



Department of
Anesthesia and
Perioperative Care

Annual Report 2023

Volume 19



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Chair's letter

After a long hiatus, I'm thrilled to share our reinvigorated annual report for 2023. Since our 2018 report, we have navigated the pandemic and the exponential growth of the UCSF clinical enterprise – leading to many changes within our department.

In this issue, we explore the rapid expansion of clinical sites, services, and case volumes, including construction of the new Bayfront Medical Building at the Mission Bay Campus. We also hear updates from several clinical leaders, describing recent initiatives and programs in support of our diverse patient populations.

Our education programs continue to attract the best and the brightest trainees. Read about some of the latest resident and fellow projects, hear from Kristina Sullivan, MD, associate chair for Education and the Residency Program director, and learn about our state-of-the-art Simulation Center in the new Pride Hall building at the Zuckerberg San Francisco General Hospital and Trauma Center (ZSFG) campus.

Groundbreaking research continues to happen here. In addition to our new Simulation Center, we're delighted to have secured modern lab spaces in Pride Hall for our talented research teams at ZSFG. In this issue, we describe recent projects spanning a wide range of research topics, including artificial intelligence and machine learning, CRISPR, neurocognitive disorders, acute kidney injury, and transplant medicine. We also share an update about the Pain and Addiction Research Center (PARC). PARC, an interdisciplinary effort, is focused on developing and testing new approaches for treating pain and addiction, decreasing the negative consequences of opioids, and developing effective ways to mitigate the impact of drugs of addiction.

We recognize that supporting the well-being of our faculty, trainees and staff, and prioritizing inclusivity, diversity and equity in our department and community provides the framework for excellence. We describe our efforts to create a welcoming and positive environment for all in our community, including the work of CHESA. Established in 2020, the Center for Health Equity in Surgery and Anesthesia focuses on advancing equity in surgery, anesthesia, and perioperative care worldwide through ethical and innovative academic engagement.

As always, thank you for reading.

Michael Gropper, MD, PhD
Distinguished Professor and Chair



Clinical Highlights

Clinical Highlights

Adult Critical Care Medicine

Our clinical service continues to flourish with over 30 dedicated anesthesiologist-intensivists providing expert care across all of our intensive care units (ICUs), including the Medical ICU (MICU), Surgical ICU (SICU), Cardiothoracic ICU (CTICU), and Neonatal ICU (NICU).

Despite a trend of diminishing interest in fellowship training among anesthesiology trainees, our department is experiencing an extraordinary surge of interest from critical care faculty seeking to join our team. This increased interest is a testament to the exceptional quality and strength of our critical care programs, reaffirming our commitment to delivering unparalleled patient care and fostering professional growth and development in our staff.

We have multiple critical care faculty leading important research initiatives including Matthieu Legrand (NIH R01), Lee-lynn Chen (PCORI grant), Danielle Williamson (completed T32 fellowship; continues on the department's Pathway to Scientific Independence [PSI]).

We had several leadership changes and shifts in 2023: Kevin Thornton, MD, was selected as Executive Medical Director for Adult Critical Care at UCSF Health. Matt Aldrich, MD, after serving as the inaugural Executive Medical Director, was named the Senior Physician Executive for Capacity and Throughput at UCSF Health. Anne Donovan, MD, was selected as the Fellowship Program Director for Anesthesia Critical Care Medicine, and Kristine Breyer, MD, was selected as the Co-Medical Director of the Adult Cardiac ICUs.

Kevin Thornton, MD

Medical Director, ICU

Medical Director for Adult Critical Care, UCSF Health



Clinical Highlights

Bayfront Surgery Center and Parnassus Outpatient Surgery Center

The Parnassus Outpatient Surgery Center (POSC) continues to be a hub for outpatient surgery at UCSF, performing over 300 procedures per month with excellent reviews from providers and patients alike. We also recently launched an outpatient robotics program in collaboration with our General Surgery and OB/Gyn colleagues which has greatly improved our patients' access to minimally-invasive hernia and gynecologic procedures.

The health system is in the midst of an ambitious expansion into outpatient services throughout the Bay Area, with a number of new projects coming down the pipeline. Bayfront Medical Building is the next facility slated to open in August 2024. The brand new 180,000 square foot facility will house multi-specialty clinics, an urgent care facility, a pharmacy as well as a large new ASC with room for 14 operating rooms along with space for extended overnight recovery. The Bayfront ASC will serve most of our existing surgical service lines, with enough capacity to accommodate existing outpatient cases from across the health system while also supporting future growth in outpatient surgery. The building was designed from the ground up to provide the best possible experience for our patients and providers and we are very much looking forward to opening day. It's an exciting time for ambulatory surgery at UCSF!

Tyler Chernin, MD

Medical Director, Parnassus Outpatient Surgery Center (POSC)

Medical Director, Bayfront Surgery Center



Clinical Highlights

Benioff Children's Hospital Oakland

UCSF Benioff Children's Hospital Oakland is dedicated to serving the diverse community of Oakland and the greater Bay Area. In January 2023, the UCSF Department of Anesthesia and Perioperative Care took over perioperative services at the hospital, upholding the tradition of ensuring safe and timely care for pediatric patients. As a Level 1 pediatric trauma center, the hospital offers a wide range of specialties, including cardiology, oncology, neurology, orthopedics, and neonatology. Pediatric Anesthesia Service provides services in operating rooms, radiology suites, sedation suites, pediatric cardiac surgery, and pediatric pain management. We conduct comprehensive preoperative assessments through the prepare clinic and collaborate with other specialists to deliver anesthesia and sedation for critically ill children requiring life-saving interventions in operating rooms and critical care units. Additionally, we are actively involved in the education and training of medical students, residents, and fellows, providing hands-on training, lectures, and mentorship. Engaged in cutting-edge research, we continuously advance pediatric anesthesia by studying new techniques, improving pain management protocols, and enhancing patient safety.

Taran Sangari, MD, MBA

Chief of Anesthesia, Oakland



Clinical Highlights

Clinical Affairs

Moffitt Long (ML) Hospital with the ML ORs, ML NORA as well as Cath/Electrophysiology Labs and Endoscopy remains our busiest site for anesthesia and critical care, routinely staffing between 30 and 39 anesthetizing locations per day.

Everyone working in the ML ORs has felt the impact of construction projects to provide necessary upgrades and repairs to our facility. Some of the more important projects include electrical upgrades to many of our ORs as well as the installation of new surgical lights along with repairs. OR26, our first hybrid room, has been offline for an extended period while undergoing a complete rebuild including new X-ray equipment. It will be back online in the second half of June.

Despite the impact of construction projects, with up to three rooms closed at a time, surgical volume at ML has increased by 3.7% during the current fiscal year when compared to the previous one.

Many of our most complex patients are cared for at Moffitt Long due to a variety of factors such as highest intensive care capacity, the better availability of consult services like cardiology and neurology, and the availability of interventional cardiology as well as cardiothoracic and vascular surgery. These patients often also undergo complex surgeries frequently involving multiple surgeons from multiple surgical services.

This complex and busy environment provides an enormous potential for learning and teaching which is especially appreciated by our senior residents and fellows.

Neurosurgery, including their division of spine surgery, is the busiest department by case numbers and total OR time. The spine surgery divisions of the departments of neurosurgery and orthopaedic surgery taken together represent the busiest service at ML. The anesthesia service for spine surgery is now led by Marc Buren, MD who took over the service from Jeremy Lieberman, MD. Marc has been expanding the team to meet the growing demand for specialized anesthesia care.



Clinical Highlights

Clinical Affairs (cont'd)

Other busy surgical services include general surgery, transplant surgery, urology, as well as cardiac and vascular surgery. The transplant services have been busy and growing significantly in case volume which has put a burden on the cardiac and liver transplant anesthesia teams. While there is a growing number of transplanted organs that are preserved involving some form of machine perfusion, there is still a large percentage of transplant surgeries that are done during evening and night hours. The cardiac and liver transplant anesthesia teams have also been expanding to meet the growing demand.

Thromboelastography with TEG 6S is finally available for the busy cardiothoracic surgery and liver transplant surgery services. Dieter Adelman, MD, PhD from the liver transplant anesthesia team played a big role in making this happen by not giving up and keeping the pressure on the clinical lab to bring the machines online.

We are continuing our efforts to improve the work experience for our anesthesia providers working at ML. The E1am team (Seema Gandhi, MD; Christy Inglis-Arkell, MD; Nicholas Mendez, MD; Nichlesh Patel, MD; John Turnbull, MD; Tyler Chernin, MD; Lee-lynn Chen, MD; Helge Eilers, MD) is working hard to make the optimal assignments to balance safe patient care, education, and workload.

The teamwork and mutual support within the anesthesia team at Moffitt Long is exceptional and is demonstrated on a regular basis when we take care of complex and critically ill patients that often require several of our team members to work together to provide the care needed.

Despite the high workload and the large number of add-on cases, the average length of the work day at ML is on par with our other sites with the median leave time before 5pm.

With the upcoming opening of the Bayfront ambulatory surgery center and construction ramping up for the new hospital at Parnassus, we expect surgical volume and services to shift between campuses, but ML will remain busy with complex cases.

Among other priorities identified by our anesthesia team, we will continue to adapt our staffing to ensure the highest quality care and improve satisfaction by rotating less frequently between sites.

Helge Eilers, MD

Vice Chair for Clinical Affairs, UCSF Health

Clinical Highlights

Mission Bay

At MB Adults, we are thrilled to announce our ongoing growth and the onboarding of new surgeons who are pioneering cutting-edge procedures. Our comprehensive services include Urology, Gyn/Onc, Gyn, Hepatobiliary, Colorectal, Breast, Plastics, OHNS, Ortho Onc, Ortho, OB/GYN, Neurosurgery, Rad Onc, IR, NeuroIR, GI, MRI, PET, HIFU, and REI.

Over the past year, we have experienced significant growth across various departments: a 6% increase in Operating Room (OR) utilization, a 13% rise in endoscopy procedures, and a 9% uptick in NORA (Non-Operating Room Anesthesia) cases. Our robotic surgery capabilities have been enhanced with four Xi platforms and one Sp platform, enabling us to perform more precise and minimally invasive surgeries.

Our NORA services have expanded to include MRI, PET, HIFU, IR, REI/IVF, and Rad Onc, the latter having fully transitioned to PCMB. Specifically, PCMB L1171 now handles rad-onc brachytherapy cases on Mondays, Tuesdays, and Thursdays, with the additional Tuesday slot easing the load on our MB OR.

OR#27 is now dedicated to advanced endoscopy cases five days a week, reflecting our commitment to providing specialized care. Our Neuro IR team has broadened its patient selection to incorporate simple treatments requiring overnight ICU admissions. Interventional IR is optimizing utilization by scheduling liver and kidney ablation cases, thereby reducing the volume at Parnassus.

We are also proud to highlight our MAPS cases, which involve complex obstetric patients needing specialized care from our Mission Bay Anesthesia team. This ensures that every patient receives the highest level of care tailored to their unique needs.



Clinical Highlights

Mission Bay (cont'd)

Our continued growth and the expansion of our services underscore our dedication to advancing medical care and improving patient outcomes at MB Adults.

Finally, we continue enrollment for the THRIVE trial, evaluating the differences between total intravenous anesthesia (TIVA) versus inhaled volatile anesthesia (INVA). We are one of the first sites to gain approval and contribute to this project.

Lee-lynn Chen, MD

Vice Chair and Chief of Anesthesia, Mission Bay

Medical Director, Mission Bay

MAP Cases at Mission Bay

Here are our MAPS (Multidisciplinary Approach to the Placenta Service) numbers up through January 2024.

