For the past few years our department has been involved in an effort to improve the perioperative experience at UCSF,” says anesthesiologist Spencer Yost, MD, of the UCSF Department of Anesthesia and Perioperative Care.

“The move to Mission Bay should accelerate that effort by allowing our department to create a patient-centered surgical home that will facilitate new efficiencies, improve care and enhance the patient experience.”

Integrated Pain Management

Due to open in 2015, the physical plant of UCSF Medical Center at Mission Bay will provide the perfect home for these advances. At new cancer, women’s and children’s hospitals, design features incorporate best practices from around the world for delivering inpatient care.

“Just moving patients will be easier and faster,” says Yost. “But along with the kinder, gentler, more human scale of the new facility, we want to make sure we have a culture transplant that reflects and creates a more patient-centric experience.”

One element of that is a comprehensive pain service on all acute care floors that will use a range of innovative, multi-modal approaches to pain management. In the cancer

continued on page 3
FROM THE INTERIM CHAIR

A Time of Change

It is a time of notable change in health care. From remarkable innovations in treatment to the Affordable Care Act, the way we care for our patients is undergoing momentous change. This issue of UCSF Anesthesia News highlights some of the ways we are adapting to those changes in the clinical, research and educational settings.

On January 1, 2014, UCSF completed its affiliation with Children's Hospital Oakland, at which time the name changed to UCSF Benioff Children's Hospitals (San Francisco and Oakland). The combination of the San Francisco and Oakland sites will be among the top ten largest children's health care providers in the nation. On July 1, 2014, UCSF Health was formed, whereby UCSF became a health system, with integration of the clinical departments in the School of Medicine with UCSF Medical Center. This partnership will help align the interests of the physician group and the hospital, and create the infrastructure for additional affiliations with Bay Area medical groups hospitals.

On the clinical front, Spencer Yost, MD, discusses how we are using a move to the new state-of-the-art hospitals at Mission Bay (Benioff Children’s Hospital, Betty Irene Moore Women’s Hospital, Bakar Cancer Hospital) to accelerate and recast ongoing efforts to improve patients’ perioperative experience. From integrated, multi-modal pain management processes through enhanced recovery strategies that reduce length of stay and strategic use of interdisciplinary teams, the new facility presents a rare opportunity to transform our care for the better.

Similarly, as San Francisco General Hospital (SFGH) prepares for its own move to a new hospital, Vice Dean for SFGH Sue Carlisle, MD, outlines various initiatives in place there, aimed at enhancing patient safety and improving clinical efficiency. Lean-driven improvements are tightening up processes and improving the patient experience in the operating room and in urgent care clinics. Implementation of a “just” culture is fostering trust and more open reporting so clinicians can better protect the lives of their patients. A focus on service excellence and efforts to become part of an accountable care organization recognize the need to put the patient at the center of care and that reimbursement structures are shifting to emphasize value.

In the research realm, Judith Hellman, MD, describes how the department’s Pathway to Scientific Independence program enables us to nurture the careers of young researchers who are making important contributions to anesthesia care specifically, and health care more generally. By identifying and supporting promising scientists, our department is extending and enriching a storied research history that reaches back more than half a century.

As for education, Mark Rollins, MD, PhD, our director of undergraduate medical education clerkships is not resting on the laurels of us regularly being ranked the number one core clinical clerkship at UCSF School of Medicine. While paying careful attention to the factors that have contributed to our success – particularly personalized attention and dedicated involvement from core faculty – Rollins and his colleagues are continuing to innovate with longitudinal clerkships, efforts to improve feedback loops, increasing student accountability and a seat at the table as the medical school curriculum undergoes dramatic change.

Finally, Vice Chancellor Diversity and Outreach Renee Navarro, MD, PharmD, talks about the essential work of diversifying our department, UCSF and the entire health care workforce. She notes correctly, “The future of our health care system demands that we be in tune to the needs of different individuals from different cultures and that we have access to the best minds, no matter where they come from.” She then goes on to discuss some of the efforts in place to make sure that happens.

These are remarkable leaders, doing the work that helps us understand and adapt to our ever-changing world. Their presence gives me confidence that we will remain one of the finest departments of anesthesia care in the world, and help keep anesthesia at the center of perioperative care and research.

Michael Gropper, MD, PhD
Professor and Interim Chair
hospital, the service will integrate those approaches with cancer symptom management.

This approach begins with a rigorous pre-operative assessment and, where appropriate, includes innovative pain management measures during and after surgery, such as the use of IV ketamine as a type of pre-emptive, intraoperative analgesia. Such approaches are especially important in cases where acute inpatient pain might exacerbate a patient's existing chronic pain, a notoriously difficult-to-manage problem.

“We’ve begun to understand a lot more about the pathophysiology of pain,” says Yost. “If we can block pain in the OR, we can often improve post-operative recovery and short circuit long-term chronic pain.”

Enhanced Recovery

Surgical and anesthesiology teams at UCSF Medical Center at Mount Zion will also bring with them an approach to reducing length of stay (LOS) that they have begun piloting for colorectal surgery, particularly simple colectomies. In the past, average (LOS) for such procedures was 4-6 days because a combination of pre-surgical bowel preparation and overuse of opiates delayed bowel recovery. By piloting an approach based on successful European studies, the Mount Zion teams hope to reduce LOS to an average of 2 days, by:

■ Ending traditional bowel prep and encouraging patients to drink clear liquids up to four hours before surgery, especially something with some sugar and protein in it to raise the blood sugar level and speed recovery.

■ Running a non-opiate epidural during surgery to reduce nociceptive input.

■ Having nursing staff mobilize patients just a few hours after surgery, carefully manage opiate use and provide patients and families with colostomy education that keeps them on top of pain control and function – and sets the expectation for a two-day stay.

