenital heart disease within our group.



Mark Kearns, MD, FRCS

Whilst in training, Dr. Kearns engaged in translational research within the Department of Experimental Medicine at the University of British Columbia. He studied various aspects of cardiac transplantation using hearts from the donation after circulatory death (DCD) protocol. Dr. Kearns joined the Cardiothoracic Faculty at a fortunate time, and is proud to be a member of a clinical group that is innovating in DCD cardiac transplantation.

## DIVISION OF CARDIOVASCULAR & THORACIC SURGERY FACULTY



Dr. Mark Onaitis with Sheri L. Kelts

## Dr. Onaitis Appointed UC San Diego Kelts Endowed Chair

**Dr. Mark Onaitis** was appointed the Sheri L. Kelts Endowed Chair in Cardiothoracic Surgery. The Chair was established with the purpose of supporting lung cancer research, and Dr. Mark Onaitis and his lab will examine novel genetic and immunologic therapies in lung cancer.

Sheri Kelts is a graduate of UC San Diego who is a longtime supporter of UC San Diego Health, the UC San Diego Moores Cancer Center and the Cardiovascular Institute.

Dr. Onaitis is a board-certified thoracic surgeon who specializes in malignant and benign conditions of the chest, including lung cancer, esophageal cancer, thymic malignancy, gastroesophageal reflux, achalasia, paraesophageal hernia, and myasthenia gravis. He uses minimally invasive approaches - thoracoscopy and robotics - to treat these conditions.

## Sulpizio Cardiovascular Center Marks Tenth Anniversary

On July 31, 2011, UC San Diego opened the Sulpizio Cardiovascular Center (SCVC), the first healthcare facility in the region to offer a full continuum of cardiovascular services all under one roof. As we mark the 10th anniversary, the SCVC is the heart of our Cardiovascular Institute and continues to be in the vanguard of cardiovascular care.

We are incredibly proud of all that the Sulpizio Cardiovascular Center team has achieved. Among the many highlights include:

1. Being ranked #23 in the country for Heart & Heart Surgery by *US News & World Report 2021*
2. The heart transplant program being ranked #2 in the nation for one-year patient survival rates among programs with 100 to 120 heart transplants performed annually
3. The lung transplant program being ranked #1 in the nation for one-year patient survival rates among programs with 50 to 75 lung transplants performed annually
4. Performing California's first robotically assisted coronary stenting procedure
5. Performing the heart transplant surgery from a donor after circulatory death (DCD) on the West Coast.

These represent just a few of the many achievements the Cardiovascular Institute team has garnered over the past 10 years thanks, in part, to the leadership of Ehtisham Mahmud, MD, and **Michael Madani, MD**. Please join us in recognizing the wonderful staff and faculty as well as all those who have contributed to the Sulpizio Cardiovascular Center's success over the years.



Michael M. Madani, MD

**CHIEF OF DIVISION**  
Michael M. Madani, MD

### PROFESSORS OF SURGERY

Joelle Coletta, MD  
Eugene Golts, MD  
Steven Howe, MD  
John Nigro, MD  
Mark Onaitis, MD  
Victor Pretorius, MD  
Patricia A. Thistlethwaite, MD, PhD

### ASSOCIATE PROFESSORS OF SURGERY

John Artrip, MD  
Daniel Gramins, MD  
Mark Kearns, MD  
Travis Pollema, DO

### ASSISTANT PROFESSOR OF SURGERY

Joshua Boys, MD  
Srujan Ganta, MD  
Antonios Sideris, MD

### PROFESSOR OF SURGERY EMERITUS

Stuart Jamieson, MD  
Jolene Kriett, MD

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## DIVISION OF COLON AND RECTAL SURGERY

The Division of Colon and Rectal Surgery at UC San Diego is recognized as national leader in the field of medical robotics, colorectal cancer and colorectal innovation. Our aim is to provide the most advanced colorectal care in the region. The colorectal team is rounded out by the incredible help and support of our front desk team, schedulers, MAs, nurses, APPs, WOCNs, and administration.

### DIVISION HIGHLIGHT

#### The Colorectal Division Sees a Record Number of Patients in 2022

The colorectal division saw a record 7,730 patients in FY 2022, an increase of over 22 percent over the the year before. As we emerge from COVID, our clinical program continues to thrive with parallel increases in our operative volume.

Our continued telehealth presence has been welcomed by many of our postoperative and second opinion patients. Approximately 18 percent of all colorectal visits are video or telephone encounters. With seven faculty in the Division, our reach extends from the Veteran's Administration hospital to the outskirts of our community. In every case, our goal is to provide the highest level of colorectal care that can be delivered.

The beautiful new Digestive Disease (DDI) clinic was opened in October of 2021 to an enthusiastic group of faculty, staff and

patients. The DDI clinic is a shared space with Minimally Invasive Surgery, Colorectal Surgery and Gastroenterology. Our goal is to deliver streamlined, coordinated clinical care that is accessible and user-friendly for patients. We also strive to create an inclusive, collaborative and welcoming experience for our faculty and staff who create wonderful experiences for patients. Patient experience is something we take seriously in the Colorectal Division.

Net promotor scores have been at an all-time high in every clinic this year.

#### Cancer disease team receives accreditation status

The colorectal cancer disease team received accreditation status from the Commission on Cancer National Accreditation Program for Rectal Cancer (NAPRC) in 2020.

This specific tumor board also discusses other complex cancer cases, such as colorectal carcinoid, melanoma, anal cancer and recurrent disease. We get one chance to do this right—we absolutely want to do our best.

Our team, led by our NAPRC Program Director, **Dr. Nicole Lopez**, and our Program Coordinator, **Ellen Fink, PA**, has worked hard to establish a framework for our multidisciplinary rectal cancer tumor board. The conference requires weekly participation from physicians who are essential to the care of rectal cancer patients, including radiologists, pathologists, medical oncologists, radiation oncologists, and colorectal surgeons. Facilities with the NAPRC accreditation have undergone a rigorous review process that ensures state of the art cancer care for patients with this devastating disease.

Our director Dr. Nicole Lopez, was recently appointed as the Society of Surgical Oncology (SSO) representative to the national NAPRC committee.

Rectal cancer can have significant and

lasting implications for bowel, urinary and sexual function. The group effort required to adhere to NAPRC standards has stimulated camaraderie and purpose, enhancing our ability to recognize and take advantage of the outstanding skills and experience of our team. We believe this has increased our capacity to approach patients with oncologic rigor in balance with patient values and considerations for quality of life. Our team is supported by a host of experts in the UC San Diego Moores Cancer Center who are critical to our expert management of rectal cancer patients including Urologic Oncology, Gynecologic Oncology, Thoracic Surgery, Palliative Care, Ostomy support and Surgical Oncology.

Together, this powerhouse elevates the care for rectal cancer patients in the region. UC San Diego's program is the first accredited program in Southern California and it is one of a handful of clinical trial sites studying the CEA-antibody in local advanced cancers and another trial using circulating DNA to predict rectal cancer recurrence.

#### Transgender Care

**Drs. Shawn Liu** and **Ben Abbadessa**, together with Urologist Dr. Jennifer Anger, have been hard work at establishing a robust transgender surgical program at our Hillcrest location. Dr. Abbadessa and team performed the first gender-affirming colon vaginoplasty case with Dr. Anger earlier this year and together with Dr. Liu they are ushering in this amazing new program.

#### Benign Disease

**Dr. Samuel Eisenstein**, in his role regionally and nationally, continues to push the frontiers of IBD treatment with his surgical outcomes database and stem cell research trials. UC San Diego's IBD program continues to thrive with robust collaborations between GI-IBD and Surgical-IBD teams, who meet quarterly with community providers to discuss challenging cases and review the literature.

#### UC San Diego Division of Colorectal Surgery Faculty Participate through key surgical forum in 2021

Participation in national, regional and local surgery meetings via virtual platforms remained robust through the pandemic:

##### American College of Surgeons (ACS) NSQIP

Clinical Research Program Dissemination and Implementation Committee  
Informatics Committee  
Cancer Surgery Standards Program

##### American Society of Colon and Rectal Surgeons (ASCRS)

Young Surgeons Committee  
IBD Committee  
Executive Committee  
Program Committee  
Surgical Leadership Institute

##### International Surgical Society

##### San Diego Colorectal Collaborative

##### AAMC Minority Faculty Leadership Development Seminar

##### San Diego Colorectal Collaborative Pacific Coast Surgical



Ben Abbadessa, MD, FACS

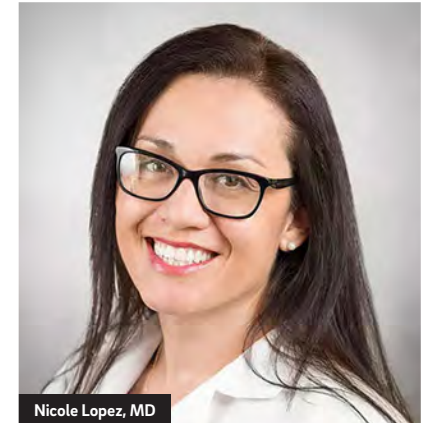


Dr. Ramamoorthy and Dr. Cosman

#### The "People" of Colorectal Surgery

**Dr. Sonia Ramamoorthy** is Chief of the Division of Colorectal Surgery and was recently elected as the Vice President of the American Society of Colon and Rectal Surgeons (ASCRS). In this role, she will support the national strategic goals of the ASCRS membership and will work closely with the Executive team to promote health and awareness for colorectal disorders nationally. She continues to hold several leadership positions within UC San Diego, most recently being elected as the Chair of the UC San Diego Health Board of Governors. Systemwide, she is the faculty representative to the UC Regents committee on Health Sciences where she represents the faculty from all six health sciences campuses in the UC system. She had the distinct honor of being the founding program Chair of the ASCRS Surgical Leadership Institute held in San Diego to a sold-out audience of over 100 colorectal surgeons throughout the country. Dr. Ramamoorthy is in her final year as the colorectal specialty representative to the American College of Surgeons Board of Governors, where she was the first woman to serve in this role. Dr. Ramamoorthy was also recently elected to the Board of the San Diego County Medical Society, and the Bishops School Board.

**Dr. Bard Cosman** is our colorectal lead at the VA hospital, while still maintaining an active and busy anal dysplasia practice the university. He is the busiest general surgeon at the VA hospital where he also is the chair of the tumor board and has helped to implement a new telehealth clinic at the VA. His research focus is on defining the spectrum of acne inversa/hidradenitis suppurativa. Dr. Cosman is part of the Master Clinician Program for Med students making curriculum on peer review and



Nicole Lopez, MD

recently received the "Golden Scalpel Award" from the residents. Dr. Cosman was elected as the Southern California Councilor for Pacific Coast Surgical Association. Nationally, he is a member of the ASCRS Program Committee, and is a longstanding member of the Diseases of the Colon and Rectum Editorial Board.

**Dr. Nicole Lopez** is our NAPRC director and is now part of the national steering committee for NAPRC as the representative from the Society of Surgical Oncology (SSO). She has just started the UC San Diego Health Leadership Academy and was chosen to participate in the UC San Diego Hispanic Center of Excellence (HCOE) Faculty Scholars Program. She is working on her Lean Six Sigma greenbelt and was recently elected as the department of surgery representative to the UC San Diego Board of Governors. Dr. Lopez was also chosen as the Dean's scholar to attend the prestigious Association American Medical Colleges (AAMC) Minority Faculty Leadership Development Seminar. Finally she had the distinct honor of giving Grand Rounds at UCSF this past year through the University of California (UC) Visiting Early Career Faculty 2021-2022 Mentorship & Sponsorship Program.



Sam Eisenstein, MD



Shanglei Liu, MD, MAS



Lisa Parry, MD

**Dr. Sam Eisenstein** is the Director of IBD Surgery at UC San Diego. His focus in 2022 was to increase his clinical research portfolio. His areas of focus include IBD fistula disease and the microbiome. He finished his work on a stem cell fat grafting/anal fistula plug grant and is in the process of submitting the outcomes for publication. He is also the PI on a fecobionics grant which is just completed accrual. Dr. Eisenstein is also a co-PI on the national IBD-SIRQC project, which will be the largest IBD surgery outcomes database ever collected. Increasingly recognized as a national expert in the field of IBD, he ran two symposia this past year, one at ASCRS and one at SAGES, and presented at DDW. Dr. Eisenstein is also chosen from a large pool of applicants as a co-host of the Gut Check podcast which is the official podcast of ASCRS. Locally, Dr. E (as he is affectionately known), is the Department representative to the Risk Adjustment committee and the colorectal quality representative. He has co-authored 9 journal articles and a book chapter this past year, and continues to be a regular contributor to the Selected Abstracts section in the journal *Diseases of Colon and Rectum*.

**Dr. Lisa Parry** continues to serve as our Colorectal Cancer Disease team leader at Moores' Cancer Center. She recently was selected to participate in the UC San Diego Health Leadership Academy which she completed in Spring of 2021. Dr. Parry also participated in the ASCRS National Surgical Leadership Program. Dr. Parry is the Chair of the Women in Surgery Committee at UC San Diego and is the President of the San Diego Colorectal Collaborative. Her focus is on colorectal robotic surgery with an emphasis on complex pelvic dissection. She recently completed an advanced training in robotic lateral lymph node dissection in Orlando.

**Dr. Ben Abbadessa** is director of the Hillcrest colorectal practice and the division Director of Peer Review. He performed the first gender-affirming colon vaginoplasty case with Dr. Anger from Urology this year — an important milestone for the new transgender initiative at UC San Diego. He was recently elected as a member of UC San Diego Health Sciences Faculty Council and the UC San Diego Medical Ethics Committee.

Nationally, Dr. Abbadessa serves on the ASCRS Quality and Safety Council and is a member of the NCCN Colorectal Cancer Screening Panel. Dr. Abbadessa's research focus is in anal cancer and HPV disorders while clinically he is focused on colorectal cancer and robotics. He recently completed additional robotics training in lateral pelvic node dissection.

**Dr. Shawn (Shanglei) Liu**, the newest member of the division is up and running both clinically and academically. Dr. Liu has started his clinical practice in Hillcrest and La Jolla and is part of the new transgender gender reassignment surgery team. His stellar teaching was recognized by the graduating chief residents with the "Whitehill Teaching Award" at graduation. He is working with Dr. Michael Bouvet on fluorescent imaging of colorectal cancer in the lab. Additionally, Dr. Liu continues to focus on medical devices and surgical ergonomics. His research passion is rooted in advancing the field of surgery by pushing the boundaries of technological advancements.

### ALUMNI AND TRAINEES

**Dr. Sean Flynn** joins UC Davis as colorectal faculty after completing fellowship at the University of Southern California. Congrats Sean!

**Dr. Timothy Law** joined Sacramento Colon and Rectal Surgery Medical Group in Roseville, CA after completing his colorectal fellowship at the University of Texas.

**Dr. Katherine Lee** is completing her Palliative Care fellowship at UCSF and has matched at Mt. Sinai in NY for colorectal surgery. Congrats Kat!

**Dr. Mark Zhao** has started his colorectal fellowship training at Washington University in St. Louis, MO. Good luck Mark!

