Division of Occupational and Environmental Medicine (OEM) Annual Newsletter: Winter-Spring 2019

CME 2019: Vulnerable Workers and Communities at Environmental Risk, and Updates in Occupational and Environmental Medicine

REGISTER ONLINE NOW! http://www.ucsfcme.com/2019/MDM19N01/info.html

The Division of Occupational and Environmental Medicine is gearing up for its upcoming Continuing Medical Education (CME) course in March 2019. This educational event will take place in San Francisco over two and a half days, beginning Thursday morning, March 14th and ending midday on Saturday, March 16th. There will also be a special poster abstract session and opening reception on the evening of Wednesday March 13th, before the course lectures begin the next day. This year the venue has been changed to the San Francisco Marriot Fisherman's Wharf, which, in addition to excellent meeting facilities, is attractively situated for out-of-town attendees.

The 2019 Occupational and Environmental Medicine CME course will include a thematic focus for the pre-course evening poster session and the first day of lecture presentations: Vulnerable Workers and Communities at Environmental Risk. The second day and last half day will cover multiple topics on the theme: Updates in Occupational and Environmental Health.

The presentations included in *Vulnerable Workers and Communities at Environmental Risk* theme will include:

- The Vulnerable Worker: Notes from the Field
- How Medical Humanities Can Inform Our Thinking About Vulnerable Populations
- Lung Diseases, Miners, and Mining Communities: a Global Population at Risk
- Vulnerable Workers in New York City Workplace Hazards and Interacting Risk Factors
- Indigenous (Native) Latin American Immigrants: Among the Most Vulnerable Workers
- An Aging Population at Work and at Play Vocations, Avocations, and Hobbies
- Military Service is a Vulnerable Occupation: Lung Disease as a Paradigm
- Pediatric and Environmentally Exposed: Doubly Vulnerable

The closing panel for this themed day will be: *What Experience May Teach Us about Vulnerable Populations*.

The Updates in Occupational and Environmental Medicine will include expert presentations on a wide range of topics, including:

- Sports Medicine: What an Occupational Medicine Practitioner Should Consider?
- Volcanology for the Health Care Provider
- Dabs, Vapes, and Third-hand Smoke: an Update on Environmental Exposure to Tobacco and Marijuana
- Climate Change and Health in 2019
- Hazardous Metals: Emerging and Long-Standing Toxicants
- OEM Published Research: the Year in Review
- Occupational Dermatology in 2019 More Than Just Contact Dermatitis
- The Italian Mesothelioma Registry: Lessons Learned
- Innovation in Air Quality and Climate Change Mitigation Policies: the California Paradigm

The closing panel for the Updates theme will be: *What Are the Persistent or Emerging Problems in Occupational and Environmental Medicine?*

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 medicine 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 17.25 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.



University of California San Francisco



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Vulnerable Workers and Communities at Environmental Risk *and* Updates in Occupational and Environmental Medicine





INSIDE THIS ISSUE

Kaiser Permanente	2
Residency Reflection	4
Current OEM Residents	6
Incoming OEM Residents	6
Report from the COEH	7
Mt. Zion Clinic Update	7
Upcoming Events	8

Our Collaborations with Kaiser Permanente Occupational Health Care

The Kaiser Permanente Occupational Health Centers at Opera Plaza and Mission Bay are located in the heart of San Francisco and, combined, make up one of the largest occupational health centers managed by the Northern California Kaiser Permanente Occupational Health Program.

Since 1996, the OH Center has been treating patients for their workers' compensation care and environmental exposure concerns. Currently we have seven staff physicians with board certifications in Occupational and Environmental Medicine (OEM), Preventive Medicine and Internal Medicine that see patients daily at this high pace, large volume practice.

UCSF OEM residents have the opportunity to rotate though the OH Center clinic, where four of the seven physicians (Drs. Paul Johnson, Latifat Apatira, Sarah Janssen, and Christina Wang) are UCSF faculty members and/or former residents of the UCSF OEM program.

Typically, a single resident spends 4-6 weeks at the OH Center and becomes an integral member of our multidisciplinary team of medical assistants, on-site physical therapists, an acupuncturist and a nurse case manager. We have a very diverse patient population, about a third of whom do not speak English or speak English as a second language.

In addition to seeing our own injured Kaiser Permanente employees, the bulk of our patients are employed as laborers, home healthcare and hotel workers, City and County of San Francisco employees, federal or state employees, and educators.