“These patients may have return to bowel function by end of day one and by the end of day two are walking and taking a full liquid diet,” says Yost. The hope is that over time, at Mission Bay, clinicians will be able to extend this approach to other types of surgeries.

A Diversity of Providers, Approaches

In addition, says Yost, there are plans to expand the use of in-patient nurse practitioners and pilot telemedicine consults to create more consistency and improve quality for patients and families.

“All of these innovations should enable us to take care of patients with terrible disease in the most comfortable and humane way,” says Yost. And, he adds, the Department is the logical choice to oversee all aspects of intrahospital care, because, “We know what’s gone on over the drapes, we understand post-surgical complications and we are the pre-operative, critical care and pain experts.”
How and why should we create a more diverse faculty, residency and staff in the Department of Anesthesia and Perioperative Care?

Understanding Bias

It’s important to reflect on the need for an awareness and understanding of our own biases, and how unconscious bias impacts our interpersonal interactions as well as how we make decisions (admissions, hiring, promotions). It’s increasingly evident that clinician bias or lack of awareness about race and ethnicity has a role in health disparities; disparities are not just about access to care and socioeconomic issues. For example, research has shown differential treatment for pain management in orthopedic patients presenting to an emergency room. When you think about the responsibility of being a doctor, we have to be cognizant of what comes into play during doctor-patient interactions. My office launched an Unconscious Bias Education initiative in 2013-14 and we have trained over 400 members of our campus community to date.

Diversity work is not rocket science; it’s harder than that because it addresses individuals and how we behave. Creating a more diverse, inclusive and more culturally aware department requires a complex set of interventions.

I did a Grand Rounds with the department in 2012 on the status of diversity and tried to engage the department to start thinking about outreach, about getting more underrepresented residents into our program. At UCSF medical school, students of color make up between 25-33 percent of our population – and then we see a drop off beginning with our resident population and a greater drop off to faculty. We’re still trying to understand whether people are choosing to go elsewhere or wish to stay at UCSF and we are not ranking them highly in the match. Do students in the majority match at a higher rate than students of color? Was the experience different for the two groups? Are there family reasons? We need to tease out some of those things, because we haven’t gotten to the why yet. We are starting to see improvement in the matching of LGBT students to the residency program as we are increasingly seen to be welcoming and inclusive.

Outreach

The Association of American Medical Colleges has data that shows anesthesia is the fifth most popular subspecialty among African-Americans, so as a specialty we don’t do poorly in attracting people of color for residency programs but we have to figure out how to attract them to come to UCSF. We do some targeted outreach to Latino, African American, Native American and LGBT medical school groups to increase visibility and the number of applicants. And we’ve gotten some community partners to fund scholarships, but people still have to match into our residency.

In anesthesia, we need to look at how we are approaching medical students. Are they exposed to a wide variety of faces from the department and are we talking about and discussing topics of wide interest, including health disparities and access to care issues? Role models matter as well. Sometimes you don’t see yourself as a part of something if you don’t see others like yourself.

We also need to nurture potential faculty members early in residency, engage people so they will want to stay. Often minorities have higher debt and see advantages in private practice as
opposed to academic medicine. This has to become part of the conversation about how to make people feel welcome and see the advantages. I would never have joined the faculty except for Dr. Cedric Bainton pulling me aside and explaining how the department would support me so I could be successful. He was a mentor and sponsor who helped me navigate the written and unwritten rules and identify opportunities. These efforts need to be replicated among the faculty.

Support
Graduate medical education has implemented programming, which I support, that brings residents together across all the different programs as a community. The goal is to foster the sense of belonging. Through the efforts of Dr. Rene Salazar, we sponsor diversity day interview dates, 2nd look weekend events, and visiting elective scholarships for senior medical students. The dean sponsors an annual multicultural reception. The Multicultural Resource Center also supports our students, residents, faculty and staff through visibility projects, speaker forums and film events. It matters and we need to pay attention so when people do come in they feel included, not isolated.

The other thing that we need to consider is having in place education and support for the faculty. One model is the School of Nursing’s DIVA (Diversity in Action) initiative, which teaches faculty how to discuss and address diversity and conflicts that arise in the classroom. We need to have ongoing conversations about health disparities, race and gender disparities as well as homophobia so we gain a greater understanding of the causes, contributing factors and our individual impact on solutions. If we make the unconscious more conscious, we can better institute tools and processes to mitigate the impact of race, gender and/or LGBT status.

It’s challenging to maintain an ongoing conversation and plan for diversity and inclusion because of the multitude of issues within health care. This goes beyond anesthesia and so the challenge for someone in my position is to get systems in place that force people to think about the importance and benefits of a diverse and inclusive university by interfacing with search and admission committees to educate people about unconscious bias, as well as UC’s commitment to diversity. And by providing assistance in identifying qualified candidates nationwide we can start to move the needle. Once at UCSF, I have a responsibility to assure that we have a climate that is inclusive. Through the efforts of the Multicultural and LGBT resource centers we build community, facilitate collaborations and increase education and awareness.

Accountability
We are working to establish accountability measures for department chairs, who are responsible for diversifying all aspects of the health care team – not just faculty, but also the workroom, nurse anesthetists, the full breadth of the department – so we send a message that diversity is valued. The Dean is developing a dashboard as part of a chair’s annual evaluation that looks at the efforts and successes in recruitment, hiring, retention and promotion. Accountability is a key component of our strategic plan. In an era of team-based science, where everyone acknowledges we need multidimensional teams, we have to take advantage of the excellence, of great minds across populations and groups.

