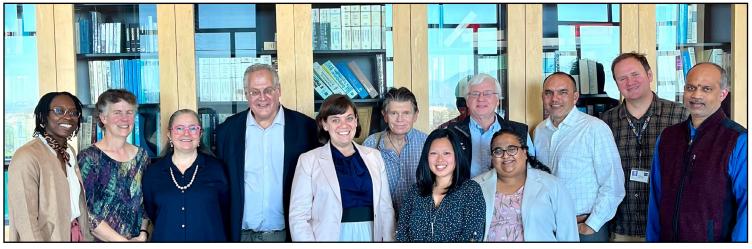


# UCSF Department of Medicine ZUCKERBERG SAN FRANCISCO GENERAL

# **Welcoming Two New Division Chiefs**



OECM faculty (left to right) with Division Manager: Rahmat Balogun, DO, Gina Solomon, MD (Chief), Suzaynn Schick, PhD, Michael Fischman, MD, Stephanie Holm, MD PhD, James Seward, MD, Serena Lee, Robert Kosnik, MD, Sheiphali Gandhi, MD, Timur Durrani, MD, Matt Gribble, PhD and Sandeep Guntur, MD.

With great pleasure, the ZSFG Department of Medicine welcomes two new Division Chiefs: Dr. Gina Solomon for the Division of Occupational, Environmental and Climate Medicine, and Dr. Delphine Tuot for the Division of Nephrology. They bring many years of caring for vulnerable populations, a passion for education, and energetic visions for the future to their new roles.

### Dr. Gina Solomon, Division of Occupational, Environmental and Climate Medicine

"We try to keep people safe and healthy in their workplaces, homes, and communities," said Gina Solomon, MD, MPH, Professor and recently appointed Chief of the Division of Occupational, Environmental and Climate Medicine (OECM). "We are very much a public health field, have an aggressive focus on prevention, and also provide diagnosis and treatment when needed."

The Division of OECM has a broad portfolio. It spans all three sites – ZSFG, UCSF Health, and the San Francisco Veteran Affairs Medical Center (SFVAMC). It includes Occupational Health Services at ZSFG, which provides medical screenings, vaccinations, and other job-related care for City and County of San Francisco (CCSF) employees and is led by Clinical Professor and Associate Chief for Clinical Services Timur Durrani, MD, MPH, MBA. The Division also helps ensure safety at CCSF worksites, such as the Port of San Francisco and Hetch Hetchy Reservoir in Yosemite National Park, which supplies water to San Francisco.

Beyond CCSF employees, the division also diagnoses and treats patients referred for exposures to hazardous waste, mold, pesticides, and other harmful substances. At the SFVAMC, they care for veterans with Gulf War syndrome and those exposed to Agent Orange and burn pits in Iraq and Afghanistan.

The division has a broad research portfolio, investigating the effects of wildfire smoke, climate change, contaminated drinking water, and many other harmful exposures. In partnership with UC Berkeley and UC Davis, the division offers an ACGME-accredited residency program.

#### Multifaceted Background

Dr. Solomon's career path has been as diverse as the division she now leads. After earning her medical degree from the Yale School of Medicine, she completed her primary care internal medicine residency at the Harvard program at Mount Auburn Hospital as well as her Master of Public Health degree and fellowship in Occupational and Environmental Medicine at the Harvard School of Public Health.

She became interested in occupational and environmental medicine during training, when she saw a pregnant patient who was exposed to a







chemical at work. "I went scurrying off to research it and was shocked to find there was almost no information available," said Dr. Solomon. "Although this chemical was so prevalent, it hadn't been tested, and nobody knew much about it. The woman had a stillbirth, likely due to her exposure. I was appalled, but also energized to do something about it."

While interviewing for academic positions, she saw a job posting for a senior scientist at the Natural Resources Defense Council (NRDC) in San Francisco. "I thought, 'That would be so fun to do for a year or two," said Dr. Solomon. After getting the job, she reached out to colleagues at UCSF. "They were super welcoming, and said, 'Do you want to teach and see patients? We'd love to have you affiliated with our clinical faculty," she recalled.



