





Open Circuit

EDITOR: KAREN SIBERT, MD, FASA ASSISTANT EDITOR: SHEVAUGHN MARCHESE

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WITH YOUR HELP THROUGH GIVING...

Editor's Note

By Karen Sibert, MD, FASA



The cover photo on this latest edition of *Open Circuit* celebrates the careers of two remarkable physicians: our current interim chair, Barbara Van De Wiele, MD, and our

former chair, Patricia Kapur, MD. We captured this wonderful moment of the two reconnecting at the ASA annual meeting in Orlando in October, soon after it was announced that Dr. Kapur will receive the ASA Distinguished Service Award at next year's ASA meeting.

Dr. Kapur served as chair of our department for 17 years, and also contributed to the growth and betterment of the entire UCLA Health organization as she took on the challenge of serving first as CEO of the Faculty Practice Group, and then as Executive Vice President of the UCLA Health System. Please read more about her extraordinary career in our ASA Highlights article on p. 6 in this issue.

A native of New Haven, Connecticut, Dr. Van de Wiele earned a bachelor's degree in English from Smith College, a liberal-arts college for women, and went on to the College of Physicians and Surgeons at Columbia University for her medical training. She first came to UCLA in 1983 as an intern in surgery with the intention of becoming a plastic and reconstructive surgeon. However, meeting Robert Bauer, MD, a renowned UCLA anesthesiologist with expertise

in many areas including pharmacology and aerospace medicine, changed the trajectory of her career.

Dr. Van de Wiele went on to pursue residency training in anesthesiology and a fellowship in pediatric anesthesiology at UCLA. She credits Dr. Kapur for mentoring her and encouraging her advancement within the department to become the Director of the Division of Neurosurgical Anesthesiology and Vice Chair for Clinical Affairs.

Back in August 2002, the story of the Guatemalan conjoined twins, fused together at the head, made headlines worldwide. Many in our department recall how Dr. Van de Wiele coordinated the anesthesiology teams that cared for the "two Marias", guiding anesthesia during a landmark 23-hour operation at UCLA. The twins now live in Southern California, and periodically visit UCLA to reunite with the many people who worked so hard for their survival.



COVER IMAGE:

Barbara Van de Wiele, MD, and Patricia Kapur, MD



After serving as Executive Vice Chair for five years, Dr. Van de Wiele assumed the interim chair position in July 2018, steering our department calmly through the leadership transition. Today Dr. Van de Wiele focuses her time on our department and its expanding role in the UCLA Health System. Among her personal guiding precepts:

- Paradigm shifts in clinical care are possible, but rarely by fiat
- If you see the best in your colleagues, they will not disappoint
- The greatness of a department in clinical care derives from faculty in all career paths

 clinicians, clinical educators, clinical scientists, and researchers.

In this issue of *Open Circuit*, you'll find updates on the many accomplishments and varied activities of our department members, as well as a new feature – photos of our pets! We had a remarkable response to our request for pet photos, so if your pet's photo didn't make the deadline for this issue, rest assured it will appear in the next one! If having a pet contributes to wellness, then we're definitely going in the right direction. We hope you enjoy the magazine, and please send us your news for our next issue!

From the Chair's Desk

By Barbara Van de Wiele, MD | Interim Chair



ear Colleagues and Friends,

2020 is the start of a new decade, with a great deal to look forward to in the coming year. First, a look back at the many things we have accomplished,

at least some of which are summarized in this magazine. You will get a perspective on our achievements as a whole, something we often miss even when, or perhaps particularly when, we are close to the action. Maybe you'll think, as I do, "Wow, this is super – we are really going places!"

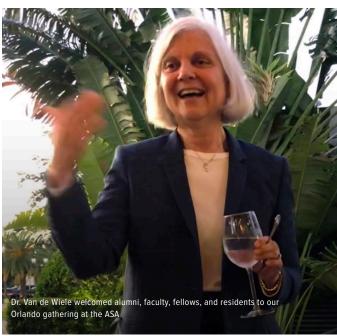
As for future directions, our department is at the forefront and continues to lead the way. We have energy, thought leaders, and doers. We are a hub of collaboration across disciplines and understandings. This, as you know, is an unbeatable combination.

Wishing you all the best in 2020!

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Barbara Van de Wiele, MD Clinical Professor and Interim Chair







ANESTHESIOLOGY 2019 Highlights

any of our faculty members, fellows, and residents boarded jets to travel to Orlando, Florida in October for the annual meeting of the American Society of Anesthesiologists, giving lectures, staffing workshops, and presenting research abstracts and posters.

To our collective delight, former UCLA chair Patricia Kapur, MD, was elected to receive next year's ASA Distinguished Service Award! This was a true highlight of the meeting for us all, as Dr. Kapur has had an unparalleled career of service to UCLA and to the profession of anesthesiology.

The California Society of Anesthesiologists nominated Dr. Kapur for the award, and submitted this summary of her many accomplishments:

"During her career, Dr. Patricia Kapur has influenced virtually every aspect of academic anesthesiology, and she has guided our professional societies with major leadership roles in the CSA, ASA, ABA, IARS, APSF, and FAER. She led the way for other women in our profession as the first woman to chair the ASA section on Education Research, the first to become a section editor of Anesthesia & Analgesia, and

the first to be named to the board of FAER. She was also one of the first women to become a board member of the ABA and of the IARS. Dr. Kapur has served on the governing councils of three prestigious anesthesiology academic organizations: The Association of University Anesthesiologists (AUA), the Society of Academic Anesthesiology Associations (SAAA), and the Association of Academic Anesthesiology Chairs (AAAC).

At UCLA, Dr. Kapur was the respected and beloved chair of anesthesiology for 17 years. She was always viewed as the most dedicated and hardworking member of her department. Because of her exceptional leadership skills, she advanced to become the CEO of the Faculty Practice Group in 2012, and the Executive Vice President of the UCLA Health System in 2013. Her dedication to teaching did not stop at UCLA; within the CSA she chaired the Educational Programs Division and led the development of outstanding educational meetings that drew an international audience. Dr. Kapur was a mentor to countless faculty and staff members at UCLA Health, as well as to many members and current leaders in the CSA and ASA. She was honored with the CSA's Distinguished Service Award in 2017.

Dr. Kapur was given the honor of delivering the ASA's annual Emery A. Rovenstine lecture in 2011. She is a visionary leader whose legacy, as exemplified by her Rovenstine remarks, is one of education and leadership in our specialty. In that lecture, she encouraged ASA members to be prepared to recognize and embrace new opportunities in the practice of anesthesiology. Her innovative ideas and approaches to providing the best in clinical care, education, and research seemed controversial at the time, yet subsequent events have supported her predictions about the threats facing our specialty and the imperative to adapt in order to survive.

Dr. Kapur is now retired from active practice, but she continues to stay involved in our professional societies and is always willing to give a lecture or to provide mentorship whenever asked. The CSA cannot imagine a more deserving recipient of ASA's highest honor, the Distinguished Service Award, than Dr. Patricia Kapur. We respectfully urge the ASA to bestow this honor on her as a crowning achievement in her distinguished career, and we support her nomination with the greatest enthusiasm, affection, and respect."







Dr. Kapur will receive the award and deliver her remarks at the next ASA annual meeting in Washington, DC. She will be honored also at a reception to be hosted by our department in conjunction with the University of Pennsylvania Department of Anesthesiology and Critical Care. Dr. Kapur has a long-standing connection with UPenn, as she earned her MD degree there. Upon leaving UCLA, she returned to Philadelphia and joined UPenn as a Clinical Professor of Anesthesiology and Critical Care.

Other highlights of the ASA meeting included the keynote address, delivered by best-selling author Abraham Verghese, MD, MACP, on the subject of "Humanistic Care in a Technological Age", emphasizing that "the secret of the care of the patient is in caring for the patient." U.S. Surgeon General Jerome Adams, MD, MPH, the first-ever anesthesiologist to hold that office, gave a special address on American public health issues including obesity and smoking.

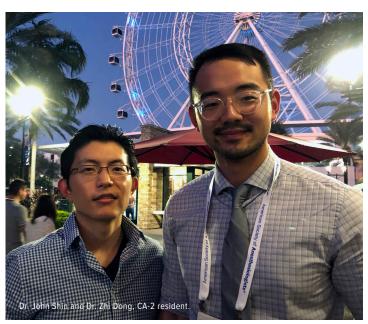
CA-3 resident Ari Huverserian, MD, was interviewed for an upcoming video by Anesthesiology News about his presentation on developing a telemedicine preoperative optimization program, mentored by faculty member Nirav Kamdar, MD, MPP, MBA.

Faculty member Theodora Wingert, MD, is featured in another upcoming Anesthesiology News story about her research on acute kidney injury in children following non-cardiac surgery, and the risk of subsequent chronic kidney disease and mortality.

While many of the faculty were busy with lectures, posters, and other educational sessions, other faculty were involved in the deliberations of the ASA House of Delegates. CSA Past President Johnathan Pregler currently serves as Alternate Director for California, and Drs. Jim Moore, Jeff Rusheen, and Karen Sibert served as CSA-elected Delegates to the House.

One annual ASA event everyone at UCLA looks forward to is our get-together with alumni. This year it took place at a local Cuban restaurant, where everyone enjoyed the warm weather, an excellent buffet, a flamenco dancer's performance, and a chance to reconnect.









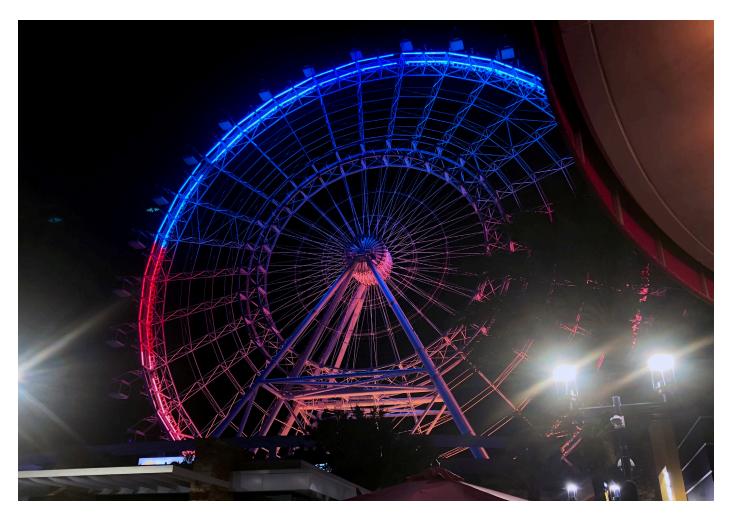








ANESTHESIOLOGY 2019: UCLA Presentations



SPECIAL SESSIONS

SPE01 –Artificial Intelligence in Perioperative Medicine: Moving from Big Data to Smart Data

Eran Halperin, PhD – What is Machine Learning and How Can It Be Leveraged in Anesthesiology?