	Ruled Out	Ruled In	In Process	Total Patients	Patients/ Month
2018	12	10		22	1.8
2019	31	22		53	4.4
2020	22	23		45	3.75
2021	34	21		55	4.6
2022	50	30		80	6.7
2023	45	20		65	5.4
2024 (to 1/22)	2	4	7	13	

Clinical Highlights

Mount Zion

Mount Zion Hospital proudly serves as the Orthopedic Surgery hub for UCSF Health, continually expanding and excelling in this area. In addition to our orthopedic services, we perform a wide range of other procedures in specialties such as Ophthalmology, Otolaryngology Head and Neck Surgery (OHNS), Gynecology, and Pain Management.

We've recently expanded our anesthesia services at Mount Zion, now covering outpatient MRIs one day a week, an additional endoscopy room most days of the week, and with the Langley Porter Psychiatry Hospital moving to Mount Zion, we've added Electroconvulsive Therapy (ECT) procedures three days a week.

Mount Zion's commitment to patient safety and quality of care has been recognized with The Leapfrog Group's 2023 Top Hospital award, a prestigious national distinction achieved by only 6% of hospitals.

Despite a significant increase in case volume last year, we consistently meet or exceed UCSF efficiency metrics, particularly in our first case on time starts (FCOTS). Additionally, we've initiated a new program aimed at improving Turn Over Times (TOTs), further enhancing the efficiency of our services and the overall patient experience.

Dr. Ben Ma, surgical triad lead at Mount Zion, became chair of the Department of Orthopedic Surgery and a search is beginning for his replacement.

Christy Inglis-Arkell, MD

Associate Chair for Clinical Services, UCSF Health
Medical Director, Mount Zion Surgery Center



Clinical Highlights

Obstetric Anesthesia

Mission Bay Labor and Delivery Unit continues to provide care for a diverse and complex patient population and remains a major referral center for maternal and fetal/neonatal care. One of our major challenges has been the amount of time the unit has been on divert for various reasons. It is a unit-wide priority to decrease the number of hours the unit spends on divert and the number of patients that are diverted away from UCSF.

By the numbers:

Total deliveries in 2023	Vaginal deliveries	Cesarean deliveries	Labor epidurals placed	Cesarean delivery rate
2,475	1,715	760	1,346	30.7%

Pedram Aleshi, MD

Vice Chair, Academic Affairs

Chief of Obstetric Anesthesia



Clinical Highlights

Pain Medicine

Pain Medicine has a physical presence across all of the major UCSF Health campuses in San Francisco. On the inpatient side, three distinct Acute Pain consult services exist at Parnassus, Mission Bay, and Mount Zion and one Chronic Pain consult service covers all sites. With the Mount Zion Hospital serving as a new hub for orthopedic surgery, the Acute Pain service at Mount Zion focuses on incorporating high-impact, efficient regional anesthesia into the peri-operative care of patients undergoing surgery at Mount Zion.

On the outpatient side, the UCSF Pain Management Center, our department's premier outpatient faculty practice, will finally be moving out of its aging physical plant at 2255 Post Street on the Mount Zion Campus. While our patients, faculty, and staff have many fond memories from the past 30+ years at this location, we are looking forward to a move and expansion to the Bayfront Medical Building. Planning for this change began in Spring of 2021, when leaders from the Division and from the clinic were presented a 9,308 square foot shell on the 4th floor which was to become the new clinic. The new space, which we have crafted specifically for our group – even picking the colors and some of the artwork—will include 4 procedure rooms, three of which will have C-arms, 3 infusion bays, 6 pre- and post-procedure holding areas, 8 clinic rooms, 5 flexible telehealth rooms, 2 psychology offices, a group treatment room, a trainee workroom with floor-to-ceiling windows, and much more!

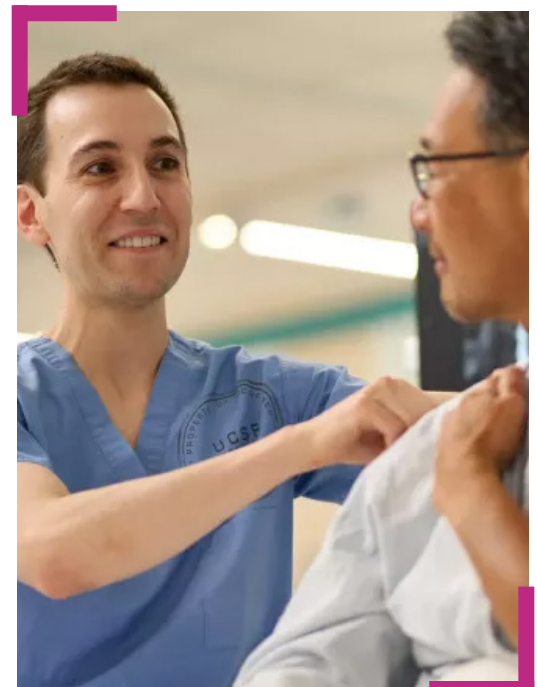
The Pain Medicine OR block time will also transfer from Mount Zion to Bayfront, no doubt allowing enhanced efficiency for our faculty who see patients and perform procedures in clinic and do surgical pain procedures in the ASC just a few floors away. Furthermore, we also anticipate that as we move into our new space, we will benefit from a substantial increase in our non-provider staffing, something made possible in part by considerable effort over the past several years to improve operations and finances of our center.

We will also use the opportunity of the move to rebrand and modernize the name of our clinic, to the UCSF Center for Pain Medicine. In future updates, we will look forward to providing an update on the many ways we are thriving in our new location.

Chris Abrecht, MD

Chief, Pain Medicine

Medical Director, Pain Management Center



Clinical Highlights

Pediatric Anesthesia

The pediatric anesthesia specialty is growing rapidly. In January 2023, our department started providing anesthesia services at Benioff Children's Hospital Oakland. In July 2023, Dr. Taran Sangari joined UCSF to lead pediatric anesthesia at this site.

At Mission Bay, our footprint has also increased with additional OR and non-OR anesthesia locations being added to our services.

Our fellowship in pediatric anesthesia continues to be a highlight of our specialty. This year, we will be increasing our fellowship size in the match to 4 fellows, to better meet the educational opportunities available at our sites. We continue to be a very popular resident rotation as well, consistently being ranked as one of the favorite resident rotations during the CA-2 year. Our pediatric QI efforts this year have centered around reducing the carbon footprint of anesthesia. This year's fellow-led QI project aims to reduce fresh gas flows during inhalational induction, as well as the use of nitrous oxide. We additionally are working to minimize propofol waste by providing weight-and time-based algorithms for propofol infusions.

This year, we appointed Dr. Jocelyn Wong as the cross-bay director of pediatric regional and perioperative pain medicine. Dr. Wong joined our faculty in 2022 and has fellowship training in pediatric anesthesia and pain medicine. In her role, Dr. Wong is working to enhance the pain and regional services provided to pediatric patients on both sides of the bay and establishing guidelines and protocols for both institutions.

Dr. Atsuko Baba was recognized with the UCSF exceptional physician award. Dr. Odi Ehie was accepted into a Master of Education Program at UC Berkeley. Dr. Jina Sinskey received a R25 grant from the NIH to further her work in physician well-being and burnout. Dr. Irfan Kathiriya received a Saving Tiny Hearts Society Grant. Dr. Denise Chang was honored with the Maxine Papadakis award for faculty professionalism. We also celebrated Dr. Maurice Zwass's retirement. Dr. Zwass served on faculty at UCSF for 35 years and left a strong legacy!

Marla Ferschl, MD

Vice Chair for Pediatric Anesthesia



Clinical Highlights

Orthopaedic Institute

The UCSF Orthopaedic Institute (OI) is located within the Mission Bay Campus. This year marks the OI's 15th anniversary of operations, with state-of-the-art surgery, radiology orthotic and prosthetic facilities. Physical therapy services and a human performance center are co-located, providing comprehensive musculoskeletal care in one location. Typical procedures include arthroscopic surgeries on joints, hand, and foot/ankle surgeries. The OI will begin providing ambulatory total knee arthroplasty in Spring 2024. OI staff operate up to five operating rooms each day. Surgical volume has steadily increased over the past several years, with 2,880 surgical cases in FY23.

At the OI, we perform a high volume of peripheral nerve blocks, and our attending physicians publish in regional anesthesia journals and teach at regional anesthesia workshops. We typically have a resident or fellow on staff for their regional anesthesia rotation, and this has been a popular elective rotation for residents. Finally, patient satisfaction has been consistently high. Based on patient satisfaction surveys, the "likelihood of recommending" score has generally been over 90%.

Sakura Kinjo, MD

Medical Director, UCSF Orthopaedic Institute



Clinical Highlights

VA Health Care System

The Anesthesia Service of the San Francisco VA Health Care System (SFVAHCS) provides exceptional clinical care; educational experiences for anesthesia residents, medical students, and pain fellows; and conducts clinical research and development.

The SFVAHCS Anesthesia Service provides cardiac and non-cardiac operating room care; ICU care; anesthesia for non-operating room care in GI, cardiology, radiology, and psychiatry; acute and chronic pain services; emergency airway management; a comprehensive simulation program for quality improvement; and staff, resident, and student education.

SFVAHCS research programs include big data epidemiology projects on developing medications to treat COVID-19 and long COVID; machine vision based remote, non-contact monitoring; monitors for depression, pain, and neurocognitive testing; and drug development for PTSD; as well as developing a nationwide quality improvement program for VA anesthesia care, reviewing 500,000 cases per year in 130 facilities.



Art Wallace, MD, PhD

Chief of Anesthesia, VA Health Care System

Clinical Highlights

Zuckerberg San Francisco General Hospital



Our mission is to promote the best personalized perioperative care experience for our patients in line with the core principles of justice, equity, safety, and sustainability, and in 2023 we made significant advancements across multiple domains, reflecting our steadfast commitment to delivering exceptional care and fostering innovation.

In our clinical domain, our dedication to excellence in trauma care was highlighted during the 2023 ACS trauma visit, reaffirming our position as a leader in this critical field. We continue to excel in areas such as obstetrics, acute and chronic pain management, perioperative medicine, and critical care, ensuring a comprehensive and personalized perioperative care experience for our patients.

We thrived in the academic realm as well, with numerous grants secured from federal agencies and foundations, over 100 publications in 2022-2023 covering a diverse range of research topics, including basic science, clinical research, data science, global health and equity, and quality improvement.

We also successfully relocated to Pride Hall, facilitating the development of a more collaborative research model. Additionally, we have introduced new educational opportunities, including our quarterly international complex case conference, receiving overwhelmingly positive feedback from trainees.

Financially, we celebrate a marked improvement in ZSFG finances, evidenced by a positive end-of-year balance for the third consecutive year and the restoration of healthy reserves, ensuring our sustainability and continued growth.

Our commitment to diversity, equity, and inclusion (DEI) remains steadfast, with several initiatives initiated following our last faculty retreat, resulting in tangible achievements in areas such as compensation and recruitment. Looking ahead, we are excited to continue this journey, with our next retreat scheduled for Spring 2024.

Finally, our recent reorganization of our ABO reflects our ongoing efforts to streamline operations and enhance efficiency, further bolstering our ability to deliver exceptional care and advance our mission.

Romain Pirracchio, MD, PhD

Clinical Director/CCM, ZSFG Associate Chair for Clinical Services, UCSF Health
Medical Director, Mount Zion Surgery Center

Education Highlights

Education Highlights

A message from Kristina Sullivan, MD, Associate Chair of Education and Jannot Ross, Director of Education

The Education program has continued to improve our Anesthesia Education Days (AED). We've introduced more simulation sessions and workshops, providing hands-on opportunities to deepen skills. Additionally, we've expanded our board prep sessions, ensuring our trainees feel prepared and confident for their examinations.

Our commitment to diversity, equity, and inclusion is evident in our compact, impactful DEI lectures. We've upgraded our facilities with new equipment at ZSFG and a new state-of-the-art skills lab with a TEE/TTE/POCUS Simulator at Parnassus. We increased sessions focusing on private practice, insurance, finances, and more, to offer our trainees access to the breadth of options available to them.

We have increased regional experience with expanded rotations at the Orthopaedic Institute and the Hospital for Special Surgery (HSS) and have added additional AED sessions on regional techniques/workshops.