**Dr. Conor Arellano** joins the colorectal team as a research resident from the Navy.

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## COLON AND RECTAL SURGERY FACULTY



Sonia Ramamoorthy, MD, FACS, FASCRS

**CHIEF OF DIVISION**  
Sonia Ramamoorthy, MD, FACS, FASCRS

**PROFESSOR OF SURGERY**  
Bard Cosman, MD, FACS, FASCRS

**ASSOCIATE PROFESSORS OF SURGERY**  
Ben Abbadessa, MD, FACS  
Samuel Eisenstein, MD  
Nicole Lopez, MD  
Lisa Parry, MD

**ASSISTANT PROFESSORS OF SURGERY**  
Shanglei Liu, MD, MAS

## DIVISION OF MINIMALLY INVASIVE SURGERY



Director, UC San Diego



Santiago Horgan, MD, FACS  
Center for the Future of Surgery



Bryan J. Sandler, MD, FACS

*The Division of Minimally Invasive Surgery at UC San Diego remains on the cutting-edge of academic minimally invasive and robotic-assisted surgery.*

*This year we continued to excel despite the challenges still posed by the pandemic. We have seen the growth of our community and resources for our patients, the investigation and development of new technology, and the ongoing training of future surgeons.*

*All surgeons within the Division are active at the Bariatric and Metabolic Institute, and we proudly have active accreditation and no citations while continuing to maintain our Level 1 certification from the American College of Surgeons.*

## PEOPLE NEWS

### Dr. Bryan Sandler spearheads 2022 SAGES Flexible Endoscopy Course

**Bryan Sandler, MD**, is a board-certified surgeon and associate professor who specializes in treating patients with disorders of the foregut, esophagus, gastric or biliary system and small intestine. His areas of expertise also include minimally invasive and robotic surgery, and natural orifice surgery.

This past September, Dr. Sandler co-chaired the SAGES Fellow Course in Flexible Endoscopy, a non-CME course that familiarizes minimally invasive surgery fellows around the country with various methods used in endoscopic surgery.

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3. Broderick RC, Lee AM, Blitzer RR, Zhao B, Lam J, Cheverie JN, Sandler BJ, Jacobsen GR, Horgan S. et.al. It's not always too late: a case for minimally invasive salvage esophagectomy. *Surg. Endosc.* 2021 Aug;35(8):4700-4711. PMID: 32940794.
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11. Stringfield SB, Parry LA, Eisenstein SG, Horgan SN, Kane CJ, Ramamoorthy SL. Experience with 10 years of a robotic surgery program at an Academic Medical Center. *Surg Endosc.* 2022 Mar;36(3):1950-1960. PMID: 33844089; PMCID: PMC8847263.
12. Siriwardena AK; CHOLECOVID Collaborative. Global overview of the management of acute cholecystitis during the COVID-19 pandemic (CHOLECOVID study). *BJS Open.* 2022 May 2;6(3):zrac052. PMID: 35511954; PMCID: PMC9071082.
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## MINIMALLY INVASIVE SURGERY FACULTY



Santiago Horgan, MD, FACS

**CHIEF OF DIVISION**  
Santiago Horgan, MD, FACS

**PROFESSOR OF SURGERY**  
Garth R. Jacobsen, MD, FACS  
Bryan J. Sandler, MD, FACS

**ASSISTANT PROFESSORS OF SURGERY**  
Ryan Broderick, MD  
Eduardo Grunvald, MD  
Tania Morimoto, MD

## DIVISION OF OTOLARYNGOLOGY



Otolaryngology Boot Camp



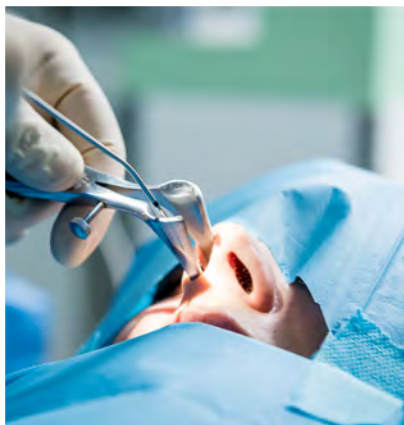
### FEATURED STORY

#### Otolaryngology Boot Camp Draws Attendees from Across the Southwest

The Division of Otolaryngology Head & Neck Surgery successfully completed its 2nd Annual Southwest USA Otolaryngology Hands-on Boot Camp this year. The camp was entitled "Effective Responses to Otolaryngology Emergencies" and held at the UC San Diego Center for the Future of Surgery and Simulation labs. Junior residents and faculty from surgical training programs at various institutions throughout the Southwest United States attended the course, including representatives from UC Los Angeles, University of Southern California, Cedars Sinai, UC Irvine, Mayo-Arizona, University of Arizona, University of Nevada, Las Vegas, US Naval Medical Center and UC San Diego.

“ The attendees were very impressed by our state-of-the-art CFS teaching facilities

— David Hom, MD  
Course co-director



Jeffrey Harris, MD

“ We continue to enlarge our faculty as the demand for UC San Diego healthcare is burgeoning

— Jeffrey Harris, MD, PhD

### AWARDS

#### Dr. Coffey Receives 2021 Tow Humanism in Medicine Award

Charles Coffey, MD, has been chosen to receive The 2021 Leonard Tow Humanism in Medicine Award, presented by The Arnold P. Gold Foundation. In recognition of this award, given to promote humanism and compassion in the care of patients, Dr. Coffey received a monetary award, membership in the Gold Humanism Honor Society (GHHS), and a certificate from the Gold Foundation.

This prestigious award is given annually to a faculty member who demonstrates both clinical excellence and outstanding compassion in the delivery of care and who shows respect for patients, their families, and healthcare colleagues. Dr. Coffey was selected by a committee of faculty and administrators from the nominations submitted by faculty and graduating medical students from the class of 2021. This honor — given by his colleagues and peers — signifies recognition of his ability to bring to patient care the highest standard of humanity and sensitivity.



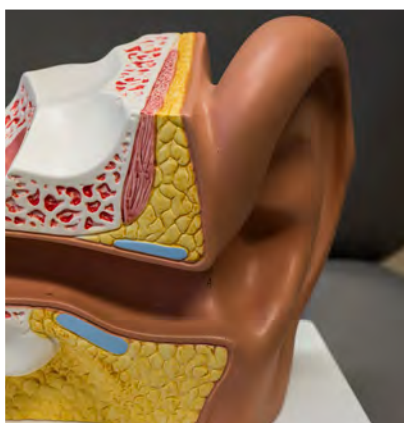
Charles Coffey, MD



Our program moved from 61 to 26 to 21 in the U.S. News & World Report over the past three years. With our inclusion in the rankings we helped make UC San Diego #1 in healthcare in San Diego. Our satellite practice in Rancho Bernardo is extremely successful, and we now have three practitioners providing care there. This includes Dr. Cornelius Jansen, Sharon Mick, NP, and Dr. Joe Califano in Head and Neck Oncology.

We are pleased to announce the recruitment of Akihiro Matsuoka, MD, PhD, as the director of our expanded Vestibular Disorders program. We're also celebrating the wonderful accomplishments of several of our recent faculty recruitments: Dr. Jacqueline Green, who just received an ACTRI KL2 award; Dr. Theresa Guo, who received a \$200,000 V Foundation award and a Young Investigator Award from the AHNS-AAO/HNS societies; as well as Dr. Carol Yan, who received a K08 as well as an American Rhinological Society New Investigator Award.

We were again successful in being able to offer a full year or two of research for our residents by successfully funding our application for a five-year, R25, Mentored Research Pathway for Otolaryngology Residents from NIH-NIDCD. This new grant mechanism, with Dr. Rick Friedman as the principal investigator, replaces the T32 grant that we have had continuously funded for over 20 years.

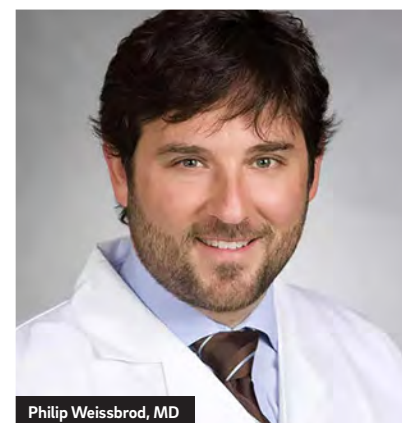


#### Dr. Carol Yan Receives K-08 Funding for Post-Viral Smell Loss Research

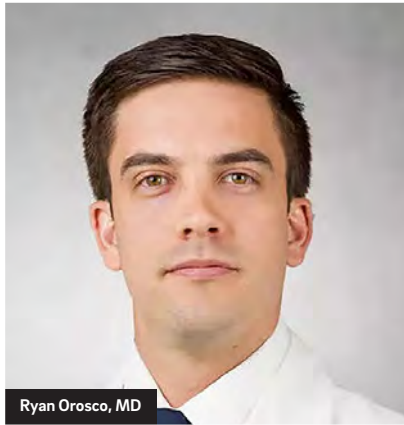
Persistent smell loss after viral infections is common, especially in light of the COVID-19 pandemic, and the condition can have significant impacts on quality of life. With her recent K0-8 NIH award, Carol Yan, MD, will study the role of the innate immune system and how local inflammation might cause hinder olfactory cell regeneration and cause persistent smell loss. A better understanding of these mechanisms has the potential to guide development of novel therapies to treat post-viral smell loss.comprehensive course.

#### Dr. Weissbrod and Prof. Yip Receive Funding for Endoscopic Intervention

Philip Weissbrod, MD, and Michael Yip, PhD of Electrical and Computer Engineering have been awarded funding of their Multi-PI NIH R21 titled, "Robotically Controlled Intraluminal Instruments for Flexible Endoscopic Intervention". The grant aims to develop and validate a robotic instrumentation approach for bronchoscopy procedures.



Philip Weissbrod, MD



Ryan Orosco, MD



Rick A. Friedman, MD

## AWARDS

### Dr. Rick A. Friedman Receives Two R01 awards

**Rick A. Friedman, MD**, has received two R01 research awards — one for the genetics of imbalance in the elderly and a second for studying the mechanisms of protection from noise induced hearing loss.

### Theresa Guo Awarded the 2022 V Scholar Program Grant

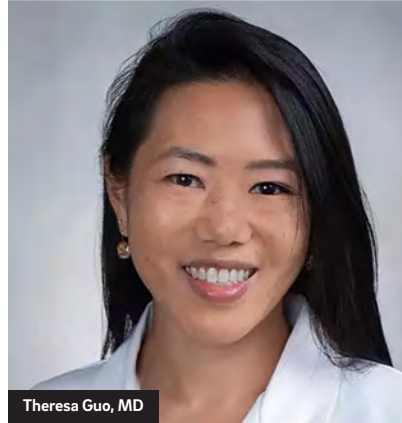
**Theresa Guo, MD**, has received an award from the V Foundation for a grant entitled: *"Defining the relationship between aberrant splicing burden and anti-tumoral immunity in head and neck squamous cell carcinoma."* This is a \$200,000 grant over two years. The aims of this proposal will be to evaluate aberrant splicing burden as a predictive biomarker of response to immune checkpoint inhibition in HNSCC patients, and define the mechanisms underlying the interplay between aberrant splicing burden and anti-tumoral immunity.

### Dr. Guo Receives Young Investigator Award

**Theresa Guo, MD**, has been selected as the American Head and Neck Society-American Academy of Otolaryngology – Head & Neck Surgery Foundation Young Investigator Combined Award for her proposal entitled, *"Establishing immunogenicity of splice variant derived neoantigens in HNSCC."* The purpose of the award is to support a collaborative AHNS/AAO-HNSF research project by fostering the development of contemporary basic or clinical research skills focused on neoplastic disease of the head and neck among new full-time academic head and neck surgeons.

### Dr. Ryan Orosco Receives MCC-ACS Award

Congratulations to **Ryan Orosco, MD** Division of Otolaryngology and Head and Neck Surgery, for his Moores Cancer Center – American Cancer Society Institutional Research Award, *"Tissue Modeling in Transoral Robotic Cancer Surgery"* His project aims to improve surgical navigation for patients with tonsil cancer, with the expectation that the findings will apply broadly to a wide range of robotic cancer surgeries.



Jacqueline Greene, MD

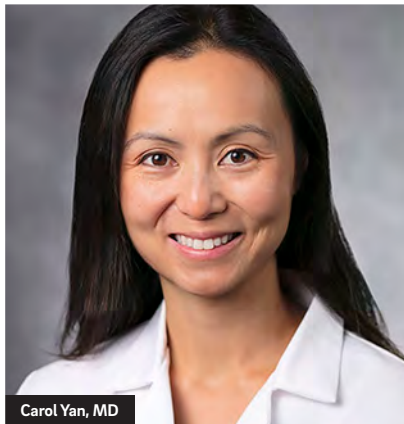
Theresa Guo, MD

### Dr. Jacqueline Greene Receives 2022 KL2 Career Development Award

Awarded to **Jacqueline Greene, MD**, by the UC San Diego Altman Clinical and Translational Research Institute for a grant entitled: *"Advancing Long-Gap Facial Nerve Regeneration with 3D-Printed Multichannel Nerve Scaffolds."* This is a \$442,500 grant over three years. The aims of this proposal are to investigate the ultrastructural changes and temporospatial sequence of nerve regeneration over long distances, define the physiologic barriers leading to nerve regeneration failure, as well as to assess the neuroregenerative potential of 3D-printed multichannel scaffolds for long-gap facial nerve repair.

### Dr. Carol Yan Receives ARS New Investigator Award

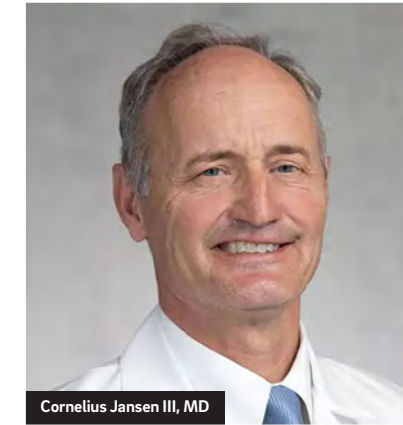
**Carol Yan, MD**, has received from the American Rhinologic Society (ARS), American Academy of Otolaryngology – Head & Neck Surgery Foundation (AAO-HNSF) and the Centralized Otolaryngology Research Effort (CORE) Study Section an ARS New Investigator Award for her proposal entitled, *"Olfactory Stem Cells in Post-viral Olfactory Dysfunction."*



Carol Yan, MD



Joseph Califano III, MD



Cornelius Jansen III, MD

## PEOPLE NEWS

The Division of Otolaryngology and Head & Neck Surgery welcomed this year a new addition to our faculty: **Cornelius Jansen III, MD**, Dr. Jansen earned his Medical Degree and did General Surgery and Otolaryngology/Head and Neck Surgery Residency at Johns Hopkins.

He graduated Magna Cum Laude with a Bachelor of Science in Biochemistry at Brown University. He completed research at the Rhode Island Hospital, The National Institutes of Health and at the Johns Hopkins University School of Medicine. He has published articles for publications in Immunology, Laryngeal Cancer and Hearing loss. Dr Jansen has also worked at the FDA on the Over the Counter Drug Review.

He has worked at the Maui Medical Group where he served as Vice-President and Personnel Director for 10 years. He then worked at Kaiser Walnut Creek in the Head and Neck Surgery Department for the next 20 years.

The Division of Otolaryngology and Head & Neck Surgery is pleased to announce the recruitment of **Akihiro Matsuoka, MD, PhD** as the director of our expanded Vestibular Disorders program. Dr. Matsuoka has been on the faculty of Northwestern University School of Medicine for the past ten years where he specialized in patients with vertigo, dizziness and tinnitus. He also led a basic science laboratory focused on regeneration of vestibular neurons and had grants from the Department of Defense and the NIH. We are very happy to welcome him back to UC San Diego where he had completed his neurotology fellowship. We anticipate his arrival in January, 2023.

## IN OTHER PEOPLE NEWS

**Joseph Califano III, MD**, was elected as co-chair of the Previously Untreated, Locally Advanced Task Force of the National Cancer Institute's Head and Neck Cancer Steering Committee.

