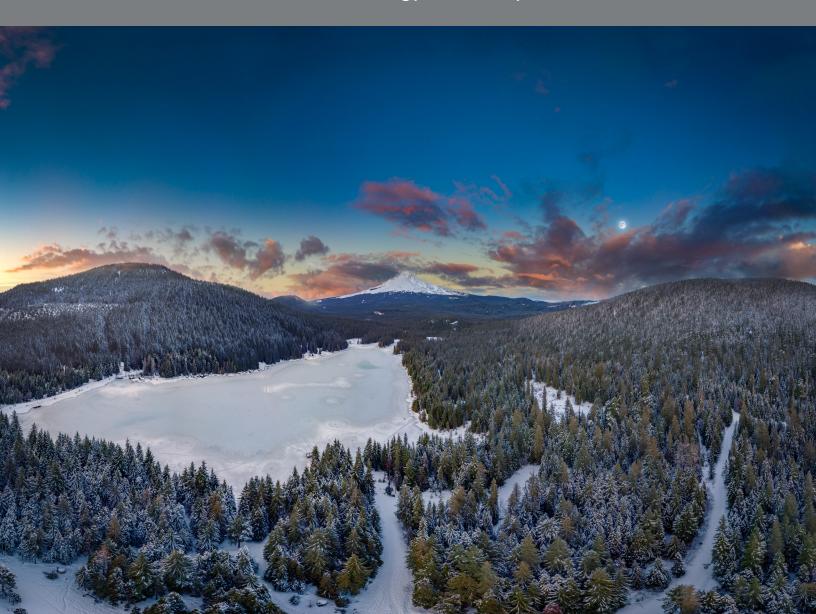


APOM NEVVSLETTER

A Newsletter for OHSU Anesthesiology and Perioperative Medicine



Excellence is embedded in our work



Stephen Robinson, M.D.

PROFESSOR AND INTERIM CHAIR, ANESTHESIOLOGY AND PERIOPERATIVE MEDICINE

Dear Readers,

It is my pleasure to share with you our winter issue featuring the latest accomplishments of our amazing APOM members.

Improving our communications, both internally and externally, is one of our departmental goals. I am thrilled to introduce Mariana Phipps, who we share with the Dean's Office, as our Communications Specialist. She is working closely with us as APOM continues to grow. Did you know that in 2019, we had the pleasure of welcoming 57 new members?

Our clinical area has been delivering the highest quality care. These are a few highlights:

- Our Comprehensive Pain Service, led by Kim Mauer, continues to provide its unique service to the entire community. It is on the cusp of further expansion throughout the metro region.
- Our Pediatric Service, is leading our expansion of Anesthesia services to Hillsboro Medical Center (previously Tuality Hospital). Dr. Jeff Koh and the members of this team can now provide their outstanding care beyond the Marquam Hill Campus.
- Dr. Mike Aziz has done a fantastic job leading our growing Adult Service:
 - » The Inpatient Service is the core of delivering quaternary care in support of the healthcare system.
 - » Our successful opening of the Center for Health & Healing 2 (CHH2) positions us as national innovators in managing ambulatory patients. Thank you to Dr. Bob Cross and Dr. Mary Blanchette for their tireless contributions towards making this so successful.
 - » Under Dr. Emily Guimaraes' leadership, our non-OR Anesthesia Service (NORA) represents our most rapid growth, where we provide care for some of the most challenging patients in our system.
- Our ICU teams have led the way in the expansion of ECMO and telemedicine services. A special thank you to Drs. Matthias Merkel, Marshall Lee, Miko Enomoto, and Ines Koerner for their highly skilled leadership.



Dr. Robinson recognized Joan Cossey for her significant contributions to the Department of Anesthesiology and Perioperative Medicine upon her retirement. Joan worked at OHSU for more than 34 years; more than two decades of that was in APOM.