“It’s challenging to maintain an ongoing conversation and plan for diversity and inclusion because of the multitude of issues within health care.” — Renee Navarro
Anesthesia has consistently been ranked the number one core clinical clerkship at UCSF School of Medicine for a variety of reasons, says Mark Rollins, MD, PhD, director of undergraduate medical education anesthesia clerkships. Certainly, the fact that anesthesia is a mandatory clerkship at UCSF helps, as does the fact that Rollins’ predecessor, Martin Bogetz, MD, established an exemplary program that imparts translatable knowledge and skills, regardless of a student’s chosen specialty.

The skills – including intubation, airway evaluation, resuscitation, preoperative risk assessment, sedation, pain and crisis management – intersect with other core disciplines in medicine, but students primarily learn them in the anesthesia clerkship, says Rollins. “Another key factor is that our faculty, residents and chair have an enormous commitment to undergraduate education,” says Rollins. “But to maintain our ranking, it’s important that we continue to adapt to changes in clinical medicine, medical education and the ways students learn.”

Personal, Comprehensive Attention

One tradition Rollins wants to enhance is the close, personal attention that medical students in the anesthesia clerkship receive. They are typically paired one-on-one with a resident or faculty member through the entire two-week clerkship, during which hands-on, skill-based teaching gives students a strong taste of the entire, perioperative experience. “I attribute much of our success to the residents’ teaching abilities and dedication to education,” says Rollins.

Simulations enhance medical students’ understanding. “We have incredible site directors [at Mt. Zion, San Francisco General Hospital (SFGH) and the Veterans Administration Medical Center], with slightly different emphases in each location,” says Rollins. “All of the simulations get rave reviews from medical students.”

At SFGH, the focus tends to be on crisis management, team dynamics and leadership for cases such as hypotension, hypoxia and failed intubations. At the VA, says Rollins, the focus is on more complex patients and cases, as well as on the safe placement of arterial lines, central lines, and PA (pulmonary artery) catheters – and the interpretation of these invasive monitors.

In addition, throughout the clerkship, core faculty members deliver a series of lectures on key topics in anesthesia and perioperative care. “The amount of labor and dedication it takes from our faculty to deliver these lectures twenty times a year is incredible,” says Rollins.

Maintaining Innovation

The Department is also exploring a number of new innovations.

- The Longitudinal Clerkship: Under the leadership of Kristina Sullivan, MD, UCSF is one of only a few schools in the country to offer a longitudinal clerkship with anesthesia as a core element. Each student pairs with a single faculty member and participates in clinical anesthesia for two days at a time, spaced throughout their third year. “It gives students continuity in a preceptor and with patients,” says Rollins. “We’re doing some work to assess knowledge retention…and, so far, have found similar knowledge retention between this and the two week clerkship, despite the spaced learning.”

- Improve and standardize evaluation and feedback: To reduce variance in evaluations, the Department is planning to use IT support to normalize the average scores each instructor gives. As for feedback – helping students understand how and where they can improve rather than scoring how they did – Rollins has implemented electronic reminders for residents to provide students with clear feedback at regular intervals. He also draws on the work Manuel Pardo, MD, initiated to help improve the quality of the feedback.

- Documenting Student Competencies: In response to the demands of residency programs, Rollins is creating new ways to document that students have completed specific trainings and have demonstrated understanding and competency. This has resulted in two on-line modules for students focused on IV access and arterial sampling.

Finally, UCSF is exploring restructuring its entire medical school curriculum by weaving together across all four years the classroom learning (traditionally offered years one and two), with patient encounters, core clerkships and electives (traditionally offered in years three and four).

“We are working to make sure anesthesia is at the table for these discussions of the Bridge Curriculum,” says Rollins.
Paving a Pathway to Scientific Independence

The UCSF Department of Anesthesia and Perioperative Care has a storied research history that spans nearly 60 years. It has remained a powerhouse at least in part because about twenty years ago, Ronald Miller, MD – Chair of the Department at the time – recognized that while the need for anesthesia-related research continued to grow, changes in technology, medicine and health care delivery were making it increasingly difficult to attract and retain the best and the brightest.

Miller and senior faculty members created the UCSF Research Scholars residency track to support a pool of young researchers with the potential to pursue exciting research careers. The track is now part of the umbrella Pathway to Scientific Independence (PSI) program.

“The PSI puts our money and time where our mouths are regarding research in anesthesia, perioperative medicine, pain management and critical care medicine,” says Judith Hellman, MD and director of the PSI. “It creates a meaningful pathway that allows our most promising researchers to be successful and our department to grow.”

How the Program Works

The PSI helps train and develop clinical and basic scientists by providing:

1. Training for early career researchers, including intensive research and career mentoring, education, and presentation opportunities.

2. Departmental support of research projects and programs, including direct support of projects and protected, nonclinical research time.

3. Administrative support for grant and contract administration, resource allocations and programs and events that encourage collaboration.

One can enter the PSI in four different ways: from the Research Resident Scholar track, as a categorical resident, as a post-doctoral fellow and as a junior faculty member. All participants in the first three categories typically join a T-32 training grant. The goal is to provide the structure and support necessary for anesthesia research trainees on the PSI to obtain a FAER (Foundation for Anesthesia Education and Research) grant and/or NIH K-level award – and eventually to become fully independent researchers with an RO1 or similar level grant.

As of this writing, there are 13 PSI trainees, seven of which are on the research resident scholar track.

“There are some set requirements, but participants have a lot of room to shape their own program,” says Hellman.

Protected Time, Financial Support

By providing participants with about 75 percent protected research time, the PSI takes the onus off trainees to advocate for their nonclinical time.

“It’s so important,” says Zhongui Guan, MD, now a full-time faculty member. “The grants I received from outside resources are not sufficient to support my salary while I focus on research, so I’m very grateful that our department gives me tremendous financial support to compensate.”

