Division of Occupational, Environmental and Climate Medicine Annual Newsletter Winter-Spring 2024

CME 2024: Work and Environmental Respiratory Disease *and* Updates in Occupational and Environmental Medicine

REGISTER ONLINE NOW! https://virtualce.ucsf.edu/oem-update

The Division of Occupational, Environmental and Climate Medicine is gearing up for its upcoming Continuing Medical Education (CME) course in March 2024. This educational event will take place in San Francisco over two and a half days, beginning Thursday morning, March 7th and ending midday on Saturday, March 9th. There will also be a special poster abstract session and opening reception on the evening of Wednesday, March 6th, before the course lectures begin the next day. This year the venue is the San Francisco Marriott Fisherman's Wharf, which in addition to excellent meeting facilities, is attractively situated for out-of-town attendees.

The 2024 Occupational, Environmental and Climate Medicine CME course will include a thematic focus for the pre-course evening poster session and the first day of lecture presentations: Work and Environmental Respiratory Disease. The second day and last half day will cover multiple topics on the theme: Updates in Occupational and Environmental Health.

The presentations included in The Work and Environmental Respiratory Disease theme will include:

- The Lungs: A Historical Perspective
- The Occupational Burden of Non-Malignant Respiratory Disease
- Occupational and Environmental Cancer of the Thorax and Nasal System: What Have We Learned?
- Pneumoconiosis: The More Things Change....
- Keynote: Hypersensitivity Pneumonitis: An Unfolding Story
- Infectious Pneumonia as an Occupational Disease
- Idiopathic Pulmonary Fibrosis and Other Rare Fibrotic Lung Diseases of Unknown Cause Not so Idiopathic After All
- Climate Change and Respiratory Health: Heat, Wildfires, Air Pollution, and More
- Closing Panel: Work and Environmental Respiratory Disease What is the State of the Art?

Updates in Occupational and Environmental Medicine will include expert presentations on:

- The Intersection of Pediatrics and Occupational and Environmental Health
- Rhinitis and Sinusitis in the Workplace: What Does the Nose Really Know?
- Ambient and Workplace Air Pollution and the Heart
- Radiation Effects Across the Spectrum
- Keynote: Carbon Dioxide: Should We Rethink Its Toxicity?
- Taking a Military 'Occupational' and Environmental History
- Occupational COVID in Non-Clinical Workers Lessons for the Next Pandemic
- OEM Published Research: The Year in Review
- What Sports Medicine Can Teach Us About Occupational Injury
- Metals Toxicity: It's More than Lead, Mercury, and Arsenic
- Occupational Hepatitis: Chemical and Other Agents
- Closing Panel: Occupational and Environmental Health Where Do We Go from Here?

This course is designed to provide occupational and environmental health professionals and persons from other health-related disciplines with a review and update of current data in occupational and environmental medicine. It is intended to meet the needs of primary care providers and others engaged in occupational health practice and research including physicians (family physicians, general practitioners, internists, and emergency medicine specialists), nurse practitioners and other nursing professionals, as well as physician's assistants, industrial hygienists, and health researchers and policy makers. We are approved for a maximum of 17.75 hours of CME credit for standard certification (including medicine, nursing, and physician assistant CME) as well as for maintenance of certification (MOC Part II) credits in Occupational and Environmental Medicine, and for Qualified Medical Evaluators (QME) credits.



Work and Environmental Respiratory Disease and Updates in Occupational and Environmental Medicine



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- 1. UCSF Residents at the Tesla Gigafactory in Sparks, NV
- 2. UCSF Residents with faculty Jordan Rinker at SFO
- 3. UCSF Residents in the Siemens train manufacturing plant.

University of California, San Francisco Occupational and Environmental Medicine Residency Program

The University of California, San Francisco (UCSF) Occupational and Environmental Medicine (OEM) Residency Program, founded in 1979, is an integrated 2-year program designed to prepare physicians for occupational and environmental medicine practice and leadership roles. Graduates of the UCSF OEM Program are subject-matter experts with visibility in clinical, academic, governmental, non-governmental (including military), consulting, and corporate settings. The program is fully accredited by the Accreditation Council for Graduate Medical Education for up to ten trainees.

Generally, first year residents earn a Master of Public Health from the University of California, Berkeley School of Public Health while also engaging in weekly clinical activities as well as clinical rotations at the beginning and end of the academic year. The second year of the program focuses on a combination of clinical and non-clinical experiential rotations as well as research activities.