Maxime Cannesson, MD, PhD – Applications of Machine-Learning Approaches in the Perioperative Setting: From Low-Resolution to High-Resolution Data

SPE29 – Journal Symposium: What's New with the Old Preoperative Ultrasound-Based Frailty Assessment as a Predictor of Surgical Outcomes

Cecilia Canales, MD, MPH, Einat Mazor, MS, Craig

Flath, MD, Susana Vacas, MD, PhD, Victor Duval, MD, Maxime Cannesson, MD, PhD, Soban Umar, MD, PhD, Sumit Singh, MD

SPE38 – Best of Abstracts, Clinical Science An Interpretable Neural Network for Prediction of Postoperative In-hospital Mortality

Christine Lee, MS, Muntaha Samad, BS, Ira Hofer, MD, Pierre Baldi, PhD, Maxime Cannesson, MD, PhD

Long-term Risk of Chronic Kidney Disease and Mortality in Children Following Acute Kidney Injury after Noncardiac Surgery

Theodora Wingert, MD, Nahda Harati, MD, Tristan Grogan, MS

ORAL PRESENTATIONS

OR19-2 – Perioperative Medicine II

Development, Implementation and Evaluation of a Tele-medicine Preoperative Optimization Initiative at a Major Academic Center

Ari Huverserian, MD, Nirav Kamdar, MD, MPP, MBA

FEATURED ABSTRACTS

Combined Liver Transplant and Cardiothoracic Surgery versus Isolated Liver Transplant: A Matched Study

Christine Myo Bui, MD, Colby Tanner, MD, Christine Nguyen-Buckley, MD, Jennifer Scovotti, MA, Victor Xia, MD

Pulmonary Hypertension-induced Right Ventricular Failure is Associated with Endothelial to Mesenchymal Transition Mediated via Transcription Factor Snail

Nicole Yin, MD, Christian Markar, Matthew Mikhael, Emma Said, Trixie Le, Darnell Bagsik, Amir Wissa, Nancy Cao, BA, Soban Umar, MD, PhD

WORKSHOPS

Basic TEE Workshop

Emily Methangkool, MD, MPH - Faculty

Electrophysiology: Perioperative CIED Management, Temporary Pacing, Lead Removal, and Left Atrial Implant Devices

Jonathan Ho, MD – Moderator Andrew Disque, MD, MS – Pacemaker function and programming; Lead extraction and temporary pacing case discussion

Perioperative Point-of-Care Ultrasound

Sumit Singh, MD – Faculty

Perioperative TTE for Everyone

Jonathan Ho, MD – Faculty

Acupuncture

Eric Hsu, MD – Acupuncture Mechanism

Basic Critical Care Ultrasonography for the Perioperative Physician

Wolf Kratzert, MD – Faculty

Advanced Critical Ultrasonography for the Perioperative Physician

Wolf Kratzert, MD – Lung Ultrasound for the Assessment of Hypoxia: Blue Protocol

60-MINUTE PANELS

Perioperative Brain Health Initiative: Update and Implementation Strategies Panel

Dan Cole, MD - Moderator

Do Perioperative Handoffs Really Cause Harm? If So, What Can We Do About It?

Emily Methangkool, MD, MPH – Communicating for Patient Safety during Handoffs

Innovations in Preoperative Assessment and Optimization

Nirav Kamdar, MD, MPP, MBA – Preops at Home

Performance Metrics for Regional Anesthesia and Pain Medicine: Why and How?

James Moore, MD – Multimodal Analgesia

60-MINUTE REFRESHER COURSE LECTURES

Excitation-Contraction Coupling and Mechanisms of Cardiac Arrhythmias

Sassan Rafizadeh, MD, PhD – Moderator (Harbor UCLA Medical Center)

Intraoperative Hypotension and Postoperative Adverse Events: What You Need to Know and What Can You Do About That?

Maxime Cannesson, MD, PhD – Intraoperative Hypotension – What can you do about it? Hypotensive Prediction Index

POINT-COUNTERPOINT

Peer Review: Blame Game or Quality Improvement?

Emily Methangkool, MD, MPH – The Peer Review Process is Necessary for Patient Safety

Does MIPS Reporting Improve Quality?

James Moore, MD - MIPS Overview

Awards, Honors, and Recognition: Congratulations!

Faculty News

Barbara Van de Wiele, MD, Interim Chair, announced in December the appointments of Maxime Cannesson, MD, PhD, as Vice Chair for Research, and Swati Patel, MD, as Associate Vice Chair of Clinical Services. Dr. Patel directs clinical services in the RRMC operating rooms

After a productive career spanning several decades, **Kenneth Kuchta, MD**, retired at the end of 2019. In addition to his 20-year tenure as Chief of Vascular Anesthesiology, Dr. Kuchta has served on department

and hospital Quality and Peer Review committees, and has led the Quality Improvement Committee since 2003. **Emily Methangkool, MD, MPH**, and **Natalie Moreland, MD**, will take on Dr. Kuchta's responsibilities for quality improvement. **Dorothea Hall, MD**, is stepping up to lead the Division of Vascular Anesthesiology.

Komal Patel, MD, Christopher Wray, MD, and Wendy Ren, MD have been promoted to the rank of HS Clinical Professor.







Lou Saddic, MD, PhD, rejoins our faculty in February after a year-long sojourn at the Brigham and Women's Hospital in Boston. Dr. Saddic's area of specialization is cardiovascular anesthesiology. He completed his fellowship

training here at UCLA in 2017, earning "Best in Show"

– the Leonard Walts, MD, Research Award – at that
year's Scientific Evening, for his research concerning
how myocardial injury leads to central nervous system
remodeling. Dr. Saddic earned his MD and PhD degrees
at Stanford University School of Medicine, and completed
residency training at Brigham and Women's Hospital.

Grants and Fellowship Awards



Faculty member **Susana Vacas, MD, PhD**, received a \$1 million, five-year K23 Development Award from the NIH for her research on postoperative neurocognitive disorders (PCND)! Delirium and longer-lasting cognitive deficits after surgery are a significant public health problem that can lead to a cascade of complications for patients. With her mentor, **Rajesh Kumar, PhD**, Dr. Vacas will study patients with obstructive sleep apnea who are at high risk for PCND to examine the mechanisms of brain injury and neuroinflammation after surgery. Read more about Dr. Vacas' remarkable research in this feature article at the UCLA Newsroom.



Gregoire Ruffenach, PhD, has been selected as one of eight recipients of this year's prestigious UCLA Chancellor's Awards for Postdoctoral Research. Dr. Ruffenach received the award at a special ceremony on February 5 with his mentor, Mansoureh Eghbali, PhD. It provides salary support for a full year of research, along with eligibility for the hiring incentive program for tenure-track faculty appointments at any of the University of California's ten campuses. This year, Dr. Ruffenach has also secured a one-year AHA Postdoctoral Fellowship for his project, "Role of a novel RNA-binding protein in promoting pulmonary hypertension induced by oxidized lipids".

Three faculty members secured new R01 grants.

 Mansoureh Eghbali, PhD, director of the Basic Science Training Environment in our department, received funding to study the "Role of miR125 in

pulmonary hypertension secondary to interstitial lung disease"

- Thomas Vondriska, PhD, will investigate "Small molecule therapies targeting chromatin architecture in heart failure"
- Eran Halperin, PhD, will research "Methods for Genomic Analysis in Heterogeneous Tissues".



Vondriska Laboratory scholar Todd Kimball received a 2020 American Heart Association Predoctoral Fellowship for "Building a bridge between nucleoskeletal architecture and chromatin structure in cardiac hypertrophy".

PhD candidate **Christine Cunningham** received the Iris Cantor Women's Health Center UCLA CTSI Young Investigator Award for "Investigating Y Chromosome Protection Against Pulmonary Hypertension as a Novel Therapeutic Strategy for Women".

Siamak Rahman, MD, received a David Geffen School of Medicine Seed Grant for "Machine Learning of Electronic Health Record Data and Genomic Data to Predict Persistent Opioid Use Following Surgery in Opioid-Naïve Patients".

Nicole Yin, MD, a fellow in cardiothoracic anesthesiology has been awarded an Early Career Investigator Award from the Society of Cardiovascular Anesthesiologists (SCA) for her project, "Right Ventricular Failure is Associated with Endothelial-to-Mesenchymal Transition Mediated via Transcription Factor Snail in Preclinical and Clinical Pulmonary Hypertension". Her mentor, Soban

Umar, MD, PhD, noted that her work began when Dr. Yin was a resident here, and has continued during her fellowship. She will present at this year's SCA meeting in April during one of the Best-of-Meeting Oral Abstract Presentation sessions.

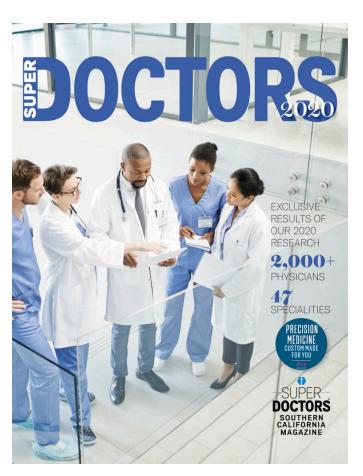
Soban Umar, MD, PhD recently received word that he has been awarded a US Department of Defense grant as a co-investigator with Dr. Virender Rehan from Harbor UCLA. The two-year "Discovery Award" will enable him to investigate a new approach for treating heritable pulmonary hypertension caused by a gene that governs pulmonary arterial differentiation and proliferation. His team will test the efficacy of a compound, GJ103, which belongs to a class of molecules called "Small Molecule Read-Through" compounds.

In Other News...



Look out for Olcese Lab members Marina Angelini, PhD, Frederica Steccanella, PhD, and Nicoletta Savalli, PhD, who appear in the upcoming "100 Years of Safety" video, created for the UCLA Centennial campaign.

Five of our faculty members have been named to the 2020 roster of "Super Doctors" in Southern California: Drs. Ihab Ayad, Swati Patel, Karen Sibert, Joel Stockman, and Barbara Van de Wiele. Another faculty member, Natale Naim, MD, was recognized as a young physician "Rising Star." The list is compiled each year by asking physicians to nominate colleagues. Selection criteria include peer recognition, professional achievement, and research. The final published list honors some 2000 physicians in 47 specialties.