Our research practice continues to thrive. Dr. Selva Baltan has joined us as the Vice Chair of Basic Science Research and Dr. Brandon Togioka has ably stepped up into the role of Medical Director of Clinical Research. Brandon's paper on increasing utilization of epidurals for Hispanic patients gave APOM our second cover image on the premier journal Anesthesiology in the same year!

Our education team restructured the resident education experience by consolidating all didactic and direct teaching to Wednesday afternoons. Thank you to Drs. Dawn Dillman and Leila Zuo for making this happen. The restructure allows for more focused learning for residents, both within and across classes. This was made possible by the extra clinical effort put forth by the faculty MDs and CRNAs. Also, we welcomed our first cohort of ACGME accredited regional anesthesia and acute pain medicine fellows. Thank you Dr. Glenn Woodworth for your initiative.

We provide significant leadership to OHSU. Dr. Derick Du Vivier was appointed interim Vice President for Equity and Inclusion for OHSU and was recently elected co-chair of the Oregon Health Policy Board's Health Equity Committee.

We are building an updated and more durable scheduling and compensation system. These complex projects, led by Heather Parks-Huitron and Dr. Mike Aziz, place us on the leading edge of the larger OHSU process for updating the university compensation structure. This is just one example of how APOM is playing an essential role in the University OHSU 2025 strategic plan.

It is my honor to be the Interim Chair for such a fantastic group. Everyone's commitment to excellence and each other has never been greater. We are caring, innovative, and resilient. We have built a proud legacy and are positioned to create an even greater future.

Stephen Robinson



RESIDENTS

APOM Celebrates Chief Residents

We applaud Dr. Viviana Ruiz Barros and Dr. Samantha Go for their appointments!

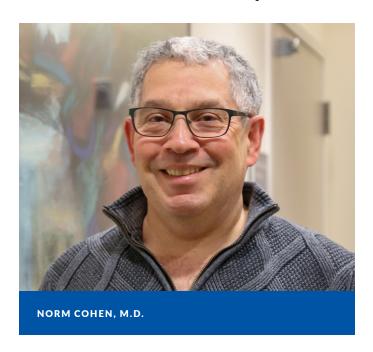
Dr. Ruiz Barros has served as Chief Resident since April of 2019 and Dr. Go has served as Associate Chief Resident. Our Oregon Scholars Program, Critical Care Medicine Chief is Dr. Christopher Dukatz, while Dr. Yifan Xu serves as Chief for the OSP Clinical Scientist program. APOM's Chief Residents were selected by their resident colleagues and teaching faculty.

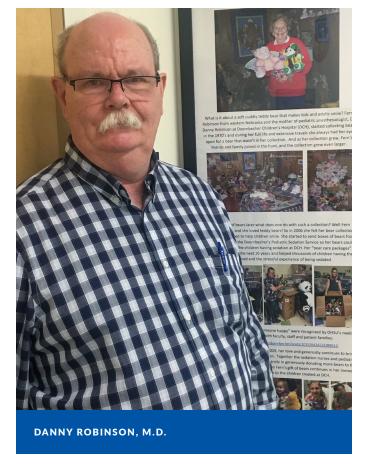
Dr. Ruiz Barros was attracted to APOM for its reputation of being leaders in the specialty. She admires the department's emphasis on diversity of opinions and missions and believes those values live in our program. OHSU's APOM is one of the few programs in the nation that has a focus on diversity initiatives. Dr. Ruiz Barros reflects, "[APOM] helps us develop into well-rounded physicians. In getting us [residents] to feel very prepared for what is coming not only clinically, but with critical thinking."

As her residency graduation is drawing near, she wishes for future and current residents to "learn to be the leaders in our residency and beyond." Dr. Ruiz Barros believes that APOM sets the foundation for these goals to become a reality.

Best wishes on your retirement!

