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.

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

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.
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

326 Publications

113 Employees and Staff

32 Active Research Awards

71,041 Office Visits

Cases: Inpatient: 13,721, Outpatients: 7,693

Pediatric by the Numbers:
New Outpatient Pediatric Plastic Surgery Visits: 1,182
Established Pediatric Plastic Surgery Outpatient Visits: 1,845
Pediatric Plastic Surgical Procedures: 2,125
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
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 geriatrics. 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 wide 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 maintain 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 may occur in novel 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 Kearn
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 cardiac 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.

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 the 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 centers.

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 spending time with her family and dog, hiking, skiing, swimming and traveling. Dr. Yan is fluent in Shanghaiese (Chinese dialect) and has conversational ability in Mandarin.
The UC San Diego Blue Line helps patients benefit from UC San Diego Health's world-class patient care and wealth of top-ranked benefits. The new trolley line, which can bring patients almost to the front doors of Jacobs Medical Center, Moeres Cancer Center, the Sulpizio Cardiovascular Center, Shirley 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 Mayiset, CEO, UC San Diego Health.

The Blue Line allows for travel to the Mexican border in a little over an hour. This new access will extend past the 2024 designation. Supporting San Diego’s dynamic binational region, the Blue Line 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 Division of Biological Sciences, is one of four 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.

“Henry Wang
Train Operator
UC San Diego Graduate

“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

A celebratory groundbreaking event marks the beginning of a comprehensive revitalization project of UC San Diego’s Hillcrest campus. 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.

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手术 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 UC San Diego’s Hillcrest campus, the new pavilion will serve all who live south of Interstate 8. We encourage others to join in supporting UC San Diego in this vital initiative.

The outpatient pavilion will add 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.

In UC San Diego Chancellor Price’s words: “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.

Ed Chan, MD, chair of surgery, noted: "The 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.
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 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 Maysens, CEO, UC San Diego Health.

“Physicians and staff were ready to treat 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 $505,000-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. Vassilias Family Pavilion for Advanced Surgery.

Multi-disciplinary teams in these pavilions have treated everything from the most complex malignancies and chronic diseases 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 Ytter, 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 multidisciplinary teams who provide the most exceptional care,” said Maysens. “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 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.”

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.

Joan and Irwin Jacobs
CLINICAL HIGHLIGHTS

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 affects 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 regenerate tissue. Regeneration of the liver in both donor and recipient begins immediately.

Mike was not only a perfect match, but he was a living donor.

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 surgeons 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. 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 this surgery, and this was one of them.”

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

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.

“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 he 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,” said Andy. “I owe an immense amount of gratitude 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 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.

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

— Mike Partridge

Jennifer Berumen

Dr. Justin Parekh, MD

Mike Partridge

Gabriel T. Schnickel, MD, MPH

Dr. Andy Partridge

Dr. Jennifer Berumen
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 #9 and #10 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 centered on mortality (#5), mortality (#5) and safety (#3). 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 reductions, which includes lowering readmissions, infections and falls.

The timeliness of the Vizient rankings make them particularly meaningful because they show we achieved measurable 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.

Discovering New Ways to Help Patients Recover

Nursing has partnered with the Office of Experience Transformation in Discovering new ways for patients to get the sleep they need while in our care, through the pilot of a new Quiet Program. Patients admitted to inpatient surgical services units at UC San Diego Health’s Hillcrest Medical Center and who are suitable for the Quiet Program review a printed sleep menu with a nurse, who can help accommodate their personal nighttime preferences, such as closing the window, blocking out light, providing a warm blanket or extra pillow. The menu also includes the option to receive a Quiet Kit, which contains a sleep mask, ear plugs, and a calming aromatherapy patch. Early feedback from team members and patients has been positive.

Trisha Weers, nurse manager for the 5 West Clinic at Hillcrest Medical Center, shared that one patient said it “feels like it’s Christmas!” upon receiving the kit.