“It may not be viable for someone with a family and kids to sacrifice pay and do research on their own time,” says Arun Prakash, MD, PhD, also a faculty member who initially took a pay cut to pursue his research but then began receiving some support before the PSI was a formal program. “With the department’s help, I’ve had three years to develop a research program, publish a paper in Anesthesiology and get a FAER grant, which helped me further establish my research credentials.” He awaits feedback on a K grant application.

Directed Mentoring

In addition to funding and protected time, early in the process, Hellman and Anesthesia Department Professor in Residence Roland Bainton, MD, PhD, help participants identify and connect with an NIH-funded research mentor either from within or outside the department.

Usually this leads to participants becoming part of a multi-disciplinary team of basic and clinical scientists attacking a similar problem from different angles. The process helps participants shape their own research questions.

“I got lucky and fell into a position as [Hellman’s] mentee,” says Prakash, who has lab space within Hellman’s lab. “She’s been supremely supportive; she genuinely cares about my success and progression to becoming independently funded.”

The Tradition Continues

Given the changes in both science and health care, Hellman believes some version of the PSI is the only way anesthesiology can continue to make essential research contributions. Program participants seem to agree.

“Eventually I need to compete for NIH grants with top scientists who have [a lot of] continuous research training and experience before they apply for an NIH grant,” says Guan. “Without support from the Pathway to Scientific Independence, there is no way I can get even close to that goal.”

“It has offered me a tremendous opportunity to develop into a better physician-scientist,” says Irfan Kathiriya, MD, PhD, another PSI participant and faculty member. “I am very grateful for the department’s investment in my academic future.”
San Francisco General Hospital and Trauma Center (SFGH) provides a compelling case study for today’s complex health care challenges.

Like many medical centers, SFGH runs a variety of efficiency and patient-centered care initiatives designed to deliver better, less expensive care to the 100,000 patients it serves annually with inpatient, outpatient, emergency, diagnostic and psychiatric services.

But in addition to those “usual” responsibilities, SFGH hosts about 185 principal investigators running between $140 and $150 million in research programs, is responding to a headline-grabbing tragedy, is about to become part of a large accountable care organization and is completing a massive rebuild of its entire facility.

Because UCSF physicians provide all clinical services at SFGH, Vice Dean for SFGH Sue Carlisle, PhD, MD, is usually at the center of all of this activity. A veteran member of the UCSF Department of Anesthesia and Perioperative care, Carlisle has led all UCSF faculty at SFGH since 2004. She spoke recently about the challenges of her job.

**Lean Initiatives**

We use Lean initiatives to fix things that impact hospital efficiency and the patient experience. In our urgent care clinic, we’ve reduced wait times and made it more convenient for patients by enabling them to get x-rays and EKGs and have blood drawn in the clinic. We’ve cut the time patients are present in urgent care from six hours to two – and patient satisfaction scores have really improved.

We’ve also done Lean kaizens (improvements) in the OR and in our outpatient surgical clinics to make sure the right materials are available at the right time. We’re working on making the scheduling of OR times more precise and have worked with central supply to implement electronic stocking; in the future we hope to tie that to a total electronic health record. Many of us would really like to implement the same [EHR] system as Parnassus, because so many people go back and forth between the two facilities.

**Just Culture**

“Just Culture” aims to change the reporting atmosphere to one of trust, where people understand that reporting is important for the good of patients. Too often, fear of punishment causes people to not come forward, but human errors, whether lack of knowledge or systems
problems, need to be reported in an atmosphere of education. Of course, if people are reckless, we deal with that appropriately, but we’re changing the culture from one of blame to one where we can talk about mistakes and near misses. We’ve already seen progress.

**Service Excellence and Beyond**

In our service excellence project we put patient care at the center of all the things we do. We try to treat our patients like guests at a hotel, making sure they’re greeted appropriately, seen appropriately, discharged appropriately and treated with respect. We have trained 3,000 people and almost all of the physicians.

Now, when we see somebody wandering the hallway, people automatically ask whether they can help.... Lynne Spalding [the woman who was found dead many days after her disappearance] was a horrible tragedy. About half of what was in the newspapers was not quite accurate – but it did make us look at our systems, and realize we had big gaps in our policies and procedures that needed to be fixed.

We put forth a plan of correction and CMS (Centers for Medicare & Medicaid Services) and TJC (The Joint Commission) have accepted the plan as appropriate and now we have clearer ways to delineate patients at risk, have new processes to monitor these patients, changed the way the alarms in the stairwells work and are installing electronic bands so when a patient at risk approaches an exit door, it says, in their language, to turn around and go back to their room. This doesn’t fall into any specific initiative; it falls into all of them and under systems improvement.

**New Hospital**

The new hospital – it opens in 2015 – was a response to the Northridge earthquake, when the state senate, changed earthquake codes for hospitals. We started in 2008, with a general obligation bond, for $887.4 million – the largest ever to go before the city – and it passed with 84 percent approval. It will be a state-of-the-art earthquake resistant building with two stories underground, seven above. We’re in the process of doing the transition planning for how we’ll actually move but we know we’ll have a few more inpatient beds, an ER that’s three times as big, more ORs, more labor and delivery, more ACE (acute care for elders) beds. It’s going to be beautiful, but it’s greatly increased planning and preparation.

**Responding to Reform**

The San Francisco Department of Public Health is working on becoming an ACO (Accountable Care Organization) called the San Francisco Health Network. It will include all ambulatory care, as well as SFGH and other outpatient clinics.