APOM wishes a fond farewell and retirement to Dr. Norman Cohen, Dr. Danny Robinson, Xiao Nie and Joan Cossey. Thank you for your leadership, passion, commitment, service, hard work and optimism.







INTERNATIONAL MISSION

A trip for a few, impact for many

A flight from Portland to Houston and then on to Guatemala City, followed by a six-hour bus ride to Nuevo Progreso. This is what it took for a team of six OHSU APOM anesthesia providers to reach a rural part of southwest Guatemala.

Their 14-day trip included 8 full operating days at Hospital de la Familia. Today, Hospital de la Familia has a full-time staff caring for an average of 20,000 patients a year. Surgical teams from the U.S. regularly provide highly skilled surgical treatment and specialty care, performing over 1500 surgical operations every year.

Patients sometimes travel up to 18 hours by bus to come to this facility, in order to be evaluated by surgeons and anesthesiologists. Our team had the opportunity to provide high-quality anesthesia care to over 100 adult and pediatric patients undergoing a broad range of surgical procedures. Surgical procedures ranged from hernia repairs, cyst removals, cleft lip and palate procedures, scar revisions, and gall bladder removals. We also participated in ophthalmology procedures, including cataract removal in both adults and children with congenital cataracts.

"The perioperative area was a communal setting. It was an open space with beds, divided between men and women, but very much a community environment. The patients were talking and supporting each other and giving each other well wishes," said Emily Baird, M.D., Associate Professor and Residency Program Director.

Two members of APOM's team are bilingual, and patients felt very comfortable and connected to them. A handful of patients spoke a Mayan dialect and also spoke Spanish. Sometimes language is a real barrier, especially when interpreters are needed to translate from English to Spanish then to a local dialect, so simple terminology is commonly used.

"I am from a neighboring country, El Salvador to be specific, and it felt very heartwarming to be able to help this community," said Tomás Lazo, M.D., Assistant Professor and Assistant Residency Program Director.

"Caring for patients were the most beautiful part of the experience. A lot of them traveled long distances and waited in line to be seen in the clinic. Some were given an operating day and had to remain in the area for their surgery. On the day of the operation, they had to wait for their turn to be seen. We didn't hear a single person complain. Instead, we heard how grateful they were and how much they appreciated what we were doing for them. It was a beautiful thing to see," said Baird.

The team was provided with a list of supplies that the hospital had on hand. Our team put together a list of medications and equipment that were needed and sent it back to the hosting organization. OHSU APOM was able to obtain additional supplies that the hosting hospital was unable to procure. Some medications were transported in a refrigerated bag that was brought on the plane





and on the bus. An additional 26 boxes with medical supplies were transported by a truck that had cleared international customs.

"We knew each other really well and to share this experience together in Guatemala and return to Portland to continue to work together is really special. We are very thankful," said Baird.

"Various families documented their surgeries with photos. The amount of gratitude was so immense, we all left with more blessings than we can count," said Lazo.

About H.O.P.E

For some residents, the Humanitarian Overseas Physician Education (H.O.P.E.) trips are the highlight of their residency. The opportunity to care for these patients is transformative.

There is an incredible amount of preparation required for a trip to be successful. These volunteer medical missions involve traveling with a team from OHSU usually in conjunction with a Humanitarian Non-Government Organization (NGO) to a developing country where access to healthcare is generally limited.

Through the H.O.P.E. Program, the Department of Anesthesiology and Perioperative Medicine at OHSU provides anesthesiology residents, fellows and OHSU medical students the opportunity to participate in anesthesia care overseas, in a Less Developed Nation, under the supervision and mentorship of their faculty mentors.

Berklee Robins, M.D., Associate Professor of Anesthesiology and Pediatrics, OHSU School of Medicine has served as APOM's director of Global Health Education for the past decade.