We have offered more opportunities for social events with Education leaders, including Taco Tuesdays at the home of Kristina Sullivan, MD, and Assessment for Graduate Medical Education at UCSF and wine nights with John Turnbull, MD, Associate Program Director for Curriculum. Members of Education leadership have also been present at all AED lunches. In the past year, we have built community and improved shared space by organizing events such as family dinners, First Fridays, and CA2/3 Retreats to nourish connection for our trainees. We also had a record number of trainees attend the 2023 Department Holiday Party.

We created a resident-specific lounge at Parnassus in the S-455 hallway and stocked it with snacks. We purchased custom department-branded scrub caps, jackets, and more.

Finally, to increase complex airway experience, we developed an Airway rotation (beginning May 2024) for residents on M-SR (Mostly CA3s, senior CA2s). [See the residents we welcomed in 2023.](#)

Kristina Sullivan, MD

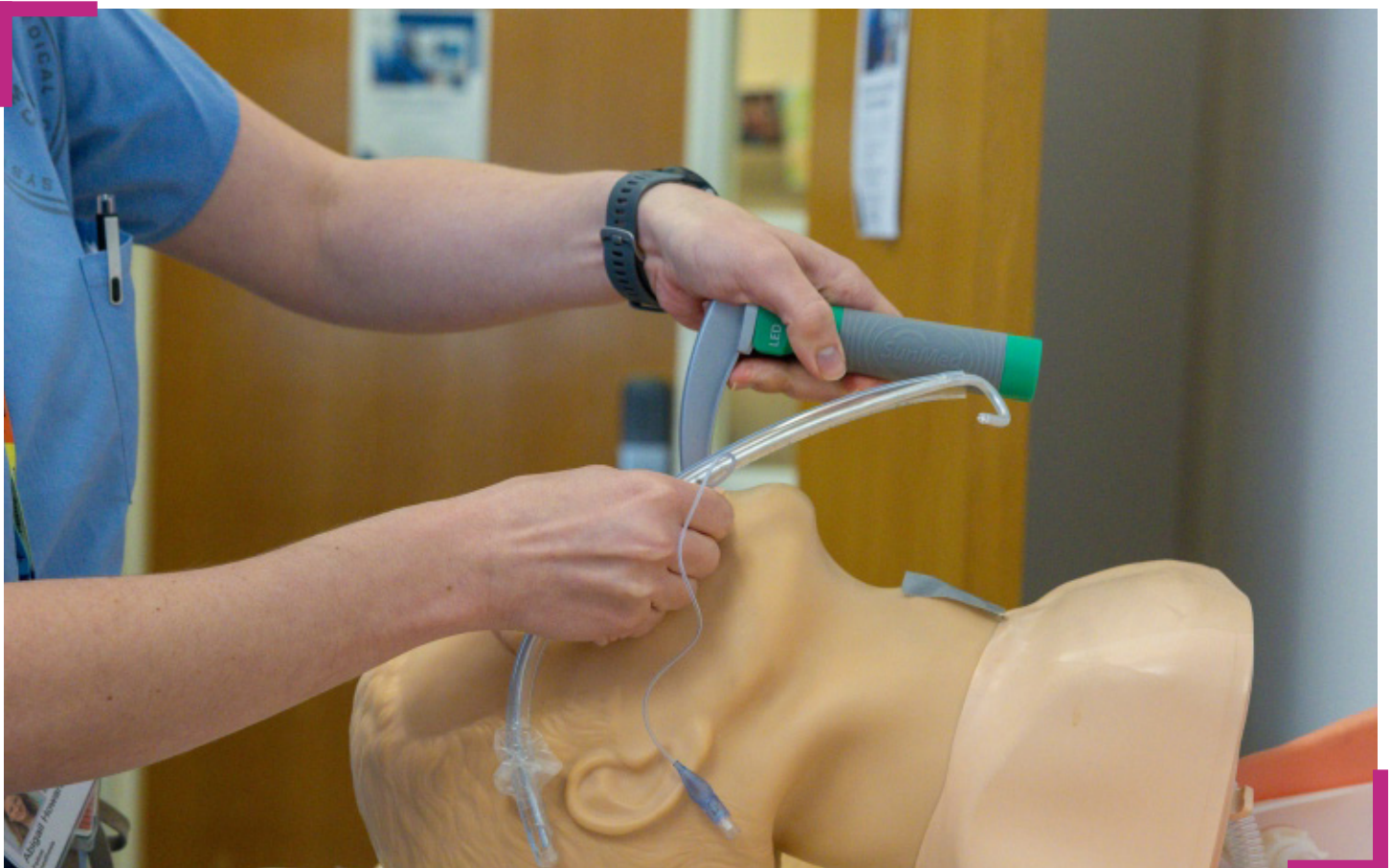
Anesthesia Residency Program Director

Director of Education and Assessment for Graduate Medical Education at UCSF

Associate Chair of Education

Jannot Ross

Director of Education



Research Highlights

Research Highlights

Pain and Addiction Research Center (PARC)

Hosted by the department, PARC's mission is to accelerate the translation of research into improved patient care in the areas of pain and addiction. In 2023, PARC continued to develop collaborations among PARC members to increase the number of translational pain and addiction research projects.

We continued funding for our PARC research fellowship, enabling faculty members to pursue groundbreaking research in pain management. The 2023 spring research event provided a forum for sharing insights and fostering collaboration among researchers, scientists, and clinicians in translational pain and addiction research.

We expanded the pain.ucsf.edu website, offering a comprehensive resource hub with educational materials, working groups, member lists, information about monthly seminars, and more. We are pleased to report a significant increase in membership, both among faculty and trainees, underscoring the growing recognition and interest in our program.

Mark Schumacher, MD, PhD

Vice Chair, Pain Medicine

Director, Pain and Addiction Research Center (PARC)



Selected Department Publications

Our faculty, researchers, and trainees work passionately to advance knowledge, in pursuit of scientific breakthroughs that benefit life and health worldwide. We're pleased to present a selection of recent department publications, spanning a wide range of topics.

2023

Abess AT, Deiner SG, Briggs A, Whitlock EL, Charette KE, Chow VW, Shaefi S, Martinez-Cambor P, O'Malley AJ, Boone MD. Association of neurocognitive disorders with morbidity and mortality in older adults undergoing major surgery in the USA: a retrospective, population-based, cohort study. *Lancet Healthy Longev*. 2023 Nov;4(11):e608-e617. <https://pubmed.ncbi.nlm.nih.gov/37924842/>

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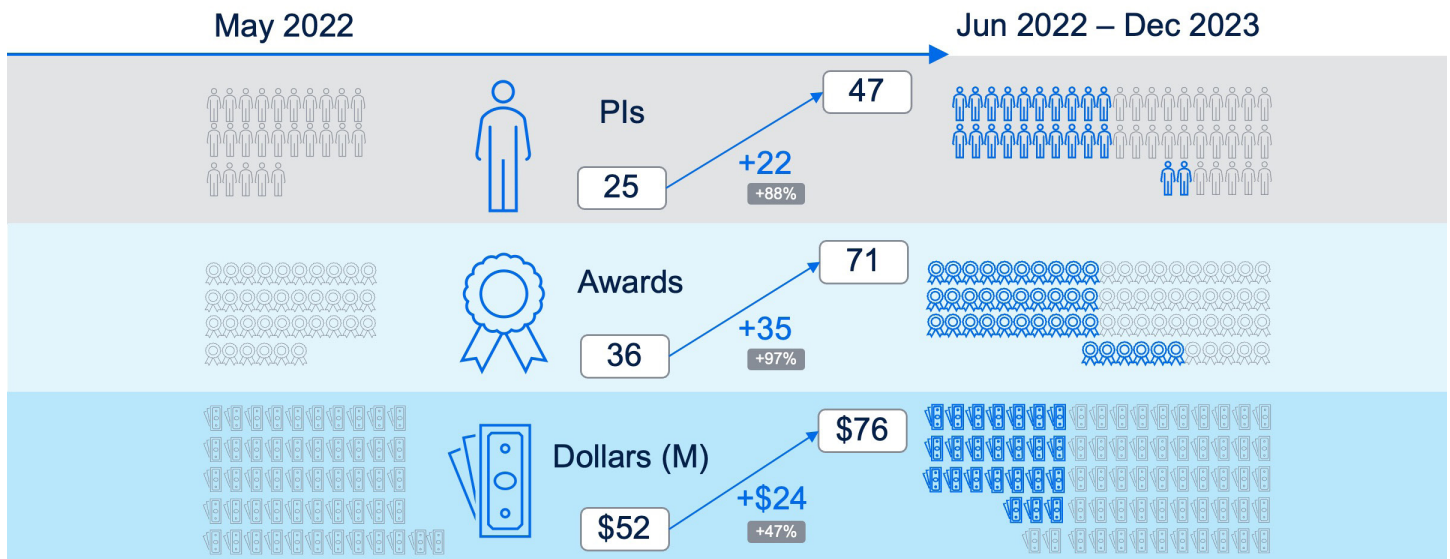
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Research Highlights

Growth in Research Awards

UCSF Department of Anesthesia and Perioperative Care



Department Active Research Awards, 2023

Major research programs in our department focus on anesthetic mechanisms, cognitive outcomes, hypoxia and ischemia, pain, vascular disease, cerebrovascular malformations and stroke, lung injury, sepsis, antibody engineering, data science and bioinformatics, and health equity.

View our full list of active research awards in 2023 below.

Principal Investigator	Agency	Title	Project Period
Adelmann, Dieter	University of Maryland	Dissecting the role of dynamic epigenome prompting pathways leading to kidney allograft fibrosis	7/1/2020 - 6/30/2024
Barreto Chang, Odmara	Medtronic	Evaluation of BIS" and Levels of Sedation with Common Inhalational Anesthetics in Healthy Volunteers (OLIVER)	6/23/2021 - 6/22/2026
Bickler, Philip	Various Industry Sponsors	Accuracy of pulse oximeters with profound hypoxia	9/1/1986 - 12/31/2024
Bishara, Andrew	NIH/NIGMS	Real-time Prediction of Adverse Outcomes After Surgery	8/1/2023 - 7/31/2028
Bokoch, Michael	La Jolla Pharmaceutical Company	Angiotensin II in Liver Transplantation (AngLT-1): a pilot randomized controlled trial	1/18/2022 - 1/17/2028
Chen, Catherine	NIH/NIA	Frailty and Monitored Anesthesia Care for Cataract Surgery in Older Adults	5/1/2021 - 4/30/2026
Chen, Lee-lynn	University of Michigan	THRIVE: Trajectories of Recovery after Intravenous Propofol Vs Inhaled Volatile Anesthesia	7/1/2023 - 6/30/2024
Ehie, Odinakachukwu	Foundation for Anesthesia Education and Research	Development and Evaluation of a Longitudinal Diversity Curriculum for Trainees: Applied Behaviors to Confront Unconscious Bias and Microaggression	7/1/2022 - 6/30/2024

Gandhi, Seema	City and County of San Francisco	Zero Waste	7/1/2021 - 6/30/2024
Gandhi, Seema	Commonwealth Fund	Measuring and Mitigating the Carbon Impacts of Health Care Goods and Services	2/1/2023 - 1/31/2025
Guan, Zhonghui	NIH/NINDS	Mechanism of Microglia Proliferation	6/1/2021 - 5/31/2026
Hellman, Judith	NIH/NCCIH	Neuro-Immune Mechanisms of Minor Cannabinoids in Inflammatory and Neuropathic Pain	9/15/2019 - 6/30/2024
Hellman, Judith	Texas Technical University	Goodnight mouse: sleep and sepsis	4/4/2022 - 3/31/2025
Hellman, Judith	NIH/NIAID	TRPV1-dependent neuro-immune modulation and regulation of endogenous acyl-dopamines in sepsis and acute inflammation	6/3/2022 - 5/31/2027
Hellman, Judith	NIH/NIGMS	Comprehensive Anesthesia Research Training	7/1/2022 - 6/30/2027
Juang, Jeremy	American Society of Anesthesiologists	Advancing Equity and Inclusion in Labor and Delivery: A Comprehensive Analysis of the MPOG Database	8/11/2023 - 8/11/2024
Kathiriya, Irfan	J. David Gladstone Institutes	Genetic Determinants of 4D Genome Folding in Human Cardiac Development	9/21/2020 - 8/31/2025
Kathiriya, Irfan	J. David Gladstone Institutes	Gene Regulatory Networks for Heart Development	1/1/2021 - 12/31/2024
Kathiriya, Irfan	Saving Tiny Hearts Society	Mechanisms for Ventricular Septation: Implications for Congenital Heart Disease	6/4/2023 - 5/31/2025