Many of our patients hold multiple jobs and rely on the medical services we provide to recover safely and efficiently so they can get back to the work that sustains their livelihoods.

Residents are immersed in all aspects of our daily clinic life including urgent care for lacerations or eye injuries, management of musculoskeletal injuries (including joint injections), and employment pre-placement physical exams.

All of our physicians are involved in teaching and mentoring and spend a fair amount of time reviewing the musculoskeletal exam in particular so that the residents are proficient by the end of the rotation. In addition, residents who are interested can practice their suturing skills on pig's feet.

All residents are taught the basic requirements of the California workers' compensation system, the med-legal administration that directs work-injury medical care. Since we have ancillary care on-site, residents are given time to learn about non-physician roles that assist injured workers in their recovery and often experience what it is like to have physical therapy or acupuncture therapy on themselves!

Because we see our injured worker patients for follow-up visits every 1-3 weeks, the residents often have their own



1. Dr. Paul Johnson, Chief Physician, Kaiser Permanente Occupational Health Center San Francisco



2. Drs. Latifat Apatira, Sarah Janssen, Christina Wang and Abena Opoku at the Kaiser Permanente Opera Plaza Occupational Health Center

patients they follow in clinic. As such, residents have the opportunity to participate in continuity of care—potentially treating a single patient from the initial evaluation to discharge.

Continued from Page 2



3. Dr. Steven L. Wiesner Medical Director, KPOJ Workers' Compensation Services Regional Occupational Health, Northern California

4. Kaiser Permanente Occupational Health Center at the Opera Plaza The overarching goal of the Kaiser Permanente Opera Plaza rotation is to provide residents with supervised practice within an organized and comprehensive program of occupational health services and support them to achieve competency in the core clinical areas of patient care, medical knowledge, interpersonal skills, risk communication, practicebased learning and improvement, professionalism, and systems-based practice.

We emphasize practice-based learning and skills necessary for a successful clinical career, such as focused examinations, time management and disability management. Finally, Drs. Wang and Janssen also see patients through a sub-specialty Environmental Medicine practice and involve residents in those cases when they have the opportunity.

This service is for Kaiser Permanente health plan members who have non-industrial concerns about environmental exposures to substances such as heavy metals, volatile organic compounds, household chemicals, asbestos and mold.

In a separate UCSF OEM rotation, residents also typically spend 4 weeks at our Regional Offices in Oakland, California where they focus on quality improvement (QI).

The Northern California Kaiser Permanente On-the-Job (KPOJ) Occupational Health Service Line has developed specific clinical quality indicators to assist all KPOJ physicians in Northern California to maintain operational efficiency and continuous performance improvement gains.

Residents in this rotation learn about the delivery of occupational health services both from an employer and provider perspective. There is also an opportunity to learn about the research potential of a large electronic medical record database.

Residents work with Dr. Steve Wiesner and a team of telephonic nurse case managers to support physicians with the clinical and administrative aspects of workers' compensation claims. Several residents have been able to consult on cases they saw in OH Center at Opera Plaza, exposing them to both the clinical and administrative aspects of workers' compensation claims.

To gain experience in QI projects, residents are encouraged to initiate a project focused on one of the practice areas within the KPOJ Occupational Health Service Line, such as assisting physicians in meeting regulatory requirements, analyzing outcome measurements, and meeting customer service expectations.

At the end of the rotation, residents better understand how to apply evidence-based medicine principles to document a treatment plan consistent with the requirements of the State of California Workers' Compensation benefit system.

In addition, the Regional Office offers educational courses for newly employed physicians on workers' compensation care and occupational health services. The residents are also invited to attend these classes, which cover basic concepts in workers' compensation such as insurance coverage, benefit categories, and the claims process, including the role of the treating physician, utilization standards and review, and medical provider networks.

Occupational health classes cover topics such as preplacement exams, the POST exam for law enforcement, and DMV/ DOT exams for commercial drivers. Other classes address guidelines for prescribing opioids and other drugs in the MTUS, determination of maximal medical improvement and impairment ratings.

In summary, the Kaiser Permanente Occupational Health Centers and Regional Offices provide comprehensive, high quality occupational-related injury and illness care to local companies, county, state and federal employees. We appreciate the opportunity to participate in the education of the next generation of Occupational Health physicians for success in this unique field of medicine.



Top to Bottom:

1. Program Director Dr. Paul Blanc and experienced industrial hygienist Patty Quinlan with residents at the C&H Sugar Refinery.