Professor Emeritus

Jonathan Jahr, MD,

FASA, traveled to Nara,

Japan, to deliver the 1st

Plenary Lecture at the XVII

International Symposium

of Blood Substitutes.

He reviewed blood

component and transfusion

requirements and mortality
in the two largest Phase

Ill trials of hemoglobin-based oxygen carriers, a type of artificial blood.

Barbara Van de Wiele, MD, traveled to Santa Ana, El Salvador, and delivered a lecture at the Autonomous University of Santa Ana School of Medicine about the future of anesthesiology. She was accompanied by her husband, Dr. Jorge Lazareff, a pediatric neurosurgeon

and UCLA faculty member, who gave the commencement address.

CA-3 resident **Lyndsey Bradley, MD**, is one of only ten residents nationwide – and the only one from California – who received a \$1000 award from the ASA through the ASA Emerging Leaders Scholarship program. The award enabled Dr. Bradley to attend ASA's recent Practice Management 2020 meeting in Las Vegas. She is creating a presentation of highlights from the meeting for the benefit of all our residents.

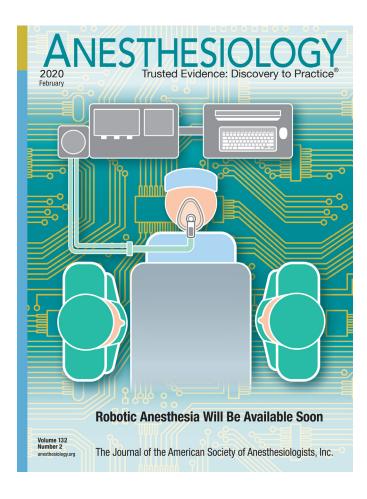
Karen Sibert, MD, FASA, our Director of Communications, spoke at a national summit of educators, the annual meeting of the non-profit organization Project Lead the Way, on the topic, "Inspiring the Future Healthcare Workforce". Dr. Sibert has helped to create a collaboration between our department and the California Society of Anesthesiologists to support Project Lead the Way's biomedical curriculum in three area public high schools. Through this collaboration, our residents make visits to classrooms and high school students have the opportunity to visit UCLA's Simulation Center and research laboratories. (See related article on p. 33.)



UCLA Anesthesiology Scores Major Publication Wins

or the first time ever, we have articles featured on the covers of BOTH of the top journals in our field: the February 2020 issues of *Anesthesiology* and *Anesthesia & Analgesia*! Congratulations to Susana Vacas, MD, PhD; Maxime Cannesson, MD, PhD; Laleh Jalilian, MD; and Nirav Kamdar, MD, MPP, MBA!

Robotic Anesthesia Soon?



Drs. Vacas and Cannesson are co-authors of a major study in *Anesthesiology* on closed-loop anesthesia systems, testing the hypothesis that "in patients 60 years or older scheduled for noncardiac surgery, automated management of anesthetic depth, cardiac blood flow, and protective lung ventilation using three independent controllers would outperform manual control of these variables." Additionally, they hypothesized that patients in the automated group would have less postoperative neurocognitive impairment.

In a blinded study, non-frail patients undergoing noncardiac surgery under general anesthesia were randomized into two groups. In the control group, anesthesia management was performed manually. In the closed-loop group, the titration of anesthesia, analgesia, fluids, and ventilation was controlled:

- Anesthetic depth with TIVA was managed via processed EEG monitoring to achieve bispectral (BIS) index values between 40 and 60;
- Cardiac blood flow and IV fluid administration were monitored and regulated via stroke volume optimization (EV1000, Edwards Lifesciences, USA);
- Ventilation was controlled to maintain a predefined end-tidal CO2 target between 32 and 38 mmHg.

The control group's cognition score at one week after surgery was significantly lower compared with the closed-loop group. There was a "significant correlation" between the percentage of time at a BIS value of less than 40 and lower cognition scores. The closed-loop group also had a significantly

lower percentage of case time with end-tidal CO2 less than 32 mmHg, and received less total fluid administration.

The authors concluded that further studies are needed to establish the relative impact of each of the three factors – anesthetic depth, fluid optimization, and ventilation – on delayed neurocognitive recovery. They wrote, "Future studies are needed to further assess the impact of this approach in more vulnerable patients and on other postoperative complications."

Alexandre Joosten, MD, PhD, Joseph Rinehart, MD, Aurélie Bardaji, MD, Philippe Van der Linden, MD, PhD, Vincent Jame, MD, Luc Van Obbergh, MD, PhD, Brenton Alexander, MD, Maxime Cannesson, MD, PhD, Susana Vacas, MD, PhD, Ngai Liu, MD, PhD, Hichem Slama, PhD, Luc Barvais, MD, PhD. Anesthetic Management Using Multiple Closed-loop Systems and Delayed Neurocognitive Recovery: A Randomized Controlled Trial. Anesthesiology 2020;132(2):253-266.

Telemedicine Can Work For Us and Our Patients

Drs. Kamdar and Jalilian wrote an editorial in *Anesthesia & Analgesia* analyzing the current and potential applications of telemedicine in anesthesiology. Ours is the specialty least involved with telemedicine, they wrote, but that needs to change.

"Telemedicine opens new portals from which clinicians can guide prehabilitation activities," the authors wrote, and enables anesthesiologists to monitor and engage with the patient well beyond discharge with the goal of reducing postoperative readmissions. Telemedicine also has the potential to

improve postoperative pain management by enabling anesthesiologists to "remotely monitor, prescribe, titrate, and deliver responsible opioid prescriptions," and also to "study and target opioid reduction and pain management transition strategies."





The authors concluded: "Anesthesiologists have established themselves as stewards for patient safety and leaders in quality improvement within health care systems. We have a responsibility to apply advances in technology to achieve our patient-centered purpose of improving health and the patient experience throughout the perioperative period. Telemedicine not only allows anesthesiologists to extend their expertise inside the hospital with high-fidelity monitoring but also invites us to engage in the spectrum of care outside the hospital. This goal extends our reach not only to affect in-hospital outcomes, but population health outcomes as well."

Nirav Kamdar, MD, MPP, and Laleh Jalilian, MD. **Telemedicine: A digital interface for perioperative anesthetic care.** *Anesthesia & Analgesia* 2020;130(2):272-275.

Learning From History

Jane Moon, MD, has been named co-author of a monthly recurring feature in *Anesthesiology*: "Anesthesiology Reflections from the Wood Library-Museum". Dr. Moon's first publication in the January issue described early, clumsy experiences with chloroform that resulted in unacceptably high mortality rates, and the challenge of titrating the dose to keep it non-lethal. At the opposite end of the spectrum, one Connecticut couple in 1881 attempted to euthanize their cat with chloroform and gave it a proper burial, only to have the cat appear alive and well at the back door the next morning.

Dr. Moon is well qualified to write about anesthesiology history, as she was a history teacher before she decided to attend medical school. She chairs the California Society of Anesthesiologists' Committee on the History of Anesthesia.

Op-ed Goes Viral

Our Director of Communications, Karen Sibert, MD, FASA, wrote an op-ed in defense of physicians, "Keep up the insults, and good luck finding a physician in 10 years", that went viral in January. She wrote in response to two *Washington Post* articles, one of which referred to physicians as "muggers", while the other accused physicians of being coconspirators in "taking money away from the rest of us." To date, the article has had over 370,000 views on Dr. Sibert's own blog, <u>A Penned Point</u>. It was picked up the next day on <u>KevinMD</u> where is currently the most popular article of the past six months, and has been shared on social media more than 148,000 times.



Anesthesiology News @anes... · 4d @KarenSibertMD wrote what we were thinking in response to an attack on physicians by two uninformed economists. Thank you for that! Check out her #blog here



Keep up the insults, and good luck finding a physician in 10 years apennedpoint.com

Since publication, Dr. Sibert has been interviewed on the popular <u>YouTube channel</u> of Dr. Mike Varshavski, a New York family physician. The 12-minute interview has been viewed more than 470,000 times. Dr. Sibert was also interviewed for an episode of the podcast, <u>Medical Practice Trends</u>.

Other Selected Publications

 Ruffenach G, Umar S, Vaillancourt M, Hong J, Cao N, Sarji S, Moazeni S, Cunningham CM, Ardehali A, Reddy ST, Saggar R, Fishbein G, Eghbali M. (2019). Histological hallmarks and role of Slug/PIP axis in pulmonary hypertension secondary to pulmonary fibrosis. EMBO Mol Med. 2019;11(9):e10061. https://doi.org/10.15252/ emmm.201810061

Pulmonary fibrosis (PF) is characterized by the accumulation of scar tissue within the lung. An estimated 100,000 people in the US are affected by PF. About 40 percent will additionally develop

pulmonary hypertension (PH), but the reason why is poorly understood. This study found distinct differences in the blood vessels in the lungs of PF patients with and without PH. The authors found that when PF is complicated by PH, the macrophages (immune cells in charge of cleaning the lung) express more of the protein "Slug" which contributes to the stiffening of blood vessels. They showed that decreasing this protein in fibrotic lungs can decrease the severity of PH. The study uncovers a previously unknown mechanism behind the development of PH, and identifies a new therapeutic target for treatment.

Vikram Fielding-Singh, MD, JD, Mark D. Willingham, MD, MS, Matthew A. Fischer, MD, MS, Tristan Grogan, MS, Peyman Benharash, MD, and Jacques P. Neelankavil, MD. A Population-Based Analysis of Intraoperative Cardiac Arrest in the United States. Anesthesia & Analgesia: October 18, 2019; published ahead of print. doi: 10.1213/ANE.0000000000000004477

Hospital admissions involving patients ≥18 years of age who underwent operating room procedures in 2016 were identified using the National Inpatient Sample. The primary outcome was the incidence of intraoperative cardiac arrest. Secondary outcomes included total cost of admission, in-hospital mortality, length of stay, and identification of risk factors associated with intraoperative cardiac arrest. Clinical risk factors were evaluated. The authors found that intraoperative cardiac arrest occurs during approximately 5.7 per 10,000 hospital admissions involving operating room procedures and is associated with cardiac, thoracic, or vascular surgery; congestive heart failure; pulmonary circulation disorders; peripheral vascular disease; end-stage renal disease; and fluid and electrolyte disorders.