Kim, Helen	NIH/NINDS	Brain Vascular Malformation Consortium: Predictor's of Clinical Course	8/15/2019 - 6/30/2024
Kim, Helen	American Heart Association	Predictors of Growth, Recurrence, and High-Risk Features in Pediatric Brain Arteriovenous Malformation	1/1/2021 - 12/31/2024
Lee, Chanhung	Merck & Co Inc	A Double-Blind, Randomized, Crossover Design Study to Compare the Rocuronium Reversal by Sugammadex to Succinylcholine for Electroconvulsive Therapy (ECT)	7/1/2017 - 12/31/2024
Legrand, Matthieu	Spectral Medical Inc.	A Prospective, Multicenter, Randomized, Open-Label Study to Evaluate the Efficacy and Safety of PMX Cartridge in Addition to Standard Medical Care for Patients with Endotoxemic Septic Shock: TIGRIS TRIAL	9/29/2022 - 4/1/2025
Legrand, Matthieu	NIH	Identification of sub-phenotypes of severely ill burn patients and risk for secondary sepsis: SEPSISBURN	9/15/2023 - 7/31/2027
Leung, Jacqueline	Masimo Corporation	Predictors of sepsis in hospitalized patients	10/1/2019 - 9/3/2029
Lilaonitkul, Maytinee	Academy/Medical Educators - UCSF	A relational approach to simulation training to improve team dynamics and teach collaborative competencies on the labor and delivery unit - a pilot study	7/1/2023 - 6/30/2024
Lipnick, Michael	Medical Anesthesia Global Health	Global Health Endowment Fund	7/1/2019 - 6/30/2024
Lipnick, Michael	Public Health Institute	Sustaining Technical and Analytic Resources (STAR)	5/18/2020 - 3/24/2024

Lipnick, Michael	Beth Israel Deaconess Medical Center	BREATHE: Building Respiratory support in East Africa Through High flow versus low flow oxygen Evaluation	1/15/2022 - 1/14/2024
Lipnick, Michael	Gordon and Betty Moore Foundation	The Open Oximetry Project	8/1/2022 - 7/31/2024
Lipnick, Michael	Robert Wood Johnson Foundation	Supporting the Open Oximetry Project to Improve accuracy in Pulse Oximetry and Advance Health and Healthcare Equity	11/15/2022 - 11/14/2024
Lipnick, Michael	PATH	The Open Oximetry Project	4/1/2023 - 3/31/2024
Liu, Bin	University of Virginia	Novel radioimmunoconjugates for targeted alpha-particle therapy of metastatic prostatic cancer	6/1/2018 - 5/31/2024
Liu, Bin and Roybal, Kole	NIH/NCI	Combination antigen sensing engineered T cell for precise recognition and enhanced elimination of solid tumors	4/4/2023 - 3/31/2028
Marks, James	CA Dept of Public Health	Development of monoclonal antibody- based ultrasensitive assays for diagnosis of infant botulism	7/1/2021 - 6/30/2024
Pan, Jonathan	Department of Defense	Activating Transcription Factor 3 Is a Biomarker for Spinal Cord Injury with Neuroprotective Function	9/1/2022 - 8/31/2025
Prakash Budde, Arun	NIH/NHLBI	The Gut-Lung Axis: Immunometabolism Linking the Gut Microbiome and Lung Immunity	2/15/2020 - 1/31/2025
Rahman, Amreen	American Society of Anesthesiologists	Identifying Barriers to Career Advancement and Retention for Women in Critical Care for Medicine	11/1/2023 - 8/1/2024

Sall, Jeffrey	Pfizer US Pharmaceuticals	A Phase 3/4 Randomized, Double-blind, Dose-ranging Study of the Safety and Efficacy of Dexmedetomidine (DEX) Used with Propofol (PRO) as Needed for Procedural Sedation of Pediatric Subjects E1 month to <17 Years of Age Undergoing MRI Scans	2/26/2020 - 2/26/2025
Schwartz, Rachael	Children's Hospital of Los Angeles	Research Study	8/14/2023 - 8/14/2024
Sharma, Anshuman	University of Pittsburgh	Perioperative Precision Medicine: Translating Science to Clinical Practice to Improve Safety and Efficacy of Opioids in Neonates, Children and Nursing Mothers	8/3/2022 - 4/30/2026
Shimabukuro, David	Dartmouth College	The BASIC trial: Improving implementation of evidence-based approaches and surveillance to prevent bacterial transmission and infection	6/17/2021 - 5/31/2026
Shirvalkar, Prasad	NIH/NINDS	Multisite Adaptive Brain Stimulation for Multidimensional Treatment of Refractory Chronic Pain	9/30/2019 - 7/31/2024
Su, Hua	NIH/NINDS	Uncover the Pathogenesis of Brain Arteriovenous Malformation	1/1/2019 - 12/31/2024
Su, Hua	NIH/NINDS	Reduction of Brain AVM Severity through Inhibition of Pathogenic Angiogenesis	2/1/2020 - 1/30/2025
Wallace, Arthur	NCIRE-Northern California Institute for Research and Education	Perioperative Outcomes Epidemiologic Consortium	3/1/2012 - 3/1/2025

Wallace, Arthur	ECOM Medical	Impedance Cardiography: Clinical Evaluation of Endotracheal Cardiac Output Monitor (ECOM)	8/1/2016 - 7/31/2024
Wallace, Arthur	Obelab	Clinical Testing of NIRS for Quantitative Assessment of Depression and PTSD	8/1/2016 - 7/31/2024
Wallace, Arthur	Modality.AI and Johnson & Johnson	Modality.AI: Speech and Video Pilot Study to Prescreen for Mild Cognitive Impairment	9/1/2022 - 8/31/2024
Wallace, Arthur	VA IT	VA_AnesQIP	10/1/2023 - 9/30/2026
Whitlock, Elizabeth	Center for Health Equity in Surgery and Anesthesia	SPEAC: Sedation and Proficiency in English Association Cohort Study	9/1/2022 - 8/31/2024
Whitlock, Elizabeth	NIH/NIA	Predicting long-term cognitive outcomes and Alzheimer's disease and related dementias after major noncardiac surgery for older adults	9/1/2022 - 5/30/2027
Yu, Xiaobing	NIH/NIAMS	ACVR1 sensory neuron-specific signaling in neuropathic pain and injury-induced heterotopic ossification	9/23/2023 - 6/30/2028
Zhang, Jingying	Orthopaedic Research and Education Foundation	The Use of Venlafaxine in Reducing Surgical Pain in Total Knee Arthroplasty	11/1/2020 - 3/31/2024
Zhou, Wei	NIH/NIGMS	Role of Orexin/Hypocretin Circuit in Anesthesia and Analgesia	7/1/2020 - 6/30/2024

Our People

Our People

As 2023 ends, we reflect on our shared humanity, grateful to our many collaborators and for the opportunity to serve. Here are just a few examples of our impact in 2023.

[All-women team makes history with heart transplant at California hospital](#)

December 2022. Reported in February 2023. [Charlene Blake, MD, PhD.](#)

[Can Hydrocortisone Improve Patient Outcomes from Septic Shock? UCSF-Led Study Suggests Treatment Combination That May Increase Chances for Survival](#)

May 2023. [Romain Pirracchio, MD, PhD.](#)

[Scientists Find Brain Signals of Chronic Pain](#)

May 2023. [Prasad Shirvalkar, MD, PhD.](#)

[UCSF doctors leading way on eliminating climate-harmful general anesthesia gas use](#)

August 2023. [Seema Gandhi, MD.](#)

[Resident Alex Perez, MD, PhD, Member of Groundbreaking “Cancer Shredding” Research Team](#)

November 2023. [Alex Perez, MD, PhD.](#)

[Leah Pimentel, MBA. Chancellor Award for Dr. Martin Luther King, Jr. Leadership](#)

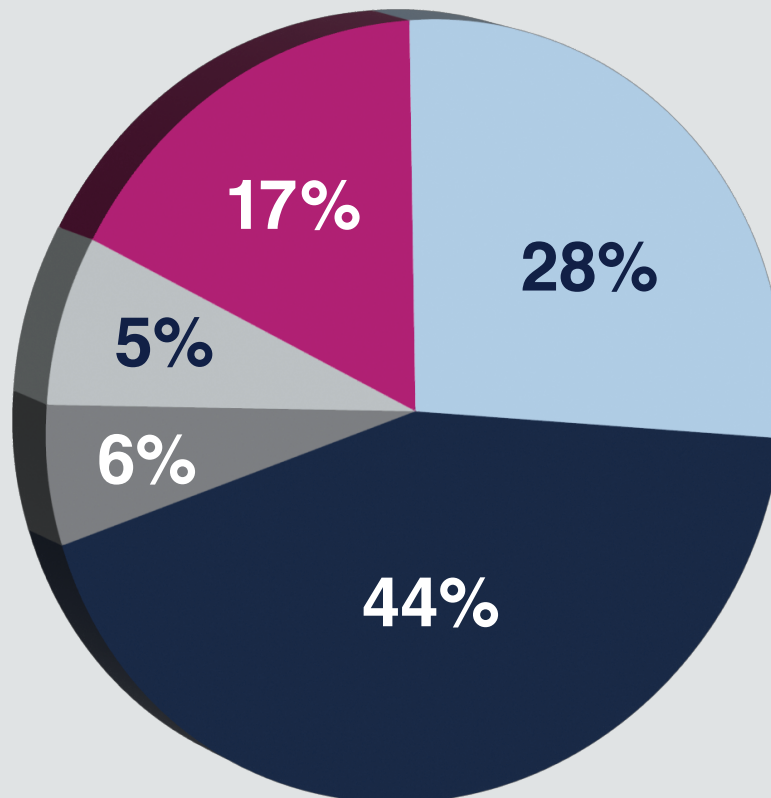
December 2023. [Leah Pimentel, MBA.](#)



Our People

An overview of the people in our department

Headcount of Department Members in 2023



Staff Physicians (37)

Research Academics (33)

Faculty (285)

Staff (186)

Trainees (112)

Our People

Faculty

2023 New Employees



Daniel Abelson, MD
Associate Professor



Taylor Bucyk, MD, FRCP
Clinical Instructor



Eugene Carragee, MD
Assistant Professor



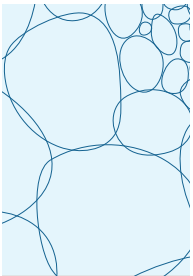
Christopher Fenwick-Ortiz, MD, PhD
Associate Professor



Karen Fleming, MD
Assistant Clinical Professor



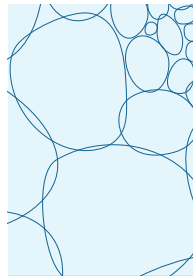
Litty John, MBBS
Assistant Clinical Professor



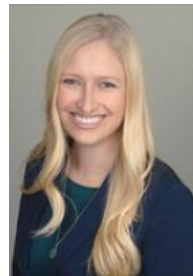
Maryn Kanter, MD, MPH
Staff Physician



Maxime Leger, MD, PhD
Visiting Assistant Professor



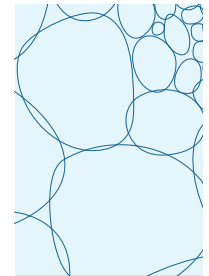
Amy Lu, MD, MPH
VP, Chief Quality Officer