## SELECTED PUBLICATIONS

1. Losartan prevents tumor-induced hearing loss and augments radiation efficacy in NF2 schwannoma rodent models. Wu L, Vasilijic S, Sun Y, Chen J, Landegger LD, Zhang Y, Zhou W, Ren J, Early S, Yin Z, Ho WW, Zhang N, Gao X, Lee GY, Datta M, Sagers JE, Brown A, Muzikansky A, Stemmer-Rachamimov A, Zhang L, Plotkin SR, Jain RK, Stankovic KM, Xu L. *Sci Transl Med.* 2021 Jul 14;13(602):eabd4816. PMID: 34261799
2. YY1: A New Gene for Childhood Onset Dystonia with Prominent Oromandibular-Laryngeal Involvement? Ferrn A, Thulin P, Walsh E, Weissbrod PA, Friedman J. *Mov Disord.* 2021 Oct 7. PMID: 34618373
3. Reply to: "Laryngeal Movement Disorders in Multiple System Atrophy: A Diagnostic Biomarker?". Weissbrod PA, Litvan I. *Mov Disord.* 2021 Aug;36(8):1999-2000. PMID: 34409690

# OTOLARYNGOLOGY SURGERY FACULTY

## CHIEF OF DIVISION

Jeffrey Harris, MD, PhD

## PROFESSORS OF SURGERY

Matthew Brigger, MD  
Kevin Brumund, MD  
Joseph Califano, MD  
Daniela Carvalho, MD  
Adam DeConde, MD  
Rick Friedman, MD, PhD  
David Hom, MD  
Anthony Magit, MD  
Quyen Nguyen, MD, PhD  
Deborah Watson, MD  
Jiang Wen, MD  
Philip Weissbrod, MD  
Paul Schalch, MD  
Robert Weisman, MD  
Erika Zettner, PhD

## ASSOCIATE PROFESSORS OF SURGERY

Charles Coffey, MD  
Tina Friesen, MD  
Sapideh Gilani, MD  
Elina Kari, MD  
Shelby Leuin, MD  
Anthony Magit, MD  
Javan Nation, MD  
Meghan Spriggs, AuD, CCC-A  
Andrew Vahabzadeh-Hagh, MD

## ASSISTANT PROFESSOR OF SURGERY

Morgan Bliss, MD  
Jacqueline Greene, MD  
Theresa Guo, MD  
Cornelius Jansen III, MD  
Ryan Orosco, MD  
Carol Yan, MD

## RECALL FACULTY OF SURGERY

Allen Ryan, PhD

## DIVISION OF PEDIATRIC SURGERY



*We are committed to improving the health and welfare of children and adolescents living in San Diego County. The Division of Pediatric Surgery provides the highest quality comprehensive surgical care to the children of San Diego and the surrounding counties.*

*Our surgeons value our role in research, academics, education and advocacy. We strive to make a significant contribution to all of the students, residents and fellows in the University of California, San Diego System.*

### Changing with the Ever-changing World

*The Division of Pediatric Surgery supports an ever-changing and evolving clinical mission. The whole world has been forced to adapt with the many challenges the pandemic has brought. The division made it a priority that clinical care, education, training and research would all continue in the safest way possible.*

The division meets the needs of our community through a dedicated clinical practice providing state-of-the-art care. Educationally, we provide pediatric surgical exposure to medical students and residents interested in pediatric surgery. Young minds have the opportunity to participate in and learn about life-changing care. The division is involved in advocacy for pediatric trauma on a national basis and supports several international health initiatives. The team has continued to support multiple clinical and basic science research projects, which have been presented both regionally and nationally. The team has also developed several quality based initiatives to improve care. Trauma care is a long-standing priority for the division.

The pediatric surgery division is always using research to evaluate the care we provide and trying to improve it. The team is also looking to improve surgical critical care through cooperation and training with the UC San Diego Trauma Division. The ACGME fellowship has recruited top-notch candidates and is a passion for everyone involved. The future is bright, and the Division of Pediatric Surgery intends to continue to make improvements.

### FACULTY NEWS

**Dr. Steve Bickler** continues his work as an expert in international health. This year he has published several articles and presented to organizations such as the World Congress of Surgery, American College of Surgeons and College of Surgeons of East, Central and Southern Africa on the current status of international health programs. Dr. Bickler has made a special commitment to the children of the Jacobs Medical Center NICU. On behalf of all the children whose lives you have saved, thanks Steve!

**Dr. Tim Fairbanks** is the Division Chief. He led the pediatric surgery division through the turbulence of the last few years. He is active in the administration of all the pediatric surgical sub-specialties in San Diego. Clinically, he enjoys minimally invasive surgery and the surgical care of neonatal patients. Over the years, Dr. Fairbanks has seen the faculty grow, diversify, and excel in many areas.



Steven Bicker, MD and Timothy Fairbanks MD

**Dr. Romeo Ignacio** is the Rady Trauma Medical Director. He hosted the first pediatric-focused version of the Advance Trauma Life Support (ATLS) program on the Rady campus. It was a huge success. He is active in clinical research and serves many important roles on national meetings and committees. He has received awards for both his teaching and research efforts. He was recently funded for his work on Assessing Outcomes and Healthcare Disparities among Hispanic Trauma Patients along the California-Mexico Border.



Romeo Ignacio, MD



David Lazar, MD

**Dr. Ben Keller** completed his Surgical Critical Care Fellowship. He is off to great start as a young attending. He is currently the leader of the surgical critical care service in what we hope will be a more involved role. He is currently leading our efforts on a quality improvement plan that will reduce radiation exposure to those receiving central lines.

**Dr. Karen Kling** is the foundation of the pediatric surgery education efforts. She has provided excellent leadership and mentorship as the pediatric surgery fellowship program director. She continues her leadership in the educational content for students, residents and fellows. She has presented her research at multiple national conferences.

**Dr. David Lazar**, a proud UC San Diego general surgery residency alumnus, has been building a diverse clinical practice. He is also proud to serve as the liaison on to UC San Diego general surgery residents. He continues multiple research projects. As one of the busiest surgeons in the practice, he can often be found operating with a resident or fellow.

**Dr. Hari Thangarajah** started the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) at Rady Children's Hospital. This program will improve the quality of the surgical care provided at Rady/UC San Diego for many years to come. He has played an important role as Pediatric Surgery Medical Staff Chief. He is sought after clinically for his excellent care.

### AWARDS

#### Dr. Ignacio Romero receives Leadership, Teaching, and Research Awards

##### Leadership Awards:

Society of Asian Academic Surgeons (SAAS) Mid-Career Award

American College of Surgeons (ACS) and American Pediatric Surgery Association (APSA) Brandeis Scholar Award

Society of University Surgeons Leadership Agility Award Major National Awards

##### Teaching Award:

Golden Scalpel Teaching Award  
Chosen by the University of California San Diego medical students and residents to the top 15% of teachers

##### Research Award:

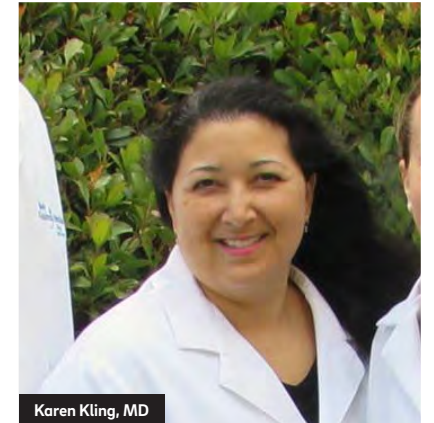
Department of Surgery Annual Research Symposium Research Award  
Session Two: Clinical Research

### GRANTS

#### New or total funded research (NIH, Foundations, Pharma)

Primary Investigator - Assessing Outcomes and Healthcare Disparities among Hispanic Trauma Patients along the California Mexico Border.

*A Phase II study. Multi-institutional study to evaluate the associated mechanisms of injury in Hispanic patients in high deprivation areas in San Diego and determining trauma outcomes*



Karen Kling, MD



Dr Lazar and Dr Ignacio with Ben Keller, MD



“The pediatric trauma team at UC San Diego/Rady Children is a model nationally.”  
— Timothy Fairbanks MD, MBA



## PRESENTATIONS

1. Sykes A, Rooney A, Bickler S, Ignacio R. Pediatric Trauma in California-Mexico Border Region: Injury Disparities by Area Deprivation Index. Accepted for podium presentation to 80th Annual Meeting of the American Association for the Surgery in Trauma and Clinical Congress of Acute Care Surgery held at Atlanta, Georgia on September 29-October 2, 2021.
2. Alicia G. Sykes, William B. Sisson, Lucas Wang, Hariharan Thangarajah, Matthew Martin, Nathaniel Fernandez, Meghan Nelles, Romeo C. Ignacio, Jr. Balloons for Kids: Anatomic Candidacy and Optimal Catheter Size for Pediatric REBOA Accepted for quick shot presentation to 80th Annual Meeting of the American Association for the Surgery in Trauma and Clinical Congress of Acute Care Surgery held at Atlanta, Georgia on September 29-October 2, 2021.
3. Abdulhaadi Khan, Brandt Sisson, Peter Guyon, Howaida El Said, David Lazar, Timothy Fairbanks, Romeo Ignacio. Endovascular versus Surgical Treatment for Congenital Lung Lesions: A Retrospective Comparative Study. Virtual Online Presentation to 54th Annual Pacific Association of Pediatric Surgery Meeting on November 12th, 2021.
4. Henry OS, Rooney AS, Heflinger MV, Sykes AG, Ghetti CB, de Cos V, Kling KM, Lazar DA, Martin MJ, Bansal V, Ignacio RC. Bike Helmet Usage in the Most Disadvantaged Neighborhoods: A Focused Area for Trauma Prevention. Podium Presentation at the Association of Surgical Congress at Buena Vista, FL on February 1, 2022.
5. de Cos V, Rooney AS, Sykes A, Ghetti CB, Henry OS, Krzyzaniak A, Thangarajah H, Bickler SW, Bansal V, Martin M, Lazar D, Ignacio RC Jr. Integrating Traffic Safety Data with Area Deprivation Index: A Method to Better Understand the Causes of Pediatric Pedestrian Versus Automobile Collisions. Podium presentation at the Western Trauma Association at Big Sky, MO on 2/25/2022.
6. Ghetti C, Rooney A, de Cos V, Sykes AG, Bansal V, Sise M, Bickler S, Keller B, Ignacio R. Evaluating Car Safety Compliance for Children Involved in Motor Vehicle Accidents: Identifying High-Risk Groups for Improper Restraint Usage. Podium presentation at 2022 American Pediatric Surgical Association Meeting. Scientific Session 4: Social Determinants of Health. San Diego, CA. May 13, 2022.
7. Dimitru A, Floan G, Okochi S, Kling K, Thangarajah H, Ignacio R. Dr. Morio Kasai: Beyond the Hepatic Portoenterostomy. Podium presentation at 2022 American Pediatric Surgical Association Meeting. Committee Breakout 8 - Education: Biliary Disease and an Update on the Management of Choledocholithiasis at San Diego, CA. May 13, 2022.
8. Egan C, Lee J, Acker SN, Diaz-Miron J, Fialkowski E, Ignacio RC, Jenson C, Kelly-Quon L, Lofberg K, Mueller C, Ostlie DJ, Pandya S, Russell K, Shew SB, Smith C, Wang K, Padilla B. Prospective Trial of Antibiotic Duration for the Management of Post-Appendectomy Intraabdominal Abscess. IPEG's 31st Annual Congress for Endosurgery in Children at Miami, FL. June 1-3, 2022. Short Oral II – Colorectal.
9. Sykes A, Rooney A, Bickler S, Ignacio R. Pediatric Trauma in California-Mexico Border Region: Injury Disparities by Area Deprivation Index. Podium presentation to 2022 Sturtz Symposium at Department of General Surgery, Naval Medical Center San Diego, San Diego, CA on June 17, 2022.
10. Utsav Patwardhan, James Prieto, Gretchen Floan, Richard Calvo, Lyndsey Wessels, Vishal Bansal, Michael Sise, Hariharan Thangarajah, Timothy Fairbanks, Shannon Acker, David Lazar, Romeo Ignacio. Management of an Index Adhesive Small Bowel Obstruction in Children: Is it Worth the Wait? Podium presentation to 2022 Sturtz Symposium at Department of General Surgery, Naval Medical Center San Diego, San Diego, CA on June 17, 2022.
11. Brandt Sisson, Abdulhaadi Khan, Peter Guyon, Howaida El Said, David Lazar, Timothy Fairbanks, Romeo Ignacio. Endovascular versus Surgical Treatment for Congenital Lung Lesions: A Retrospective Comparative Study. Podium presentation to 2022 Sturtz Symposium at Department of General Surgery, Naval Medical Center San Diego, San Diego, CA on June 17, 2022.
12. Craig Egan; Justin Lee; Shannon N Acker; Jose Diaz-Miron; Elizabeth Fialkowski; Romeo C Ignacio; Aaron Jenson; Lorraine Kelly-Quon; Katrine Lofberg; Claudia Mueller; Daniel J Ostlie; Samir Pandya; Katie Russell; Stephen B Shew; Caitlyn Smith; Kasper Wang; Ben Padilla. PROSPECTIVE TRIAL OF ANTIBIOTIC DURATION FOR THE MANAGEMENT OF POST-APPENDECTOMY INTRAABDOMINAL ABSCESS Podium presentation at the IPEG's 31st Annual Congress for Endosurgery in Children at Miami, FL on June 1st, 2022.