"In many countries, there is a shortage of both surgeons and anesthesiologists. In some cases our teams provide basic surgical care to patients who would otherwise not have the opportunity to undergo needed surgical procedures. In other places, simple, basic surgeries are available, but not more complex cases," said Dr. Robins. "It is an incredible academic experience. The trips provide needed services to patients who would not otherwise receive them, while at the same time provide educational experiences, such as working in a different health care system, that is relatively resource poor. The residents learn how to use the clinical skills they have, in an operating room without all the technology and machines they are used to."

Dr. Robins is the heart and soul of this successful program. His commitment to increasing awareness of Global Health issues is an inspiration to many. We applaud this commitment as well as the efforts of Hillary Paasch, APOM Education Manager.

This unique experience is possible by the generous donations of friends, faculty and alumni of the Department. Bob and Mary Jane Stewart Endowment Fund, Betty B. Thompson Endowment Fund and Wendell C. Stevens Endowment fund support humanitarian trips for APOM trainees.

If you wish to make a gift, please go to bit.ly/2FNLlDv.



TELE-ICU

Bridging the gap of limited access to 24/7 care

The OHSU Tele-ICU program is a collaborative system among critical care units to improve clinical outcomes, reduce unnecessary transfers, and reduce the overall cost of care by using two-way audio/video communication systems with affiliated hospitals. OHSU intensivists developed the Tele-ICU program under the leadership of Dr. Marshall Lee.

Dr. Lee has demonstrated a passion for improving patient care, advancing our technological approach to medicine and providing the absolute best critical care. With his leadership and with an administrative partner in Devon Kelly, Associate Director of Clinical Operations, the Tele-ICU program was imminent.

Since the launch of the Tele-ICU program in November of 2018, the approach to critical care medicine through technology has evolved.

"Looking into the health system as a whole, currently ICU units work in silos. In the future, we can use

technology to incorporate and share the learnings and best practices with affiliated hospitals to raise the level of care given at all ICUs that are part of the program." Dr. Lee.

The Tele-ICU program will transition from being a reactive ICU to a virtual ICU. There is a collaboration among OHSU's Tele-ICU and GE Healthcare teams. They are developing a new product designed to utilize technology to activate patient monitoring through observing data from medical devices at bedside, all while being monitored by remote providers. They are currently testing the product and hoping to have a live integration by next year.

"The new program has the potential to be transformative in the field. We are trying to establish how we can learn to build a model to be sustainable and successful for the future," said Dr. Lee.

With an exciting road ahead, the Tele-ICU program has shown within a short period numerous examples of its impact inpatient care. Dr. Lee shared that one evening a patient walked into Tuality Hospital with shortness of breath and chest pains. The Tele-ICU intensivist on call was able to diagnose the patient as having a pulmonary embolus. Immediate care was established at Tuality Hospital and then the patient was transferred to OHSU. This is just one example of what a program like this can deliver.



Mission Control recently celebrated its 2nd anniversary reporting significant improvements.

The hospital placed more than 1,200 patients by fiscal year 2019, increasing access to Oregon's only academic health center for patients across the state, many from rural hospitals across the region. (L-R) Dr. Matthias Merkel, Dr. Miko Enomoto and Dr. Ines Koerner

MISSION CONTROL

OHSU Mission Control makes a real difference for patients

A modern command center that uses predictive analytics and a real-time data display has been monitoring patient flow across a four-hospital network, including OHSU Hospital and Doernbecher Children's Hospital, as well as partner hospitals OHSU Hillsboro Medical Center on the west and OHSU Adventist Health Portland on the east of Portland.

Dr. Matthias Merkel, OHSU Health chief medical capacity officer and professor and vice-chair of critical care in our department, is part of the senior leadership team of the command center has helped to bring the program to life. Two anesthesiology faculty members, Dr. Ines Koerner and Dr. Miko Enomoto, are part of the physician on duty team in mission control who support the daily operations. They provide medical triage and act as a physician to the interprofessional operations team in mission control.