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.

“At 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 Maysen, 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"

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

COLON AND RECTAL SURGERY
Nico Lopez, MD
Sonia Ramamurthy, MD

COMPLEX GENERAL SURGICAL ONCOLOGY
Jula Veerapong, MD

CANCER MEDICINE
Sonia Ramamurthy, MD, FACS

NEUROLOGY
Rick A. Friedman, MD, PhD

OTOLARYNGOLOGY
Joseph A. Calilhana, III, MD
Adam DeConde, MD
David B. Horn, MD, FACS
Ryan K. Oroso, MD

PLASTIC SURGERY
Anne M. Wallace, MD

SURGICAL CRITICAL CARE
Todd W. Costamendi, MD, FACS

SURGICAL ONCOLOGY
Bryan Clary, MD, FACS
Andrew M. Lowy, MD
Jason Sikkick, MD, FACS

THORACIC SURGERY
Mark W. Onaitis, MD

TRANSPANTATION SURGERY
Kristin L. Meekeil, MD

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
— Trisha Weers, Nurse Manager
There is no cure.

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

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 (vSMCs) 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, professor of surgery 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 spares vSMCs 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 come, 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 who showed, 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.

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 Orsos, MD, set out to explore this question as it pertains to patients with laryngeal 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.
Dr. Ariel Ortiz with Dr. Clary and Dr. Horgan

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

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 lead 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 variability in the quality of care received.

“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

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 Bronchoscopists, 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 2017, 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.

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 growth and 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 II 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 Luong
Mentor: Dr. Geumyan - 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 Past-COVID-19 Patients Compared to Chronic Rhinosinusitis Patients

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

The Effect of a non-English language on postoperative care 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: Connor Trimm
Mentor: Dr. Eliseoiri - Trauma, Surgical Critical Care, Burns and Acute Care

The UC San Diego Department of Surgery Annual Report 2021-22
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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 and Chair of Surgery
- Dr. Charles Coffey, Associate Clinical Professor, Otolaryngology
- Dr. Theresa Guo, Assistant Professor, Head and Neck Oncology
- Dr. Steve Howe, Cardiothoracic Associate 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, Otolaryngology
- Dr. Maria Uloka, Assistant Professor, Otolaryngology
- 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 Mettan, PhD, Emeritus Professor
- Amir Maradi, MD, Clinical Instructor
- Geoffroy Noel, PhD, Clinical Instructor
- Murray Reicher, MD, Clinical Instructor
- Joshua Bardin, MD, Clinical Professor

**RESEARCH TRAINEES**

AUG 2021 - APRIL 2022

Vissesh Kakkar, 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 Rau, 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

Lipita Gangadhedkar, 4th year B.S. Bioengineering, Biotechnology

**FUNDING**

Center for empathy and compassion training in medical education, V, 16,000$/y

**AWARDS**

2022, Kawan “Excellence in Teaching” Award, School of Medicine, UC San Diego.

**PRESENTATIONS**

National and International Oral Presentations

Noël GPJC., “Novel Implementation of Composition Activities in the Anatomy Curriculum” - West Coast Consortium of Academic Donation Programs, University of California, Office of the President, 2022


Noël GPJC., Yun Xiao I., Ilie A., Obrien J. and McKWatt 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**


6. Balash A., 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. Chakoumakos M., Chun J., Tutjar J., Eyler L. and Noël GPJC.. Experiencing factors affecting the empathy of students in their pre-clinical year(s) of 21 universities. FASEB J. 36 S1


**CHIEF OF DIVISION**

Geoffroy Noel, PhD

**RECALL FACULTY OF SURGERY**

David H. Rapaport, PhD

Nigel Woolf, PhD

**HEALTH SCIENCES EDUCATOR**

Grant Maradi, MD

**CLINICAL PROFESSOR**

Joshua Bardin, MD

**CLINICAL INSTRUCTORS**

Amir Maradi, MD

Murray Reicher, MD, FACR

**UC SAN DIEGO SCHOOL OF MEDICINE**

“ARTISTS IN RESIDENCE” Larry and Debby Kline
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 Anna 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 89 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 348 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.