## SELECTED PUBLICATIONS

1. Wessels LE, Roper MT, Ignacio RC, Davis KL, Ambrosio AA. Telementorship in Underway Naval Operations: Leveraging Operational Virtual Health for Tactical Combat Casualty Care. *J Spec Oper Med.* 2021 Fall;21(3):93-95. PMID: 34529812
2. Acker SN, Diaz-Miron J, Ignacio RC, Thangarajah H, Russell KW, Lofberg K, Shew SB, Peterson PN, Kelley-Quon LI, Jensen AR, Lee J, Padilla B, Smith CA, Kastenberg ZJ, Azarow KS, Ostlie DJ, Wang KS, Inge TH; Western Pediatric Surgery Research Consortium. Attitudes Affecting Decision-Making for Use of Radiologic Enteral Contrast in the Management of Pediatric Adhesive Small Bowel Obstruction: A Survey Study of Pediatric Surgeons. *J Surg Res.* 2021 Nov;267:536-543. doi: 10.1016/j.jss.2021.06.004. Epub 2021 Jul 10. PMID: 34256196.
3. Sykes AG, Sisson WB, Gonda DD, Kling KM, Ignacio RC, Thangarajah H, Bickler SW, Levy ML, Lazar DA. Just Stick a Scope in: Laparoscopic Ventriculoperitoneal Shunt Placement in the Pediatric Reoperative Abdomen. *J Surg Res.* 2022 Jan;269:212-217. doi: 10.1016/j.jss.2021.07.045. Epub 2021 Sep 30. PMID: 34600330.
4. Russell KW, Acker SN, Ignacio RC, Lofberg KM, Garvey EM, Chao SD, Bliss DW, Smith CA, Nehra D, Anderson ML, Bunnell BL, Shahi N, Perry JM, Evans LL, Kwong JZ, Tobias J, Rohan A, Pickett KL, Kaar JL, Kastenberg ZJ, Laskey AL, Scaife ER, Jensen AR. Child physical abuse and COVID-19: Trends from nine pediatric trauma centers. *J Pediatr Surg.* 2022 Feb;57(2):297-301. doi: 10.1016/j.jpedsurg.2021.09.050. Epub 2021 Oct 8. PMID: 34758909; PMCID: PMC8572366.
5. Krishnaswami S, Polites SF, Dekany G, Gaines BA, Nwomeh BC, Huang EY, Finck CM, Lopushinsky SR, Puligandla PS, Feliz A, Mak GZ, Anderson SA, Fairbanks T, Alaish SM The First Two Years of the Association of Pediatric Surgery Training Program Directors (APSTPD) Transition to Fellowship Course: Lessons Learned and Future Directions. *J Surg Educ.* 2022 Sep 7
6. Kelley-Quon LI, Shue E, Burke RV, Smith C, Kling K, Mahdi E, Ourshalimian S, Fenlon M, Dellinger M, Shew SB, Lee J, Padilla B, Inge T, Roach J, Marwan AI, Russell KW, Ignacio R, Fialkowski E, Nijagal A, Im C, Azarow KS, Ostlie DJ, Wang K. The need for early Kasai portoenterostomy: a Western Pediatric Surgery Research Consortium study. *Pediatr Surg Int.* 2022 Feb;38(2):193-199. doi: 10.1007/s00383-021-05047-1. Epub 2021 Dec 2. PMID: 34854975; PMCID: PMC8742784.
7. Sykes AG, Brill JB, Wallace JD, Lee C, Lewis PR, Henry MC, Christman MS, Casey KM, Bickler SW, Ignacio RC. Trends in Surgical Case Volume During Pacific Partnership Missions Onboard USNS Mercy. *Mil Med.* 2021 Dec 15;usab500. doi: 10.1093/milmed/usab500. Epub ahead of print. PMID: 34908148.
8. Sykes AG, Sisson WB, Wang LJ, Martin MJ, Thangarajah H, Naheedy J, Fernandez N, Nelles ME, Ignacio RC Jr. Balloons for kids: Anatomic candidacy and optimal catheter size for pediatric resuscitative endovascular balloon occlusion of the aorta. *J Trauma Acute Care Surg.* 2022 Apr 1;92(4):743-747. doi: 10.1097/TA.0000000000003521. PMID: 35001025.
9. Kelley-Quon LI, Ourshalimian S, Lee J, Russell KW, Kling K, Shew SB, Mueller C, Jensen AR, Vu L, Padilla B, Ostlie D, Smith C, Inge T, Roach J, Ignacio R, Lofberg K, Radu S, Rohan A, Wang KS. Multi-Institutional Quality Improvement Project to Minimize Opioid Prescribing in Children after Appendectomy Using NSQIP-Pediatric. *J Am Coll Surg.* 2022 Mar 1;234(3):290-298. doi: 10.1097/XCS.000000000000056. PMID: 35213491.
10. Sykes AG, Prieto JM, Thangarajah H, Keller BA, Kling KM, Ignacio RC Jr, Lazar DA. Modified laparoscopic gastrostomy tube placement in children: Does subcutaneous suture type matter? *J Pediatr Surg.* 2022 Feb 1;S0022-3468(22)00104-X. doi: 10.1016/j.jpedsurg.2022.01.043. Epub ahead of print. PMID: 35304024.
11. Russell KW, Katz MG, Phillips RC, Kelley-Quon LI, Acker SN, Shahi N, Lee JH, Fialkowski EA, Nacharaju D, Smith CA, Jensen AR, Mueller CM, Padilla BE, Ignacio RC, Ourshalimian S, Wang KS, Ostlie DJ, Fenton SJ, Kastenberg ZJ; Western Pediatric Surgery Research Consortium. Adolescent Vaping-Associated Trauma in the Western United States. *J Surg Res.* 2022 Apr 5;276:251-255. doi: 10.1016/j.jss.2022.02.026. Epub ahead of print. PMID: 35395565.
12. Sykes AG, Rooney AS, Avila AG, Ghetti CB, Martin MJ, Bansal V, Sise MJ, Ignacio RC Jr. Pediatric trauma in the California-Mexico border region: Injury disparities by Area Deprivation Index. *J Trauma Acute Care Surg.* 2022 May 1;92(5):831-838. doi: 10.1097/TA.0000000000003553. Epub 2022 Jan 25. PMID: 35468114.
13. Lee J J, Ignacio R C, Vicente D A, et al. (March 31, 2022) Tumor or Inflammatory Myofibroblastic Reaction in an Adolescent With an Abdominal Lymphatic Malformation?. *Cureus* 14(3): e23702. doi:10.7759/cureus.23702

## PEDIATRIC SURGERY FACULTY



Timothy Fairbanks, MD, MBA

### CHIEF OF DIVISION

Timothy Fairbanks, MD, MBA

### PROFESSORS OF SURGERY

Stephen Bickler, MD

Romeo Ignacio, MD

Karen Kling, MD

Nicholas Saenz, MD

### ASSOCIATE PROFESSOR OF SURGERY

Hariharan Thangarajah, MD, MPH

### ASSISTANT PROFESSORS OF SURGERY

David Lazar, MD

Benjamin Keller, MD



## DIVISION OF PLASTIC AND RECONSTRUCTIVE SURGERY

The Division of Plastic Surgery is committed to providing comprehensive reconstructive and aesthetic surgical care to our local and global communities.

We continue on an exciting trajectory of growth and recognize the value of innovation in expanding our educational programs, research endeavors, and multidisciplinary clinical collaboration.

### DIVISION HIGHLIGHT AND EVENTS

The Division of Plastic Surgery helped to host multiple national and regional meetings in San Diego this past year including the American Association of Plastic Surgery (AAPS), The Aesthetic Society, and the California Society of Plastic Surgery (CSPS). Many of our medical students, residents and faculty presented their scholarly work and proudly represented UC San Diego at these conferences.

The CSPS Annual Meeting was held at Torrey Pines and UC San Diego faculty Dr. Samuel Lance served as the scientific program chair. As a part of the CSPS program the UC San Diego faculty hosted a Cadaver Lab at the Center for the Future of Surgery.

### First Annual PREPPED Workshop

In April of 2022 UC San Diego hosted the first ever Plastic Surgery Research, Education, and Preparation Promoting Equity & Diversity workshop (PREPPED) at the Center for the Future of Surgery.

PREPPED is a 2 day in-person workshop curated to prepare students of under-represented backgrounds and those without home programs for sub-internships and plastic surgery residency applications. The workshop allowed students to network, gain practical skills for their sub-internships and learn and acquire resources for a basic fund of knowledge in plastic surgery. PREPPED offers improved diversity in the field, while including instructors of diverse backgrounds to help

moderate sessions and inspire students to pursue a career in plastic surgery.

Being the first of its kind, the PREPPED program was the recipient of the PSF Diversity Inclusion Grant from the American Council of Academic Plastic Surgeons (ACAPS) Board of Directors. Due to its success, the 2nd Annual PREPPED workshop will be held in conjunction with the ACAPS Annual Winter Meeting in New Orleans, February of 2023.

Congratulations to Meera Reghunathan, our PGY3 resident who organized and executed such a successful event from start to finish.

### Second Annual West Coast DEI Mentorship Day

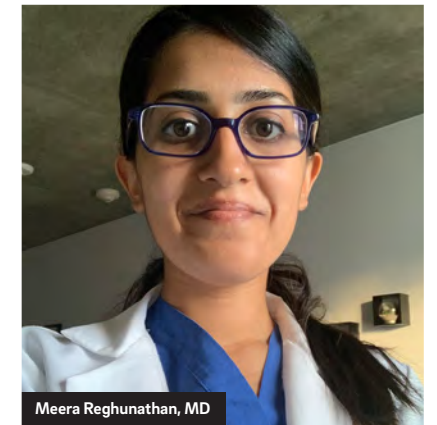
UC San Diego held its Second Annual West Coast Mentor-Mentee Day on May 2022 also, at the Center for the Future of Surgery.

This is a national program meant to establish mentorship between plastic surgery attendings/residents and students of under-represented backgrounds that include but are not limited to, under-represented in medicine pertaining to racial/ethnic minority, medical schools without a plastic surgery program, LGBTQ or socioeconomically disadvantages.

The program itself involves a yearlong relationship between the student and one of five institutions (UC San Diego, UC Irvine, UC San Francisco, Oregon Health Science

University, and the University of Nevada Las Vegas). Mentorship Day brought residents and attendings together from the five institutions for a full day of in person networking, teaching and hands on learning.

Students participated in learning didactic information and technical skills with courses in Breast Reconstruction, Facial Trauma, Hand Trauma and a Suture Lab/Local Flap course.



Meera Reghunathan, MD

### Third Annual Plastic Surgery Research Symposium

In April 2022 UC San Diego hosted the third annual Plastic Surgery Research Symposium.

We had an excellent visiting professor from Hopkins, Scott Lifchez MD, who taught techniques in hand surgery during a lab session in the Center for the Future of Surgery

and presided over the research competition.

The Resident award went to Meera Reghunathan, MD for Gender, Racial, and Socioeconomic Determinants of Choosing a Surgical Career.

### First Integrated Graduating Class

On June 16, 2022, the Division of Plastic Surgery graduated Anthony Kordahi, MD and Sean Li, MD, the first class of our integrated residency program. In 2016, they matched into UC San Diego's Plastic Surgery Integrated Residency Program and in 2022, they matched into top Microsurgery Fellowship Programs. Dr. Kordahi matched at Louisiana State University and Dr. Li matched at the University of Pennsylvania.

We are also very proud of our Craniofacial Fellow Erinn Kim, MD who was hired as a Craniofacial Faculty at the University of Utah.

### SCHOLARSHIP

#### Plastic Surgery Scholarship for Under-Represented Students

UC San Diego is proud to offer the UC San Diego Division of Plastic Surgery Scholarship for Underrepresented Students for Visiting Sub-internship.

One funded visiting subinternship position for 4 weeks in the division of plastic surgery at the University of California San Diego in San Diego, CA in August/ September 2022 for a highly qualified application with a background under-represented in medicine.

Funding will include up to \$2000 for housing, travel, and meals.

- The student will get to select a faculty member that will serve as a mentor and advisor.
- The student will meet 1:1 with the plastic surgery program director and chief.
- The student will have the opportunity to speak with plastic surgery residents at the program prior to starting the rotation to discuss tips and advice for succeeding during the clerkship.
- The student will receive an award upon completion of the clerkship.



Graduating Residents From left to right: Assistant PD Dr. Amanda Gosman, Dr. Anthony Kordahi, Pamela Lugo (program coordinator), Dr. Sean Li and PD Dr. Samuel Lance.

### HONORS AND AWARDS FACULTY

**Dr. Amanda Gosman** was honored as Castle Connolly Top Doctor and Castle Connolly *Exceptional Women in Medicine*. In addition, Dr. Gosman received a \$10,000 grant from the Plastic Surgery Foundation/ American Council of Academic Plastic Surgeons - *Diversity and Inclusivity to support our 1st Annual Plastic Surgery Research, Education, and Preparation Promoting Equity & Diversity workshop (PREPPED)*.

**Dr. Ahmed Suliman** was President of the San Diego Society of Plastic Surgery Society

**Dr. Chris Reid** received the *Teacher of the Year Award* – UC San Diego Division of Plastic Surgery



Katharine Hinchcliff, MD



Chris Reid, MD



Chris Reid, MD

## FACULTY NEWS

In early 2021 **Katharine Hinchcliff, MD** joined our faculty as the Director of Plastic Surgery Hand and Peripheral Nerve Surgery. During this past year, Dr. Hinchcliff he has worked closely with our orthopedic colleagues to build a more integrated hand surgery service and has brought unique services to treat adult and pediatric patients with complex peripheral nerve injuries.

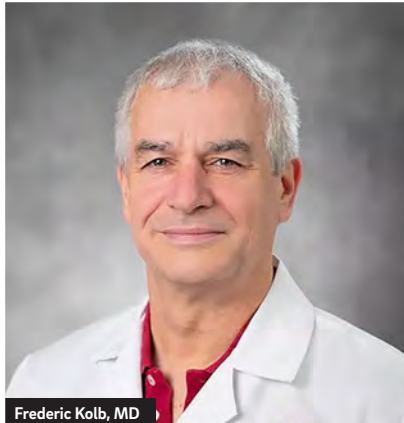
**Frederic Kolb, MD** has successfully established a robust new multidisciplinary program for the surgical treatment of lymphedema utilizing sophisticated techniques of supramicrosurgery to reconstruct lymphatic channels for both the treatment and prevent of this common condition. Lymphedema is frequently related to cancer treatment and we are very proud to be the first health system in San Diego to offer these innovative treatments for this challenging condition and enhance the level of services offered at Moore's Cancer Center.

In the past year we have had expanded our multidisciplinary gender health services as an institution-wide initiative to provide these comprehensive services to our community. In our Division, we have undergone significant growth in our volume of gender-affirming facial surgery, top surgery, body contouring, and non-surgical services, including laser and electrolysis.

**Chris Reid, MD** has spearheaded expansion of our microsurgical services not only by providing a broader range of surgical options but also through development of our microsurgical recovery unit, educational initiatives and research. We have seen a very positive impact on how we provide cancer care and improve the quality of life for patients with challenging conditions requiring complex reconstruction. UC San Diego has now become the leading center of microsurgical breast reconstruction in the region due to these efforts. Our program provides a critical collaboration with UC San Diego's Acute Pain/Regional Anesthesia service in order to minimize postoperative pain, reduce the length of hospitalization and avoid narcotic use. Dr. Reid recently hosted the first-ever Medical Student Microvascular Surgery Workshop in the Center for the Future of Surgery and continues to inspire the next generation of surgeons.

Please join us in welcoming new faculty, **Melissa Kanack, MD** to our team!

As an assistant professor of surgery at UC San Diego School of Medicine, she is involved in the training and education of medical students, residents and fellows in the Division of Plastic Surgery. Dr. Kanack completed fellowship training in craniofacial and pediatric plastic surgery at Boston Children's Hospital. She completed her residency in integrated plastic surgery at UC Irvine School of Medicine and earned her medical degree from UC San Diego School of Medicine.



Frederic Kolb, MD



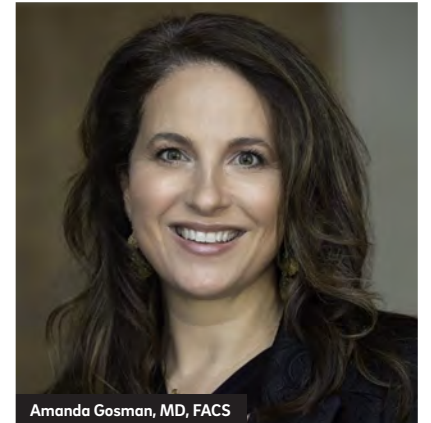
Melissa Kanack, MD



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2. A Single-Center Retrospective Review of Perioperative Complications and Reoperation Rates between Open Cranial Vault Remodeling and Distraction Osteogenesis for Unilateral Coronal Craniosynostosis. Kamel GN, Wong A, Segal RM, Carbulido MK, Hornacek M, Ewing E, Lance SH, Gosman AA. *J Craniofac Surg.* 2021 Oct 1;32(7):2373-2378. PMID: 34191770
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10. Improving Plastic Surgery Education for Medical Students. Reghunathan, Meera MD, Segal, Rachel M. BS, Reid, Chris M. MD, Gosman, Amanda A. MD. *Plastic and Reconstructive Surgery - Global Open: December 2021 - Volume 9 - Issue 12.* PMID: 35070610
11. Learner Preferences and Perceptions of Virtual Hand Surgery Education during the COVID-19 Pandemic. John J Bartoletta , Katherine Hinchcliff, Peter Rhee. *J Hand Surg Am.* 2021 Dec 9. PMID: 35033403
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## PLASTIC AND RECONSTRUCTIVE SURGERY FACULTY



Amanda Gosman, MD, FACS

### CHIEF OF DIVISION

Amanda Gosman, MD, FACS

### PROFESSORS OF SURGERY

Marek Dobke, MD, PhD  
Frederic Kolb, MD

### ASSOCIATE PROFESSORS OF SURGERY

Samuel Lance, MD, FACS  
Mark Rechnic, MD  
Ahmed Suliman, MD, FACS

### ASSISTANT PROFESSORS OF SURGERY

Katharine Hinchcliff, MD  
Melissa Kanack, MD  
Christopher Reid, MD

### CRANIOFACIAL AND PEDIATRIC PLASTIC SURGERY FELLOW AY21/22

Erinn Kim, MD

## DIVISION OF SURGICAL ONCOLOGY

The Division of Surgical Oncology maintains a robust clinical and research enterprise and has the distinction of offering clinical programs that draw patient referrals nationally and internationally. Our faculty are at the forefront of treatment for patients with GI stromal tumor, esophagogastric, hepatobiliary-pancreatic, and peritoneal malignancies, and in the use of fluorescence guided surgery.

All division members are active in basic and/ or clinical research, and division members are funded by the National Institutes of Health/ National Cancer Institute, the Veterans Administration, and Stand Up to Cancer, among others. Residents interested in surgical oncology are strongly encouraged to join one of these laboratories during their research years.