It will affect reimbursement and will change programs like Healthy SF [an access program for low-income and indigent patients in San Francisco that offers a menu of services and has begun the process of putting patients in medical homes] and SF Health Plan, the city’s MediCal managed care plan from which we accept payment for anything that is non-emergent. For emergent procedures, we receive funding from a variety of sources, both local and federal.

The transition [to an ACO] will be complicated partly because our academic faculty members are paid part time as clinicians and part time as faculty or from their research grants; and we could not begin to afford to pay full salaries for all our specialists. We feel strongly that the arrangement we have now allows us to have a broader range and higher level of talent than we would have otherwise. The ACO will move us to a kind of capitated arrangement and we will have to find formulas to distribute payments among different organizations. We’re just starting to try to think through how all of this will work.

But depending on which day you talk to me, I’m optimistic. I tend to be a glass half-full person and believe we’ll find our way through this incredible maze, especially because we can pull in smart people to help us think about all this. Our success matters a lot, not just to individual patients, or to our faculty, but to this city. We do 20 percent of the health care in San Francisco, 30 percent of the ambulances come to us – all the trauma care and most psychiatric care. San Francisco would be a different place without us. We have to solve these problems and we have to continue to get better. We have to address every crisis not as an opportunity to fail, but as an opportunity to succeed.
New Faculty

Career Faculty

Kerry Apostolo, MD
Health Sciences Clinical Instructor
Joined Faculty July 2014
MEDICAL SCHOOL
New York Medical College
INTERNSHIP
Medicine: Kaiser Permanente Oakland Medical Center
RESIDENCY
Anesthesiology: UCSF

Jeanie Bhuller, DO
Health Sciences Assistant Clinical Professor
Joined Faculty June 2014
MEDICAL SCHOOL
Touro University College of Osteopathic Medicine
INTERNSHIP
Internal Medicine
Alameda County Medical Center
RESIDENCY
Anesthesiology: Georgetown University Hospital
FELLOWSHIP
Pediatric Anesthesiology: UCSF
PREVIOUS EMPLOYMENT
Anesthesiologist
Medical Anesthesia Consultants

Tony Chang, MD
Health Sciences Clinical Instructor
Joined Faculty August 2014
MEDICAL SCHOOL
University of South Alabama
INTERNSHIP
Anesthesiology: UCSF
RESIDENCY
Anesthesiology: UCSF

Anne Donovan, MD
Health Sciences Assistant Clinical Professor
Joined Faculty July 2014
MEDICAL SCHOOL
University of Iowa Carver College of Medicine
INTERNSHIP
Anesthesiology: UCSF
RESIDENCY
Anesthesiology: UCSF
FELLOWSHIP
Critical Care Medicine: UCSF

Jeffrey Ghassemi, MD, MPH
Health Sciences Assistant Clinical Professor
Joined Faculty July 2014
ADVANCED DEGREE
MPH, Health Services: UCI
MEDICAL SCHOOL
University of California, Irvine
INTERNSHIP
Medicine: UCLA
RESIDENCY
Anesthesiology: UCLA; UCSF
FELLOWSHIP
Regional Anesthesia: UCSF

Melissa Haehn, MD
Health Sciences Clinical Instructor
Joined Faculty August 2014
MEDICAL SCHOOL
University of Minnesota Twin Cities Medical School
INTERNSHIP
Anesthesiology: UCSF
RESIDENCY
Anesthesiology: UCSF

Kate Kronish, MD
Health Sciences Clinical Instructor/
Liver Transplant Fellow
Joined Faculty August 2014
MEDICAL SCHOOL
University of Pennsylvania School of Medicine
INTERNSHIP
Medicine: University of Pennsylvania
RESIDENCIES
Neurology: University of Pennsylvania Anesthesiology: University of Pennsylvania

Philip Kurien, MD
Assistant Professor in Residence
Joined Faculty August 2012
MEDICAL SCHOOL
Stanford University School of Medicine
INTERNSHIP
Transitional: Santa Clara Valley Medical Center
RESIDENCY
Anesthesiology: UCSF
PREVIOUS EMPLOYMENT
Clinical Instructor and Postdoctoral Scholar: UCSF

Laura Lang, MD
Health Sciences Clinical Instructor
Joined Faculty July 2014
MEDICAL SCHOOL
The University of Chicago, Pritzker School of Medicine
INTERNSHIP
Surgery: UCSF
RESIDENCY
Anesthesiology: UCSF

Vincent Lew, MD
Joined Faculty July 2014
Health Sciences Assistant Clinical Professor
MEDICAL SCHOOL
Oregon Health and Science University
INTERNSHIP
Internal Medicine: California Pacific Medical Center
RESIDENCY
Anesthesiology: UCSF
FELLOWSHIP
Critical Care Medicine: UCSF

L. Stephen Long, MD
Health Sciences Assistant Clinical Professor
Joined Faculty July 2014
MEDICAL SCHOOL
Georgetown University School of Medicine
INTERNSHIP
Internal Medicine: Kaiser Permanente Oakland Medical Center
RESIDENCY
Anesthesiology: UCSF
FELLOWSHIP
Pediatric Anesthesia: UCSF