“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,” — Anna Wallace, 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

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 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 biologic, 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 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, life-saving discoveries and planet-changing impact.

SELECTED PUBLICATIONS

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 replace her valve and install the pacemaker in April 2020. Nonetheless, her heart was so weak, it stopped three times.

“Her heart was 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 bags.

“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 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, mini pump, heart monitor and medication, Harry awoke and announced that he could not breathe. Suspecting COVID-19, Mandy showed him in the back seat, made him sit his head out the window, and raced to the hospital.

“We laughed 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 cardiaciology 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, MBBCh.

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 GL, 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.

“When 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 G4 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 cardi thoracic 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 G4 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 cardiologist patient

“I 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

U.S. News & World Report
2021-22 Rankings
UC San Diego Health is one of the top cardiovascular hospitals in the nation.
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 these donated lungs are recovering well, and both have good prospects,” said Eugene Goltz, 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 heart, be functional at the time of donation. This is known as donation after circulatory death, or DCD. 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

SELECTED PUBLICATIONS


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 cardiovascular 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.
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 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.

Promoter 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 carcinoma, melanoma, and cancer and recurrent disease. We got 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, Ilan Fink, PA, has worked hard to establish a framework for our multidisciplinary colorectal 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 functions. 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, Osmotic 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 colorectal cancer recurrence.

Transgender Care
Drs. Shawn Liu and Ben Abbadesse, together with Urologist Dr. Jennifer Anger, have been hard work at establishing a robust transgender surgical program at our Hillcrest location. Dr. Abbadesse 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

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 has 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 at 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 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 (HCDE) 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 Daan’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.

Ben Abbadesse, MD, FACS
Dr. Ramamoorthy and Dr. Cosman
Dr. Bard Cosman
Dr. Nicolas Lopez
Maxa Lopez-Roth
Dr. Sam Eisenstein

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/IbD fistula plug grant and is in the process of submitting the outcomes for publication. He is also the PI on a fecobiont grafting/anal fistula plug grant and is 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.

Dr. Lisa Parry

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

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 case with Dr. Anger from Urology this year — an important milestone for the new.

Dr. Katherine Lee

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

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

Dr. Conor Arellano

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

SELECTED PUBLICATIONS


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.

SELECTED PUBLICATIONS


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.

**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.

**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 2023. 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.

**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 KO-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.
**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: "Dyfining the relationship between aberrant splicing burden and anti-tumor 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-tumor 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 Society of Otolaryngology—Head & Neck Surgery Foundation (AS-ACS) award. 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.

**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**


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.

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.

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 alumus, 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 Surgical Medical Staff Chief. He is sought after clinically for his excellent care.

AWARDS

Dr. Ignazio 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 10% 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
SELECTED PUBLICATIONS


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 Raghunathan, 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 attending/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, LGBTQI or socioeconomic disadvantages.

The program itself involves a yearlong relationship between the student and one of five instructors of diverse backgrounds to help students participate in learning didactic information and technical skills with courses in Breast Reconstruction, Facial Trauma, Hand Trauma and a Suture Lab/Local Flap course.

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 Litchev 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.

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 Erin 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 sub-internship 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.

HONORS AND AWARDS FACULTY

Dr. Amanda Gosman was honored as Castilla Connolly Top Doctor and Castilla Connolly Exceptional Women in Medicine. In addition, Dr. Gosman received a $30,000 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 and received the Teacher of the Year Award – UC San Diego Division of Plastic Surgery.

UC San Diego Department of Surgery Annual Report 2021-22
FACULTY NEWS

In early 2021 Katherine Hinckliff, MD joined our faculty as the Director of Plastic Surgery Hand and Peripheral Nerve Surgery. During this past year, Dr. Hinckliff 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 prevention 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 Moone’s Cancer Center.