3. Hill BL, Brown R, Gabel E, Rakocz N, Lee C, Cannesson M, Baldi P, Olde Loohuis L, Johnson R, Jew B, Maoz U, Mahajan A, Sankararaman S, Hofer I, Halperin E. (2019). **An automated** machine learning-based model predicts postoperative mortality using readily-extractable preoperative electronic health record data. *Br J Anaesth*. 2019;123(6):877-886. https://doi.org/10.1016/j.bja.2019.07.030

Rapid, preoperative identification of patients with the highest risk for medical complications is necessary to ensure that limited infrastructure and human resources are directed towards those most likely to benefit. Existing risk scores either lack specificity at the patient level or utilize the American Society of Anesthesiologists (ASA) physical status classification, which requires a clinician to review the chart. The authors report on the use of machine learning algorithms, specifically random forests, to create a fully automated score that predicts postoperative in-hospital mortality based solely on structured data available at the time of surgery. This automated score outperforms the ASA physical status score, the Charlson comorbidity score, and the POSPOM score for predicting in-hospital mortality.

Vaillancourt M, Chia P, Medzikovic L, Cao N, Ruffenach G, Younessi D, Umar S. (2019).
 Experimental Pulmonary Hypertension is
 Associated with Neuroinflammation in the
 Spinal Cord. Front Physiol. 2019;10:1186. https://doi.org/10.3389/fphys.2019.01186

Pulmonary hypertension (PH) is a rare but fatal disease characterized by elevated pulmonary pressures and vascular remodeling, leading to right ventricular failure and death. Recently, neuroinflammation has been suggested to be involved in the sympathetic activation in experimental PH. The authors report first-time evidence for neuroinflammation in the thoracic spinal cord of pulmonary hypertensive rats, but note that the impact of spinal cord inflammation on cardiopulmonary function in PH remains elusive.

5. Umar S, Ruffenach G, Moazeni S, Vaillancourt M, Hong J, Cunningham C, Cao N, Navab S, Sarji S, Li M, Lee L, Fishbein G, Ardehali A, Navab M, Reddy ST, Eghbali M. (2020). Involvement of Low-Density Lipoprotein Receptor in the Pathogenesis of Pulmonary Hypertension. J Am Heart Assoc. 2020;9(2):e012063. https://doi.org/10.1161/JAHA.119.012063

The authors and others have reported a causal role for oxidized lipids in the pathogenesis of pulmonary hypertension (PH). However, the role of low-density lipoprotein receptor (LDL-R) in PH is not known. Explanted human lungs and plasma from patients with PH and control subjects were analyzed for gene expression, histological characteristics, and lipoprotein oxidation. The authors concluded that human PH is associated with decreased LDL-R in lungs and increased oxidized LDL in lungs and plasma. WD-fed LDL-R knockout mice develop PH and right ventricular dysfunction, implicating a role for LDL-R and oxidized lipids in PH.

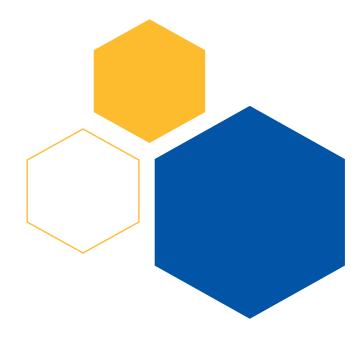
 Kimball TH, Vondriska TM. (2019). Metabolism, Epigenetics, and Causal Inference in Heart Failure. Trends Endocrinol Metab. 2019; S1043-2760(19):30234-6. https://doi.org/10.1016/j.tem.2019.11.009

Regardless of the etiology, humans with, and animal models of, heart failure are characterized by abnormal metabolism and gene expression, some aspects of which are compensatory responses to the disease whereas others promulgate injury. Close communication between the metabolome and the epigenome sets basal susceptibility to various heart failure symptoms. This communication entrains detrimental conditions in metabolic—epigenetic memory and thus may be a target for novel treatments. This essay aims to challenge current thinking on metabolic—epigenetic crosstalk in heart failure, presenting hypotheses for how chronic diseases arise, take hold, and persist.

7. Wolf B. Kratzert, MD, PhD, Eva K. Boyd, MD, Rajan Saggar, MD, Richard Channick, MD.

Critical Care of Patients After Pulmonary
Thromboendarterectomy. Journal of
Cardiothoracic and Vascular Anesthesia
00 (2019), in press. https://doi.org/10.1053/j.
jvca.2019.03.005

Pulmonary thromboendarterectomy (PTE) remains the only curative surgery for patients with chronic thromboembolic pulmonary hypertension (CTEPH). Postoperative intensive care unit care challenges providers with unique disease physiology, operative sequelae, and the potential for detrimental complications. Central concerns in patients with CTEPH immediately after PTE relate to neurologic, pulmonary, hemodynamic, and hematologic aspects. The goal of this review is to provide the cardiac anesthesiologist and intensivist with a comprehensive understanding of postoperative physiology, potential complications, and contemporary intensive care unit management immediately after pulmonary endarterectomy.



Our CA-1 Residents Gain Hands-on Experience with Difficult Airway Techniques

here are few more terrifying scenarios in anesthesiology than an unexpectedly difficult airway. But thanks to the efforts of Drs. Elaine Boydston, Michael Lin, and other faculty members and fellows in our department, our newest residents are going to be better prepared than ever to face this inevitable challenge.

On a recent Saturday, these dedicated anesthesiologists hosted a full-day airway workshop for our CA-1 residents to teach advanced airway management techniques, including the use of:

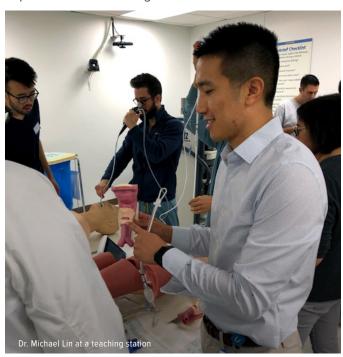
- Fiberoptic bronchoscopy
- Various video laryngoscopes and blades
- Surgical airways: tracheostomy, cricothyroidotomy
- Jet ventilation
- Lung isolation
- LMAs, standard and intubating
- Retrograde wire-assisted intubation.



The attendees included several of our own CA-2 and CA-3 residents, and critical care fellows from the

departments of pulmonary and emergency medicine. There were many more who wanted to attend, but space constraints limited the number of participants.

Drs. Boydston and Lin co-directed the workshop, which "was very well received, with enthusiastic feedback," Dr. Boydston said. "Nearly everyone felt the workshop vastly improved their knowledge base and skills."



The anesthesiology faculty instructors included Drs. Elaine Liew, Marisa Hernandez-Morgan, and Gundappa Neelakanta. Drs. Samuel Hong, Vikram Fielding-Singh, and Nicole Yin, who are fellows in critical care and cardiothoracic anesthesiology, helped with instruction and hands-on guidance at the various stations. Dr. Sara Crager, an emergency medicine faculty member, and Dr. Nida Qadir, a faculty member from Pulmonary and Critical Care, also served as instructors.

The comments from the residents verified the value of the workshop. As one resident said, "Really appreciate all the hard work that went into setting up this course, because as airway experts we need to be comfortable with this stuff!"

Other comments from residents:

- "This was a fantastic use of time"
- "Really well organized! It was nice having pulmonary and emergency medicine available to exchange ideas"
- "Very helpful workshop, learned so much!"
- "Feel more confident in my knowledge of various airway equipment and its intended use"
- "As repetition is important to mastering the tools/ techniques, would recommend offering this or similar workshops 2x a year or every quarter".



Some residents felt that the lung isolation station and the retrograde intubation station needed more time, and that the groups at each station should be limited to four residents. Their feedback will be included in future planning.

Dr. Boydston said the hope is that the airway workshop will be repeated once or twice each year. The primary



challenge, she said, is "protecting participants from clinical responsibilities." The logistics of doing an airway workshop on a Saturday are challenging, given everyone's busy lives and other commitments, she said, but it's even more difficult to schedule during the week with our demanding OR case load.

"We definitely hope to repeat it again next year," Dr. Lin said. Possible areas of future expansion include combining the workshop with training of pulmonary/ critical care fellows, adding content about "physiologically difficult" intubation scenarios, offering CME, and opening the sessions to physicians from the community.





Sushi and the Art of Anesthesia Practice

n a perfect fall evening in Santa Monica, faculty member Nirav Kamdar, MD, MPP, MBA, hosted our CA-1 residents on the rooftop of his condominium building to watch a movie and discuss the concept of "deliberate practice" as it relates to a career in medicine.

In a famous 2007 article in the <u>Harvard Business Review</u>, "The Making of an Expert," Swedish psychologist K. Anders Ericsson wrote:

"The journey to truly superior performance is neither for the faint of heart nor for the impatient. The development of genuine expertise requires struggle, sacrifice, and honest, often painful self-assessment. There are no shortcuts. It will take you at least a decade to achieve expertise, and you will need to

invest that time wisely, by engaging in "deliberate" practice—practice that focuses on tasks beyond your current level of competence and comfort."

How does that relate to the experience of being an anesthesia resident?

To explore this question, Dr. Kamdar invited the residents to a screening of the 2011 documentary, *Jiro Dreams of Sushi*. The film examines the life and career of renowned sushi chef Jiro Ono, 85, who rose from extreme poverty to become the owner of a tiny sushi shop located in a Tokyo subway station that has earned, remarkably, three Michelin stars. His mastery of the sushi craft has been described as "a miracle of perfection married to expertise", honed over decades of relentless practice.

Dr. Kamdar also asked the residents to read a 2011 article by Dr. Atul Gawande called "Personal Best," published in the *New Yorker* magazine. Dr. Gawande's article raises the question of whether physicians should continue to have coaching throughout their careers just as professional athletes do. The coach's role is to foster "effective innovation and judgment, not merely the replication of technique."

"With a diploma, a few will achieve sustained mastery; with a good coach, many could," Dr. Gawande concludes. "Coaching may prove essential to the success of modern society."

Dr. Kamdar believes that "residency training is like training in a sports gym," and he points out that Dr. Gawande's article supports the concept of refining and perfecting technique by means of coaching, even for experienced physicians.

"I try to inculcate amongst the residents that they should work with their attendings as if the attendings are personal trainers," Dr. Kamdar says. "They should come in each day with a set of goals they want to reach, and work with the attending to achieve that learning goal."

Just as a trainer will stack weights in the gym and provide a little assistance with the last few repetitions, Dr. Kamdar believes residents will benefit from working with an attending to set increasingly tough goals over time.