2. Residents strike a pose after learning about an environmentally conscious indoor marijuana grow operation.

3. Faculty with residents at Robert Mondavi Winery, exploring the risks of commercial wine making and distribution.

4. Safety first at the American Brass and Iron (AB&I) Foundry in Oakland.

Occupational and Environmental Medicine Residency: Reflections by Senior Resident, Ben Schanker, MD, MBA, MPH

The world of healthcare is changing. New technologies are emerging, but patients and vulnerable workers continue to require the assistance of well-trained physicians. As I reflect on my past two years in the UCSF Occupational and Environmental Medicine (OEM) Residency, I am reminded of the diversity of training opportunities that drew me to this program.

It was not only the broad range of training sites but the various faculty members with expansive research interests that compelled me to want to train here at UCSF. Although it's one of the largest programs in the country, Dr. Paul Blanc, the Program Director, has always been in regular communication to help guide the development of strengths and improvement in areas of weakness.

From the very first continuity clinic with Associate Program Director, Dr. Bob Harrison, I started seeing patients with complex environmental exposures. Toxic mold, heavy metals, volatile organic compounds, pesticides, and carbon monoxide are just a few of the diverse patient cases from which I continue to learn. My first rotation was a newly created one with program alumnus and Associate Professor, Dr. Rupa Das, at the Zenith Workers' Compensation Insurance Company.

There we explored a variety of complex cases with injured workers, and I started my education on the legal intricacies of the Workers' Compensation system in California. Most memorable was a site visit to an agricultural farm and packing plant, where together with an industrial hygienist, we went to the source to observe the worksite, and to advise on injury prevention in the workplace.

Next up was a string of months at the Veterans Administration working with program alumnus and Associate Professor, Dr. Sandeep Guntur at the Veterans Affairs Compensation and Pension program. There I learned of veterans' wartime toxic exposures, and how to complete disability evaluations, with appreciation of military service to the country. The months that followed have been filled with enriched rotations engaging with diverse faculty members across the bay area, many who are themselves UCSF alumni.

I have had the chance to see patients at Kaiser Permanente Opera Plaza with Drs. Sarah Janssen, Latifat Apatira, and Christina Wang, all program graduates, together with clinical faculty member and Chief Dr. Paul Johnson; work with Drs. Roman Kownacki and Steve Wiesner at Kaiser Permanente Oakland administration; explore the Division of Workers' Compensation and see police officers for regulated physicals with Dr. Ray Meister, also a program alumnus.

I have also seen a real-world Public Health Medical Officer in action at the California Department of Public Health with Dr. Bob Harrison; have worked with Dr. Mark Miller in the Pediatric Environmental Health Specialty Unit; and have seen UCSF employee health from a leadership perspective with Dr. Bob Kosnik.

These rotations and so many others exemplify the breadth and depth of not only the residency rotations, but of the faculty members who give so generously of their time to help educate myself and other residents.

Continued from Page 4

Although some residents enter Berkeley for the MPH in their first year of the program, educational opportunities still abound for those who enter the program having previously completed an MPH. A toxicology course led by Dr. Sam Goldman brought all first-year residents together, with lectures in this past year featuring faculty members Drs. Durrani, Shusterman, Balmes, Solomon, Rutchik, Fischman, Born, and more

Later in the academic year, a biennial course led by Division Chief Dr. Paul Blanc and Assistant Professor Sandra Domeraki, merged residents together with occupational health nurses-in-training to explore the Management of Clinical Occupational Health Problems through case-based learning.

Together with Grand Rounds, Clinical Rounds, journal clubs, and resident clinical case noon conferences, it's hard to find a more diverse educational curriculum anywhere else, especially one that's enriched with such a breadth of faculty members.

Over the month of August (in both first and second OEM Residency years), I had the good fortune to participate with my resident colleagues in our annual industrial field site visits, where we learn first-hand the realities of workplace hazards. The program follows a two-year curriculum to avoid any individual resident from repeating visits (though some sites are well-worth repeating!).

While the totality of sites is far too extensive to list individually, highlights from this past year include: the sweet smell of molasses at the much anticipated California & Hawaii (C&H) Sugar Factory; a police boat ride under the Golden Gate Bridge with the SFPD; and the blast of wind in the world's largest wind tunnel at NASA Ames Research Center.