### FEATURED STORY

#### At Initial Cancer Diagnosis, a Deeply Personalized Assessment

*Molecular profiling is more often used after standard cancer treatments have failed, but a new study suggests that it could effectively guide first-line treatment, especially for poor-prognosis cancers.*

In treating cancer, personalized medicine means recognizing that the same disease can behave differently from one patient to another, and precision medicine means that diagnosis and treatment should involve understanding the specific genetic makeup of each patient's tumor and disease.

In a recent study, published October 4, 2021 in *Genome Medicine*, researchers at University of California San Diego School of Medicine and Moores Cancer Center at UC San Diego Health, with colleagues elsewhere, report that conducting genomic evaluations of advanced malignancies can be effective in guiding first-line-of-treatment, rather than waiting until standard-of-care therapies have failed.

By their nature, cancers are molecularly complex, each with a heterogeneous combination of genetic mutations that, more often than not, defy easy treatment. With every stage and line of therapy, tumor cells adapt to become more resistant to remedy.

The study authors hypothesized that developing matched, individualized combination therapies for patients with advanced cancers who had not been previously treated might be feasible and effective.

Just under 150 adults with newly diagnosed cases of advanced malignancies were enrolled in the prospective study at two sites: Moores Cancer Center and Avera Cancer Institute in Sioux Falls, South Dakota. The patients had

either incurable, lethal cancers (at least a 50 percent cancer-associated mortality rate within two years) or they had a rare tumor with no approved therapies.

Researchers performed extensive genomic profiling of all patients, identifying and documenting all detectable gene mutations to create a molecular profile of each patient's tumor that would guide their precision cancer therapy.

Of the 145 patients, 76 received personalized treatment based on their molecular profile, using a host of therapeutic approaches, from immunotherapies to targeted agents to traditional chemotherapeutic agents that were matched to their tumor's genomic profile. Sixty-nine patients could not be treated due to a variety of reasons, including inadequate organ function, clinical deterioration and death during the study period.

For the 76 patients who received precision cancer therapy, the median overall survival rate was 6.9 months compared to three months for patients who were not treated.

*"This speaks to the aggressive biology of these cancers as many of these patients did not even receive standard of care treatment as opposed to a failure of a precision medicine approach," said the authors. "Failure of molecular profiling (tissue and blood) affected only three (2 percent) of consented patients, suggesting it was feasible to perform molecular profiling in 98 percent of patients."*

#### Two Studies Seek to Go Beyond the GIST of Intestinal Tract Cancer

UC San Diego researchers identify the mutational drivers for gastrointestinal stroma tumors in the stomach and find a potential drug to treat a subset of GIST tumors afflicting the young

Gastrointestinal stroma tumors (GIST) are cancers that start in specialized nerve cells found in the digestive system, from the esophagus and stomach to the intestines and rectum.

They are rare, but because they often grow slowly or initially cause no symptoms, GIST can be problematic to detect and treatment options are limited to a handful of targeted drug therapies or surgery. An estimated 5,000 new cases of GIST are diagnosed in the United States each year. The 5-year relative survival rate is 93 percent for localized tumors; 55 percent if the GIST has metastasized and spread to other tissues.

*"One of the major impediments to treating GIST is the misbelief that this disease is easily curable," said Jason Sicklick, MD, professor of surgery in the Division of Surgical Oncology at University of California San Diego School of Medicine, and a GIST specialist. "But in reality, we know this is not the case. Even patients with tumors predicted to be sensitive to certain drugs rarely have complete responses to therapy. There is more to the biology that needs to be discovered."*

In a pair of new studies, both published in the journal *Clinical Cancer Research*, two teams of scientists led by senior author Sicklick, describe advances that may help predict how well GIST responds to therapy and perhaps lead to new treatments.

In a paper published online August 23, 2021, the researchers report on the first methods to create a patient-derived tumor model of a rare hereditary subset of GIST cases that are poorly understood and difficult to treat.

In an earlier paper, published July 29, 2021, Sicklick and colleagues analyzed where GIST tumors arise in the stomach (the most common site) and their underlying mutations, suggesting that location may be an early clue to mutational type to guide optimal treatment.



#### STUDY ONE: Establishment of Patient-derived Succinate Dehydrogenase-deficient Gastrointestinal Stromal Tumor models for predicting therapeutic response

GIST with mutations of succinate dehydrogenase (mSDH), a type of enzyme complex involved in key cellular functions, are relatively rare, comprising less than 10 percent of GIST. But unlike other GISTs that occur sporadically, mSDH GIST patients are typically adolescents and young adults, the tumor often metastasizes and they tend to be resistant to standard of care medications, such as tyrosine kinase inhibitors, which suppress enzyme activity.

Compounding the challenge, there are no widely applicable human models for any SDH-mutant tumors, including GIST, which has limited molecular understanding and drug development.

In their paper, Sicklick and team identified molecular and metabolic characteristics of patient-derived mSDH GIST and confirmed that the models reflected known hallmarks of parent tumors with loss of function in SDH protein complex.

They then found that temozolomide, a drug used to treat some types of brain tumor, damaged DNA inside mSDH GIST cells and caused apoptosis or programmed cell death. Moving to SDH-mutant GIST patients, they report that those treated with temozolomide demonstrated a 40 percent response rate and a 100 percent disease control rate, suggesting the drug may be a promising therapy for patients with mSDH GIST.

*"Limited availability of patient-derived SDH-deficient GIST models has impeded our in-depth understanding of the disease and drug screening. Our study has helped in successfully establishing patient-derived mSDH GIST cells which can recapitulate key molecular characteristics of the parent tumors," said co-first author Shruti Bhargava, PhD, a postdoctoral scholar in Sicklick's lab.*



“Despite common misbeliefs, GIST are not always easily cured, treatment is not 1 size fits all, KIT mutations are not the only drivers and it's not as rare as we once believed.

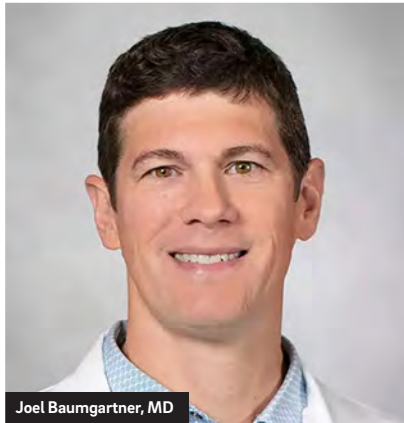
— Jason Sicklick, MD

#### STUDY TWO: Location of Gastrointestinal Stromal Tumor (GIST) in the Stomach Predicts Tumor Mutation Profile and Drug Sensitivity

GIST can occur anywhere in the gastrointestinal tract, but most commonly it appears in regions of the stomach, driven by various mutations. Sicklick and colleagues hypothesized that the anatomic location of stomach GIST was associated with unique genomic profiles and distinct mutations.

Researchers looked at 2,418 patients with primary gastric GIST, both with mutations of the gene that produces the enzyme receptor tyrosine kinase (KIT) and those without the KIT mutation. In addition, they analyzed data from an international cohort of 236 patients.

They found that gastric GIST patients with non-KIT mutations, including SDH mutations, typically experienced tumors in the distal or lower region of the stomach while patients with KIT mutations overwhelmingly suffered tumors in the proximal or upper portion of the stomach.



Joel Baumgartner, MD

## PEOPLE NEWS

### Dr. Baumgartner publishes study in the Journal of the American College of Surgeons

**Joel Baumgartner, MD**, associate professor of surgery in the Division of Surgical Oncology, and colleagues reported results of a randomized controlled trial at the American College of Surgeons Clinical Congress in October, 2021, investigating the use of alvimopan for improved bowel function recovery in patients undergoing cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (CRS-HIPEC). This study (entitled “*The ILEUS Study: A Phase 2 Randomized Controlled Trial Investigating Alvimopan For Enhanced Gastrointestinal Recovery After Cytoreductive Surgery And Hyperthermic Intraperitoneal Chemotherapy*”) was conducted at UCSD among patients with peritoneal metastases undergoing CRS-HIPEC and randomized patients to perioperative alvimopan versus placebo and compared the time to return of bowel function.

The study was stopped early by the study drug sponsor after 62 patients were enrolled. Patients who received alvimopan had return of upper and lower bowel function 117 hours after surgery versus 152 hours in those who received placebo. Patients who received alvimopan also had earlier time to first bowel movement than those who received placebo, and there was no difference in adverse events between the two groups.

UCSD is a major referral center for the surgical management of patients with peritoneal metastases, and the high volume of patients at UCSD allowed this randomized controlled trial to be conducted. CRS-HIPEC is an extensive surgical procedure that is associated with prolonged recovery, which is largely driven by delayed return of bowel function. This study provides evidence of the safety and efficacy of alvimopan in this population and supports expansion of its use after CRS-HIPEC. This may translate to shorter hospital stays, faster recovery, and reduced costs for these patients.



Winta Mehtsun, MD, MPH



### Dr. Andrew Lowy Receives Lustgarten Foundation Grant for Pancreatic Cancer Research

Congratulations to **Andrew Lowy, MD, FACS**, recipient of a \$1.2 million Lustgarten Foundation grant to fund his pancreatic cancer research. Pancreatic cancer has a poor prognosis, even when the disease is diagnosed at an early stage. Dr. Lowy theorizes that abnormal activation of genes known as “*super-enhancers*” drive pancreatic cancer progression and metastasis. He and his team have identified one such gene, MICAL2, which is frequently over-expressed in the disease. As MICAL2 is an enzyme, whose class has already been successfully targeted in human disease, Dr. Lowy believes that it is a viable therapeutic target for pancreatic cancer. During the grant period, his group will determine how MICAL2 promotes pancreatic cancer progression

### Four Faculty win 2021 Felix Largiadèr Price Award

**Suna Erdem, PhD, Jayanth Shankara Narayanan, PhD, Yuan Chen, PhD, and Rebekah White, MD, FACS**, have received the 2021 Felix Largiadèr Price Award from the Society of Swiss Visceral Surgeons their work, “*Inhibition of SUMOylation enhances responses to irreversible electroporation in pancreatic cancer.*”

### Dr. Sicklick Receives Dual Appointment

**Jason Sicklick, MD FACS**, now has a dual appointment as adjunct professor in the UC San Diego School of Pharmacology. Congratulations, Dr. Sicklick!

### Dr. Clary serves SSO Program Chair

**Bryan Clary, MD, MBA** served as Program Chair for the 2022 Annual Society of Surgical Oncology (SSO) Meeting held in Dallas, Texas March 9-12, 2022. Dr. Clary was also elected to serve on the Executive Council of the SSO from 2022-2025. The SSO is the largest organization in the world dedicated to advancement of the discipline of cancer surgery

## NOTABLE FACULTY

**Winta Mehtsun, MD, MPH:** The Division of Surgical Oncology is delighted to welcome Dr. Winta Mehtsun to the faculty. Dr. Mehtsun was born in Ethiopia and grew up in Singapore before emigrating to the U.S. Dr. Mehtsun joins us after completing medical school at the University of Virginia and a Master’s Degree from The Johns Hopkins- Bloomberg School of Public Health. She completed residency training at Massachusetts General Hospital and is completing her fellowship training in surgical oncology at the MGH/Brigham/Dana Farber Harvard Combined Program. Dr. Mehtsun will practice both in La Jolla and Hillcrest, focusing on sarcoma and endocrine surgery. Her research focuses on the intersection of health policy, financial incentives, and regulation, and their impact on surgical utilization, cost, and outcomes. We are proud that Dr. Mehtsun will be the first Department member to hold a dual appointment in the Departments of Surgery and the Wertheim School of Public Health and look forward to welcoming her here in the fall.

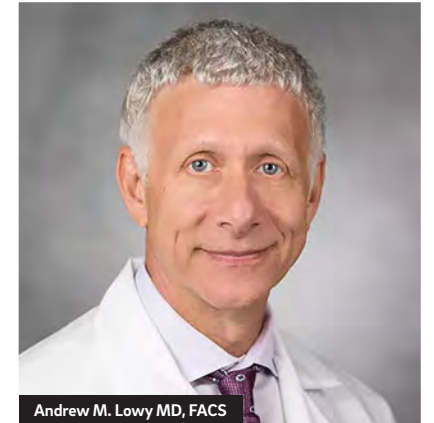
**Dr. Robert Barone** joined the Surgical Oncology team this year. Dr. Barone started the Division of Surgical Oncology at UC San Diego with Dr. Joseph Pilch in 1976, and used to serve as the Director of Surgical Oncology Services at Sharp Healthcare, voluntary professor of surgery at UC San Diego and as staff for the Surgical Oncologist Oncology Associates of San Diego. Dr. Barone is also part of multiple professional organizations including the Society of Surgical Oncology and American Head and Neck Society. He is also involved in research, with past research involving development of implantable liver infusion pumps and implantable venous access devices for combination therapy of liver resection and intra-arterial chemotherapy. Please join us in welcoming Dr. Barone!

**Michael Turner, MD**, was the 1st place winner of the 2021 Claude Organ Jr. Resident award for best abstract by a resident or fellow at Society for Black Academic Surgeons national conference. His abstract was titled “*MUC4 Fluorescent Antibodies Target Primary and Liver Metastasis Colon Cancer in Mouse Model.*”

## SELECTED PUBLICATIONS

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## SURGICAL ONCOLOGY FACULTY



Andrew M. Lowy MD, FACS

**CHIEF OF DIVISION**  
Andrew M. Lowy MD, FACS

**PROFESSORS OF SURGERY**  
Michael Bouvet, MD, FACS  
Robert Barone, MD  
Yuan Chen, PhD  
Bryan Clary, MD, MBA  
Jason Sicklick, MD  
Rebekah White, MD

**ASSOCIATE PROFESSORS OF SURGERY**  
Joel Baumgartner, MD  
Kaitlyn Kelly, MD  
Jula Veerapong, MD

**ASSISTANT PROFESSOR OF SURGERY**  
Winta Mehtsun, MD

**ADJUNCT FACULTY OF SURGERY**  
Ray Partha, MD

**RECALL FACULTY OF SURGERY**  
Georgia Sadler, MD

## DIVISION OF SURGICAL SCIENCES



James Friend, PhD

### FEATURED STORY

#### Liver Fibrosis 'Off Switch' Discovered in Mice

*UC San Diego Health initiative will translate clinical data into novel personalized therapies for breast cancer patients.*

Chronic alcohol abuse and hepatitis can injure the liver, often leading to a buildup of collagen and scar tissue. Understanding this process, known as liver fibrosis, could help researchers develop new ways to prevent or treat conditions such as alcoholic liver disease, non-alcoholic steatohepatitis (NASH) and nonalcoholic fatty liver disease (NAFLD).

In a study published January 23, 2020 by Gastroenterology, researchers at University of California San Diego School of Medicine demonstrated for the first time that liver fibrosis progression could potentially be addressed by manipulating a special population of liver cells called hepatic stellate cells (HSCs).

In the liver, HSCs are found in three forms: naïve in healthy people, activated in people with liver disease and inactivated in people who have recovered from liver fibrosis. In both mouse and human liver tissue, the researchers discovered they can control this cellular switch by activating or inhibiting specific transcription factors, molecules that turn genes "on" or "off."

"We are excited to discover that HSCs have this flexibility, and that we can change their type by manipulating the molecules involved," said **Tatiana Kisseleva, MD, PhD**, associate professor of surgery at UC San Diego School of Medicine. "These insights may allow us to develop new ways to stop the progression of liver fibrosis." Kisseleva led the study with first author Xiao Liu, a researcher in her lab.

In healthy people, naïve HSCs store vitamin A and support normal liver function — filtering blood, metabolizing drugs and producing bile acids to aid digestion. But in alcoholic liver disease or hepatitis, HSCs become activated and start producing collagen, a hallmark of fibrosis.

Kisseleva and her team identified several



transcription factors that distinguish active HSCs from naïve HSCs, and studied them in human liver samples and mouse models. Some of the transcription factors they found prevent activation of HSCs or inactivate them. When the levels of each of these naïve-associated transcription factors were reduced in mouse HSCs, the cells became activated, increased their collagen production and promoted fibrosis. Liver fibrosis was more severe in mice lacking these transcription factors.