Nicole Marquand, MD
Assistant Clinical Professor



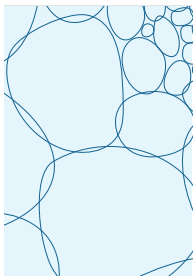
Julian Motzkin, MD, PhD
Assistant Professor



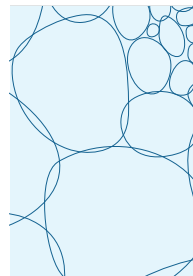
Dominik Ochocinski, DO
Assistant Clinical Professor



Matthew Orłowski, MD, PharmD
Assistant Clinical Professor



Jelena Oulasvirta, MD
Assistant Professor



Kate Petty, MD
Assistant Clinical Professor



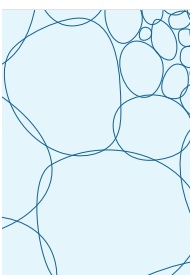
Agya Prempeh, MB, CHB
Assistant Clinical Professor



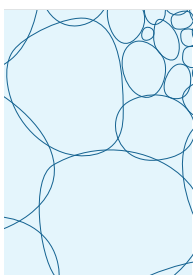
Taran Sangari, MD, MBA
Clinical Professor



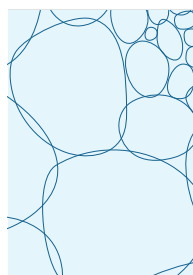
Rachel Schwartz, PhD
Assistant Adjunct Professor



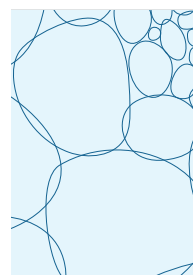
Sheila Sullivan, MD, BS
Assistant Clinical Professor



Dahlia Townsend, MD
Assistant Clinical Professor



Jennifer Vance, MD
Assistant Clinical Professor



Amy Zhang, MD, BS
Assistant Clinical Professor

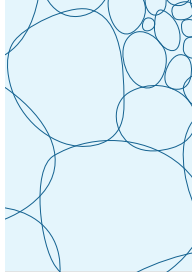
Our People

Staff Physicians

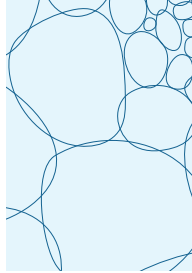
2023 New Employees



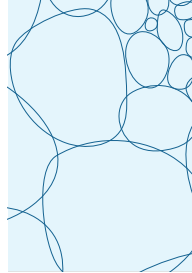
Clifford Bielinski, MD
Staff Physician



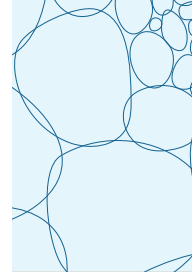
Susan Cheng, MD
Staff Physician



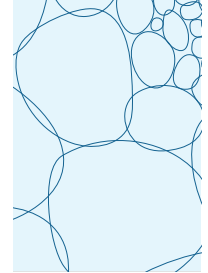
James Crook, MD
Staff Physician



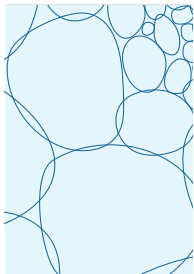
Elise Delagnes, MA, MD
Staff Physician



Kurt Dittmar, MD, PhD
Staff Physician



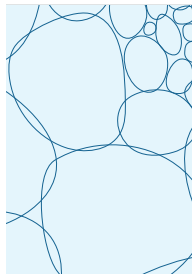
Tina Dong, MD
Staff Physician



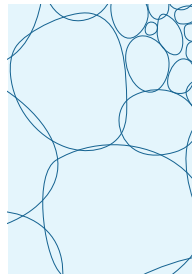
Brandon Esenther, MD
Staff Physician



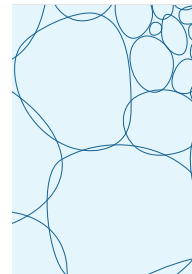
Aaron Frankel, MD
Staff Physician



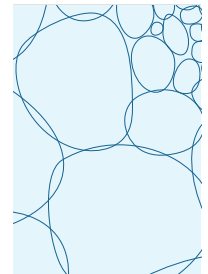
Mona Goldfine, MD
Staff Physician



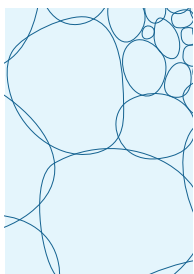
Wei-Ann Hsueh, MD
Staff Physician



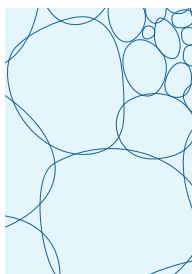
Silvester Kagunye, MD
Clinical Instructor
Volunteer



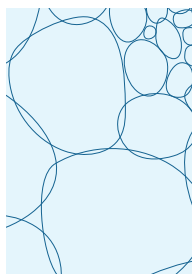
Robert Karoukian, MD
Staff Physician



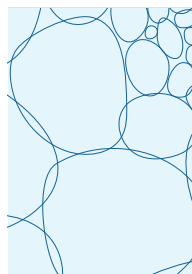
Brian Kim, MD
Staff Physician



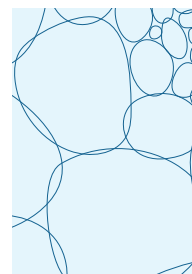
Jeffrey Loh, MD, MS
Staff Physician



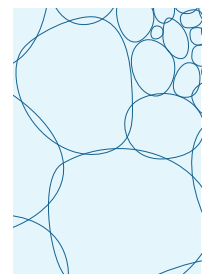
Lawrence Long, MD
Staff Physician



Shuran Ma, MD
Staff Physician



Evelyn Monico, MD
Staff Physician



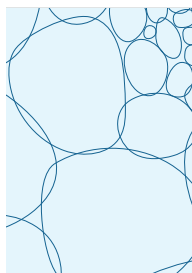
Dominika Motas, MD
Staff Physician



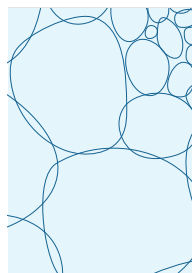
Katherine Nurkse, MD
Staff Physician



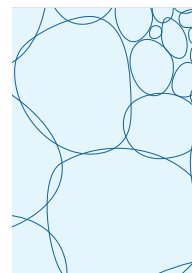
Nimesh Patel, DO
Staff Physician



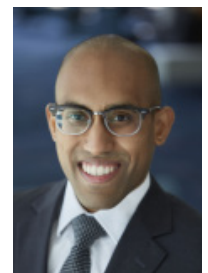
Claire Ricci, MD
Staff Physician



Sabah R'id, MD
Staff Physician



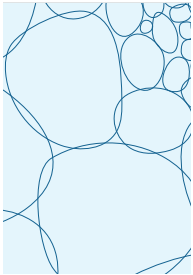
Garrett Roney, MD
Staff Physician



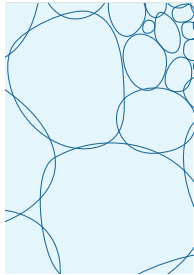
Manoj Sekar, MD, MS
Staff Physician

Our People

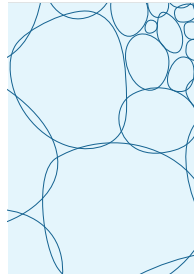
Staff Physicians



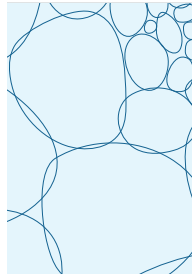
Candace Shavit, MD
Staff Physician



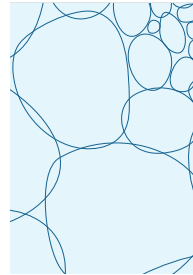
Daniel Sisti
Staff Physician



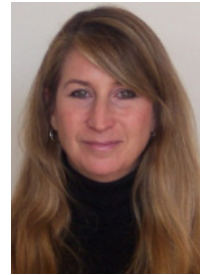
Balky Thind, BS, MD
Staff Physician



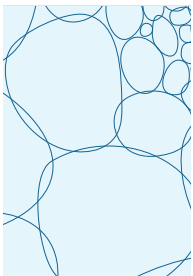
Sarah Vankova, MD
Staff Physician



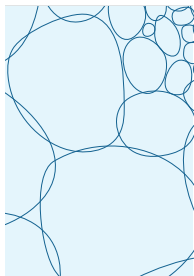
Dan Wajzman, MD
Staff Physician



Linda Wolbers, MD
Staff Physician



Shelley Wu
Staff Physician

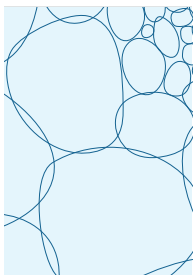


Ivan Zeitz, MD
Staff Physician

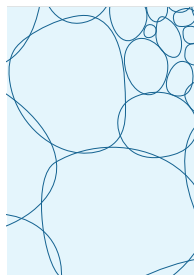
Visiting Faculty



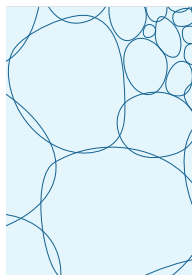
Uma Balasubramaniam, MD, MBBS
Visiting Clinical Instructor



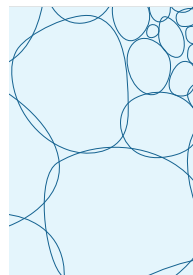
Craig Beaman, MBBS
Visiting Assistant Professor



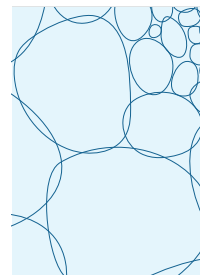
Steven Howey, MBBS
Visiting Assistant Professor



Francois Marty, MD, MPH
Visiting Assistant Professor



Arun Menon, MBBS, MSc
Visiting Clinical Instructor



Jelena Oulasvirta, MDD
Assistant Professor

Our People

Staff

2023 New Employees



Ella Behnke
Clinical Research
Coordinator



Katherine Brogan
Fellowship Education
Coordinator



Yajaira Carreon
Student Intern



Dani Cambier, MBA
Director of
Communications



Danni Chen
Health Disp Data
Analyst



David Chen, PhD
Research Data Analyst



Susan Fernandez
Executive Assistant



Jacob Flores
Clinical Research
Coordinator



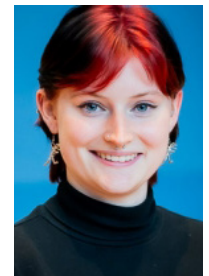
Will Kellogg
Parnassus Site
Supervisor



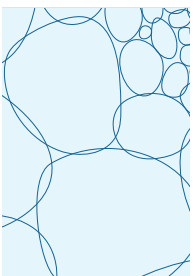
John Kinyua
Anesthesia Technician



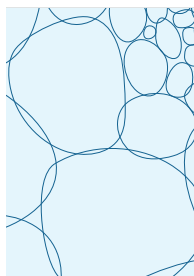
Nicol Laura
Fellowship Education
Coordinator



Megan Matthews
Jr Specialist



Sara Murphy
Education Coordinator



Nai Nader, MD
Research Associate



Koyinsola Oyefeso
Student Intern



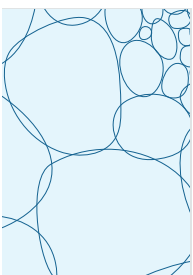
Vincenzo Pierotti
Project Specialist,
Facilities