Gina Solomon, MD, MPH

During her 15 years at

NRDC, she assessed children's exposure to diesel exhaust inside school buses, responded to the aftermath of Hurricane Katrina, and studied the health effects of the 2010 Deepwater Horizon BP oil spill. She also saw patients at UCSF, ZSFG, and Mount Zion, directed the UCSF Occupational and Environmental Medicine Residency Program for four years, and served as Associate Director of the UCSF Pediatric Environmental Health Specialty Unit.

Dr. Solomon was then appointed by Governor Jerry Brown as Deputy Secretary for Science and Health for the California Environmental Protection Agency. Later, she served as a principal investigator at the Public Health Institute in Oakland. She studied drinking water contaminants resulting from the 2018 Camp Fire and led efforts to develop air filtration systems to protect Central Valley farmworkers from exposure to air pollution and wildfire smoke in their homes.

#### **Opportunities for Growth**

Part of what inspired Dr. Solomon to apply for the OECM division chief position was the addition of climate medicine to the division's portfolio. "Bob Wachter, Chair of the Department of Medicine,

recognized that climate change is the biggest existential threat to health we face today," she said. "It makes sense to have that as part of our division since we were already working on environmental medicine."

As new Division Chief, Dr. Solomon plans to build out three major areas, including climate and

health. "There is already a ton of work on climate change going on at UCSF across all divisions," she said. "It's a very exciting time to be working on this topic. We want to forge collaborations, bring in more resources, and create models that show what can be done. I'm a big proponent of intervention research – things that can help people survive and be healthy."

Another area of focus is the Center for Oceans and Human Health, led by Jeff Feldpausch, Director of the Resource Protection Division for the sovereign Sitka Tribe of Alaska, and Matthew Gribble, PhD, Associate Chief for Research

for the Division of OECM, who serves as the center's Co-Director. In addition to working on issues related to climate change and health facing Alaskan coastal tribes, the center will investigate ways to support health in coastal communities and among those who make their living along the California coast.

The third area is vulnerable workers. "There's a huge, often undocumented immigrant workforce in California, including farmworkers and others," said Dr. Solomon. For example, the East Bay is home to many shops where young men cut and sand artificial stone slabs into kitchen countertops. "These countertops are practically indestructible, and come in any color you want," she said. "But they're made of pure crystalline silica held together by resin, and workers are exposed to crazy amounts of silica dust. Some have required double lung transplants, and others died from acute silicosis."

Led by Assistant Professor Sheiphali Gandhi, MD, MPH, the division recently obtained funding to create the Northern California Silicosis Network. Building on their seminal research, they are starting to provide community outreach, clinical care to affected patients, and help with reporting

exposures. The network may eventually use its findings to address this health hazard through legislation. "This is just one example of how we're trying to provide vulnerable workers with resources, knowledge and education, and to make a difference in people's lives," said Dr. Solomon.

The division's residency program attracts an interdisciplinary cohort, and many trainees have already completed residencies in other areas of medicine. "Our residents learn to work effectively with labor unions, employers, lawyers, policymakers, allied health professionals and communities," said Dr. Solomon. In addition to rotations in traditional clinical settings, residents make site visits to a wide range of workplaces, such as Genentech, the Chevron refinery, a borax mine in the California desert, and many more. "We get people into communities so they understand what workers do and what they're exposed to," said Dr. Solomon. Trainees also learn how to take a detailed occupational and environmental history, and what follow-up questions to ask about possible exposures.

Dr. Solomon is enthusiastic about new tools in her field, such as novel ways to evaluate exposure to chemicals, heat stress, and air pollution, better technology to mitigate heat exposure, and new ways to measure biomarkers of exposure and disease outcomes. She also sees possibilities for AI, such as how it could lessen the paperwork burden associated with Worker's Compensation reporting. After being on UCSF faculty for over 25 years, Dr. Solomon is delighted to work here full-time. "Everyone has been welcoming, interested in what our division does, and eager to collaborate," she said. "Especially at ZSFG, people are humble, mission-oriented, and really care about the community."