A key program that distinguishes UCSF OEM is the industrial hygiene site visit month in August (in each of the two years) which includes visiting a wide range of industrial and environmental locations in the greater San Francisco Bay Area and beyond. In 2023, residents completed 23 high-quality site visits including: Chevron Oil Refinery; NASA Ames Research Campus; the Petaluma Water Treatment Department; Sims Scrap Metal Recycling; Foster Farms Chicken Processing Plant; Cirque du Soleil; as well as Barrick Gold Mine and Tesla Giga Factory in Nevada. The residents observed and noted occupational and environmental hazards and the corresponding control measures and engaged in pre- and post-site briefings with faculty and other occupational specialists.

The residents and faculty members of the UCSF OEM Program represent a highly diverse group, both culturally and professionally. All come from various backgrounds and are pursuing different areas of interest within OEM. Each person brings their own individual experiences to enhance the educational experience of the group as a whole. To learn more about the program please click on the link to our 2019 video presentation https://youtu.be/Hqip9Skb-es.

Residents Graduating in December 2023

Ignacio "Nacho" Santana, MD, MPH received his undergraduate and medical training at Brown University in Providence, RI. Having grown up near Fresno, he returned to California to complete his internship at Kern Medical in Bakersfield and subsequently continued residency in Occupational and Environmental Medicine at UCSF. Now having obtained his MPH from UC Berkeley, he completes his OEM training with a particular interest in clinical occupational medicine. He is currently conducting research evaluating the effect of air pollution on the health of children living in the Central Valley of California.

Two-Year Residents Graduating in June 2024

Max Blumberg, MD, MPH received his BS in Physiology from McGill University in Montreal, Quebec, followed by his MD from SUNY Buffalo Jacobs School of Medicine in Buffalo, NY. He completed an Internal Medicine internship and one year of ophthalmology residency at Albany Medical College in Albany, NY. He then worked for the Erie County Department of Health in Buffalo managing COVID-19 vaccination and related outreach efforts before joining the UCSF OEM program. Now having obtained his MPH from UC Berkeley, he is completing his OEM training with a particular interest in medical center occupational health.

Shamil Jugnundan, MD, MPH was born in Durban, South Africa and immigrated to Canada with his family at age 8. He attended medical school at the Medical University of Americas in St.Kitts/Nevis, with the majority of his clinical rotations in NYC at Wyckoff Hospital (Brooklyn), where he completed his Internal Medicine residency. Wyckoff is a community hospital that has been on the front lines of the COVID-19 pandemic since 2020. Having a father who practices occupational medicine in Canada, Dr. Jugnundan has been exposed to the field of OEM from an early age. Shamil has recently finished his MPH from UC Berkeley and is now completing his final year of his OEM training.

Current Research Fellow

Margaret Murray, MD, MS, MPH is from Durham, North Carolina and obtained her undergraduate degree from Duke University. She went to medical school at Wake Forest University Baptist Medical Center and then completed a Master's of Global Health at Duke. She completed a family medicine residency at Eastern Virginia Medical Center in 2022 and is a member of ABFM and AAFP. She completed her first year in the UCSF OEM program and obtained her MPH from UC Berkeley in June 2023. Currently she is a research fellow on a yearlong training grant within the UCSF Pulmonary Department and aims to study how climate change has affected the respiratory health of California firefighters. She will return to finish her second year in the residency program starting in July 2024.

One-Year Residents Graduating in June 2024

Ali Firozabadi, MD, MPH grew up in Meybod, a major desert city in Yazd Province, Iran. He graduated from Iran University of Medical science (IUMS) in Tehran. He has several years of medical practice and leadership experience in primary care, inpatient medicine, and urgent/emergency care in rural- and small-community settings in Iran and Mississippi. He pursued residency training in Preventive Medicine at the University of Mississippi Medical Center. He also earned a Master of Public Health (MPH) in Epidemiology at the School of Population Health (SOPH), Jackson State University. Currently, he works as an STD/HIV clinical and epidemiologic physician for the Office of Health Officers at the Mississippi State Department of Health. His career interest is in clinical occupational medicine where he can enhance his clinical knowledge of diagnostic and management criteria for problems commonly encountered in daily occupational medicine practice.

Current First Year Resident

Rupesh Patel MD, PhD grew up in Chicago, Illinois. He obtained his undergraduate degree in biology and Spanish literature from Boston University. Subsequently, he obtained his MD from Northwestern University and his PhD in biology from Harvard University. He completed his intern year in internal medicine at Scripps Green Hospital. He is exploring his interests in occupational and environmental medicine this year while obtaining his MPH at UC Berkeley.