Mallika Reddy
Research Data Analyst



Alexandra Romero
Research Program
Coordinator



Mark Sebastian
Administrative Officer



Nyein Thwe
Credentialing Coordinator



Fernando Valadez
Administrative Officer



Rene Vargas Zamora
Clinical Research
Coordinator



Calvin Wang
Staff Research Associate

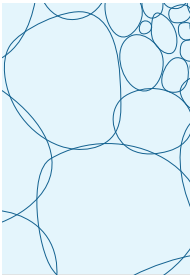


Crystal Wong
Administrative Assistant

Our People

2023 New Employees

Nurse Practitioners



Anna Pasternak, NP
Nurse Practitioner PD

Respiratory Therapists



Tyler Campagna, RRT
Regd Respiratory
Therapist



Erica Gill
Respiratory Therapist

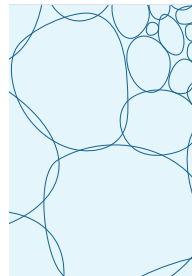


Gabriele Radaviciute
Respiratory Therapist

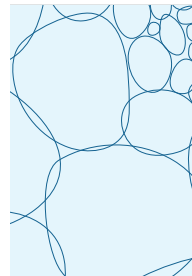
Postdoctoral Scholars



**Chengnan Huang,
PhD, MS**
Postdoctoral Scholar



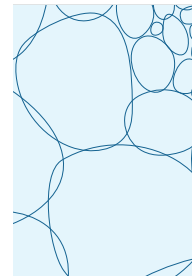
Dan Liu, PhD
Postdoctoral Scholar



Fahima Mayer, PhD
Postdoctoral Scholar

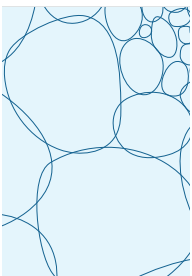


Ann Shah, MD
Associate Clinical
Professor

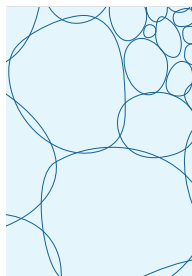


Andri Wardiana, PhD
Postdoctoral Scholar

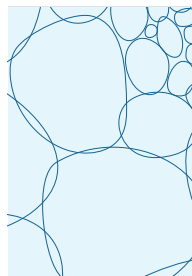
Visiting Scholars



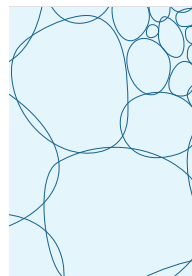
Yong Chen, MD, MS, PhD
Visiting Scholar



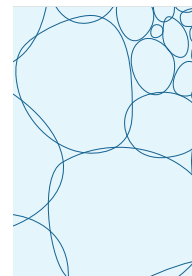
**Alexandre Kalimoutou,
BS, MSc, MD**
Visitor Graduate



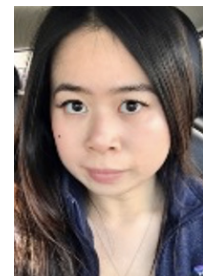
Kristie Sun
Visiting Graduate



Huixia Niu, MD, BS, MS
Visiting Scholar



Lingyi Zhang
Visiting Scholar



Cindy Zhuang
Visiting Graduate

Alumni Stories

Marla Ferschl, MD



I came to UCSF as an anesthesia resident in 2005. Having spent my entire life in the Midwest, I was shocked by the July weather in San Francisco. But the Bay Area grew on me, and now I cannot think of a better place to live. When I started my anesthesia residency, I was not sure about pursuing a fellowship, but once I took care of an infant at the former ASC, I realized my future was in pediatric anesthesia. I found the cases to be physiologically interesting and I felt like I made a meaningful difference in each patient's life. Plus, everyone was nicer on the pediatric side—surgeons, nurses, and techs—and the anesthesiologists in the pediatric group were incredible role models. They knew how to move rooms—they were the most efficient group I had ever seen. They were never afraid to speak up to do the right thing for their patients. They also treated each other like family—at the end of the day, they always took care of each other and jumped in to help one another out.

I knew I wanted to leave UCSF for fellowship so I could gain a different perspective, but I also knew that my dream job was to come back after fellowship and join the pediatric team. Before I left for my fellowship year, I negotiated my return as a faculty member with Drs. Ron Miller and Atsuko Baba, who was the pediatric division chief at the time.

When I returned to UCSF in 2010, I felt so lucky to be back. My pediatric group was as wonderful as I thought they would be, and working with some true giants in pediatric anesthesia, like Drs. George Gregory, Claire Brett, and Chico Caldwell, helped me hone my practice and grow as an anesthesiologist. I also was fortunate to get involved in opportunities outside the OR—from teaching students, residents, and fellows to ultimately becoming the pediatric anesthesia fellowship program director and having the opportunity to expand the program to match our clinical growth. I have been most grateful for faculty development opportunities provided at UCSF, including the Teaching Scholars Program—which I highly recommend to anyone interested in education, the CORO leadership development program, and the Academy of Medical Educators. Each opportunity helped increase my engagement not only with the department but also with UCSF as a whole.

When I reflect on my time at UCSF, I am amazed by how much our pediatric services have grown. We have gone from a couple of ORs in the main ORs and a couple of floors of the Moffitt-Long hospital, to a hospital of our own at Mission Bay, with 8 ORs, 3 procedure rooms, and multiple non-OR anesthesia locations. With the addition of Oakland Children's Hospital as well as a dedicated pediatric outpatient surgical center in Walnut Creek in 2023, our division is poised to become the largest in the department. We have over 36 faculty and are still growing. Combined across all 3 sites, our group does over 15,000 anesthetics per year!

It is a great privilege to now lead this division. I still learn things from my colleagues and our trainees regularly, and I strive to promote a growth mindset in our practice. I hope that when our trainees rotate through pediatric anesthesia, they feel the same spark that I felt nearly 20 years ago and will consider joining our group in the future!

Alumni Stories

Tin-Na Kan, MD

Since completing my Anesthesiology residency at UCSF, I have worked as a clinical anesthesiologist and Senior partner at The Permanente Medical Group (TPMG) in Northern California. Despite going into private practice, I have continued throughout this time to pursue my clinical interests in ultrasound-guided regional anesthesia and team-based medical simulation for patient care improvement.



From many years of mentorship and collaboration with Dr. Andrew Gray, I was able to help establish a vibrant regional program at South San Francisco (SSF) Kaiser Hospital that has been expanded upon by Dr. Chris Webb and Dr. Edward Yap, both SSF colleagues that received their regional anesthesia fellowship training from UCSF.

My experience working with Dr. Manuel Pardo to establish UCSF's simulation center during medical school and residency provided the foundation to developing a team-based, interprofessional perioperative simulation program, Critical Events Team Training (CETT), for several different Kaiser Permanente (KP) hospitals. More recently, I have served as a founder and director of TAPSS: TPMG Anesthesia Perioperative Simulation at Samuel Merritt University. This novel collaboration with SMU has just received ASA endorsement this year to provide personalized, hands-on, high fidelity simulation training to practicing anesthesiologists that fulfills MOCA QI requirements.

When not directly taking care of patients in the OR, I have explored another passion for diversity, equity, and inclusion (DEI) in medicine. Having diverse role models at UCSF provided the personal inspiration to advocate for more diverse representation in the field of Anesthesiology to take the best care of an increasingly diverse patient population. I currently serve on the EID Council at SSF Kaiser Hospital.

I have also been actively involved in the American Board of Anesthesiology (ABA), serving as an SOE and Applied Examiner since 2011. In the Fall of 2023, I was elected to the ABA Board of Directors. While on the Board, I will focus on the continued evolution of the Objective Structured Clinical Examination (OSCE) and serve as the Director Liaison to the very first DEI Advisory group, helping to weave DEI into the fabric of the ABA, from assessments and continuing certification to examiner representation.

Alumni Stories

Jeanine Wiener-Kronish, MD

After 12 years of being Chair of the Department of Anesthesia, Critical Care and Pain, at Massachusetts General Hospital, I transitioned back into a clinician performing preoperative assessments, including assessments of high-risk geriatric patients. I also try to help with some research projects with faculty and residents. We are completing a pilot grant evaluating the value of a pre-hab month for esophageal cancer patients where we do a very objective assessment of frailty, muscle mass and nutrition during their chemotherapy and radiation sessions. In the month after completion of their chemotherapy and radiation, we work to improve their nutrition and to improve their functional status. The goal is to evaluate several outcomes, including length of stay, functional status, some unique muscle biomarkers and to hopefully expand the pilot and consider other oncologic patient groups. I did a project on some of the complications of SGLT-2 inhibitors and we are evaluating whether stopping them in heart failure patients is necessary and the complications of stopping them.

I have also been active in national organizations, trying to help get more mentoring programs for young faculty and residents. Probably what the residents will remember most about me is that I bring “healthy” snacks to the preop clinic and I offer exercise classes to encourage continued exercise during their training. I am grateful to have been a student at UCSF, to have worked at UCSF for more than 30 years, to have friends and colleagues at UCSF. I was so lucky to have gone there! I learned to be generous and kind and to try and help offer opportunities to a diverse population of students.



Alumni Stories

Jed Wolpaw MD, M.Ed, FASA

I am an Associate Professor at Johns Hopkins University School of Medicine in the Department of Anesthesiology and Critical Care Medicine, and the residency program director. I specialize in critical care, attending in surgical ICUs and general adult ORs.

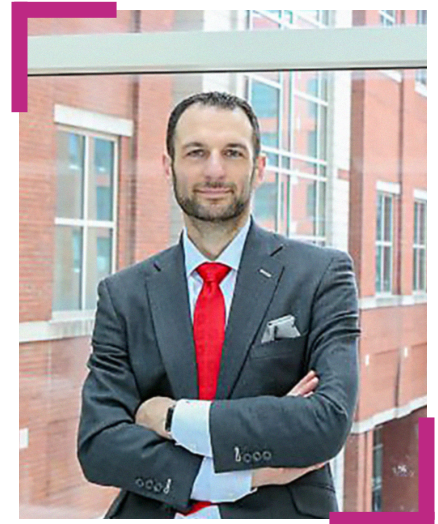
I graduated magna cum laude from Brown University with a degree in History, earned a master's degree in education from Harvard, and taught high school history. I then received my medical degree from UCSF School of Medicine, where I graduated AOA and was the student commencement speaker. After completing an Anesthesia residency and a Critical Care fellowship at Johns Hopkins, I joined their faculty in 2015.

In addition to running the residency program, I co-run the Anesthesiology and ICU clerkships and host the ACCRAC podcast, which has over 50,000 listeners monthly in more than 100 countries and over 5 million total downloads.

I have received numerous teaching awards, including the Charles Beattie Teacher of the Year award, the Lisa Heiser excellence in education award, the ASA/SEA Distinguished Educator Award, the ASA Excellence in Anesthesia Education Award, and the AUA Education Innovation Award.

My research interests focus on resident well-being, asynchronous teaching methods, and improving trainee education. I speak nationally and internationally on education, feedback, communication, and well-being. I am the past chair of the SEA resident education committee, a board member, and the president of the Association of Anesthesiology Core Program Directors (AACPD).

I am a proud father of three daughters and husband to a physician. I believe that the incredible teaching and mentorship I received while a medical student and resident at UCSF set me on the path to the success that I have had. I am forever grateful to the amazing faculty across the University in general and in the Department of Anesthesiology specifically, with whom I had the honor to work with during my 8 years there.



DEI, Culture, and Global Health Equity

DEI, Culture, and Global Health Equity

UCSF Anesthesia Cardiac Care Team Mentors Visiting Doctors from Vietnam National Children's Hospital

By Hannah Fairbanks

The Anesthesia Service of the San Francisco VA Health Care System (SFVAHCS) provides In September 2023, anesthesiologist Nguyen Thi Thu Hang, MD, and perfusionist Nam Do Van, MD traveled from Vietnam National Children's Hospital (VNCH) in Hanoi to spend six weeks observing the pediatric cardiac care team and learning from UCSF anesthesiologist Hung Nguyen, MD. VNCH partnered with Children's HeartLink, which has connected hospitals in developing countries with those in the United States, the United Kingdom, and Canada (along with UCSF, Boston Children's Hospital serves as a volunteer training partner for the organization).