## Dr. Delphine Tuot, Division of Nephrology

The kidney is an amazing organ: its superpowers include filtering waste products and extra fluid out of the bloodstream, maintaining a healthy balance of salts and minerals in the body, and helping regulate blood pressure. Unfortunately, chronic kidney disease (CKD) affects more than 35 million adults, and only about 10 percent know of their condition, according to the Centers for Disease Control and Prevention.

Delphine Tuot, MD, MAS, recently appointed Chief of the ZSFG Division of Nephrology, has





devoted her career to improving kidney health. "As a ZSFG nephrologist for many years, I really care about early chronic kidney disease management," she said. "Much of my research has focused on how to deliver that care at the population level." She has worked to strengthen partnerships between primary and specialty care to identify and treat patients earlier in their disease. That not only keeps them healthier for longer but also increases the availability of dialysis and kidney transplants for those who progress to end-stage kidney disease.

Dr. Tuot earned her medical degree from McGill University in Montreal, then completed her internal medicine residency, nephrology fellowship, and master's degree in clinical research at UCSF. She joined the ZSFG faculty in 2011 and served as Interim Chief of the ZSFG Division of Nephrology from 2022 until she was appointed as Chief earlier this year.

#### **Leveraging Tools for Population Health**

As Associate Chief Medical Officer for Specialty Care and Diagnostics since 2019, Dr. Tuot has helped broaden access to specialty care, including nephrology. For example, she has helped guide the implementation of the eConsult program, which provides primary care physicians with expert, timely guidance from specialists from many fields via a robust electronic interface. This tool is especially important for safety net systems like ZSFG and the San Francisco Department of Public Health (SFDPH), where demand for nephrology care outstrips supply.

Since the 2019 rollout of Epic, the electronic health record system, Dr. Tuot has helped make the most of this new tool. For example, she and her colleagues made it possible for

hospital and clinic doctors to reach each other's notes in Epic, supporting better continuity of care. She now wants to use Epic to better predict each patient's risk of developing kidney disease. This information could guide the recommended timing for transitioning patients from the general nephrology clinic to the Renal Plus Clinic, which focuses on patients with advanced kidney disease. She also hopes to create a registry of all patients with kidney disease across SFDPH to optimize their care.



Delphine Tuot, MD, MAS

This is particularly important for ZSFG's patient population. "Individuals with low socioeconomic status, as well as racial and ethnic minorities, face greater adversities in social determinants of health and have more kidney disease," said Dr. Tuot. Based on modeling, she and her colleagues believe that about half of Bay Area patients with diabetes and hypertension have not yet been diagnosed with CKD. "It's a huge opportunity," she said.

The good news is that in the last decade, effective new medications have become available that slow the progression not only of CKD but also cardiovascular disease – two conditions that often develop in tandem. "Medi-Cal is actually really generous with approving these medicines that are key to cardiovascular and kidney health," said Dr. Tuot. "The trick is identifying those who would benefit, and working with their primary care physician, advanced practitioners and Street



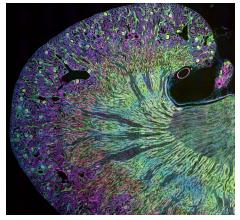
Nephrology Team with the new Division Chief - August 2024 (left to right): Serena Loya, Eleanor Fabro, Ashley Andres, Betsy Boyce, Amy Lee, Anna Yau, Jessica Portillo-Carreto, Delphine Tuot, MD (Chief), Ramin Sam, MD, Mitra Jamshidian, MD, Siyong Zhou and Amanda Gong.



Medicine staff to deliver those medications in a way that makes sense." For example, to reduce the pill burden for patients who take multiple medications, she encourages her colleagues to try prescribing combination pills, which combine two or more prescriptions into a single pill.

#### Vision for the Future

She is excited to grow her division in several key areas, including women's health. "Many of our patients come from racial and ethnic minority populations and are disproportionately affected by disorders such as hypertension, which often presents during pregnancy as preeclampsia," said Dr. Tuot. "We have a really strong obstetrics department, and I'd like to grow our partnership with them."