Incoming July 2024 Residents

John Bossalini, **DO** is a Former Flight Surgeon in the US Air Force. He is currently working in Occupational Medicine with Concentra. He is passionate about preventive lifestyle medicine which mirrors his hobbies of physical fitness and vegetarian cooking. When not working in medicine he likes to bake sourdough, do escape rooms with friends, explore/travel, and garden.

Aditya Rajan, MD, MPH grew up in the Dallas-Fort Worth area, completed medical school in Lubbock, TX, and completed an MPH and a General Preventive Medicine residency in Tyler, TX. His goal is to combine clinical occupational medicine with a population health and public health approach. Outside of his career, his interests include world history and cultures, cooking, swimming, traveling and spending time with friends and family. He has an avid interest in Chinese culture and is always working on improving his mandarin.

Somayeh Fahimnia, MD, MPH completed her medical training at the Zahedan University of Medical Sciences in Iran and practiced medicine for several years, serving both rural and urban underserved populations in Iran. She also practiced occupational medicine at a clinic serving petroleum industry employees. She came to the U.S. in 2014 and completed an MPH the following year at Mount Sinai in New York. She worked in different research settings overseeing clinical trials at Mount Sinai and at the National Institutes of Health for several years. Now she is completing her Internal Medicine residency training at Saint Barnebas Hospital in the Bronx, NY. She is excited about moving to San Francisco with her husband and son and training in OEM at UCSF.



Top to bottom:

- 5. UCSF Residents with faculty Dr. Stephanie Holm at the Jelly Belly factory.
- 6. UCSF Residents with faculty Dr. Dennis Shusterman at NASA Ames Wind Tunnel.
- 7. UCSF Residents with faculty Dr. Rich Cohen at Sims Scrap Metal Recycling.
- UCSF Residents and University of Utah Residents with Associate Program Director Dr. Bob Harrison at Barrick Gold Mine.

Welcoming our new Division Chief: Dr. Gina Solomon

Gina Solomon, M.D., M.P.H. started in December 2023 as the new Chief of Occupational, Environmental and Climate Medicine. She is no stranger to our Division, having been on our Clinical Faculty since 1998. During her many years of service to the Division, Dr. Solomon saw patients at the city workers clinic at San Francisco General Hospital; consulted and precepted our trainees at the multidisciplinary clinic at Mt Zion; established the first environmental health rotation for our residents at the Natural Resources Defense Council (NRDC); and helped establish and co-directed the **UCSF Pediatric Environmental Health Specialty** Unit (PEHSU) with Mark Miller, M.D., M.P.H. From 2008-2012, Dr. Solomon served as the Director of the UCSF OEM residency program, and since 2012 she has served on the Program Evaluation Committee and the Residency Advisory Committee for the OEM residency.



Dr. Solomon is a leader in environmental health, with expertise on health effects of air and water pollutants, toxic chemicals in consumer products, and climate change preparedness and response. She also has significant experience in occupational and environmental health policy. Until recently, she was the director of the Achieving Resilient Communities (ARC) project at the Public Health Institute. In this role she focused on implementation of strategies to enhance resilience of farmworker communities to climate-related challenges, including heat and wildfire smoke. At PHI, she conducted community-engaged applied public health research, intervention studies, and exposure science studies in multiple communities across California. She also conducted some of the first research on drinking water contamination after wildfires in response to the 2018 Camp Fire.

From 2012-2018, Dr. Solomon was an appointee of former Governor Jerry Brown, and served as the Deputy Secretary for Science and Health at the California Environmental Protection Agency (CalEPA). At CalEPA, she directed the Interagency Refinery Task Force to enhance the safety of workers and communities near California refineries, resulting in innovative policy changes that have since been replicated in Oregon and Washington. She was also instrumental in the creation of the CalEnviroScreen, an innovative environmental justice mapping tool, and she helped launch the California Safer Consumer Products Program. Dr. Solomon was a senior scientist at the Natural Resources Defense Council from 1996-2012 where she led the organization's responses to Hurricane Katrina and the Gulf oil spill. She has served on multiple boards and committees of the National Academies of Sciences, U.S. EPA, the National Toxicology Program, and other federal and state agencies.

Dr. Solomon studied comparative literature and received her B.A. at Brown; she received her M.D. from Yale, and completed internal medicine residency training at the Mount Auburn Hospital in Cambridge, MA. She received her M.P.H. and did her residency in OEM at Harvard. Originally a New Yorker, she thrives in the natural world in California, enjoying hiking, paddleboarding and kayaking when she manages to escape from work.