WHAT DID THE RESIDENTS THINK?

Christian Seger, MD, MS, a CA-1 resident, agreed that "the film's overt message is one glorifying the unyielding pursuit of perfection", but he pointed out that underneath may lie a cautionary tale.

"His sons only know him through their own work in his restaurant," Dr. Seger observed in written comments. "His wife is nearly absent in the film."

"As trainees, we wonder how the practice of medicine will continue to shape our lives. Mr. Ono's pursuit surely shaped his, but are the results (i.e. personal costs) truly desirable?" Dr. Seger asked.

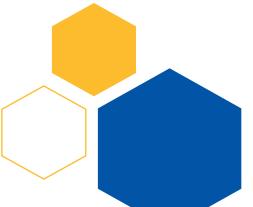
The discussion led by Dr. Kamdar – along with the presence of attending anesthesiologists, surgeons, and community physicians at the gathering – provided some good perspective, Dr. Seger noted. "The experienced professionals in attendance offered several tools to mitigate self-sacrifice while maintaining enthusiastic professional development. We discussed the importance of peer support and working in context (not intellectual isolation)."

Dr. Kamdar feels strongly that even though anesthesiology is a technical specialty, it's important to integrate culture, art, and reading into our daily lives.

"Anesthesia can often be a lone-star sport," Dr. Kamdar said, "and the interaction with ideas that link science and the humanities can be sparse. I wanted to activate that part of our brains: our human instinct for personal connection and interaction."

Dr. Kamdar worked with our chief residents, class representatives, and with faculty members Judi Turner, MD, PhD, and Jason Lee, MD, to arrange the event. He hopes to host future evenings asking questions such as "Will closed-loop systems take our jobs away?" and "What is the future of team-based anesthesia?"

Overall, "I left the evening with a profound sense of mission," Dr. Seger wrote. "Many thanks to Dr. Kamdar and company for the insightful event."



My China Adventures

by Nikki Yin, MD

The Second Affiliated Hospital Zhejiang University (SAHZU) is a nonprofit tertiary-care public hospital that cares for a staggering four million patients and performs about 130,000 surgeries per year, situated in the large metropolitan city of Hangzhou, China. I was one of the fortunate UCLA residents who had the opportunity to visit the hospital in 2019 for a one-month rotation. I was able to witness first-hand the incredible efficiency and work ethic of the Chinese physicians in taking care of their vast numbers of patients, both in the operating room and in the pain management clinics. I have a personal interest in cardiothoracic anesthesia, and the department was able to arrange for me to be in several cardiac and thoracic cases throughout my rotation.

During my visit, not only was I actively participating in patient care, including line placements for surgery, intubations, and transesophageal echocardiography, I was also able to teach medical students basic intubation skills, give a talk to the anesthesia department about pulmonary hypertension, and provide feedback on manuscripts and residency education. Although my ability to speak Chinese is lacking, particularly with medical vernacular, everyone at the hospital was more than eager to help translate or help me navigate both in and out of the operating room.

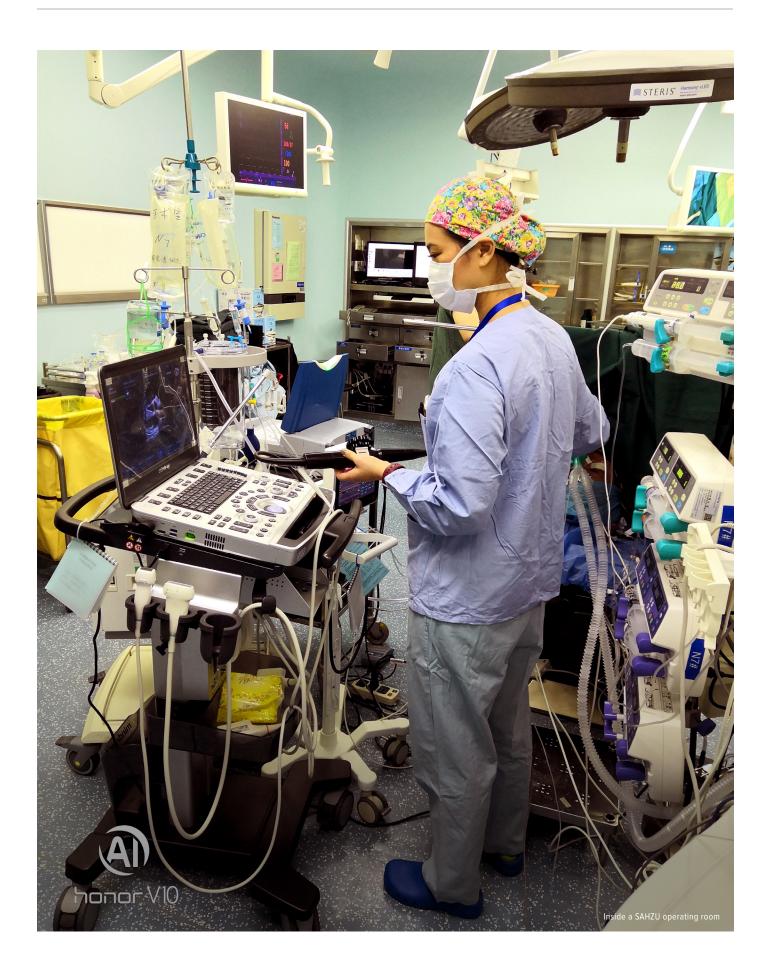
My time in the hospital was extremely enjoyable and enlightening, and I also had the opportunity to engage

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My China Adventures

My China Adventure





in cultural immersion in my spare time. There, in the very city in which I resided, is a UNESCO World Heritage site, West Lake. Residents took me hiking along the famous longjing ("Dragon Well") tea fields. I experienced the high-speed rail during my trip to Shanghai, where I discovered one of the most unique city skylines. I walked the mesmerizing bridges and alleys of the ancient water town Wuzhen, built along the Yangtze River. As it was

my first time ever visiting China, despite the distance I could not pass up the chance to travel to Beijing to climb the Great Wall, one of the New Seven Wonders of the World. I hiked a portion of the Great Wall that was partially restored and partially wild. It was one of the most challenging hikes I have ever completed, but an incredibly beautiful and unforgettable experience. I visited as many historical landmarks and ate as many Chinese specialties as I could get my hands on.

The generosity and kindness of the Chinese people I met in Hangzhou, and throughout my travels, were genuine and truly remarkable. China has such a long and rich cultural history that could be felt in every aspect of daily life. As a visitor, I could only begin to appreciate it all. I am extremely thankful to our department and program leadership for offering this opportunity. I am also tremendously grateful for the doctors and staff at SAHZU for receiving me so warmly, and allowing me to grow personally and professionally from this experience.





Our Medical Mission in Myanmar

by Matt Park, MSN, CRNA

Editor's Note: Matthew Park, MSN, CRNA, had the opportunity to serve on a two-week medical mission with <u>Rotaplast International</u> in Myanmar (formerly Burma), and wrote this account of his experiences.

ur multidisciplinary team arrived first at the city of Yangon, which is Myanmar's commercial hub and home to markets, parks, lakes, and the majestic gilded Shwedagon Pagoda, one of hundreds of pagodas throughout the country.

From Yangon, we embarked on a five-hour bus ride to the city of Naypyidaw (officially Nay Pyi Taw, which translates in English to "Abode of the King"). Naypyidaw is also referred to as "Ghost City" by the local people due to the fact that although the city area is roughly four times the size of London, the population is less than a million.

Naypyidaw is a new, planned city that was built starting in 2002 and replaced Yangon as the capital in 2006. Our clinical home was Nay Pyi Taw General Hospital.

The main goal of our medical mission was to provide surgical intervention for patients, mainly children, who are unable to receive treatment for cleft lip and palate due to insufficient financial resources or because their clinical problems are too complicated for the surgeons in the area. We also provided care for adult patients with moderate to severe wounds or burn scars. Over 10 days, we evaluated 122 patients and operated on 77, including

63 cleft palate cases and 14 burn contracture release cases.

THWE-PHOO-WAI



One of the patients I remember best is a little boy named Thwe-phoo-wai, then 18 months old, with severe unilateral cleft lip and palate. His mother traveled many miles with her child from a northern region of Myanmar, desperate to find care for her son because of the ridicule by people in their village and the scornful treatment she suffered from her family members for bearing a child with a defect.

The mother wept as she told us her story and described her child's difficulty with feeding. We planned for surgery the next day. By Rotaplast standards, Thwe-phoo-wai was a good candidate for surgery with hemoglobin greater than 10 mg/dL, weight above 10 kilograms, and age above 12 months. However, many cleft lip and palate cases can be difficult airways, and we knew we would

have limited equipment and resources – no fiberoptic bronchoscope though we did have a McGrath video laryngoscope available.

The next day, I held the little boy in my arms as we walked into the OR with the Rotaplast nurse. We were greeted by Dr. David Morwood, a plastic surgeon volunteer from Monterey, California, and the local Myanmar RN who would function as the surgical technician. With our small, portable OBA-1 anesthesia machine, we mask-induced the weeping toddler with sevoflurane. He struggled but eventually surrendered to the anesthetic, and I was able to ventilate effectively.



After making sure the patient had 1 MAC of sevoflurane onboard, we started an IV and administered propofol. Moments later, I performed a direct laryngoscopy with a Miller 1 blade and saw a Mallampati II view. However, I was unable to pass the 4.0 mm cuffed tube through the tiny vocal cords, and had no smaller tube available!

We had four people on our anesthesia team to staff three operating rooms, with one person always available as the "float". Luckily, the float person quickly retrieved a 3.5 mm tube that had just finished being cleaned from a previous case while I maintained adequate mask ventilation with sevoflurane. I was able to gently slide the 3.5 tube through the narrow vocal cords. Once we confirmed tube placement, I allowed Thwe-phoo-wai to resume spontaneous breathing and we prepared for the start of surgery.



The operation lasted about 3 hours due to the severity of the cleft and the time it took to repair the floor of the nasal cavity. Even with the challenges in the OR, Thwephoo-wai did well. The most memorable moment was seeing his mother's expression as she was reunited with her toddler after the surgery. She wept tears of joy and was so grateful for the results of the treatment. We were all deeply moved to see the happiness of a struggling mother fighting to give her son a better life.