Jonathan Pan, MD, PhD
Assistant Professor in Residence
Joined Faculty August 2012
ADVANCED DEGREE
PhD, Neuroscience: Rutgers University
MEDICAL SCHOOL
Fudan University Medical Center
INTERNSHIP
Transitional Medicine: Mercy Catholic Medical Center
RESIDENCY
Anesthesiology: University of Pennsylvania
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<td>Gabriel Sarah, MD</td>
<td>Health Sciences Assistant Clinical Professor</td>
<td>The University of Arizona</td>
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<td>Anesthesiology: The University of Miami/Jackson Memorial Hospital</td>
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<td>Pediatric Anesthesiology: The University of Miami</td>
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<td>Wei Zhou, MD, PhD</td>
<td>Health Sciences Clinical Instructor/ Postdoctoral Trainee</td>
<td>New York Medical College</td>
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<td>Critical Care Medicine: UCSF</td>
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<tr>
<td>Jouko Jalonen, MD</td>
<td>Visiting Professor</td>
<td>Turku University Medical School</td>
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<td>Anesthesiology (General, Cardiac, Cardiothoracic): Turku University Central Hospital, Karolinska Hospital, Stockholm, Sweden</td>
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<tr>
<td></td>
<td></td>
<td>Professor, Department of Anaesthesiology and Intensive Care Medicine, University of Turku</td>
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<tr>
<td>Thorsten Smul, MD</td>
<td>Visiting Assistant Professor</td>
<td>Medical School of Julius Maximilians University, Würzburg, Germany</td>
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<td>Anesthesiology and Critical Care: Julius Maximilians University Würzburg, Germany</td>
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<td>Myocardial Reperfusion Injury: Julius Maximilians University</td>
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<td></td>
<td>Director of Liver Transplantation Anesthesia Section, Department of General Surgery, Julius Maximilians University, Würzburg, Germany</td>
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**POSTDOCTORAL FELLOWSHIP**
University of Pennsylvania

**PREVIOUS EMPLOYMENT**
Clinical Instructor, NIH T32: UCSF

**ADVANCED DEGREE**
PhD, Neuroscience: UCSD

**MEDICAL SCHOOL**
Peking Union Medical College, Beijing, China

**RESIDENCY**
Anesthesiology: UCSF

**FELLOWSHIP**
Critical Care Medicine: UCSF

**Visiting Faculty**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Medical School</th>
<th>Internship</th>
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<tr>
<td>Edward Yap, MD</td>
<td>Health Sciences Clinical Instructor/ Regional Anesthesia fellow</td>
<td>New York Medical College</td>
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**PREVIOUS EMPLOYMENT**
Director of Liver Transplantation Anesthesia Section, Department of General Surgery, Julius Maximilians University, Würzburg, Germany
New Residents

CLASS OF 2017

Ashish Agrawal  Gina Bane  Marc Buren  Matthew Careskey  Josemine Carey  Denise Chang  Monica Chen

Gregory Chinn  Lusine Danakian  Iman Hadaya  Mellody Hayes  Marisa Hernandez-Morgan  Jordan Higgins  Nicole Jackman

Jeffrey Kim  Bradley Lee  Roger Lee  Masood Memarzadeh  Mastoora Nasiri  Elaine Nguyen  Megha Parekh

Joseph Reza  Sara Richards  Kyle Sanders  Paul Su  Allison Thoeny
Peer Reviewed Publications


Jon Matthew Aldrich  
**Principal Investigator**  
UC Office of the President, CHOI/DERM, Individual Grant, 1/1/2014–12/31/2015  
**Advanced Resuscitation Training (ART)**  
$113,599

Roland Bainton  
**Principal Investigator**  
Anesthesia Dept, Individual Grant, 7/1/2014–6/30/2015  
**Research Award**  
$70,800

Catherine Chen  
**Principal Investigator**  
Anesthesia Dept, Individual Grant, 7/1/2014–6/30/2015  
**Research Award**  
$300,000

Lee-lynn Chen  
**Principal Investigator**  
Mt. Zion Health Fund, Individual Grant, 4/1/2014–6/30/2015  
**Implementation Barriers to the Colorrectal ERAS Pathways at Mount Zion**  
$30,000

Helene Choquet  
**Principal Investigator**  
American Heart Association, Fellowship, 7/1/2014–6/30/2016  
**Contribution of Cardiovascular Risk Factors and Inflammation to Familial CCM1 Disease Severity**  
$94,000

Jeffrey Ghassemi  
**Principal Investigator**  
Anesthesia Dept, Individual Grant, 7/1/2014–6/30/2015  
**Research Award**  
$19,994

Michael Gropper  
**Principal Investigator**  
Johns Hopkins University, Subcontract-Research, 10/1/2012–9/30/2014  
**Acute Care/ICU Multi-Center Feasibility Study**  
$250,000

Principal Investigator  
Gordon and Betty Moore Foundation, Individual Grant, 6/1/2013–9/30/2014  
**Project EMERGE Planning Grant at UCSF**  
$1,397,844

Principal Investigator  
Gordon and Betty Moore Foundation, Individual Grant, 2/1/2014–1/31/2015  
**GBMF Libretto Consortium–UCSF**  
$305,000

Principal Investigator  
UC Office of the President, CHOI/DERM, Individual Grant, 1/1/2014–12/31/2015  
**Advanced Resuscitation Training (ART)**  
$113,599

Irfan Kathiriya  
**Principal Investigator**  
Anesthesia Dept, Individual Grant, 7/1/2014–6/30/2015  
**Research Award**  
$70,800

Zhonghui Guan  
**Principal Investigator**  
**Intracranial aneurysm pathogenesis–roles of vascular remodeling and inflammation**  
$1,674,637

Principal Investigator  
Anesthesia Dept, Individual Grant, 7/1/2014–6/30/2015  
**Research Award**  
$100,000

Principal Investigator  
NIH/NINDS, Individual Grant, 9/1/2013–5/31/2018  
**The Role of Mast Cells in the Pathophysiology of Intracranial Aneurysm**  
$1,726,306

Judith Hellman  
**Principal Investigator**  
Anesthesia Dept, Individual Grant, 7/1/2014–6/30/2015  
**Research Award**  
$100,000