In the past year we have had expanded our multidisciplinary gender health services as part of our commitment to the care of 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 Microsurgery 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.

SELECTED PUBLICATIONS


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 advance malignancies were enrolled 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 the underlying mutations suggesting that location may be an early clue to molecular subtype to guide optimal treatment.

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

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

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

Gastrointestinal stromal 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 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 tumors, 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 Shrutii Bhardwaj, PhD, a postdoctoral scholar in Sicklick’s lab.

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

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.

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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” drives 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 Largiader Price Award

Suna Erdem, PhD, Jayenth Shankara Nareayan, PhD, Yuan Chen, PhD, and Rebekah White, MDT, have received the 2021 Felix Largiader Price Award from the Society of Swiss Visceral Surgeons. The group, “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 Massachu- setts General Hospital and is completing her fellowship training in surgical oncology at the MGH/Brighton/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.

SELECTED PUBLICATIONS


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 Pich in 1978, 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 chemoembolization. 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.”

Andrew M. Lowy, MD, FACS

CHIEF OF DIVISION
Andrew M. Lowy, MD, FACS

PROFESSORS OF SURGERY
Andrew M. Lowy, 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
Katlyn Kelly, MD
Julia Veereong, MD

ASSISTANT PROFESSOR OF SURGERY
Weinta Mehtsun, MD

RECALL FACULTY OF SURGERY
Rachel Stadler, MD

Surgical Oncology Faculty
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.

**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 Whites, MD, FACS, have received the 2021 Felix Largiadèr Prize Award from the Society of Swiss Visceral Surgeons for their work, “Inhibition of SMAD4 localization enhances responsiveness to irreversible electroporation in pancreatic cancer.”

To further their efforts, Kisseleva and team are now exploring the role of other transcription factors involved in maintaining HSC naïveté, and searching for activators and inhibitors. They also plan to take a closer look at the genes these transcription factors are regulating, and determine if they can be directly targeted to inactivate HSCs.

This research was funded, in part, by the National Institutes of Health and a Herman Lopata Memorial Hepatitis Postdoctoral ALF Fellowship.

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**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**
Tanis Morimoto, PhD
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. 3 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 has become the leading transplant program in San Diego and nationally,” said Dr. Kristin Mekeel, chief of transplant & hepatobiliary surgery.

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.

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.

<table>
<thead>
<tr>
<th>Organ</th>
<th>Patient and Graft Survival*</th>
<th>UC San Diego Health Survival Rate</th>
<th>National Survival Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kidney</td>
<td>Patient Survival</td>
<td>98.37%</td>
<td>97.16%</td>
</tr>
<tr>
<td></td>
<td>Graft Survival</td>
<td>95.48%</td>
<td>96.19%</td>
</tr>
<tr>
<td>Liver</td>
<td>Patient Survival</td>
<td>97.45%</td>
<td>93.82%</td>
</tr>
<tr>
<td></td>
<td>Graft Survival</td>
<td>93.43%</td>
<td>91.90%</td>
</tr>
</tbody>
</table>

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

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.

“...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

Gabriel Schnickel, MD
Living donor kidneys have a longer life span and better immediate function than deceased donors.
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 break-through COVID-19 cases, but two among the BT 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 Executive 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 (jCMO) 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. Clay, the peri-operative triad, and the other surgical department chairs in her new role.

SELECTED PUBLICATIONS


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.

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, 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.

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 health care providers happening right now public health crisis.

“STOP THE BLEED® bleeding control kits be added to all public buildings with capacity over 200.”

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 37 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.”