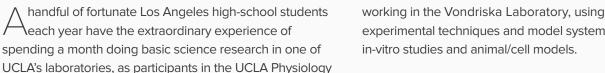
The need to reuse endotracheal tubes is just one example of how different it can be to deliver anesthesia care in a developing country. We hand-washed and scrubbed each tube with warm soapy water, then soaked them in a solution of dilute bleach before a final rinse. Since people sometimes threw tubes in the trash by accident – as we do routinely in the U.S. – we had only a limited supply left by the end of our visit.

In addition to direct clinical care, our team educated families and the local community about cleft lip and palate conditions, and about how to prevent them through diet and supplement intake with Vitamin B and folic acid during pregnancy. We also worked to build capacity among the local healthcare providers by providing training and technical support in the management of these complex cases.

My first medical mission in Myanmar was the experience of a lifetime. Providing anesthesia and peri-operative care in a low-resource environment enhanced my clinical skills without all the fancy tools that I've come to rely on in the U.S. Most importantly, participating in this medical mission has made me more passionate about my chosen vocation, and I can highly recommend the experience to any clinicians who are willing to volunteer their expertise



UCLAPOP Offers Early Lab Research Experience



Tom Vondriska, PhD, an associate professor in the Departments of Anesthesiology, Medicine, and Physiology, is one of the two directors of UCLAPOP. His research focuses on the interface between chromatin biology and heart disease. Some of the questions his research addresses:

How do cellular networks form and operate?

Outreach Program (UCLAPOP).

- What is the structure of the genome and how is it regulated?
- Why do heart cells malfunction in disease, and how can we prevent or reverse this process?

On any given day you'll find graduate students, undergraduate students, post-doctoral research fellows, research staff and visiting scholars from other countries

working in the Vondriska Laboratory, using a variety of experimental techniques and model systems including

This year's students included Farah Khan and Rachel Park from Granada Hills Charter High School, Angela Yang from Venice High School, Keanu Nahmi Natan from Palisades Charter High School, and two students from Harvard-Westlake School: Porter Comstock and Mohona Roy Ganguly.

Other faculty members from our department also participate in UCLAPOP, including Yibin Wang, PhD, Mansoureh Eghbali, PhD, Michela Ottolia, PhD, and Manuel Rosa-Garrido, PhD.

The UCLA POP website explains, "We know that untapped talent lies at our doorstep within Los Angeles communities: we want to nurture it and make science accessible and fun, with a focus on physiology. By making science more accessible to this target group we hope to increase their recruitment to study science and medicine at college level."





High School Students Tour Dr. Umar's Research Laboratory

Editor's note: Our department is delighted to partner with the California Society of Anesthesiologists and the nonprofit organization Project Lead the Way in supporting an innovative biomedical curriculum at area high schools. This program sponsors field trips to sites at UCLA including the Simulation Center, the cardiac catheterization suite, and the <u>cardiopulmonary research laboratory</u> headed by Soban Umar, MD, PhD, who also directs our residency research program. In the fall, we hosted students from El Segundo High School and Venice High School on visits to campus. Medical student **Varina Clark** and premedical student **Nancy Cao** wrote this account of the El Segundo students' visit.

aculty members Christine Nguyen-Buckley,
MD, Soban Umar, MD, PhD, and Jane Moon,
MD, hosted an enthusiastic group of high school
seniors from El Segundo High School on a visit to
UCLA. Accompanied by their teacher, Donna Tucker
(a former nurse), the students had an incredible
opportunity to visit UCLA's cardiac catheterization
lab, explore Dr. Umar's research laboratory, and
ask questions about careers in medicine and
anesthesiology.

While in the Center for Health Sciences, the students marveled at the research environment. Dr. Umar began the session with a dynamic discussion about normal cardiopulmonary function and pathological manifestations of cardiovascular disease and pulmonary hypertension. The students showcased their knowledge of the heart and were excited to learn more.

Medical students Varina Clark and John Park, along with premed undergraduate students Nancy Cao and Michael Zargari, supplemented this information with small-group demonstrations of real-time echocardiography of the mouse. The students eagerly watched as a mouse was anesthetized under

isoflurane and probed with an ultrasound transducer, producing a live video feed of a healthy beating heart.

During this demonstration, students learned how to measure heart rate and respiratory rate using the accompanying electrocardiogram program. Next, the students reviewed echocardiography results of rats with pulmonary hypertension-induced right heart failure, which illustrated heart disease in the animal model.



IMAGE, left:
Dr. Umar with student
This page:

Drs. Jane Moon, Christine Nguyen-Buckley, and Soban Umar with students



The students were also excited to dive into histopathology where they could visualize healthy and diseased heart tissue of rats. Under Dr. Umar's guidance, the students used the bright-field microscope to identify normal vs. pathological characteristics of rat heart tissue on trichrome-stained slides. At the end of the session, Dr. Umar gave an informal quiz as a recap for the learning activities of the research laboratory.

"What are the three colors of trichrome staining used to identify on histopathology slides?" he asked. The first student to answer correctly received a small prize. The research team was impressed by all of the students' answers, detailed follow-up questions, and witty commentary.

Before heading off to their next activity, the students also had the opportunity to ask the medical students and physicians about their personal pathways into medicine and anesthesiology.

"Thank you so much for encouraging me to keep on pushing," one student said to Varina Clark. Others

shared an interest in research and inquired about potential volunteer opportunities at UCLA. The team members were delighted to share this experience with the students.

The students are participants in the biomedical curriculum at El Segundo, which is sponsored by the non-profit organization Project Lead the Way. The specialized curriculum and the teacher training needed for it are supported and funded by organizations including the California Society of Anesthesiologists (CSA).

UCLA partners with CSA and Project Lead the Way in hosting student visits to campus. UCLA also sends anesthesiology residents to area high schools — including El Segundo, Venice High School, and the Girls' Academic Leadership Academy — to discuss careers in health care and demonstrate techniques such as ultrasound used in the professional practice of anesthesiology.



IMAGES

TOP: El Segundo students visit UCLA LEFT: Medical student Varina Clark works in Dr. Umar's lab RIGHT: El Segundo HS students and their UCLA hosts

Now We Have Four Married Couples On Our Faculty!

The number of faculty marriages in our department increased to four in 2019, with the wedding of Drs. Christina Nguyen and Nathan Schulman at the lovely Muckenthaler Mansion in Fullerton.





The two met as residents in the core storage area of the operating suite at Ronald Reagan Medical Center, when, as Dr. Nguyen noted on her Instagram feed, "I uttered the fateful words, 'Where is the eye lube?'"

Dr. Schulman finished his residency training in 2016, and spent a year in private practice before returning to join our faculty. His areas of interest include neuroanesthesia and working in UCLA's rapidly expanding outpatient centers. Dr. Schulman is also the department's expert on environmental sustainability in the operating room.

Dr. Nguyen completed her residency training in 2018, and now spends most of her clinical time at the Westwood VA

in general anesthesiology practice. She is a member of the faculty team that teaches residents at the Simulation Center, and is developing a simulation curriculum at the VA for the anesthesia residents rotating there. In time, she hopes to expand this curriculum to include multispecialty scenarios.

In October, Drs. Nguyen and Schulman collaborated in helping to teach a three-hour simulation lab for first-year medical students. This "CV-Sim" lab was designed to teach the students interactively about cardiovascular function and physiology.

"Our roles were to help answer questions and further understanding of how changes to physiologic parameters like SVR, contractility, stroke volume, and heart rate affect the cardiac cycle, blood pressure, and arterial waveform," Dr. Nguyen explained. "It was a nice change of pace to get back into basic physiology, but what was really gratifying was being able to bring our clinical experience to the class, especially since the other co-instructors were all PhDs, not clinicians." Drs. John Shin and Soban Umar also participated in teaching the "CV-Sim" class.

The other three married couples on our faculty include:

- Dr. Christine Nguyen-Buckley, who directs our liver transplant fellowship program, and Dr. Jack Buckley, who is Associate Director of our residency program and also directs our section on Head and Neck Anesthesia.
- Dr. Eva Boyd, who directs our fellowship program in regional anesthesiology and acute pain medicine, and Dr. Wolf Kratzert, who specializes in cardiothoracic anesthesiology and critical care medicine.
- Dr. Parisa Partownavid, the medical director of the Westwood Ambulatory Surgery Center, and Dr. Siamak Rahman, who directs our regional and acute pain service at Ronald Reagan Medical Center.

Then undergraduates at UC Berkeley, Jack Buckley and Christine Nguyen first met in 1999 and were married on May 7, 2005, in New York City. Dr. Jack Buckley was a resident at UCLA from 2006 to 2009, and then worked in private practice in Virginia. The couple returned to UCLA in 2012, when Dr. Buckley joined our faculty, and Dr. Nguyen-Buckley began her internship. They now have two sons, Jack Jr, six years old, and James, four.





Marriage to another faculty member can present challenges, Dr. Nguyen-Buckley says. "Arranging schedules takes advance planning to avoid both of us being on call at the same time without childcare!" Sometimes, though, their schedules match up so that they can carpool. And, Dr. Nguyen-Buckley says, "It's nice to have lunch together if we are out of the OR at the same time."

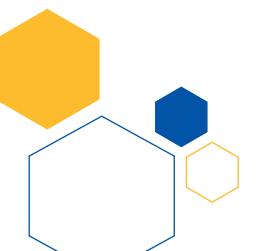
Drs. Eva Boyd and Wolf Kratzert first met on the beach in San Diego, introduced by a mutual friend. They were married in 2011 in Switzerland, and have been on the faculty at UCLA for nearly six years.





Parents of two little girls, Zia, eight years old, and Leonie, six, Drs. Boyd and Kratzert love to ski. They note that one advantage of being in the same department is that they can put in their vacation requests together – and usually get them. Also, says Dr. Boyd, "We know all the same wonderful people that we work with!"

The only occasional drawback, Dr. Boyd says: "We get scolded for all the schedule requests we have to make because of cardiac, ICU, and acute pain calls, but not as much anymore!"



Thank You To Our Dedicated Physicians and Nurse Anesthetists!

By Shevaughn Marchese

ur department honored our anesthesiologists and nurse anesthetists at all locations during our specialty's national recognition weeks. During National Certified Registered Nurse Anesthetists Week, January 19-25, our nurse anesthetists gathered at Ronald Reagan-UCLA Medical Center and Santa Monica-UCLA Medical Center for breakfast recognition events.

Over the next week, which is designated Physician Anesthesiologists Week every year, anesthesiologists at both hospitals enjoyed breakfast together. Those at RRMC received a special visit from UCLA People-Animal Connection canine volunteers Henry and Lola. Lola loved the chairs in the physician lounge so much that we won't be surprised to see her there again soon!