Children's HeartLink's mission is to save children's lives by transforming pediatric heart care in underserved parts of the world. Founded in 1969, Children's HeartLink has reached more than 2 million children with heart disease and has 22 partner hospitals in 6 countries. Children's HeartLink relies on donors to help reach its goals, and since 2017, the Ping and Amy Chao Family Foundation has been sponsoring Children's HeartLink's work in Hanoi. In Vietnam, an estimated 10,000 children are born with congenital heart disease every year, of which 25% require surgery in the first year of life. Medical volunteers traveled to Vietnam National Children's Hospital in Hanoi several times to train 170 pediatric cardiac medical professionals. In 2017, the UCSF team was led by Dr. Shunji Sano, a pediatric heart surgeon world-renowned for surgical innovations. At the start of the COVID-19 pandemic, the UCSF team pivoted to virtual training sessions and weekly conference calls to go over complex cases. The doctors discussed treatment planning and case troubleshooting, ensuring each patient had a strong and informed treatment plan.

In 2023, the partnership between Children's HeartLink and The Chao Foundation allowed Hang and Nam to come to UCSF and study with our world-renowned anesthesia and cardiac team. Hang underscored how "truly meaningful" the sponsorship by Children's HeartLink is, adding "We hope that in the near future, some more doctors will be able to visit and study directly at UCSF." For Hang, a cardiac anesthesiologist at VNCH, observing the entire process of patient preparation, anesthesia during surgery, and the transfer of the patient to the intensive care unit after congenital heart surgery was an essential element of her trip. While at UCSF, Hang recorded all the differences in practice between the two hospitals and is planning to change VNCH's current receiving procedures and equipment to improve surgical results. Nam, a perfusionist from VNCH, shared that his trip primarily focused on learning about advanced perfusion in congenital heart surgery. He also had a chance to observe anesthesia in surgery, cardiovascular intervention for congenital heart patients, and witnessed heart transplantation and VAD placement in infant patients for the first time.

Hang has already put some changes in place. Although VNCH does not have dexmedetomidine and other equipment needed to anesthetize and sedate patients in the cath lab, Hang shared that immediately upon her return to VNCH, her team members implemented what they could, including using ultrasound for endovascular access for all the cases "in the same way that UCSF Professor Hung Nguyen did when anesthetizing cardiac surgeries at UCSF." Hang reports that based on what she observed during his time at UCSF, she and her team have created a new handover form between the cardiac intensive care unit (CICU) and the OR and have begun using it for all cardiac patients. They also created a new, safer way of transferring the patient by using a full indicator monitor, rather than only two indicators (pulse rate and SpO2).

Both Hang and Nam detailed additional changes they want to make at VNCH, including improving the effectiveness of patient monitoring during CPB (for example, installing NIRS for monitoring cerebral perfusion for patients with CPB and doing venous blood gas every 30 minutes to assess tissue perfusion via SvO2). Nam said he also wants to "apply Echo for assessing artery catheter for every patient, perform extubation in OR for several surgeries such as Glenn and Conduit change, and plan to do Fontan surgery off-pump in the near future." Nam echoes Hang's observations, adding that what impressed him most was UCSF's high standards and efficient systems, "from initial examination, treatment monitoring, surgery planning consultation, every step during surgery



(Surgery, Anesthesia, Perfusion, nurses); transfer, handover, and taking care of patients at ICU.” But it was not just the precise clinical work and procedures that impressed Hang and Van, it was the “kind and enthusiastic” way UCSF’s doctors interacted with them—and with each other. Hang said of the cardiac team: “During their work, they always explained and answered our questions about the cases or the situations that develop in each operation, thereby helping us better understand how to practice anesthesia.”

Hang also emphasized the impact her UCSF mentor, Hung Nguyen, has had on her work. Hang underscores how much Nguyen’s “passionate” approach to the field and his practice has taught her, as well as the foundation of patient care, including “how to take care of a patient during surgery and how to monitor and detect common problems.” Nam spent most of his clinical observation time in the company of UCSF’s perfusion team, and notes that “Clinton Jones [of Benioff Children’s Hospital Oakland] is a really good perfusionist; he shared a lot of clinical experience with me.”

Additionally, Hang and Nam spent time in the pediatric CICU and witnessed the care with which the doctors and staff approach our patients. Hang underscored how impressed she was with how well the UCSF’s nurses know their patients from the moment they receive them from the operating room. After seeing the difference this makes for patients and their families, Hang said, “I think that we need to learn how to monitor and evaluate our patients on a daily basis.” Creating and implementing systems based on those he observed at UCSF will improve patient care across VNCH.

Another experience that deepened Nam’s experience was his time in the Cath Lab with Dr. Moore and rounding in the ICU. Nam was “impressed with the way you do interventions for neonatal patients...all steps in the intervention were very careful, precise, and the results were very good. We are also impressed with the way you transport, monitor, and care for patients from the OR, Cath Lab, to the ICU. We will learn these things and apply them appropriately to Vietnam’s conditions, further improving the quality of care for patients undergoing surgery and intervention.”

Nam also indicated how important this trip was professionally: “It helped me witness firsthand that medical care requires the highest and the most rigorous standards. From there, I can compare what we are doing every day at NCH when providing medical care to the same patient population. We found what we can improve quickly and what we can gradually change, in accordance with our conditions. Furthermore, we recognize the urgent need to develop a basic systematic training program on pediatric cardiovascular anesthesia and perfusion in pediatric heart surgery. A difficult job, requiring a lot of resources, time, and help and teaching from your experts.”

Children’s HeartLink partnerships are multi-year. UCSF and VNCH will continue to work together to improve pediatric cardiac care provided at VNCH and grow the hospital into a Children’s HeartLink Center of Excellence. The team at VNCH will grow its expertise in diagnosing and treating more children with complex heart conditions while serving as a regional trainer for other pediatric cardiac clinicians in the country to ensure that all children have access to life-saving care in the country.

DEI, Culture, and Global Health Equity

UCSF Center for Health Equity in Surgery and Anesthesia (CHESA)

The UCSF Center for Health Equity in Surgery and Anesthesia (CHESA) is expanding equitable access to safe perioperative care through partnerships that strengthen capacity and advance priorities across education, research, and advocacy. CHESA is grateful for continued engagement and support from the Department of Anesthesia and Perioperative Care. Key faculty on CHESA's leadership who advance the Center's growth and programming include [Adrian Gelb, MB](#) (Director of Advocacy), [Erica Langnas, MD](#) (Associate Director of Research), [Tyler Law, MD](#) (Associate Director of Research), [Maytinee Lilaonitkul, MBBS](#) (Associate Director of Education), [Mike Lipnick, MD](#) (Associate Director), and [Odi Ehie, MD](#) (Leadership Committee).

Notable 2023 accomplishments include:

- **CHESA Fellowship's continued growth**, including 4 anesthesia fellows in the 2023-24 cohort Ronald Bisegerwa, Maryn Kanter, Liana Valeanu and Isam Bsisu from Uganda, the US, Romania, and Jordan, mentored by Adrian Gelb, Mike Lipnick and Maytinee Lilaonitkul.
- CHESA **co-directs the UCSF WHO Emergency, Critical and Operative Care Collaborating Centre** with the Department of Emergency Medicine under the leadership of Mike Lipnick and Carol Chen. In 2023, the CC continued development of anesthesia and critical care courses for the WHO Academy.
- CHESA raised nearly **\$2M from external donors** to support the Open Oximetry Project and CHESA fellowship program.
- Recognition for CHESA anesthesia faculty: **Tyler Law** received the **2023 IGHS Early Career Global Health Scientist Award** in recognition of his health disparities and health workforce research, both locally and internationally.
- **The Open Oximetry Project** received approval from the US FDA to form the Open Oximetry Collaborative Community with over 220 members representing 18 countries working to improve equity in oximetry. OpenOx launched an open-source data repository for clinical and lab pulse oximetry data and completed a feasibility assessment to expand medical device testing capacity in East Africa.
- Through the **USAID Global Goods Project**, built and released a [Job Aid Builder tool](#) on OpenCriticalCare which allows users to create their own clinical quick reference pocket cards suiting local needs. In 2023, the team also released and continued to update the [Oxygen Calculator](#) and [Oxygen Encyclopedia](#) as part of a suite of free, online resources in oxygen management.

Michael Lipnick, MD

Co-founder, the UCSF Center for Health Equity in Surgery and Anesthesia (CHESA)



Our Sites

Our Sites

Mission Bay

Mission Bay is home to UCSF Benioff Children's Hospital San Francisco, UCSF Betty Irene Moore Women's Hospital, UCSF Bakar Cancer Hospital, UCSF Bakar Precision Cancer Medicine Building, and the new Bayfront Medical Building, in addition to numerous outpatient services for children and adults. The UCSF Orthopaedic Institute is also located at Mission Bay. UCSF Medical Center at Mission Bay is an innovative 289-bed complex features three separate hospitals, specializing in serving children, women, and cancer patients, as well as a green energy center and a helipad.

The anesthesia department provides anesthesia, critical care and post-operative pain management support to patients seeking treatment at the Betty Moore Women's and Bakar Cancer hospital, connected with the Benioff Children's Hospital at Mission Bay. The hospital focuses on urologic, gynecologic, head and neck, intestinal, hepatobiliary and orthopedic surgical and non-surgical oncology treatments. Patients are also seen for benign gynecology issues and for assisted reproduction treatments.



Our Sites

Parnassus Heights

Our original campus, UCSF Helen Diller Medical Center at Parnassus Heights, is home to inpatient and outpatient services, as well as research institutes and educational facilities. Parnassus includes our 15-story hospital, Ambulatory Care Center, and Langley Porter Psychiatric Hospital and Clinics.

The UCSF Helen Diller Medical Center at Parnassus Heights is the original site of the Affiliated Colleges that evolved into the health sciences university that it is today. Since the opening of the UCSF Medical Center at Mission Bay in 2015, clinical care on Parnassus has transitioned into focusing on high-end adult surgical and medical services, including emergency medicine.



Our Sites

Mount Zion

Mount Zion Hospital was established in 1887 by the San Francisco Jewish community as a non-profit hospital to render “medical and surgical aid and service to the needy and distressed sick of the community ... without regard to race or creed.” Today, Mount Zion continues its involvement in teaching, research, and patient care.

UCSF Medical Center at Mount Zion is home to outpatient clinics, a hospital and surgical facilities, and support services for patients and families. The UCSF Osher Center for Integrative Health, Helen Diller Family Comprehensive Cancer Center and Women’s Health Center (a nationally designated center of excellence in women’s health) all have locations at the Mount Zion campus.

The Mount Zion hospital was renovated in 2021 and has reopened as the new hub for UC San Francisco’s adult orthopedic surgery services – the first specialty center in the region to focus on caring for patients with orthopedic issues. Most UCSF orthopedic surgical operations are now performed there, including hip, knee and shoulder replacements; trauma surgeries; and hand, foot and ankle surgeries. It’s home to a sports medicine clinic as well.

The Mount Zion Surgery Center is an ambulatory surgery center offering 23-hour postoperative stays. The anesthesia department provides anesthesia, critical care and post-operative pain management for a diverse array of surgical procedures that performed at Mount Zion including General Surgery, Ophthalmology, Head & Neck, Spine, Breast, and Chronic Pain.



Our Sites

Zuckerberg San Francisco General

Zuckerberg San Francisco General is a licensed general acute care hospital within the Community Health Network, which is owned and operated by the City and County of San Francisco, Department of Public Health. ZSFG provides a full complement of inpatient, outpatient, emergency, skilled nursing, diagnostic, mental health, and rehabilitation services for adults and children. It is the largest acute inpatient and rehabilitation hospital for psychiatric patients in San Francisco. Additionally, it is the only acute hospital in San Francisco that provides twenty-four hour psychiatric emergency services.