The researchers also took the opposite approach, stimulating one of these transcription factors, PPAR, with a chemical called rosiglitazone. In mice treated with rosiglitazone, the researchers observed liver fibrosis regression and faster resolution of fibrous scars than in untreated mice.

New therapeutic targets are urgently needed for liver fibrosis, she said. According to the US National Institutes of Health, weight loss is the only known method for reducing liver fibrosis associated with NAFLD and NASH. Therapeutic drugs to slow the progression of disease are only available in advanced stages, where NASH has led to liver cirrhosis. Alcoholic liver disease is most commonly treated with corticosteroids, but they are not highly effective. Early liver transplantation is the only proven cure, but is offered only at select medical centers to a limited number of patients.

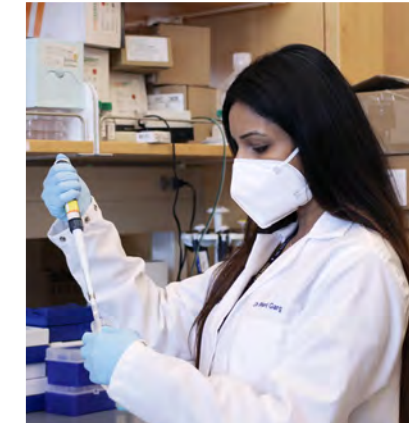
### AWARDS

#### Four Faculty win 2021 Felix Largiadèr Price Award

Suna Erdem, PhD, Jayanth Shankara Narayanan, PhD, **Yuan Chen, PhD**, and Rebekah White, MD, FACS, have received the 2021 Felix Largiadèr Price Award from the Society of Swiss Visceral Surgeons their work, "Inhibition of SUMOylation enhances responses to irreversible electroporation in pancreatic cancer."

“ We essentially found that we can help PPAR put a stop to collagen production by activated HSCs

— Tatiana Kisseleva, MD,



Yuan Chen, PhD

**CHIEF OF DIVISION**  
Yuan Chen, PhD

**PROFESSORS OF SURGERY**  
Antonio R. De Maio, PhD  
Brian P. Eliceiri, PhD

**ASSOCIATE PROFESSOR OF SURGERY**  
Tatiana Kisseleva, MD

**PROFESSOR OF MECHANICAL AND AEROSPACE ENGINEERING**  
James Friend, PhD

**ASSISTANT PROFESSOR OF MECHANICAL AND AEROSPACE ENGINEERING**  
Tania Morimoto, PhD

*The Division of Surgical Sciences (DSS) is the newest division to join the UC San Diego Department of Surgery. DSS conducts leading-edge cross-disciplinary research on elucidating mechanisms of human diseases and on developing new diagnostics and therapeutics, while maintaining DSS laboratories.*

*Our faculty members actively participate in education and serve as program co-directors and mentors for National Institutes of Health (NIH) funded research training programs for surgical residents, graduate students and postdoctoral fellows. Our research programs focus on various surgical diseases and are supported by relevant institutes of the NIH, including National Institute on Alcohol Abuse and Alcoholism, National Institute of Diabetes, Digestive and Kidney Diseases, National Institute of General Medical Sciences, National Cancer Institute, National Institute of Dental and Craniofacial Research, and the Veteran's Administration, among others.*



Brian P. Eliceiri, PhD



Tania Morimoto, PhD

# DIVISION OF TRANSPLANT AND HEPATOBILIARY SURGERY



The Division of Transplant and Hepatobiliary Surgery is the leading abdominal transplant program in San Diego and is a regional referral center for the surgical treatment of liver disease and cancers. The program performs liver, kidney and multi-organ transplantation, as well as complex liver and bile duct surgery for cancer and benign conditions.

## Transplantation By the Numbers

UC San Diego Health transplant programs rank among the nation's best and set records in multiple areas, according to a biannual report by the Scientific Registry of Transplant Recipients.

Our Lung Transplant program performed a record breaking 47 transplants and is currently No. 1 in the nation for both patient and graft survival in the 50-75 transplant volume category.

Our Kidney Transplant program performed a record breaking 150 transplants, including 50 living donor kidney transplants. The program is No. 1 in the nation for three-year patient outcomes from deceased donor transplants and is top five in the country for outcomes.

Our Heart Transplant program performed a record-breaking 85 transplants and is No. 2 nationally for both one-year patient and graft outcomes in the 100 - 125 transplant volume category. Our program is No. 1 in the country for three-year patient survival. The program is No. 2 nationally for DCD heart transplant volume in 2021 and remains the only DCD heart program on the west coast.

Our Liver Transplant program performed 82 transplants in 2021 and is No. 3 in the nation for both patient and graft outcomes in the volume category between 100-150 transplants.

We also restarted the living donor liver transplant program, which is one of only two programs available for patients in Southern California. Over five years, UC San Diego Health Center for Transplantation Center for Transplantation has become the leading transplant program in San Diego and nationally," said Dr. Kristin Mekeel, chief of transplant & hepatobiliary surgery.

“ We’re proud to have performed a record 364 transplants in 2021 with nation-leading patient outcomes.

— Dr. Kristin Mekeel  
Chief of transplant & hepatobiliary surgery

### RECORD BREAKING TRANSPLANTS:

**150** Kidney  
**82** Liver

## UC San Diego Ranks Among Top In Nation for Transplant Survival Rates

At UC San Diego Health's Center for Transplantation, you receive the highest-quality care in the safest healthcare environment.

Our patient and transplant organ (graft) survival rates exceed the national average for all programs, placing us among the nation's best transplant centers by the Scientific Registry

of Transplant Recipients (SRTR).

To help you make an informed decision about where to seek an organ transplant, we provide outcome data for each of our transplant programs. This information helps you as a consumer, and it helps us continuously strive to improve the care we provide.

**DIVISION FACT:** UC San Diego Health's Center for Transplantation, received the highest-quality care in the safest healthcare environment.

UCSD patient and transplant organ (graft) survival rates exceed the national average for all programs.

Organ	Patient and Graft Survival*	UC San Diego Health Survival Rate	National Survival Rate
Kidney	Patient Survival	98.37%	97.16%
	Graft Survival	95.48%	95.19%
Liver	Patient Survival	97.45%	93.82%
	Graft Survival	93.43%	91.90%

\*Graft survival refers to the survival of the transplanted organ.

## Liver Transplant Program Expands Access

The UCSDH liver transplant program has increased the availability of livers for patients on the transplant list using several innovative operative techniques and equipment to improve organ preservation.

The surgical team has pushed the limits of organ donation after cardiac death with the liver perfusion pump and normothermic reperfusion. Both techniques help preserve the organs with in a warm, oxygenated setting instead of the traditional cold ice bath. The livers procured with these techniques work faster and can last a longer time after donation than standard methods. This is particularly useful in organs from marginal or rapid donors.

Many lives have been saved by adoption of these techniques and use of organs that might have been discarded.

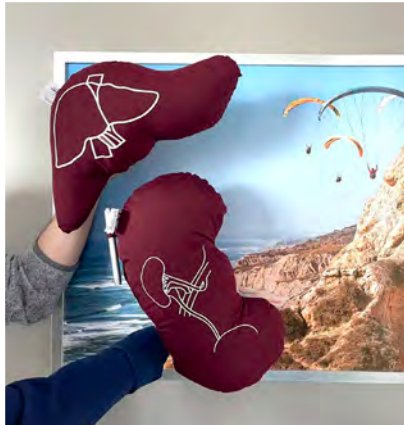
The UC San Diego Health liver transplant program also successfully launched an adult to adult living donor liver transplant program with excellent outcomes this year lead by Dr. Gabriel Schnickel.

The UCSDH kidney transplant program continues to grow predominately in the area of living donation. As a member of the national kidney registry, almost all patients who have a living donor can find a match through paired and chain donation. Chain and paired kidneys often travel long distances but have the same outcomes as organs from living donors done in the same location.

Living donor kidneys have a longer life span and better immediate function than deceased donors.



Gabriel Schnickel, MD



## Organ Transplant Recipients Significantly Protected by COVID-19 Vaccination

*In a Brief Communication, published July 2021 in the journal Transplant Infectious Disease, a team of physician-scientists at UC San Diego School of Medicine found that solid organ transplant recipients who were vaccinated experienced an almost 80 percent reduction in the incidence of symptomatic COVID-19 compared to unvaccinated counterparts during the same time.*

*"Persons who have received an organ transplant are considered to be at increased risk for COVID-19 and for a severe outcome because their immune systems are necessarily suppressed to ensure their transplants are successful and lasting,"* said Saima Aslam, MD, professor of medicine at UC San Diego School of Medicine and medical director of the Solid Organ Transplant Infectious Disease Service at UC San Diego Health. *"These findings offer strong evidence that getting vaccinated provides significant protection."*

The researchers examined clinical data from the UC San Diego Health transplant registry from January 1, 2021 through June 2, 2021. During the study period, there were 65 diagnosed cases of COVID-19 among the organ recipients: four among fully vaccinated individuals and 61 among the controls (two involving partially vaccinated individuals). There were no deaths among the breakthrough COVID-19 cases, but two among the 61 control cases.

## PEOPLE NEWS

### Dr. Kristin Mekeel Appointed Associate CMO for Surgical Quality Leadership

**Kristin Mekeel, MD**, has served admirably in a surgical quality leadership role for UC San Diego since 2016, when she spent three years as the Abdominal Transplant Quality Director. In 2019, she was appointed Vice-Chair of Quality for the Department of Surgery, as well as Director of Surgical Quality for UCSD Health. In June of 2020, Dr. Mekeel completed a master's program for patient safety and healthcare quality at Northwestern University.

We are pleased to announce that Dr. Mekeel has recently had her leadership position with UCSD Health elevated to Associate CMO (aCMO) by Chief Medical Officer and Chief Digital Officer Christopher Longhurst. During the last two years, Dr. Mekeel has driven multiple performance improvement projects that have improved the quality and safety of surgical patient care in and out of the operating room.

She will continue in her roles as Chief of the Division of Transplant and Hepatobiliary Surgery as well as Vice Chair for Quality, Department of Surgery and will continue to partner closely with Dr. Clary, the peri-operative triad, and the other surgical department chairs in her new role.

## NOTABLE FACULTY

**Aleah Brubaker, MD**, Dr. Brubaker joined the division of Transplant and Hepatobiliary Surgery on September 1, 2021 as an Assistant Professor of Clinical Surgery. Aleah graduated cum laude in 2014 with a combined Doctor of Medicine and Doctor of Philosophy from Loyola University in Chicago. She went on to complete her general surgery residency with the Stanford Accelerated Surgeon Scientist program in 2019 and is a board-certified general surgeon by the American College of Surgeons. Dr. Brubaker remained at Stanford for her 2-year fellowship in pediatric and adult abdominal transplantation and will finish in July of 2021. At UC San Diego Dr. Brubaker will be an active participant in all clinical activities in the division's surgical service including liver, kidney and pancreas transplants, living donor kidney nephrectomies, hepatobiliary surgery, general surgery, and deceased donor organ procurements. She will also help develop and start the pediatric liver transplant program at Rady Children's Hospital. Academically,



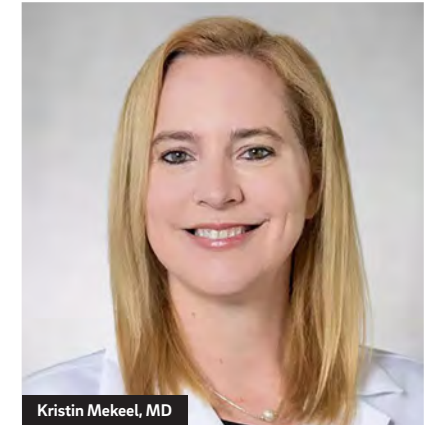
Aleah Brubaker, MD

Dr. Brubaker will pursue a research program in the urinary microbiome of kidney transplant recipients and relationship to recurrent urinary tract infections and rejection. In her spare time, Aleah enjoys hiking and spending the day at the beach with her dog, Diego, and fiancé, Jared. She loves to cook and host gatherings for family and friends, while enjoying a glass of wine or Jared's home brewed beer; a lazy Sunday brunch is one of her favorite meals.

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2. Hepatic Hilar Nerve Block for Hepatic Interventions: Anatomy, Technique, and Initial Clinical Experience in Thermal Ablation of Liver Tumors. He KS, Fernando R, Cabrera T, Valenti D, Algharar A, Martínez N, Liu DM, Noel G, Muchantef K, Bessissow A, Boucher LM. Radiology. 2021 Jul 13:203410. PMID: 34254852
3. Human Induced Pluripotent Stem Cell-Derived Macrophages Ameliorate Liver Fibrosis. Pouyanfard S, Meshgin N, Cruz LS, Diggle K, Hashemi H, Pham TV, Fierro M, Tamayo P, Fanjul A, Kisseleva T, Kaufman DS. Stem Cells. 2021 Aug 30. PMID: 34460131
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5. Hepatic Hilar Nerve Block for Hepatic Interventions: Anatomy, Technique, and Initial Clinical Experience in Thermal Ablation of Liver Tumors. He KS, Fernando R, Cabrera T, Valenti D, Algharar A, Martínez N, Liu DM, Noel G, Muchantef K, Bessissow A, Boucher LM. Radiology. 2021 Jul 13:203410. PMID: 34254852
6. Selective PPAR agonist seladelpar suppresses bile acid synthesis by reducing hepatocyte CYP7A1 via the fibroblast growth factor 21 signaling pathway. Kouno T, Liu X, Zhao H, Kisseleva T, Cable EE, Schnabl B. J Biol Chem. 2022 May 20:102056. doi: 10.1016/j.jbc.2022.102056. Online ahead of print. PMID: 35605662
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## TRANSPLANT AND HEPATOBIILIARY SURGERY FACULTY



Kristin Mekeel, MD

**CHIEF OF DIVISION**  
Kristin Mekeel, MD, FACS

**FULL PROFESSOR OF SURGERY**  
Gabriel Schnickel, MD

**ASSOCIATE PROFESSORS**  
Jennifer Berumen, MD  
Tatiana Kisseleva, MD, PhD

**ASSISTANT PROFESSORS OF SURGERY**  
Aleah Brubaker, MD, PhD  
Justin Parekh, MD

# DIVISION OF TRAUMA



*The Division of Trauma, Surgical Critical Care, Burns, and Acute Care Surgery has a mission to provide world class care 24/7 to acutely injured or ill surgical patients. It does this with an ACS verified level one trauma center and an American Burn Association verified Regional Burn Center at the Hillcrest campus of UC San Diego.*

*UC San Diego opened the first regional level one trauma center in 1976 and also operates the only regional burn center for San Diego and Imperial Counties. Our mission is to save our patients' lives and health and return them safely to their families.*

## FEATURED STORY

### Regional Burn Center Receives ABA Reverification

The UC San Diego Regional Burn Center has completed a successful American Burn Association (ABA) reverification visit as San Diego County and Imperial County's only adult and pediatric burn center. The ABA team recommended reverification without any deficiencies, pending approval of the ABA Verification Committee.

This recommendation exemplifies the burn program's ability to meet the highest standards of care for burn-injured patients. Reverification from the ABA distinguishes the center to patients, families, third-party payers, government, and accreditation organizations, and demonstrates that the UC San Diego Regional Burn Center provides the highest quality of patient care to burn patients from time of injury through rehabilitation.

The rigorous reverification process included a pre-visit, a virtual onsite survey and a post-visit where the ABA team made the recommendation for reverification. The recommendation was made after the UC San Diego regional burn team, led by Burn Director **Jeanne Lee, MD** and Burn Program Manager **Eli Strait, RN**, presented evidence based on consensus standards that established that the threshold for high quality burn care had been met. The nursing response to standards was presented by **Jeremy Cabrera, RN**, Burn Nurse Director. All stakeholders were involved in these presentations, including Burn Surgeons **Laura Godat, MD, FACS** and **Sara Higginson, MD**.