The command center, which includes the OHSU Transfer Center, is staffed 24-7 by a team of nurses, physicians, transport coordinators and patient placement officers. When a patient needs care, the team references current data to find the best location — at the academic center or at our community hospitals — to match the patient's needs with resources across the system.

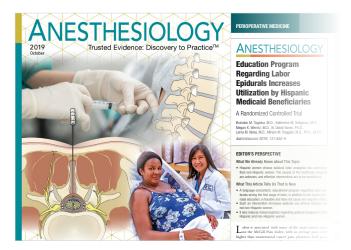
Patients enter OHSU every day in various ways and from different directions, explains Merkel. They arrive via ambulance, helicopter, car, taxi or bus, from home, community hospitals around the state or between OHSU clinics and units, such as the emergency department or operating rooms. Together, this represents a highly complex flow of patients.

"Our presence at Mission Control is a logical evolution of the role of an anesthesiologist outside of the operating room. We work within all these areas, and our skills are very flexible and adapt to various needs quickly," said Dr. Merkel.

Most hospitals are still coordinating patient bed flow by hand, and decisions are made at the unit level. Before implementing Mission Control, nurse leaders would meet every six hours or so to compare current bed counts and anticipated discharges. Between meet-ups, bed flow managers had to rely on a combination of in-person rounds, phone calls, pages and text messages to determine how many patients could be admitted.

The technology that makes Mission Control possible was created through a partnership with GE Healthcare. OHSU was the second hospital in the U.S. to bring this technology and analytics into daily hospital operations, and the first to coordinate care between separate hospitals, using the GE platform.

RESEARCH



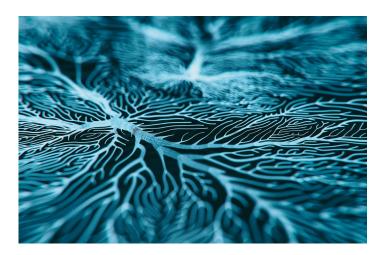
In the U.S., the use of epidural analgesia to manage labor pain is lower in Hispanic women representing a health care disparity.

Dr. Brandon Togioka's work in health care disparities research and novel applications for chloroprocaine in obstetric anesthesia was featured as the cover article in October's issue of *Anesthesiology*. His article focused on eliminating disparities related to labor pain relief in Hispanic parturients.

The fact that Hispanic women are choosing epidural labor analgesia less commonly than non-Hispanic women may represent a health care disparity related to a language barrier and inadequate opportunities for labor analgesia education. In his research, he hypothesized that a language-concordant, educational program regarding labor epidurals would improve epidural utilization in two independent cohorts of Hispanic and non-Hispanic women.

Results of his research show that an educational program increased epidural use among Hispanic women and reduced misconceptions regarding epidural analgesia in both Hispanic and non-Hispanic cohorts.

Dr. Togioka has two funded studies involving chloroprocaine. His clinical duties include overseeing anesthesia care for laboring mothers, fertility services, and the transgender surgery program.



APOM's Research Center

"Research is very prominent at APOM, which makes us very unique. While our work is diversified, we mostly focus on Neuroscience. Clinicians and basic science scientists are harbored at the Center to research neurological diseases like dementia, Alzheimer's disease, stroke, multiple sclerosis, and pain."

- Selva Baltan, M.D., Ph.D.

Dr. Baltan, Professor and Vice-Chair for Research of Anesthesiology and Perioperative Medicine (APOM), joined OHSU in 2019 and leads the department's Research Center.

The focus of her lab is on elucidating the mechanisms of protection and preconditioning conferred by Class I HDAC inhibition in young and aging white matter and the gene regulatory mechanisms underlying this protective phenomenon.

Their studies on the role of protein acetylation and mitochondrial dynamics in white matter stroke expands their findings to neurodegenerative diseases such as Multiple Sclerosis and Alzheimer 's disease that involve white matter.

The research in her lab is funded by multiple NIH grants.