UCSF Photo library. Photo Credit: Torsten Wittmann

Another promising area is investigating the role of genetics in nephrology. "If you'd asked me a decade ago, I would have said there were very few monogenic (caused by a single gene) disorders in adult nephrology," said Dr. Tuot. "We've found that is no longer true, due to new discoveries. Genetics plays a larger role in diagnosing and understanding the underlying causes of kidney disease, is a factor in family planning, and may help us develop future therapeutics. In order to do that you need a diverse patient pool. We have a really great, diverse population that we can merge with a clinical research program in genetics."

Dr. Tuot also wants to learn more about how social determinants of health impact kidney disease. "I hope to work with our colleagues at SFDPH to incorporate more social determinants of health into screening, and to partner with them to make an impact," she said.

Although the number of patients with CKD is gradually increasing, fewer trainees are entering nephrology. Dr. Tuot and her colleagues are working to change that by providing local high school students with early exposure to the field, doing outreach at UC Berkeley and other undergraduate programs, and providing engaging educational opportunities for medical students and internal medicine trainees.

She also looks forward to opening the new on-campus dialysis center, scheduled for 2025. Because it will be significantly larger and serve more patients, Dr. Tuot is excited to have space to pilot some new programs, such as offering onsite care from vascular surgeons who can provide care for patients' vascular access sites without requiring a separate trip. "Dialysis patients already have to come in three times a week, so it's very hard for them to come back for another appointment," said Dr. Tuot. "We'll be in a great position to pilot new models of care."

She appreciates the wonderful colleagues and mentors she's had at UCSF and ZSFG.

"Rosaly Ferrer is an amazing leader who brings individuals with disparate viewpoints but a shared goal together to move forward on a project. Beth Harleman was one of my residency mentors, and she always led with empathy first and helped people grow their passions. Neil Powe, my research mentor, has been a wonderful example of how to sponsor and mentor others, and encourages me to follow what's interesting, even if it's not always a straight path. I'm a detail-oriented person, and Alice Chen has helped me step back and see what my goals are. I've been really lucky to work with so many generous individuals, and it's a privilege to have the opportunity to pay that forward."

Dr. Tuot is enthusiastic about this next chapter for her division. "It's very rare to have a really strong Department of Public Health, a diverse patient population, a very mission-driven division, and the research resources and academic prowess of UCSF," she said. "That's a magical combination. With a little more TLC, sponsorship and mentorship, I really believe we can become one of the best public health divisions of nephrology."

Elizabeth Chur

Editors: Neil Powe, Jenny Fowler, Ali Cunningham

## **SPOTLIGHT**

#### Nominate your colleagues

2024 ZSFG DOM Staff Excellence Award nominations are due Friday, August 30th. Award categories include Patient Care, Administrative Service, Leadership and Research. Please reach out to Abraham Nelson (abraham.nelson@ucsf.edu) or Melody McLaughlin (melody.mclaughlin@ucsf.edu) with any questions.

#### Congratulations!

Katherine Brooks, MD, Meghana Gadgil, MD, MPH, Jennifer Mandal, MD, and Shelene Stine, MD, MPH were elected to the Haile T. Debas Academy of Medical Educators.

Timur Durrani, MD, MPH, MBA, was appointed the new Associate Chief for Clinical Services in the Division of Occupational, Environmental, and Climate Medicine (OECM) at UCSF and Medical Director at ZSFG Occupational Health Services.

Carolyn Hendrickson, MD, has been selected as a 2024-2025 Kaizen Promotion Office (KPO) fellow. The program aims to advance our mission by fostering a culture of problem-solving to improving the health of our patients and community.

Lusirena Morales, HIV, ID & Global Medicine, was featured in <u>UCSF Campus News</u>, sharing their story as part of the new Gender Recognition and Lived Name policy.

Isabel Rodriguez-Barraquer, MD, PhD, MHS received the UCSF Teri Leigler Young Scientist Award.

Leslie Suen, MD, MAS, General Internal Medicine, received the 2024 New Investigator/Educator Award from the Association for Multidisciplinary Education and Research in Substance use and Addiction (AMERSA).