New Faculty Profile: Dr. Matthew Gribble

We are pleased to welcome Matthew Gribble, PhD, DABT, who joined our faculty as the inaugural Associate Chief for Research in Occupational, Environmental and Climate Medicine. Dr. Gribble is joining us from the University of Alabama at Birmingham School of Public Health, where he was a tenured Associate Professor of Epidemiology. Dr. Gribble is an environmental epidemiologist (PhD) and a Diplomate of the American Board of Toxicology (DABT). He is delighted to be coming home to California. Dr. Gribble's research on climate change impacts on toxic chemical exposures that contribute to health disparities includes field studies in Alaska, Colorado, and elsewhere. The Alaska work is primarily in partnership with Sitka Tribe of Alaska, a federally recognized sovereign Alaska Native Tribe; and the Colorado work is a community-engaged partnership with residents of the San Luis Valley in Colorado.



The Alaska work is focused on paralytic shellfish poisoning prevention, and the Colorado work is focused on drought influences on arsenic in drinking water and implications for cardiometabolic disease risks.

Dr. Gribble is also co-editor of a recently published textbook: *Oceans and Human Health: Opportunities & Impacts, 2nd Edition* (ISBN 9780323952279). Featuring contributions from more than 100 authors from multiple continents, this is a wide-ranging textbook that covers such topics as Nobel Prize discoveries based on marine organisms (Chapter 7), poisonings caused by harmful algal bloom toxins (Chapter 11), and plastic pollution in the Global South (Chapter 14).



The Center of Occupational & Environmental Health (COEH) promotes healthy workplaces and environments that protect workers and communities from occupational and environmental health hazards through teaching, research, and service. The COEH includes the Education and Research Center (ERC) funded by the National Institute for Occupational Safety and Health (NIOSH).

The Labor Occupational Health Program (LOHP) at UC Berkeley is the public service program of the COEH and the ERC with the goal of preventing illness and injury in the workplace and raising awareness of the social and economic costs of hazardous workplace conditions for individuals, communities, businesses, and the environment. The OEM residency, also funded in part through the ERC, includes an elective rotation option with LOHP. Combined with COEH's continuing education program, we offer a broad range of accredited courses for practicing health and safety professionals. Visit http://coeh.berkeley.edu for a complete list of continuing education opportunities.

Under the leadership of Director Dr. Carisa Harris, the COEH team has fostered a pipeline for occupational and environmental health practitioners and researchers with programs for high school students, paid internships for undergraduate students, tuition and stipend support for graduate students, and pilot research funds for early investigators. This past year COEH supported 12 undergraduate interns who were placed with a faculty research mentor for the summer. COEH also supported 43 trainees in occupational health including 21 master's students, 17 doctoral students, and 5 postdoctoral trainees. As part of COEH, the Continuing education program hosted 64 courses on various occupational health topics and the Labor and Occupational Health Program conducted health and safety training for over 3,000 vulnerable workers. COEH faculty and trainees are working on critical research topics including:

- Exposure and injury in poultry processing plant workers
- Wildfires and intentional biomass burning in California and preterm birth
- Depression, anxiety and PTSD in coal miners
- Suicide risk associated with job loss in the manufacturing industry
- Physical limitations of youth operating utility all-terrain vehicles in agricultural settings
- Hearing loss prevention for construction workers in indigenous communities

COEH is pleased to welcome Associate Director, Dr. Sadie Costello. Dr. Costello is an occupational epidemiologist and Associate Professor at the UC Berkeley School of Public Health. To find out more about upcoming webinars, skills workshops, continuing education courses, upcoming events, and the recent accomplishments of COEH students and faculty, please visit: <u>https://coeh.berkeley.edu</u>



Left to Right:

1. The California Legislature passes a bill mandating that the California Department of Industrial Relations, under the leadership of Director Don Vial, establish Occupational Health Centers in Northern and Southern California under contract with the University of California. UCB Professor Robert Spear is founding director of the Northern Center, which links Berkeley, San Francisco, and Davis.

2. Dr. John Balmes meets with Governor Jerry Brown at a past COEH gathering celebrating the anniversary of its founding.

Occupational and Environmental Medicine (OEM) Mount Zion Clinic Update

The UCSF OEM Clinic continues to be rooted in a faculty practice which has been operating for over 30 years. Our team of experts includes Board Certified physicians in occupational and environmental medicine, internal medicine, medical toxicology, occupational health nursing, physiotherapy, and industrial hygiene. The clinic provides specialty consultation to individuals and groups of workers who have had exposures to biological, chemical, and physical agents at the workplace or at home.