The burn program team submitted an 80-page burn care quality review document as part of the process, overviewing burn center admissions, administration and direction; certifications and trainings; teaching and education; advance practice professionals, nursing, therapy, pharmacy, members and consultants; quality improvement, pre-hospital care, the emergency department, intensive care unit, operative services, anesthesiology, plastic surgery, outpatient clinic, rehabilitation, ambulatory care, community reintegration, prevention and outreach; advocacy, research, disaster planning and mortality rates.

The UC San Diego Regional Burn Center is led by surgeons from the Department of Surgery in the Division of Trauma, Surgical Critical Care, Burns, and Acute

Care Surgery, and has been at the Hillcrest campus site since 1973. It remains one of the signature programs at UC San Diego and has throughout its history been recognized nationally for its extraordinary outcomes and innovative approaches to the care of burn patients. Many members of the Department in addition to our Trauma, Surgical Critical Care, Burns, and Acute Care Surgery faculty are critical to the success of this program including our Plastic Surgery team, Advanced Practice Providers, Residents and Staff. Congratulations to Drs. Lee, Godat, Higginson, Doucet and the broader team of contributors on this important achievement.

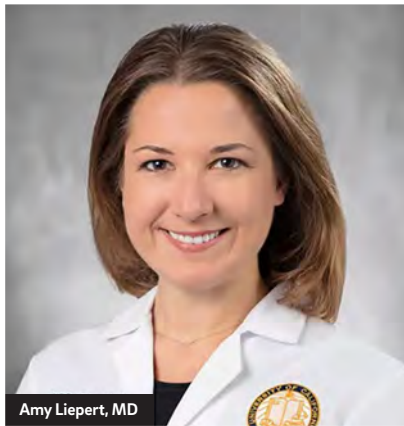
Helping patients heal emotionally and physically from mild, severe and life-threatening burn injuries is a top commitment of our multidisciplinary burn center team. With leading-edge treatments, advanced diagnostic and surgical techniques, and a comprehensive team approach to burn care, we are able to respond to even the most complex medical issues.

**DIVISION FACT:**  
Each year, our Burn team treats approximately 450 patients, including infants and children, and hundreds more as outpatients in the burn clinics.

Our burn center is the only one in the region to be verified by the American College of Surgeons and American Burn Association as a pediatric and adult burn center.

We care for all residents of San Diego and Imperial counties who have experienced major or minor burns and critical soft tissue conditions.





“ This is an unseen public health crisis happening right now and it has significantly affected major local health care providers in San Diego.

— Amy Liepert, MD

## FEATURED STORY

### Drs. Amy Liepert and Jay Doucet: Calling on California to 'Stop the Bleed'

Each year, about 2 million people around the world die from hemorrhaging, or blood loss, and as many as 1.5 million of these deaths are the result of physical trauma, including gunshot wounds. In the United States, 60,000 people per year die from bleeds. UC San Diego's **Amy Liepert, MD, FACS**, of our Division of Trauma Surgery, and Trauma Chief **Jay Doucet, MD, FRCSC, FACS**, have been instrumental in championing California Assembly Bill 2260, which would mandate that STOP THE BLEED® bleeding control kits be added to all public buildings with capacity over 200.

This past year, AB2260 – which is authored by Assemblymember Freddie Rodriguez and co-authored by Senator Ben Hueso – received unanimous support from the California State Assembly. On Sept 27, Governor Newsom signed AB2260 into law, which is a great example of what grass roots advocacy by surgeons can do for our patients – in this case led by surgeons at UC San Diego.

## RESEARCH NEWS

### Unprecedented Increase in Number of Border Wall Falls and Trauma

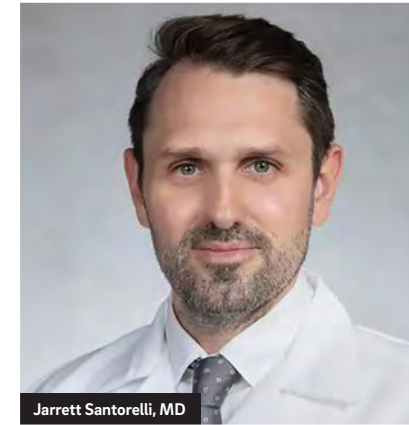
Since 2019, there has been a five-time increase in the number of high-severity injuries occurring at the U.S.-Mexico border wall in Southern San Diego. Trauma physicians at UC San Diego Health attribute the rise in injuries to a height increase of the border wall from a range of eight and 17 feet to 30 feet.

*"The height increase of the border wall along the San Ysidro and El Centro sectors was touted as making the barrier 'unclimbable,' but that has not stopped people from attempting to do so with consequential results,"* said first author Amy Liepert, MD, medical director of acute care surgery at UC San Diego Health.

At UC San Diego Health, there were 67 cases of trauma-related incidents due to falls at the border wall from 2016 to 2019. The number jumped to 375 between 2019 and 2021. Fatalities also increased, zero before 2019 to 16 since then.

The study was conducted retrospectively and calculated border wall fall admissions from January 2016 to December 2021. Data on hospital mortality, overall injury severity, hospital length of stay and inflation-adjusted hospital costs were also collected.

*"Additional capacity and associated costs were not accounted for in the federally appropriated funds to reinforce and heighten the border barrier system,"* said Liepert. *"Hospital costs for border wall-injured immigrants at UC San Diego Health alone are estimated to be approximately \$13 million between 2019 and 2021."*



## AWARDS

### Regional Burn Center Receives \$248K Donation for Technology and Education

The UC San Diego Health Regional Burn Center has received a \$248,000 gift from the estate of Willard Matteson to fund education for dermatological treatments, as well as education expenses for nurses, therapists and other non-MDs who are presenting a burn research project at a conference representing the Burn Center

Our burn center is the only one in the region to be verified by the American College of Surgeons and American Burn Association as a pediatric and adult burn center. We care for all residents of San Diego and Imperial counties who have experienced major or minor burns and critical soft tissue conditions.

## SELECTED PUBLICATIONS

- Santorelli JE, Chau H, Godat L, Casola G, Doucet JJ, Costantini TW. Not so FAST-Chest ultrasound underdiagnoses traumatic pneumothorax. *J Trauma Acute Care Surg.* 2022 Jan 1;92(1):44-48. doi: 10.1097/TA.0000000000003429. PMID: 34932040.
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- Liepert AE, Berndtson AE, Hill LL, Weaver JL, Godat LN, Costantini TW, Doucet JJ. Association of 30-ft US-Mexico Border Wall in San Diego With Increased Migrant Deaths, Trauma Center Admissions, and Injury Severity. *JAMA Surg.* 2022 Jul 1;157(7):633-635. doi: 10.1001/jamasurg.2022.1885. PMID: 35486395; PMCID: PMC9055512.
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- Borst JM, Modi RN, Kirchberg TN, Box K, Smith AM, Godat LN, Doucet JJ, Costantini TW, Berndtson AE. You're never too old for optimal venous thromboembolism prophylaxis: Re-thinking current trauma guidelines. *Thromb Res.* 2022 Oct;218:186-188. doi: 10.1016/j.thromres.2022.08.026. Epub 2022 Sep 1. PMID: 36081242.
- Berndtson AE, Costantini TW, Smith AM, Edwards SB, Kobayashi L, Doucet JJ, Godat LN. Management of choledocholithiasis in the elderly: Same-admission cholecystectomy remains the standard of care. *Surgery.* 2022 Oct;172(4):1057-1064. doi: 10.1016/j.surg.2022.06.008. Epub 2022 Aug 18. PMID: 35989133.

## PEOPLE NEWS

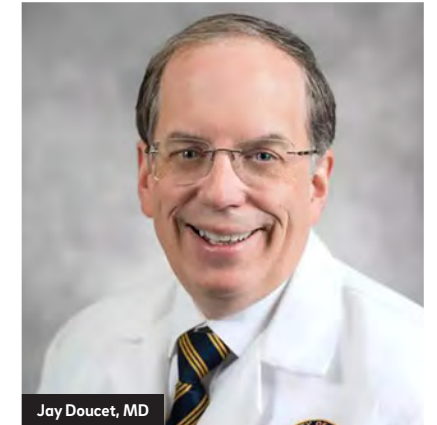
**Jarrett Santorelli, MD** is a new Assistant Professor of Clinical Surgery in the Department of Surgery, Division of Trauma, Surgical Critical Care, Burns, and Acute Care Surgery.

He completed his General Surgery residency as Administrative Chief Resident at the University at Buffalo, Jacobs School of Medicine and Biomedical Sciences in June 2019. He then completed a fellowship at UC San Diego, in Critical Care Surgery and was among the first fellows selected here for the American Association for Surgery of Trauma (AAST) Acute Care Surgery Fellowship, while also completing the American Burn Association (ABA) requirements for the Burn Surgery Fellowship in July 2021.

Dr. Santorelli has been already quite productive since arriving with nine peer-reviewed articles as a fellow while receiving excellent teaching evaluations from residents and medical students. In his faculty appointment, Dr. Santorelli will serve primarily at UC San Diego Health Hillcrest, where he will attend on the Burn, Trauma and Acute Care Surgery services. He will also maintain an active clinical research program in Burns and Acute Care Surgery and will assist in education as Associate Program Director for the division's fellowship programs.

Dr. Santorelli and his wife Tiffani are also proud new parents of a baby boy.

## DIVISION OF TRAUMA FACULTY



### CHIEF OF DIVISION

Jay Doucet, MD, MSc, FRCSC, FACS

### PROFESSORS OF SURGERY

Todd Costantini, MD, FACS  
Antonio De Maio, PhD  
Brian Eliceiri, PhD  
Leslie Kobayashi, MD, FACS  
Jeanne Lee, MD, FACS  
Bruce Potenza, MD

### ASSOCIATE PROFESSORS OF SURGERY

Allison Berndtson, MD, FACS  
Laura Godat, MD, FACS  
Amy Liepert, MD, FACS

### ASSISTANT PROFESSORS OF SURGERY

Jarrett Santorelli, MD  
Jessica Weaver, MD, FACS

### PROJECT SCIENTIST

David Cauvi, PhD

# DIVISION OF VASCULAR AND ENDOVASCULAR SURGERY



*The Division of Vascular and Endovascular Surgery at UC San Diego is committed to providing the highest quality surgical and endovascular comprehensive care for the entire spectrum of peripheral arterial, carotid, aneurysmal, and venous diseases.*

*All faculty members, being led by Mahmoud Malas, MD, MHS, view the practice of vascular surgery as an honor and privilege as we aim to both expand and improve the care we provide. We look forward to the challenges that are ahead as we aim to continue to expand the division.*



Ann C Gaffey MD, MS



Tom Alsaigh MD



Omar Al-Nouri, MD

## FACULTY NEWS

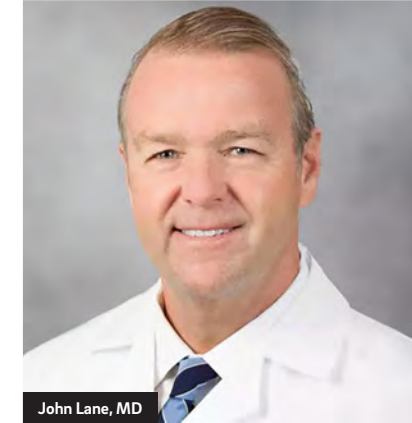
During this past academic year, we saw many exciting developments in the Division of Vascular and Endovascular Surgery. In January 2022, the Division introduced a new and the first female faculty, **Ann C Gaffey MD, MS**. Dr. Gaffey is joining UC San Diego after completing both her general surgery residency and vascular surgery fellowship at the University of Pennsylvania. Dr. Gaffey will develop the translational research arm of the division with a focus on tissue engineered therapies for limb ischemia. During her short tenure at UC San Diego, she and James Friend, PhD (Professor of Bioengineering) received the Surgery-Engineering Pilot Award from the Department of Surgery. Furthermore, her outreach work at the University of Botswana mirrors her interest in limb preservation. Her work is supported through a 3M Global Investigator grant which is examining the impact of Patient Powered Vacuum Assisted Closure of wound and avoidance of amputation in diabetic foot in resource limited environment: The Botswana Experience.

The Division also saw the addition of the first Vascular Medicine faculty, **Tom Alsaigh MD**. Dr. Alsaigh is a board-certified internist and vascular medicine physician. After medical school he joined the physician-scientist research track residency program at Scripps, where he was awarded an NIH KL2 grant to study atherosclerosis at the genomics level. He was then recruited to Stanford University, where he completed a vascular medicine fellowship with training in comprehensive non-invasive vascular disease management, venous interventions, and advanced wound care. He was also awarded an NIH T32 training grant to continue his work in vascular genomics. Following fellowship, he served as Clinical Instructor of Medicine and Vascular Surgery at Stanford. He now joins UC San Diego as Assistant Professor of Clinical Medicine in the Divisions of General Internal Medicine and Vascular Surgery.

We not only saw the addition of new faculty but many of our amazing faculty took on new roles. **Omar Al-Nouri, MD** who had served as the associate program director was promoted to take the reins as the program director of the Vascular Surgery Fellowship program.

## UC San Diego Health

**Andrew Barleben, MD**  
Vascular Surgeon  
UC San Diego Health

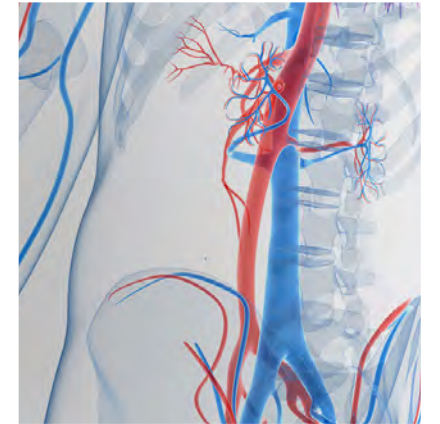
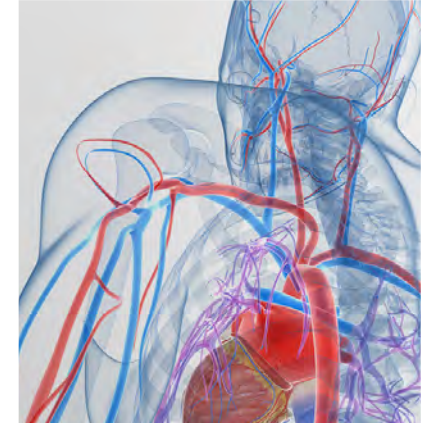


John Lane, MD

**John Lane, MD** has thus taken the lead as the program director for the integrated vascular surgery residency as he shepherds our first two recruits through their training. Our two-pronged training arms (residency and fellowship) continue to attract the best and brightest applicants.

Clinically, the division remains active. **Andrew Barleben, MD** was approved for the first in Southern California investigational device exception (IDE) where we will be able to treat complex thoracic and abdominal aneurysms with a custom-made device.

We continue to grow in both quality and quantify with respect to the case volume. The outpatient-based lab which opened last year is now the only vascular lab in southern California to be have accredited by the association for ambulatory health care (AAAHC).





## VASCULAR AND ENDOVASCULAR SURGERY FACULTY



### EVENTS

The Vascular Annual Meeting (VAM) is the premier research and educational event in Vascular Surgery held in Boston this past year. UC San Diego once again had a strong showing with a total of 15 presentations – 6 podium talks and 9 posters.

Our team discussed the use of artificial intelligence in the operating room, differences in carotid stenting procedures, sex-based outcome differences after carotid surgery, dialysis access and many other topics.

The data included UC San Diego specific outcomes and patient data as well as large national registries.