Other highlights include a walkthrough of Sense Grown, an environmentally conscious marijuana grow operation; and the heat of the furnaces at the American Brass and Iron (AB&I) Foundry. Near the end of the August program, following a site visit at Robert Mondavi's winery, we had a wonderful lunch at the home and vineyard of program alumnus Dr. Rick Martin

Overall, residency training has been a blessing. Early on as a physician-intraining, it became clear to me that work in an occupation constitutes a necessary foundation for people to thrive in society.

But it wasn't until I arrived and had a chance to work with faculty that I realized the true importance of such dedicated advocates working in Occupational and Environmental Medicine. The "aha moment" of residency for me was during clinic one day, hearing Dr. Bob Harrison refer to the Workers' Compensation system as a "social safety net" for vulnerable populations

It was then that I internalized a powerful sentiment at the core of Occupational and Environmental Medicine. Not only is it important to be proactive in preventing occupational and environmental illnesses, but often we must provide care for injured workers in their times of greatest need and vulnerability. Surrounded by amazing faculty and educators, I endeavor to continue emulating mentors in thought and action throughout my career.

Best regards,

Ben Schanker, MD, MBA, MPH Senior Resident UCSF Occupational and Environmental Medicine Residency Program



5. Residents get a fresh look at the processing of spinach and salads at a produce packaging facility in Salinas, CA.

6. A hands on experience for residents at the Environmental Protection Agency (EPA) Warehouse in San Francisco.

7. Aerospace and human performance experts explain the dynamics of wind in the world's largest wind tunnel at NASA's Ames Research Center.

8. Posting for a group photo while taking a stroll in the rooftop park above one of Facebook's buildings in Menlo Park.



12. Residents of past, present, and future having lunch with Associate Program Director, Dr. Bob Harrison at the 2018 OEM CME in Fisherman's Wharf.

Our current OEM Residents

Four residents will be graduating this year:

Dr. Sammy Almashat, MD, MPH joined the program in the Spring of 2017, having worked in the Health Research Group NGO in Washington, DC and already holding an MPH boarded in Preventive Medicine. He will be graduating at the end of March, 2018. Three others will be graduating in June.

Dr. Joshua Potocko did his undergraduate training at Annapolis, has his MD from the University of Colorado, and holds an MS in neuroscience. After a transitional year at Naval Medical Center San Diego, Josh had been serving as a Navy medical officer prior to coming to UCSF and will be returning to Navy active duty upon completion of our program.

Dr. Myles Cope holds an MD from the University of Kentucky with a transitional internship year followed by ten months of Rehabilitation Medicine at Jefferson in Philadelphia. Myles took time off from medicine before coming to UCSF to engage in an aggressive program of winter sports rehabilitation addressing his paraplegia, the result of a work-related trench cave-in.

Dr. Benjamin Schanker, whose OEM residency experience is summarized above, completed his MD at Harvard Medical School and holds an MPH from Johns Hopkins and an MBA from Oxford before coming to UCSF. Both Myles' and Ben's plans post-residency are evolving.

There are also four residents who newly joined the program this past July.

Dr. Sarah Johnson has her undergraduate training from Johns Hopkins University and her MD from the University of Illinois Chicago (UIC) College of Medicine. She continued at UIC to complete two years of training in general surgery before coming to OEM, a career choice influenced in part by her interval experience as a Medical Review Officer.

Dr. Nnena Okoye also received her medical education at UIC (following undergraduate training at Tufts). She completed her internship year with the Adena Health System (Chillicothe, Ohio), including elective time at NIOSH in Cincinnati before joining the UCSF OEM Residency.

Dr. Michael Shahbaz was an undergraduate at UC Davis and then completed an MPH at San Jose State University before his MD at Michigan State University. His internship year was in OBGYN (Sunrise Health, Las Vegas) prior to joining our OEM residency.

Dr. Nate Clapp is a U.S. Navy Veteran already specialty trained in Family Medicine, along with additional graduate training in Emergency and Disaster Management and with more than a decade of military clinical experience prior to joining our program.

Incoming OEM Residents

In 2019, we are looking forward to five new residents joining the program after another extremely successful national match:

Dr. Chloe Chen has her MD and MBA from the Stanford University School of Medicine (undergrad at Duke University) and completed her internship year at Highland Hospital in Oakland

Dr. Mathew Kiok completed his MD at Louisiana State University School of Medicine (undergraduate at Tulane University) and is just completing his internship year.

Dr. Sheiphali Gandhi, already fully trained in Internal Medicine (at the University of Minnesota, also including an additional year as a Global Health Chief Resident) will be completing her Pulmonary and Critical Fellowship at Northwestern University just before joining our training program. Her fellowship included work at the UIC Black Lung Center of Excellence.