The experimental approaches in her lab include optic nerve and corpus callosum slice models, employing electrophysiological recordings, and advanced microscopy techniques such as confocal, two-photon microscopy and 3D electron microscopy.









































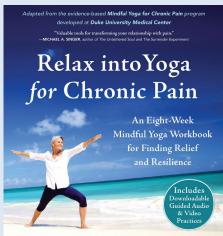








NEW BOOK



JIM CARSON, PHD KIMBERLY CARSON, MPH, C-IAYT CAROL KRUCOFF, C-IAYT Foreword by Lynn DeBar, PhD

Congratulations to Dr. Jim Carson, Ph.D. Psychologist on publishing his new book, Relax Into Yoga for Chronic Pain.

"Writing this book has been a labor of love, backed by our nearly 20 years of research into the therapeutic benefits of Mindful Yoga. We hope it will help the estimated one in three American adults who live in chronic pain, as well as the 20% of people worldwide who suffer persistent pain."



New faculty and staff

Physician Faculty *upcoming

Alexandra Golden, MD* Andrew Corcoran, MD* Ayonija Maheshwari, MD Carolyn Heeder, MD Dustin Carlson, MD Erin Conner, MD

Gabe Kleinman, MD Gregory Blair, MD Janos Geli, MD* Jeffrey Davis, MD Jennifer Vookles, MD* Jenny Chen, MD*

Joanna Olsen, MD Katherine Rog, MD Kathleen Coy, MD Kevin Blaine, MD Kristin Thompson, MD* Mark Enker, MD

Marya Leahy, MD Matthew Kelberg, MD Molly Anderson, APP Ryan Crowley, MD Sarah McConville, MD Sarang Biel, MD*

CRNA Faculty

Adrian Chu, CRNA Angel Bershaw, CRNA Callie Beckwith, CRNA Caroline Anderson, CRNA

Doug Bufkin, CRNA Gwen Nesselbeck, CRNA Jamie Vogl, CRNA Jolie Dietzen, CRNA

Kirstin Patrick, CRNA Marc Lucier, CRNA Matthew Bryant, CRNA Mikelle Adamczyk, CRNA Naomi Dimon, CRNA Robert Montgomery, CRNA Ryan Oliver, CRNA Sonja Sena-Cary, CRNA

ICU APP Faculty

Derek Bowers, Tuality Elizabeth Crawford, CVICU

Emmanuel Limon, CVICU Jarrod Hemmer, CVICU

Kaitlin Glaeser, Tuality Kelly Batte, NSICU

Matthew Dunn, Tuality

Research Faculty and Postdocs

Hung Nguyen, Postdoctoral Scholar

Minghui Chen, Postdoctoral Selva Baltan, MD, Ph.D.

CPC Providers

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Stephanie Hixson, RN

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Vincent Pinkert RESEARCH ASSISTANT

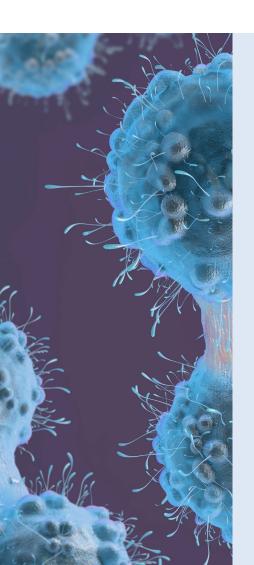
Yassin Said

PATIENT ACCESS SPECIALIST, CPC

Yuri Popovich MEDICAL ASSISTANT, CPC



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RESEARCH WEEK 2020

Submit an abstract today

Deadline: March 5, 11:59 p.m.

Intended for: OHSU faculty and learners

Research Week is a university-wide event that celebrates the excellence of research performed across all schools, centers, institutes and education programs at OHSU. It's a unique opportunity to get out of the lab or clinic and meet colleagues from various disciplines.