We did not forget our dedicated physicians and nurse anesthetists at Martin Luther King, Jr. Community Hospital, and the many community clinics and surgery centers. Those working offsite during the recognition weeks received care packages, and a few received an extra-special delivery from faculty assistant Liz Suh and administrative staff supervisor Carla Gonzalez. To all of our clinical professionals – thank you for your dedicated service to our patients!





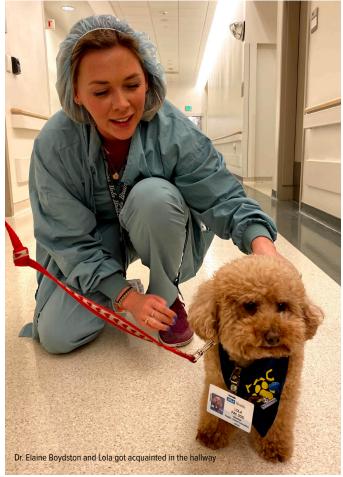
















Lola, the Therapy Dog, Pays Us a Visit



ola, a trained
therapy dog
who volunteers with
UCLA's PeopleAnimal Connection
program, visited our
department to help us
celebrate Physician
Anesthesiologist Week

2020. A mini-poodle who loves peanut butter treats, Lola demonstrated her superpower – an infinite capacity for snuggling – and made instant friends with everyone she met. We wish that Lola and Abbey, her human partner, would come back every week!

The UCLA People-Animal Connection is one of the most comprehensive Animal-Assisted Therapy and Activity (AAT/A) programs in the nation. The core concept is to enhance physical healing and emotional well-being through each dog's instinctive ability to bond with patients of all ages and cultures, and to provide comfort care to critically ill patients including many underserved and indigent individuals who might not have any other visitors.

Dogs are naturally interactive and provide a welcome break during the long days that patients spend in the hospital. Their unconditional love and attention brighten everyone's day – patients, visitors, and staff. Medical research has shown that AAT/A brings about physiological signs of relaxation such as decreased blood pressure, heart rate, and respiratory rate. The members of our department who were lucky enough to get out of the operating room and cuddle with Lola would agree!

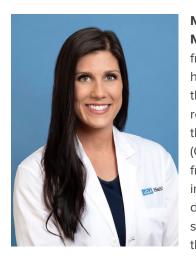




UCLA Nurse Anesthetists: Active, Cohesive Team On and Off the Job

By Shelly Anderson, MBA, MSNA, CRNA

We welcomed new talent with four nurse anesthetists joining us in September 2019, bringing our team to a total of 46.



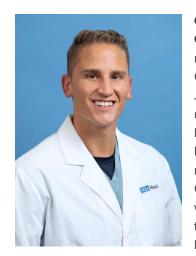
Mary Zavicar-Perry
MSN, CRNA, originally
from Detroit, Michigan,
has lived in Florida for
the past ten years. She
received her BSN from
the University of Michigan
(Go Blue!), and her MSNA
from Keiser University
in Naples, FL. Before
deciding on anesthesia,
she worked as a nurse in
the SICU for three years

and the MICU for two years. Mary is also a newlywed! She married on July 12, 2019, adding Perry to her last name. Mary's family includes a 12-year-old daughter named Ava Liselle, and a boxer/American bulldog, Rocco. Prior to her nursing career, Mary performed in an Eminem music video, interned at a radio station, and worked as a paramedical esthetician.

IMAGES, clockwise from top: Our holiday party

Liquid Run participants Mike Sliff, Jen Katsura, Rob Briel, Debbie Paris Teho, and Shelly Anderson

Rose Cheung, Lauren Fagan, Allie Goltermann, and Jacqui Becerra ran a 5k with babies!



Cody Houseman, MSN, CRNA, and his wife Kelsy moved from Columbus, Ohio, to Los Angeles in June. He completed his undergraduate studies at Mount Carmel College of Nursing in Columbus and received his MSN from Otterbein University. Cody worked in the CVICU for two years prior to starting his nurse anesthesia

program, and served six years in the United States Marine Corps in the military police. Kelsy, also a nurse, works for Santa Monica-Malibu Unified School District as a school nurse. The couple are high-school sweethearts – they have been together for ten years and married for seven, and they welcomed their first child, Nellie Cruz Houseman, on December 29. (See Nellie's photo in our "Babies" feature!) Cody and his wife love to travel, eat, cook, and drink wine, and are enjoying life in LA!



Michael Sliff, MSN, CRNA, grew up in Hermosa
Beach, California. He
began his career working
in emergency and trauma
services. After ten years
of working as both a
staff nurse and charge
nurse at several hospitals
in southern California,
Michael completed
his MSN degree at the
Kaiser Permanente

School of Anesthesia. When he isn't working, he enjoys snowboarding, riding his motorcycle, spearfishing, hiking, and almost anything else outdoors. (See a photo of Mike's constant canine companion, Stella, in our "Pets" feature!)



Ralph Cabrera, MSNA,
CRNA, hails originally from
Sterling Heights, Michigan.
He received his BSN at
the University of Detroit
Mercy. His seven years of
ICU experience includes
the SICU at Henry Ford
Hospital in Detroit, CedarsSinai Medical Center in
the Neuro-Trauma ICU,
and UCLA in the ICU Float
Pool. Ralph received his

MSNA degree at National University and worked as a nurse anesthetist at Valley Presbyterian Hospital before joining UCLA. Outside of work, he likes to stay active, discover new restaurants, and relax at the beach.

The growth of our team is a direct reflection of the growth of the Department of Anesthesia. We are able to deliver leading-edge patient care, research, and education throughout the various UCLA clinical sites. Nurse anesthetists continue to teach campus-wide courses throughout the year in airway management, pharmacology, mock codes, and conscious sedation. UCLA is a clinical site for two local schools of nurse anesthesia, and some of our staff members teach at the

schools as well. The Kaiser and USC Schools of Nurse Anesthesia have increased their numbers of students rotating at our Westwood and Santa Monica sites. Gena Dix, CRNA, recently presented "Going Green in the OR" to students at the Kaiser School of Nurse Anesthesia.

As our group gets larger, it's essential to maintain a positive and supportive work culture. Our collection of individuals becomes a strong, cohesive team by building relationships outside of work. We believe that teambuilding exercises allow us to get to know each other on a personal level and find it satisfying to interact socially. Building trust outside of the OR gives us better ability to depend on each other inside the OR. We organized a WhatsApp group chat to allow anyone to post an idea for an activity and easily share information regarding the event. The platform helps us stay connected and active.

This past summer, we worked together on a white-water rafting excursion on the Kern River in Kernville. Nothing says trust like pulling a team member out of the river back into the boat after hitting rough rapids! In September, we participated in a floating obstacle course, The Liquid Run, in Newport Beach, CA. This is a team race that requires helping each other over slippery obstacles. In December, we celebrated our annual holiday party hosted by Rob Briel, CRNA. We met the latest additions to our growing family – the newborns. (See photos in our "Babies" feature!)

We continue to find ways to support UCLA values to ensure Integrity, Compassion, Respect, Teamwork, Excellence and Discovery in the work we do daily. We look forward to continued growth in the new year, and interactive opportunities to support each other as well as the department.

Editor's note: Four members of the nurse anesthetist team – Jacqui Becerra, Rose Cheung, Lauren Fagan, and Allie Goltermann – ran in the Santa Monica-Venice 5K Christmas run. They finished in last place, but all four were running with extra weight – their babies! Ms. Fagan reports that all of them had a great time. She notes, "Jenna Dobling, CRNA, also ran in this race but is not pictured because she's a ROCKSTAR and finished in 8th place for the 10K!"

Administrative Staff Updates

By Shevaughn Marchese

essyka Delgado joined the Education Office as a Medical Student Education Coordinator. Jessyka's favorite hobby is traveling. She recently visited Paris and London, and has traveled to New York, Seattle, Yosemite, Mazatlán, Puerto Vallarta, and San Francisco. She plans an annual birthday trip, following her motto to 'celebrate life while we are here', and has the city of Chicago planned for her next adventure, followed by Italy later in the year. She also enjoys the outdoors, camping, and attending concerts.



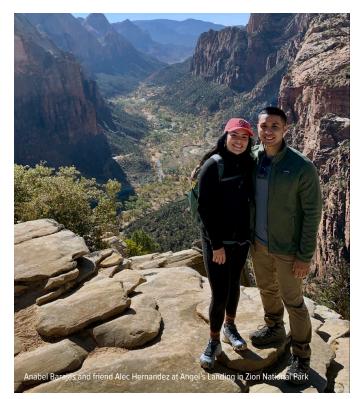


Susan Kim was appointed Assistant Fellowship Coordinator. Susan joined the Education Office as a student worker and previously coordinated medical student courses. She loves traveling and trying out new food spots during her free time. She is an aspiring plant mom and hopes to 'grow' her houseplant collection in the new year.



Our Fellowship Programs
Coordinator, Lucine
Torosian, was promoted
to manager. Lucine
enjoys problem solving
and continuous process
improvement utilizing Lean
Six Sigma methodologies.

Academic Personnel Coordinator **Anabel Barajas** is now full time. Anabel first joined the department as a student worker and has been on staff since 2018.





For the fourth consecutive year, the administrative staff joined the Division of Molecular Medicine for a Halloween Pumpkin Carving Contest. The annual event was cohosted by Stephanie Fisher, our Chief Administrative Officer, Carla Gonzalez, Assistant to the Chair, and Laura Benscoter, supervisor of the Business Office. Ms. Fisher gifts each staff member a pumpkin and hosts a friendly

contest, complete with an awards ceremony. Each year, the Vondriska Laboratory dominates the competition! Manuel Rosa-Garrido, PhD, of the Vondriska Lab, and Kathy Good, of the Administrative Office, pictured, were among the winners.









Our Weekend Warriors

ressed in scrubs, they look like typical, mild-mannered anesthesiologists. Some members of our department, however, lead (or have led) other lives outside of work as accomplished athletes. There may be others whose secret identities as serious athletes are unknown as yet, and there are probably many others who do sports just for fun. We'll keep digging. For now, we present:

Drew Cheng, MD, one of our attending anesthesiologists, specializes in medical informatics and is a member of our Division of Bioinformatics. In his off-duty time, Dr. Cheng is a certified rifle and pistol instructor, a range safety officer, and an instructor in armed home and personal defense. He's planning to get shotgun certification and

start participating in competitive shooting events with the International Defensive Pistol Association. On weekends, Dr. Cheng volunteers as a firearms safety and basic marksmanship instructor for a local training organization.