**Principal Investigator**  
UC Office of the President, Prescription Loss Prevention Program, Individual Grant, 7/1/2013–6/30/2015  
**Development and Implementation of a Comprehensive Anesthesia Checklist App for Routine and Emergency Procedures**  
$111,401

Jan Hirsch  
**Principal Investigator**  
VA Office of Academic Affairs, Fellowship, 7/1/2013–Ongoing  
**VA Advanced Fellowship Program in Simulation**  
$300,000

Richard Fidler  
**Principal Investigator**  
VA Office of Academic Affairs, Individual Grant, 7/1/2013–Ongoing  
**Anesthesia Research Education and Research, Fellowship Program**  
$2,335,649

Philip Kurien  
**Principal Investigator**  
Anesthesia Dept, Individual Grant, 7/1/2014–6/30/2015  
**Research Award**  
$37,400

Michael Lawton  
**Program Director**  
NIH/NINDS, Multicenter Project Grant, 9/30/2009–6/30/2015  
**Brain Vascular Malformation Consortium: Predictors of Clinical Course**  
$6,036,945

Chanhung Lee  
**Principal Investigator**  
Anesthesia Dept, Individual Grant, 7/1/2014–6/30/2015  
**Research Award**  
$3,300

Jae-Woo Lee  
**Principal Investigator**  
NIH/NHLBI, Individual Grant, 5/1/2012–4/30/2017  
**Human mesenchymal stem cell microveicles for the treatment of acute lung injury**  
$1,904,985

**Principal Investigator**  
Anesthesia Dept, Individual Grant, 7/1/2014–6/30/2015  
**Research Award**  
$100,000

**Principal Investigator**  
UCSF Academic Senate, Individual Grant, 2/1/2014–1/31/2015  
**Therapeutic Use of Microvesicles for Breast Cancer with Lung Metastases**  
$30,000

**Principal Investigator**  
Anesthesia Dept, Individual Grant, 7/1/2014–6/30/2015  
**Research Award**  
$18,569
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<tr>
<th>Project Title</th>
<th>Investigator</th>
<th>Grant Number</th>
<th>Funding Agency</th>
<th>Start Date</th>
<th>End Date</th>
<th>Amount</th>
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<tr>
<td>Anesthesia Department Research Award</td>
<td>Jennifer Lucero</td>
<td>7/1/2014–6/30/2015</td>
<td>UBC</td>
<td>$20,520</td>
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<td>Developing new methods to study sleep and cognitive function in the ICU</td>
<td>Mervyn Maze</td>
<td>6/1/2011–12/31/2014</td>
<td>UBC</td>
<td>$232,987</td>
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<td>Mechanistic Study and Mouse AVM Models for Arteriovenous Malformation Hemodynamics of Cerebral Hemodynamics</td>
<td>Jeffrey Sall</td>
<td>4/15/2014–3/31/2016</td>
<td>UBC</td>
<td>$790,313</td>
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<td>Anesthesia Department Research Award</td>
<td>Arun Prakash Budde</td>
<td>7/1/2014–6/30/2015</td>
<td>UBC</td>
<td>$70,800</td>
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<td>Anesthesia Department Research Award</td>
<td>Steven Takemoto</td>
<td>7/1/2014–6/30/2015</td>
<td>UBC</td>
<td>$70,576</td>
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**Additional Projects:**

- **Jacqueline Leung:**
  - Project Title: unidentified antigens bound by novel scFvs targeting all subtypes of mesothelioma
  - Amount: $1,249,880

- **James Marks:**
  - Principal Investigator: UC Irvine, Subcontract-Research, 1/10/2013–10/1/2014
  - Project Title: Evolving Diagnostic Antibodies for Botulinum Neurotoxins
  - Amount: $1,294,897

- **Bin Liu:**
  - Project Title: Mapping a clinically significant internalizing tumor epitope space
  - Amount: $904,004

- **Claus Niemann:**
  - Principal Investigator: CA Dept of Public Health, Unfunded Research Collaboration, 10/1/2012–10/1/2014
  - Project Title: Genetic therapy for deuterated donor cell hypothesis on deceased donor
  - Amount: $2,001,108

- **Mark Schumacher:**
  - Principal Investigator: Merrimack Pharmaceuticals, Unfunded Research Collaboration, 7/1/2014–6/30/2015
  - Project Title: Bispecific Antibodies Targeting Basal Breast Cancers
  - Amount: $1,294,897

- **C. Spencer Yost:**
  - Principal Investigator: Foundation for Anesthesia Education and Research, Research Career Award, 7/1/2014–6/30/2015
  - Project Title: Developing a new method to study sleep and cognitive function in the ICU
  - Amount: $1,243,048.07

- **Xiaoping Yu:**
  - Principal Investigator: UBC, Clinical Research Award, 2/1/2010–1/31/2015
  - Project Title: Neurotoxicity and Sleep: The Role of Botulinum Neurotoxin
  - Amount: $1,243,048.07

- **Eunice Zhou:**
  - Principal Investigator: Merrimack Pharmaceuticals, Unfunded Research Collaboration, 10/15/2012–10/14/2016
  - Project Title: Bispecific Antibodies Targeting Basal Breast Cancers
  - Amount: $1,243,048.07
Faculty Honors, Awards and Appointments

Matt Aldrich, MD  
**CAMPUS APPOINTMENT**  
Interim Director, Critical Care Medicine

Claire Brett, MD  
**CAMPUS AWARD**  
Career Achievement Award  
UCSF Graduate Medical Education

Kristine Breyer, MD  
**CAMPUS AWARD**  
The UCSF Haile T. Debas Academy of Medical Educators  
Excellence in Teaching Award, 2014

Christopher Choukalas, MD  
**CAMPUS AWARD**  
The UCSF Haile T. Debas Academy of Medical Educators  
Excellence in Teaching Award, 2014