### RESEARCH

*Carotid Revascularization and Medical Management for Asymptomatic Carotid Stenosis Trial (CREST-2)*

**Malas, Mahmoud, MD, MHS**

**Funding:** National Institute of Neurological Disorders and Stroke (NINDS)

*A Phase 3 Study to Compare the Efficacy and Safety of Humacytes Human Acellular Vessel with that of an Autologous Arteriovenous Fistula in Subjects with End-Stage Renal Disease*

**Malas, Mahmoud, MD, MHS**

**Funding:** Humacyte, Inc.

*A Phase 2 Study for the Evaluation of Safety and Efficacy of Humacyte's Human Acellular Vessel for Vascular Replacement or Reconstruction in Patients with Life or Limb-threatening Vascular Trauma*

**Malas, Mahmoud, MD, MHS**

**Funding:** Humacyte, Inc.

*JAGUAR Trial: ObJective Analysis to GaUge EVAR Outcomes Through Randomization*

**Malas, Mahmoud, MD, MHS**

**Funding:** Endologix, LLC

*Post-Approval Study of the TREGO Abdominal Stent-Graft System (P190015) in Patients with Infraarenal Abdominal Aortic and Aorto-iliac Aneurysms*

**Malas, Mahmoud, MD, MHS**

**Funding:** Teurmo Aortic, Inc.

*Post-Approval Study Of Transcarotid Artery Revascularization In Standard Risk Patients With Significant Carotid Artery Disease: The Roadster 3 Study*

**Malas, Mahmoud, MD, MHS**

**Funding:** Silk Road Medical, Inc.

*A Multi-arm, Multi-Center, Non-Randomized, Prospective, Clinical Study to Evaluate the Safety and Effectiveness of the NEXUS.™ Aortic Arch Stent Graft System in Treating Thoracic Aortic Lesions Involving the Aortic Arch: TRIOMPHE Study*

**Lane, John, MD**

**Funding:** Endospa, Ltd.

### SELECTED PUBLICATIONS

- "Aortic Balloon-Molding" (ABM) During Ovation Endograft Implantation Expands Graft Use for Hostile Neck Anatomy. Jensen R, Mathlouthi A, Al-Nouri O, Malas MB, Barleben A. *Ann Vasc Surg.* 2022 Jul 5;S0890-5096(22)00315-6. doi: 10.1016/j.avsg.2022.05.042. Online ahead of print. PMID: 35803461
- A Single Center Review of a Total Transfemoral Approach to Upper Extremity Access in Branched and Fenestrated Physician Modified Endografts. Patel RJ, Mathlouthi A, Al-Nouri O, Lane JS, Malas MB, Barleben AR. *Ann Vasc Surg.* 2022 Jul 6;S0890-5096(22)00314-4. doi: 10.1016/j.avsg.2022.05.041. Online ahead of print. PMID: 35809740
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- Outcomes of Thoracic Endovascular Aortic Repair for Uncomplicated Type B Dissections Based Upon Chronicity. Gupta JD, Naazie IN, Zarrintan S, Beck AW, Magee GA, Malas MB. *J Vasc Surg.* 2022 Aug 6;S0741-5214(22)02105-X. doi: 10.1016/j.jvs.2022.05.031. Online ahead of print. PMID: 35944731
- Perioperative and Long-term Outcomes after Open Conversion of Endovascular Aneurysm Repair versus Primary Open Aortic Repair. Elsayed N, Alhakim R, Al Nouri O, Baril D, Weaver F, Malas MB. *J Vasc Surg.* 2022 Aug 4;S0741-5214(22)02103-6. doi: 10.1016/j.jvs.2022.07.172. Online ahead of print. PMID: 35934217
- Role of Renin-Angiotensin-Aldosterone System Inhibition in Patients Undergoing Carotid Revascularization. Elsayed N, Unkart J, Abdelgawwad M, Naazie I, Lawrence PF, Malas MB. *J Am Heart Assoc.* 2022 Aug 24:e025034. doi: 10.1161/JAHA.121.025034. Online ahead of print. PMID: 36000412
- TransCarotid Revascularization With Dynamic Flow Reversal Versus Carotid Endarterectomy in the Vascular Quality Initiative Surveillance Project. Malas MB, Dakour-Aridi H, Kashyap VS, Eldrup-Jorgensen J, Wang GJ, Motaganahalli RL, Cronenwett JL, Schermerhorn ML. *Ann Surg.* 2022 Aug 1;276(2):398-403. doi: 10.1097/SLA.0000000000004496. Epub 2020 Sep 15. PMID: 32941280

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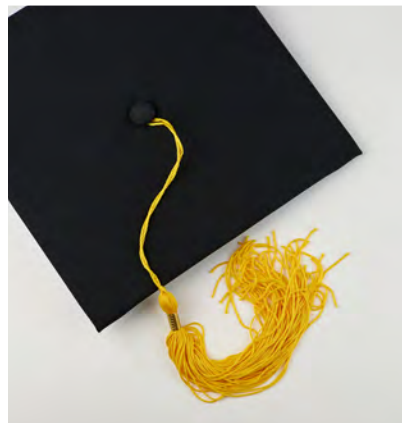
## 2021-2022 TRAINEES, RESIDENTS AND FELLOWS



The UC San Diego Department of Surgery is committed to developing the very best surgeons of tomorrow. The department offers fully accredited academic residency training programs and fellowships in a number of surgical specialties.

Our programs provide the opportunity to train in clinical care and research with highly respected experts and innovators in surgery. UCSD trainees are able to take advantage of state-of-the-art training and research facilities, including the Center for the Future of Surgery, where residents, fellows, medical students, and faculty train on simulation equipment in a risk-free environment.

Trainees also play a crucial role in the scope of our basic, clinical and translational research endeavors, which extend from the laboratory, where fundamental questions are being asked about the mechanisms that underlie human disease, to the community, where faculty are developing new methods for cancer education, outreach, and injury prevention.



### General Surgery Residents

#### INTERNS

Mark Antkowiak  
Claire Bensard  
Asimina Courelli  
Simone Hyman  
Parisa Oviedo  
Graham Spurzem  
Alexander Zhu  
Joud Almogati (RAD-Prelim)  
Dalal Alshubrami (RAD-Prelim)

#### PGY-2

Wyeth Alexander  
Sophie Chung  
Kristen Cox  
William Johnston  
Kim Nguyen-Ta  
Sean Perez  
Louis Perkins  
Narek Veranyan (Prelim)

#### PGY-3

Rachel Blitzer  
Karina Covarrubias  
Jorge De la Torre  
Sasha Douglas (Halasz)  
Ana Maria Dumitru  
Isabella Guajardo  
Jared Matson  
James Jeffrey Reeves

#### PGY-4

Hannah Hollandsworth  
Charissa Lake  
Arielle Lee  
Stephen Niemiec  
Thomas O'Keefe  
Raeda Taj

#### RESEARCH FELLOWS

Harrison Chau  
Nicole Goldhaber  
Estella Huang  
Jonathan Li  
Kevin Li  
Zonyang "Tom" Mou  
Rohini Patel  
Ashwyn Sharma  
Michael Turner

#### AWAY - RESEARCH FELLOWS

Victoria Bendersky (Duke)  
Danielle Carroll (NASA)  
Rachel Jensen (Stanford)  
Jay Meisner  
(Boston Childrens Hospital)

### Otolaryngology / Head and Neck Surgery Residents

#### PGY-1

Tammy Pham  
Benjamin Bernard

#### PGY-2

Jeffrey Bernstein  
Andrew Yousef  
Samuel Early

#### PGY-3

Morgan Davis  
Mena Said  
Benjamin Ostrander

#### PGY-4

Kayva Crawford  
Omid Moshtaghi  
Farhoud Faraji - RSCH

#### PGY-5

Emily Funk  
Robert Saddawi - RSCH

#### PGY-6

Jesse Qualliotine - Chief  
Joshua Stramiello - Chief

#### Fellows

Peter Dixon - PGY-6  
Alexander Claussen - PGY-7

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#### PGY-1

Jason Llaneras  
Lucy Sheahan

#### PGY-1 (ind)

Solomon Tong

#### PGY-2

Garrison Leach

#### PGY-3

Meera Reghunathan

#### PGY-4

Riley Dean  
Paige McLean

#### PGY-5

Kevin Englar

#### PGY-6

Anthony Kordahi  
Sean Li

### Vascular Surgery

#### PGY-1 (Integrated Program)

John Hallsten

#### FELLOW 1ST YEAR

Peter Layman

### GRADUATING FELLOWS AND RESIDENTS

#### General Surgery Residents

Jenny Lam  
Abdominal Transplant Surgery  
Fellowship at Mayo Clinic

Katherine Lee  
Hospice and Palliative Care  
Fellowship at UC San Francisco

Eleftherio "Leo" Makris  
Surgical Oncology Fellowship  
at University of Pittsburgh  
Medical Center

John Alec Moral  
Community Practice in  
Phoenix, Arizona

Timothy Tirrell  
Pediatric Surgery Fellowship at Rady  
Children's Hospital San Diego

Catherine Tsai  
Minimally Invasive Surgery  
Fellowship at Mt. Sinai Hospital,  
New York City

Beiqun "Mark" Zhao  
Colon & Rectal Fellowship at  
Washington University,  
St. Louis, Missouri

#### Acute Care Surgery

Laura Adams  
Academic practice at UC San Diego,  
Division of Trauma, Surgical Critical  
Care, Burns and Acute Care Surgery

George Ventro  
Academic practice at Riverside  
University Health System Medical  
Center

#### Cardiothoracic Surgery

Katharina Fetten  
Cardiothoracic Transplant  
Fellowship at Baylor University  
Medical Center in Dallas, Texas

#### Minimally Invasive Surgery

Samantha Wu  
Community Practice in Ventura,  
California

Michael Genz  
Community Practice in Atlanta,  
Georgia

#### Neurotology

Alexander Claussen  
Academic Practice at the  
University of Iowa

### Otolaryngology / Head and Neck Surgery Residents

Jesse Qualliotine  
Head & Neck Surgery Fellowship  
at UC San Francisco

Joshua Stramiello  
Military Practice at Lakenheath  
Royal Air Force Base, UK

Robert Tuliszewski  
Pediatric Otolaryngology  
Fellowship, University of  
Tennessee, Memphis

#### Pediatric Surgery

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VA Naval hospital, Portsmouth NH  
Shunpei Okochi  
University of Pittsburgh

#### Plastic Surgery (Integrated) Residents

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University of Pennsylvania

Anthony Kordahi  
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Louisiana State University

#### Plastic Surgery-Craniofacial

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Academic Practice at the  
University of Utah

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San Diego

Benjamin Keller  
Academic Practice,  
Rady Children's Hospital

William Marshall  
Acute Care Surgery fellowship  
at UC San Diego

#### Vascular Surgery

Jaideep Das Gupta  
Pulse Cardiovascular Fellowship  
in Spokane, Washington

## GRATEFUL PATIENTS AND PARTNERS



Iris and Matthew Strauss

“Dr. Califano is the kind of doctor one would like to have in a crisis. He is easy to talk to, explains everything and acknowledges the situation – not trying to make it better or worse than what it is. He is just with you.”

– Iris Strauss



Joseph Califano, III, MD

“The uniqueness of Dr. Joe Califano is that he is a total care physician-scientist who follows patients’ health far beyond his surgical skills and is a net-worker par excellence.”

– Matthew Strauss

“Iris and Matthew are invaluable partners in our pursuit of better care for people who need head and neck surgery, part of treatment for some head and neck cancers”

– Joseph Califano, III MD

### FEATURED STORY

## Iris and Matthew Strauss Give \$2 Million to Endow Faculty Chair at UC San Diego

### Joseph Califano, III, MD, director of the Head and Neck Cancer Center, named inaugural chair

*Iris and Matthew Strauss, longtime supporters of cancer research and patient care at Moores Cancer Center at UC San Diego Health, have given \$2 million to establish the Iris and Matthew Strauss Chancellor’s Endowed Chair in Head and Neck Surgery to support excellence in research, education and clinical care.*

*“We believe in the missions of UC San Diego and UC San Diego Health and their commitment to the community, groundbreaking research and health care. UC San Diego Health is at the forefront of transformative health care innovation and practice, and we want to ensure that it is able to attract and retain world-class experts and provide the resources needed for it to continue to change the landscape of clinical care well into the future. We are proud to support UC San Diego Health and its important role as an international leader in head and neck surgery,” said Matthew Strauss.*

Joseph A. Califano, III, MD, professor in the Department of Surgery, Division of Otolaryngology-Head and Neck Surgery, and Department of Radiation Medicine and Applied Sciences at UC San Diego School of Medicine, has been named the

inaugural chair holder. An endowed chair is one of the highest honors that an academic institution can confer upon a faculty member. It recognizes excellence in their research and clinical practice.

Califano’s appointment as the Strauss Chancellor’s Endowed Chair reflects his dedication to innovation and personalized patient care. He integrates molecular research into his clinical practice of head and neck surgical oncology, offering patients the latest in technologies and treatments available today.

As director of the Head and Neck Cancer Center and physician-in-chief at Moores Cancer Center, Califano has translated multiple discoveries from the laboratory to the clinic, including the application of sequencing technologies to create an early detection method for human papillomavirus

(HPV)-related and other head and neck cancers. He serves as principal investigator for clinical trials that explore early detection of head and neck cancers and well as molecular detection of recurrence.

Private support through an endowed chair is critical to supplement funding for cancer research. In 2021, head and neck cancer research at Moores Cancer Center received \$14 million in funding from the National Institutes of Health and \$40 million in future committed funding from foundations and private philanthropy.

*“This gift will allow us to continue transforming the way we understand and treat head and neck cancers through surgical interventions and I am eager to see what kinds of discoveries we make thanks to the Strauss family’s partnership.”* said Califano

In 2018, Iris and Matthew Strauss donated \$1 million to help launch a personalized cancer vaccine clinical trial, hoping that a breakthrough treatment could help patients like their daughter, Tamara, beat their disease. The family previously lost a daughter to ovarian cancer.

The couple are active members of the UC San Diego community. They sit on the UC San Diego Health Board of Advisors, Moores Cancer Center Board of Visitors and UC San Diego Campaign Cabinet.

At Moores Cancer Center, San Diego’s only National Cancer Institute-designated Comprehensive Cancer Center, Califano has built a team that integrates oncologists, surgeons, speech therapists, nutritionists and other specialists needed to optimize care for patients with head and neck cancer by removing as much of their malignancy as possible while sparing normal tissue and function.

With more than 90 staff dedicated to head and neck cancer treatment and research, the Head and Neck Cancer Center cared for more than 13,000 patients in 2020, nearly double the number of patients just five years earlier. It offers more than 20 active clinical trials, including advanced therapies developed by UC San Diego Health physician-scientists. This complements an integrative, multidisciplinary treatment approach that features minimally invasive surgery, reconstruction and rehabilitation, proton and other forms of radiation therapy, chemotherapy, molecular targeted therapies and personalized immunotherapy.

Califano’s gentle bedside approach and his ability to speak to patients in simple and compassionate language about complex and life-altering treatments are characteristics that his patients applaud and that have led to several “Top Doctors” awards. In addition, his interest in including minimally invasive treatment of tumors helps patients return to a sense of normalcy.

Philanthropic gifts, like the \$2 million gift from Iris and Matthew Strauss, contribute to the Campaign for UC San Diego – a university-wide comprehensive fundraising effort concluding in 2022. Alongside UC San Diego’s philanthropic partners, the university is continuing its nontraditional path toward revolutionary ideas, unexpected answers, lifesaving discoveries and planet-changing impact.

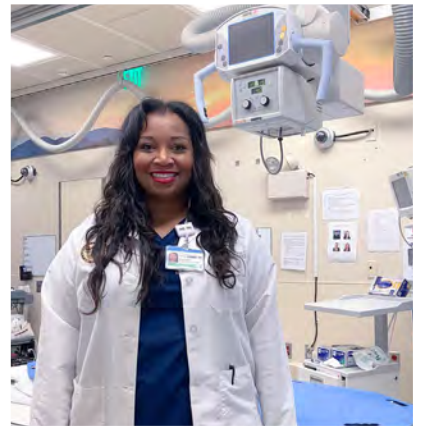
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University of California San Diego  
Department of Surgery  
  
9300 Campus Point Drive #7400  
La Jolla, CA 92037-7400  
[surgery.ucsd.edu](http://surgery.ucsd.edu)