Finally, two of the three Navy physicians granted civilian residency positions nationally have selected UCSF OEM for their training following previous Navy internship years:

Dr. Anthony Pacini (MD from Loma Linda University School of Medicine) and **Dr. Darren Hall** (D.O. from the Arizona College of Osteopathic Medicine). Both completed transitional internship training years at the Naval Medical Center San Diego. All five new residents will be attending the UC Berkeley School of Public Health as part of their Residency. Our 2019-2020 cohort of nine OEM Residents continues to make the UCSF program one of the largest in the United States.

Report from the COEH

Over the last year, the students and faculty of COEH have worked hard to advance knowledge and promote health and safety in our workplaces and communities. Some highlights include:

- Our prior STEER (Short Term Educational Experiences for Research) Intern, Vivian Dinh Nguyen, won best conference presentation at the University of Utah NORA Conference in March. She teamed up with prior resident Dr. Abdullah Khafagy and mentor Dr. Carisa Harris to study Cardiovascular Strain in Hotel Room Cleaners. Dr. Khafagy is now a Clinical Faculty Member at Umm Al-Qura University in Saudi Arabia and Vivian is a 1st year medical student at St Louis University.
- Dr. Rhamat Balogun, a prior alumna of the UCSF OEM Residency Program, is now a part of the COEH Faculty. She serves as an Assistant Professor of Medicine at UCSF.
- Several hundred people attended Continuing Education Courses including in person and online continuing education opportunities.
- There is now a 6 course online ergonomics course series intended to support high levels of practice and facilitate board certification among practicing ergonomists. The series concludes with a 3-Day In person Skills Workshop.

Looking ahead to 2019:

On January 25th & 26th, COEH will host a 2-day Lela Morris Symposium and COEH Get Together at UC Berkeley. The first day entitled "A Case for Occupational Health Policies in California" will discuss the process, implementation and evaluation of occupational health policies.

This year we have over 34 courses, symposiums, webinars and workshops to provide the latest and greatest knowledge to all stakeholders engaged in occupational and environmental health. Join us for:

- Monthly Webinar Series on a potpourri of occupational and environmental health topics
- · Monthly Ergonomic Webinar Series hosted by participating NIOSH ERCs
- Symposiums and Social Gatherings

To find out more about the recent accomplishments of COEH students and faculty and upcoming events, please visit <u>http://coeh.berkeley.edu.</u>

About COEH

Occupational Safety and health (NIOSH). The ERC's Academic programs include: Occupational and Environmental Medicine, Occupational and Environmental Health Nursing, Industrial Hygiene, Occupational Epidemiology, Ergonomics, and Agricultural Health and Safety. Graduate students from all the programs can participate in a Targeted Research Training program to assist them in completing their research. The Labor Occupational Health Program (LOHP) is the public service program of the COEH 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. COEH's continuing education program offers a broad range of accredited courses for practicing health and safety professionals.

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 27 years. Our team of experts includes Board Certified physicians in occupational and environmental 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, children's hospital, 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, tuberculosis surveillance, and medical clearance to wear a respirator, and for groups of workers with special assignments with highly infectious agents, such as Ebola. 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 the 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. As an example, the OEM clinic provides the Department of Transportation examinations to individuals and groups of workers.

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.

ABOUT OEM

The Division of Occupational & Environmental 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. It has achieved national and international recognition as a center for research, training, and clinical care in its field.

The mission of the Division of Occupational & Environmental 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

Thursday—Saturday, March 14th-16th, 2019:

CME 2019: "Vulnerable Workers and Communities at Environmental Risk and Updates in Occupational and Environmental Medicine" Poster abstract session to be held Wednesday evening, March 13th.

Course Chairs: Paul D. Blanc, MD, MSPH; Samuel M. Goldman, MD, MPH; Robert Kosnik, MD, DIH;

To register: http://www.ucsfcme.com/2019/MDM19N01/info.html

Thursday, April 25 2019:

Alice Hamilton Lecture: "Climate and Health: Hurricane Maria as a Case Study"

Presented by **Dr. Lynn R. Goldman, MD., M.P.H, M.S**, Michael and Lori Milken Dean of Public Health Milken Institute of School of Public Health The George Washington University Washington, DC

For more information: https://oem.ucsf.edu/about-us/alice-hamilton-lecture