Our Weekend Warriors

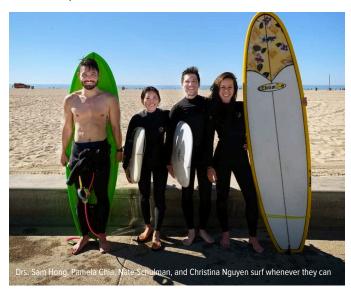


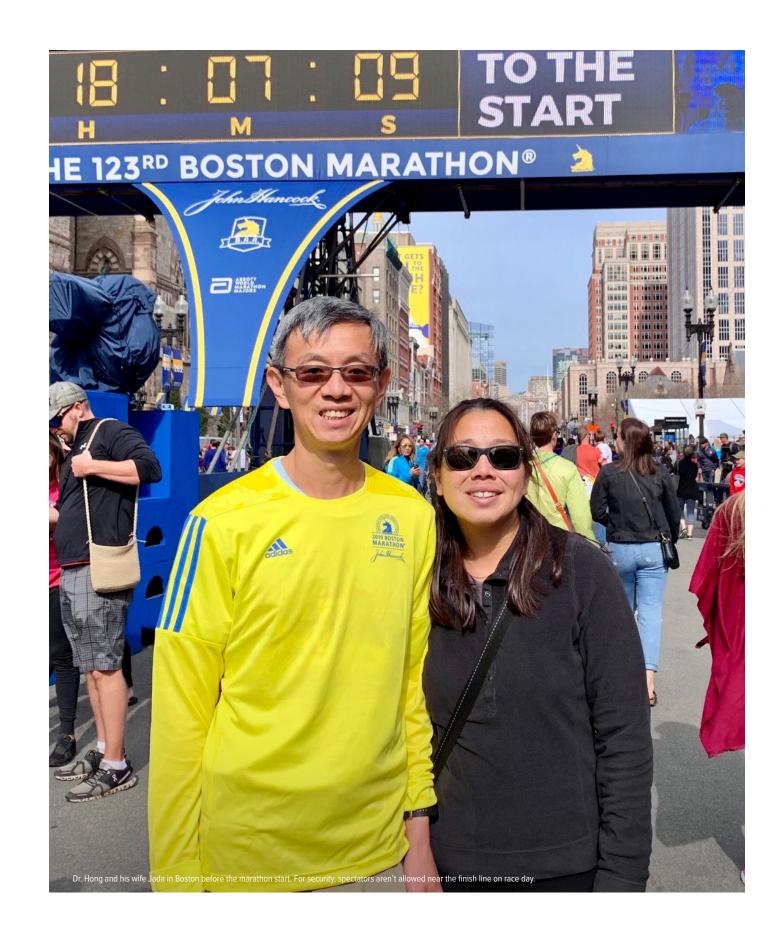
Reed Harvey, MD, specializes in cardiothoracic anesthesiology. However, he didn't proceed to medical school straight out of college. As a star baseball pitcher at Emory University, Dr. Harvey was named the 2003 Southern Region Most Valuable Player, and played three seasons of minor league baseball after graduation. In 2004, he signed a free-agent minor league contract with the Houston Astros, and went to spring training with the team in Florida. He also played for the Allentown Ambassadors, Winnipeg Goldeyes, and the Long Beach Armada.

"I had a great time," Dr. Harvey says, "but eventually ran out of talent and decided to apply to medical school." Heading back to Emory for his medical degree, he continued to play baseball on the weekends until he injured his elbow and had to give up the sport for good. Today, he's a huge Dodgers fan, and loves watching and going to games.

"Opening Day of the major league season is my favorite day of the year," he reminisces. "I love the feeling of the

beginning of spring and the weather warming up, and it has strong emotional and memory ties for me to baseball. Baseball was a huge part of life and my personality, and a lot of my past memories with family and friends revolve around baseball games and trips. I don't really play anymore, but still really love the game. I do miss it a lot when I stop to think about it."





With characteristic humility, **Joe Hong, MD**, our Director of Neuroanesthesia, was reluctant to talk about his talent as a long-distance runner. "I feel somewhat silly about self-promoting my amateur exploits," he says. But Dr. Hong in fact has run in seven marathons, logging a personal-best time of 3:14:35 in the 2017 LA Marathon. That achievement, along with a time of 3:15:16 in the 2018 LA Marathon, qualified him to run in the Boston Marathon in 2019.

Dr. Hong recalls that he started running after residency in 2006, and then began running more seriously in 2010 when his children started running cross-country and distance track in high school. "The kids needed running buddies on their weekend long runs," he says.

Life as an anesthesiologist doesn't allow Dr. Hong to run every day, but he says the advantage is that he gets adequate time off in between runs and minimizes injuries. He averages nearly eight miles per run, with an average pace of 7:26 per mile, and during the off-season he averages about 30 miles per week. "In preparation for marathon season, I'll go up to about 45 miles per week," Dr. Hong says.

How does he find the time? "How do we find time for anything?" Dr. Hong asked in reply. "You only live once. The journey is long, and the life is short. Based on this logic, the only solution is to hurry."

The problem of "hitting the wall" during a marathon intrigues Dr. Hong from a medical perspective. "I don't think the running or scientific community truly know (or at least I don't know) what 'hitting the wall' is caused by physiologically," he says. The most common or accepted explanation is running out of an easily accessible source

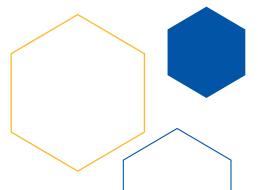




of fuel or glycogen. Carbohydrate-loading before the run and continued fueling with carbohydrate-rich sports drinks are key, he believes. So is high-mileage training to improve VO2-Max.

"I think there is also a supratentorial wall," Dr. Hong says.

"This 'wall' is overcome by grit and mental toughness" that comes with working long hours under pressure as an anesthesiologist. "Lastly, when I start having doubts, I have faith that my God will continue to help me overcome yet another 'wall' as He has done countless times in my life."





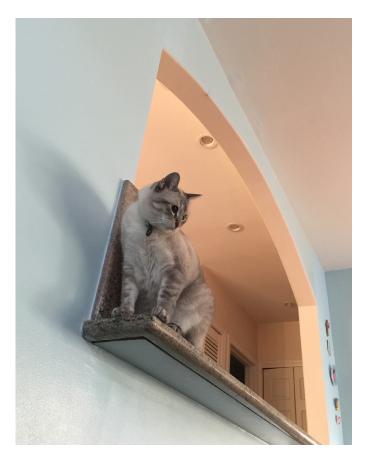


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James, born Oct. 21

9. Jacqui Becerra, CRNA, and her husband, Gabe, enjoyed their first Christmas with son Aiden

After a Long Day (or Night) at Work, It's Great To Come Home To Our Pets!









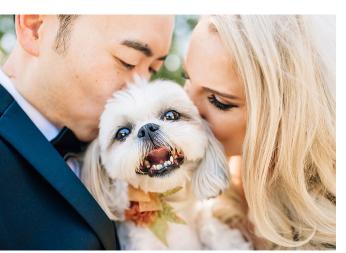
















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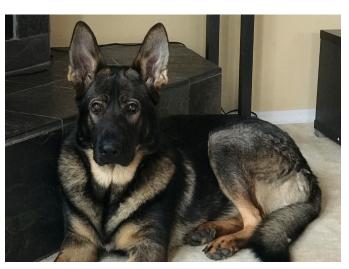
- 1. Blue's birds-eye view (Jure Marijic)
- 2. Buster, age 5, Maltese and shih-tzu mix (Jonathan Jahr)
- **3.** Byron, age 1+, a Philadelphia stray of uncertain lineage (rescued by Karen Sibert's son Thomas)
- **4.** Caicos, a 5-year-old mixed-breed "Caribbean potcake" (Rescued from Turks and Caicos by Christopher Wray)
- 5. Dexter, a 10-year-old border collie (Debbie Paris Teho)
- 6. Cookie, a 15-year-old Ilasa-apso and poodle mix (Ana Armenta)
- 7. Chase sees a bug at the kitchen window (Karen Sibert)

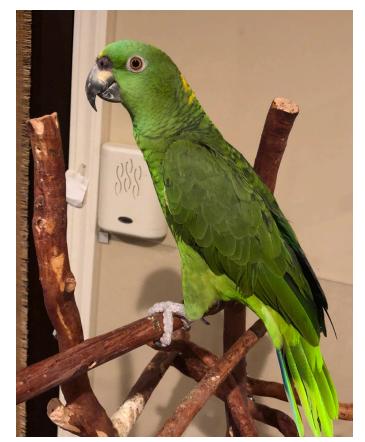
Above, clockwise from top left

- 1. Frank, a 1-year-old Aussiedoodle (Talia Dagher)
- 2. Hugo, a 2-year-old shiba inu (Dane Saksa)
- 3. Lexi Lu, an 8-year-old shih tzu (Simson Wang)
- **4.** Pishi, 12-year-old Russian blue with "cattitude" (Laleh Jalilian)
- **5.** Maverick, 14, and Bella, 12, wearing their finest to serve as ring bearer and flower girl in Lauren Beck's wedding!

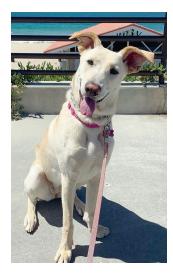














IMAGES, clockwise from top left

- **1.** Snickerdoodle, a 1-year-old golden doodle (Christopher Little)
- 2. Tessa, 3 years old (Ariea Davani))
- 4. Splash, age 2 1/2, Old English sheepdog, with toys (Ali Salehi)
- 5. Stella, a 2-year-old shepherd mix, loves the beach, hikes, and skateboarding
- **6.** Sevo, a 2-year-old golden retriever (with Brent Ershoff)
- 7. Rocky, a 10-month-old German Shepherd and a native of the Czech Republic, already weighs 95 lbs (Carolyn Malhotra)



Celebrating the Holidays High

Above the 405

ur department gathered together after work on December 13, together with the Department of Surgery, for a lovely holiday celebration on the top floor of the Hotel Angeleno with its panoramic view. Everyone enjoyed an excellent dinner buffet, enthusiastic conversation, and the pleasure of being high above the headlights and taillights of the rush-hour traffic on the 405 freeway. Many thanks to Stephanie Fisher, Carla Gonzalez, and all the staff who helped coordinate a memorable event.

(Photography by Rick Schmitt)





























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Thank you!