The OEM clinic provides leadership internally to the UCSF Health adult hospitals, UCSF Benioff Children's Hospitals, UCSF Fresno clinical staff, and ambulatory faculty practices in the design and execution of programs available to its health care workers for immunization review when starting work, for large scale programs such as immunization for influenza, SARS CoV-2, tuberculosis surveillance, hazardous drug surveillance, and medical clearance to wear a respirator, and for groups of workers with special assignments with highly infectious agents, such as Ebola and SARS CoV-2. During the COVID pandemic, the OEM clinic has participated in the policies and programs to screen, test, contact trace, and determine the sources of COVID infections in staff. The OEM medical team provides immediate access to care for health care workers when they have an exposure to blood borne pathogens, and for researchers when they have exposures from laboratory materials or research animals.

The OEM clinic's work for UCSF Health has been extended to biosafety issues in the UCSF research community. It provides immunization for infectious agents in research, monitors workers at a medical risk, and responds to exposures when they occur. These services have already been extended to affiliated researchers and now is being extended to external groups. Workers at the California Academy of Sciences are getting medical clearance, spirometry, and fit testing for wearing respirators.

The OEM clinic evaluates individuals following a chemical exposure at the workplace or at home including a baseline assessment with recommendations for follow up medical surveillance. It performs repeat assessments on groups of workers providing consistency in medical surveillance over time. Dr. Robert Harrison is the lead physician, working with Dr. Robert Kosnik, the Director of UCSF Occupational Health Services, with Dr. Rahmat Balogun, who is assistant Director, and with Dr. Sheiphali Gandhi, who is also certified in Pulmonary Medicine in addition to OEM. These clinicians are co-located at the same site.

The OEM clinic develops specific medical surveillance and assessment programs customized for hazards in a group of workers. It designed a fitness for duty surveillance program for the San Francisco marine pilots who climb on board all large ships entering the Bay, and then navigate the ship into the Bay until it is safely alongside its berth. The program is comprised of a medical surveillance assessment, which includes an agility test, toxicology screening for over-the-counter and prescription medications, and comprehensive medical examinations focused on the physical demands of their work as marine pilots and identification of previously unrecognized obstructive sleep apnea.



The clinic is conveniently located within the UCSF Mount Zion campus just north of Geary and west of Divisadero at 2330 Post Street, Suite 460. The clinic can be reached by telephone at 415.885.7580. Referrals are accepted from physicians, other licensed medical practitioners, attorneys, and selected self-referrals from individuals.

For a link to the clinic go to: <u>https://oem.ucsf.edu/patient-care</u>

ABOUT OEM

The Division of Occupational, Environmental and Climate Medicine, separately constituted at the UCSF Parnassus, Mount Zion, Zuckerberg San Francisco General Hospital, and San Francisco Veterans Affairs Health Care System campuses, is closely interlinked across all sites. It is internationally recognized as a center for research, training, and clinical care in its field. The mission of the Division of Occupational, **Environmental and Climate** Medicine at UCSF is to advance the field of occupational and environmental health through research, education, and service to patients and the community.

UPCOMING EVENTS

7:00am Thursday—Saturday, March 7th - 9th, 2024:

CME 2024: The Work and Environmental Respiratory Disease and Updates in Occupational and Environmental Medicine; poster abstract session Wednesday evening, March 6th, 6:30pm-8:30pm.

Course Chairs:

Paul Blanc, MD, MSPH; Samuel M. Goldman, MD, MPH; Robert Kosnik, MD, DIH; Rahmat Balogun, DO, MPH; Stephanie Holm, MD, MPH, PhD

To register: https://virtualce.ucsf.edu/oem-update

Noon, Thursday, March 14th, 2024:

The 31st annual Alice Hamilton lecture will take place as Department of Medicine Grand Rounds. Robert Cohen, MD, Professor of Medicine Northwestern University, Feinberg School of Medicine, Chicago, IL will speak on, "Dust in the Lungs, an Ancient Disease Still with Us - What Clinicians Face Today."





Since 2005, Kazan Law has been a proud sponsor of UCSF Division of Occupational, Environmental & Climate Medicine's Annual Seminar.

Kazan Law provides exceptional representation to mesothelioma victims exposed to industrial and cosmetic talc. We promote policies, legislation, and regulations to protect workers' health and safety, and salute OECM's achievements in advancing the field of occupational, environmental, and climate health.

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