ZSFG is world renowned for its expertise in trauma and neurotrauma / neurologic critical care. As a UCSF affiliate, ZSFG has a long and distinguished history of research in diverse areas including trauma, AIDS, anesthesia, and critical care.

ZSFG Trauma Center

Respiratory Care Services works very closely with the renowned trauma service at ZSFG. ZSFG operates the only level 1 trauma center for more than 1.5 million residents of San Francisco and northern San Mateo County. RCS plays a vital role in the emergency department which treats more than 3,000 severely injured patients every year.

For more information about the ZSFG Trauma center [please visit Trauma Team](#).



Our Sites

VA Medical Center

At San Francisco VA Health Care System, our mission is to honor Veterans, their families, and caregivers by offering exceptional care that improves their health and well-being. With an unparalleled reputation as providers of the most complex care across VHA, we have a long history of conducting cutting-edge research, establishing innovative medical programs, and providing compassionate care. Notably, for over 60 years, the Medical Center's affiliation with the University of California, San Francisco (UCSF) ensures that all physicians are jointly recruited with UCSF School of Medicine.

The San Francisco VA Health Care System Medical Center provides state of the art tertiary medical care to veterans. The SF VA Anesthesiology Service has extensive research, education, and simulation programs reducing perioperative risk, morbidity, and mortality in addition to providing exceptional clinical care.



Our Sites

Benioff Children's Hospital Oakland

Our UCSF Benioff Children's Hospital Oakland location houses inpatient and outpatient services, including radiology and imaging, and a range of pediatric specialty departments and clinics, from the Fetal Treatment Center to diabetes and oncology clinics and the Center for Sickle Cell Disease.

[Learn more here.](#)



Development

Development

Donor Contributions Fueled PARC's Innovations in Pain and Addiction

By Hannah Fairbanks

Philanthropic support played a pivotal role in advancing scientific research at the Pain and Addiction Research Center (PARC) at UCSF over the past year.

PARC awarded a UCSF faculty research fellowship valued at \$100,000. This fellowship, funded by generous donations, was crucial in supporting a faculty member in groundbreaking pain and addiction research concerning ketamine. The fellowship allowed this researcher to delve deeper into his studies, which will ultimately contribute to understanding and potentially to the development of new treatments and interventions. For more details, visit [the PARC Fellowship Page](#).

To ensure that PARC faculty members remain at the forefront of the latest scientific developments, donor funds were also used to host an annual research [symposium](#). The 2024 Neuromodulation Symposium provided a platform for researchers to share their findings, exchange ideas, and foster collaboration. The ongoing education and networking facilitated by this event was vital for sustaining cutting-edge research.

Contributions allowed PARC to establish transdisciplinary working groups that brought together preclinical, clinical, and social scientists. These groups focused on various critical aspects of pain and addiction, enhancing the depth and breadth of research. Additionally, they assisted faculty with developing research proposals, making it easier to secure funding and support for new projects and bridging the gap between basic research and clinical application.

Donor funds enabled PARC to offer mentorship time, in which senior faculty members guided early-stage researchers. These consultations were particularly valuable for high-risk, high-reward projects that might not have received funding through traditional channels. The mentorship helped young researchers refine their methodologies, enhance their proposals, and increase their chances of making significant scientific contributions.

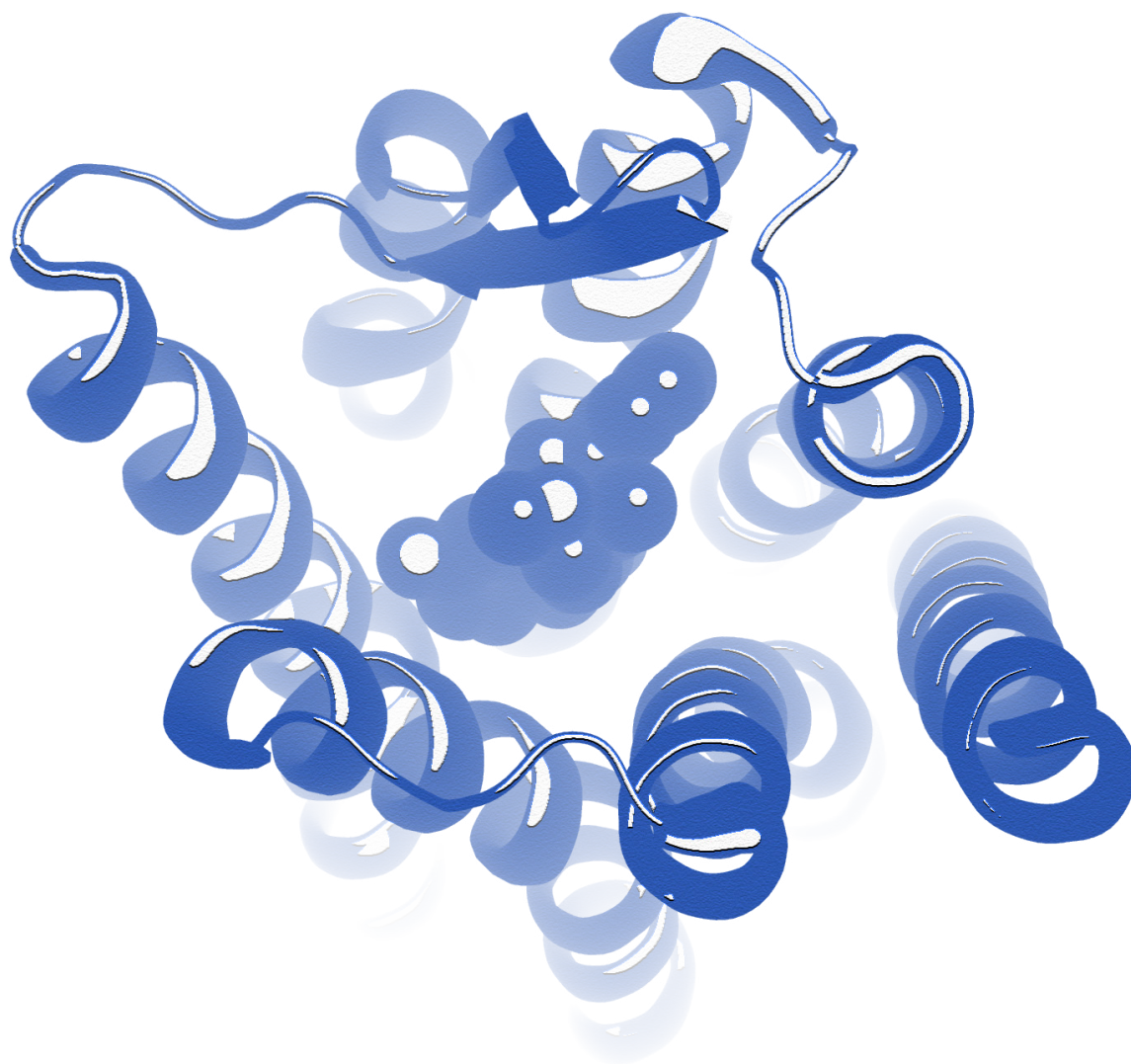
PARC fosters the development of scientists and clinicians from underrepresented groups. Donated funds supported initiatives that provided these individuals with the resources and opportunities they needed to succeed in pain and addiction research. This not only promoted diversity within the scientific community but also brought fresh perspectives and innovative ideas to the research table.

Donated funds were also allocated to the development and maintenance of a dedicated educational resource: [the Pain Management website](#).

This comprehensive website serves as a centralized hub for evidence-based practices, resources, and updates in pain and addiction management. It provides healthcare professionals, researchers, and patients alike with valuable tools to enhance the quality of care and understanding of these complex issues.

Financial support enabled UCSF to host monthly educational seminars focused on pain and addiction. These seminars are open to all faculty members and learners across and outside of the university, ensuring that the latest advancements in research and clinical practices are disseminated widely. These sessions not only educate but also foster a collaborative environment where ideas can be shared and innovative approaches to patient care can be developed.

The generous support from donors was instrumental in driving PARC's mission forward. By funding fellowships, symposia, working groups, mentorship programs, and diversity initiatives, these contributions helped PARC to not only advance scientific understanding but also to train the next generation of researchers. The impact of these donations was profound, leading to innovations that had the potential to transform lives affected by pain and addiction.



Development

Investing in Excellence: How Donations Transformed Pain Management at UCSF

By Hannah Fairbanks

Donations over the past fiscal year played a crucial role in supporting the UCSF Pain Management Center. Contributions directly enhanced the quality of care for our patients and supported the professional growth of our dedicated faculty and staff.

The Pain Management Center, primarily managed by Dr. Chris Abrecht along with the Vice Chair for Pain Medicine Dr. Mark Schumacher, is committed to providing cutting-edge treatments and comprehensive care. Financial contributions helped us continue to excel in several key areas.

With this support, we provided Pain Reprocessing Therapy training for our pain psychologists. This innovative therapy helped patients reframe their understanding of pain, leading to significant reductions in chronic pain symptoms.

This funding allowed our junior faculty members and nurse practitioners to attend conferences. Donations covered travel expenses for a conference on cancer pain, allowing them to gain valuable insights and skills. Additionally, funding covered conference fees for local training by the World Academy of Pain Medicine United enabled multiple faculty members to enhance their ultrasound-guided intervention techniques.

Creating a supportive and positive work environment is essential for high-quality patient care. Contributions funded morale-boosting events, such as a holiday meal at the clinic and gatherings for the pain division. These events fostered teamwork, enhanced job satisfaction, and ultimately improved patient outcomes.

Looking ahead, we have plans to improve the patient experience on procedure days by providing therapeutic devices to relieve stress. These small comforts can make a significant difference in patient satisfaction and overall experience.

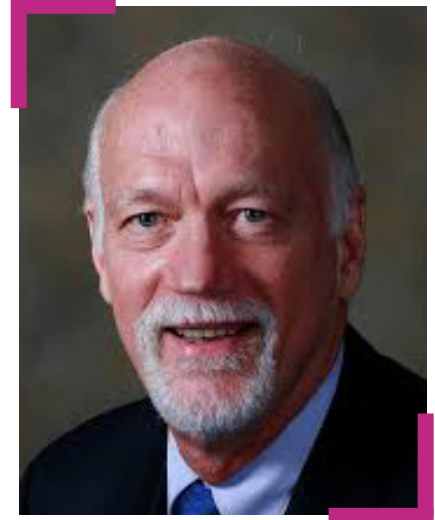
A donation to the UCSF [Pain Management Center's general fund](#) is an investment in the future of pain medicine. By supporting our faculty, staff, and patients, donations help maintain our commitment to excellence and compassionate care.

Development

Dr. Merlin Larson Donates Medical Artifacts

By Sophia Labeko

UCSF Department of Anesthesia recently received a donation of anesthesia machines, tools, and medications. Despite the artifacts being obviously medical in nature, they are not something clinics can use today, or ever in the future.



The gift came from anesthesiologist Merlin Larson, MD, a UCSF professor emeritus. The artifacts look similar to what you will find in a modern operating room but one medicine's expiration date—1973—is a clue that these are mid-century tools.

Dani Cambier, Will Kellogg, and Morgen Ahearn, of the Department of Anesthesia, are planning to showcase some of the memorabilia at an upcoming American Society of Anesthesiologists conference alumni event, which will be held in San Francisco.

Instead of lugging the pieces to the event, some of which are more delicate, and heavier than they appear, the team brought on Marco Sanchez, photographer, UCSF Documents and Media, to capture the artifacts' details and the essence of their time. "One of those gas machines was so unwieldy, and we later found out that it used to be explosive! So, it is much easier to bring a large photo of the machine downtown," said Cambier.

Carefully staging each piece, Sanchez captures all the different angles, giving the observer a clear view of these older gems. After the conference, the photographs will find their permanent home in anesthesia offices at Parnassus Heights, though in some cases the physical item will be used.



Acknowledgments

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