REFERENCES


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.
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 Humacytce Human Acicular 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 Humacytce’s Human Acicular Vessel for Vascular Replacement or Reconstruction in Patients with Life or Limb-Threatening Vascular Trauma
Malas, Mahmoud, MD, MHS
Funding: Endologica, LLC

Post-Approval Study of the TREO Abdominal Stent-Graft System (P190015) in Patients with Infrarenal Abdominal Aortic and Aorto-iliac Aneurysms
Malas, Mahmoud, MD, MHS
Funding: Tevion-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(TM) Aortic Arch Stent Graft System in Treating Thoracic Aortic Lesions Involving the Aortic Arch: TRIOMPH Study
Lane, John, MD
Funding: Endospan, Ltd.

SELECTED PUBLICATIONS


The UC San Diego Department of Surgery is committed to developing the very best surgeons of tomorrow. The department offers fully accredited 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 Antolovisk
Claire Bensard
Asimina Couveli
Simone Hyman
Parisa Oviedo
Graham Spurzem
Alexander Zhu
Joual Aminoglu (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
Jong-Da la Torre
Sasha Douglas (Halasz)
Ana Maria Dumitru
Isabella Guajardo
Jared Matien
James Jeffrey Reeves

PGY-4
Hannah Hollandsworth
Charissa Lake
Anella Lee
Stephen Niemiec
Thomas O’Keefe
Raeda Taj

RESEARCH FELLOWS
Harrison Chau
Nicole Goldhaber
Estella Huang
Jonathan Li
Kevi Li
Zanyang “Tom” Mou
Rohini Patel
Ashwym Sharma
Michael Turner

AWAY - RESEARCH FELLOWS
Victoria Bendersky (Duke)
Danielle Carroll (NASA)
Rachel Jensen (Stanford)
Jay Meiner
(Boston Children’s 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 Sad
Benjamin Ostrander

PGY-4
Kevy Crawford
Ormid Moshafghi
Fahoud Fauji – RSCH

PGY-5
Emsy Funk
Robert Sadowa – RSCH

PGY-6
Jesse Qualliotine - Chief
Joshua Stramiello - Chief

Fellows
Peter Daxin – PGY-6
Alexander Claussen – PGY-7

Plastic Surgery (Integrated) Residents

PGY-1
Jason Llaneras
Lucy Sheahan

PGY-1 (Ind)
Solomon Tong

PGY-2
Garrison Leach

PGY-3
Meya Raghunathan

PGY-4
Riley Dean
Paige McLean

PGY-5
Kevin Engral

PGY-6
Anthony Kordahi
Saan Li

Vascular Surgery

PGY-1 (Integrated Program)
John Halilstein

FELLOW 1ST YEAR
Peter Layman

Otolaryngology / Head and Neck Surgery Residents

Jenny Lam
Abdominal Transplant Surgery Fellowship at Mayo Clinic

Katherine Lee
Hospice and Palliative Care Fellowship at UC San Francisco

Eleftheria “Lao” Makris
Surgical Oncology Fellowship at University of Pittsburgh Medical Center

John Alec Mural
Community Practice in Phoenix, Arizona

Timothy Tavall
Pediatric Surgery Fellowship at Rady Children’s Hospital San Diego

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

Beiqun “Mark” Zhao
Colin & Reciat 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
Fellowship at Mt. Sinai Hospital, New York City

Michael Gent
Community Practice in Atlanta, Georgia

Neurology

Alexander Claussen
Academic Practice at the University of Iowa

Vascular Surgery

Jadeep Das Gupta
Pulse Cardiovascular Fellowship in Spokane, Washington

Plastic Surgery

Erin Kim
Academic Practice at the University of Utah

Trauma and Surgical Critical Care

Alicia August
Community Practice, San Diego

Benjamin Keller
Academic Practice, Rady Children’s Hospital

William Marshall
Acute Care Surgery Fellowship at UC San Diego
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.
— Joseph Califano, III MD

Iris and Matthew Strauss 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

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” recognitions. 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 several “Top Doctors” recognitions. In addition, his interest in including minimally invasive treatment of tumors helps patients return to a sense of normalcy.

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