Adrian Gelb, MB, ChB  
**EXTRAMURAL HONOR**  
Inaugural Lecturer, William Young Memorial Lecture, EuroNeuro 2014

Michael Gropper, MD, PhD  
**CAMPUS APPOINTMENT**  
Interim Chair, Department of Anesthesia and Perioperative Care

Mark Rollins, MD, PhD  
**EXTRAMURAL AWARD**  
Society of Obstetric Anesthesia and Perinatology, Teacher of the Year, 2013  
**CAMPUS AWARDS**  
Ronald Miller Award for Excellence in Resident Mentoring, Department of Anesthesia and Perioperative Care, 2013  
Clinical Faculty Teaching Award, School of Medicine, 2014  
**CAMPUS APPOINTMENT**  
Sol M. Shnider Endowed Chair for Anesthesia Education, 2014

Karin Sinavsky, MD  
**CAMPUS AWARD**  
The UCSF Haile T. Debas Academy of Medical Educators  
Excellence in Teaching Award, 2014

Kristina Sullivan, MD  
**CAMPUS APPOINTMENT**  
The UCSF Haile T. Debas Academy of Medical Educators, 2014

Wei Zhou, MD, PhD  
**CAMPUS AWARD**  
Medical Student Teaching Award

Trainee Honors, Awards and Appointments

Erika Brinson, MD  
**CAMPUS AWARD**  
Medical Student Teaching Award

Emily Chanan, MD  
**CAMPUS AWARD**  
Medical Student Teaching Award

Catherine Chen, MD  
**EXTRAMURAL AWARD**  
1st Place and Best in Category, Poster Presentation in System and Practice Based Projects  
*Prevalence And Cost To Medicare Of Unnecessary Preoperative Medical Testing Prior To Cataract Surgery.*  
52nd Annual Western Anesthesia Residents’ Conference, May 2-4, 2014

Bradley Cohn, MD  
**CAMPUS AWARD**  
Exceptional Physician Award, 2014

Shin-e Lin, MD  
**EXTRAMURAL AWARD**  
1st Place and Best in Category, Poster Presentation in Acute Pain and Regional Anesthesia  
*Subdural Spread of Local Anesthetic Mimicking Cerebrovascular Accident.*  
52nd Annual Western Anesthesia Residents’ Conference, May 2-4, 2014

Janice Man, MD  
**EXTRAMURAL AWARD**  
1st Place and Best in Category, Poster Presentation in Intensive Care  
*Higher MELD scores are associated with higher intraoperative lactate levels in patients with end-stage liver disease undergoing orthotopic liver or combined liver and kidney transplants.*  
52nd Annual Western Anesthesia Residents’ Conference, May 2-4, 2014

Paul Riegelhaupt, MD, PhD  
**EXTRAMURAL AWARD**  
1st Place, Best Oral Presentation, Sunday  
*TREK1 background potassium channels: Temperature sensors, stretch receptors, anesthetic targets! Alanine scanning muta-

genesis studies of TREK1 provide clues to understand the structural basis for the behavior of this molecular signal integrator.*  
52nd Annual Western Anesthesia Residents’ Conference, May 2-4, 2014

Jina Sinskey, MD  
**CAMPUS AWARD**  
Medical Student Teaching Award  
**EXTRAMURAL AWARD**  
1st Place and Best in Category, Poster Presentation in Pediatric Anesthesia  
The Role Of Intraoperative IV Acetaminophen In Postoperative Pain Management In Patients Undergoing Cleft Lip Surgery.  
52nd Annual Western Anesthesia Residents’ Conference, May 2-4, 2014

Maxwell Thompson, MD  
**CAMPUS AWARD**  
Medical Student Teaching Award

Jed Wolpaw, MD  
**CAMPUS AWARD**  
Medical Student Teaching Award  
**EXTRAMURAL AWARD**  
1st Place, Best Oral Presentation, Saturday  
The Usefulness of a Cognitive Screening Tool in Predicting Postoperative Delirium  
52nd Annual Western Anesthesia Residents’ Conference, May 2-4, 2014

Faculty Retirements

Claire Brett and Chico Cauldwell will both be retiring from the Department of Anesthesia and Perioperative Care. They each have had long, distinguished careers in pediatric anesthesia, and have made extraordinary contributions to the specialty and to the Department in all of our missions. Fortunately, both will be a regular presence in the Department as recall faculty members, continuing as outstanding clinicians, educators and mentors.
The Changing Practice of Anesthesia
September 18 – September 21, 2014
UCSF Department of Anesthesia and Perioperative Care Simulation Center

COURSE CHAIRS
Christina Inglis-Arkell, MD
Assistant Professor, Department of Anesthesia and Perioperative Care
Merlin Larson, MD
Professor Emeritus, Department of Anesthesia and Perioperative Care
John Turnbull, MD
Assistant Professor, Department of Anesthesia and Perioperative Care
C. Spencer Yost, MD
Professor, Department of Anesthesia and Perioperative Care

For more information or to register, please visit: http://www.ucsfcmecom/2015/MAN15001/info.html

Anesthesia Research Day
Friday, September 26, 2014
UCSF Millberry Union Conference Center
Golden Gate and City Lights Rooms

Maintenance of Certification in Anesthesiology (MOCA®)
UCSF Department of Anesthesia and Perioperative Care Simulation Center

COURSE CHAIR
Adam Collins, MD
Professor of Anesthesia, Director,
UCSF Anesthesia Simulation Center

UPCOMING COURSE DATES (Friday):
Sept. 12, Nov. 7, December 5, 2014
Feb. 27, Mar. 13, May 22, 2015

For more information or to register, please visit: http://tinyurl.com/mocasim