UCSF Department of Medicine

Division of Occupational, Environmental, and Climate Medicine

OECM Spring 2025 Newsletter

Content and news at a Glance

Los Angeles Fires: OECM in Action

picture below: Altadena house fire

In January, multiple wildfires tore through the Los Angeles area. The fires killed at least 29 people, forced more than 200,000 to evacuate, and destroyed more than 18,000 homes and structures.

The two largest fires, the Eaton Fire in Altadena and the Palisades Fire in Pacific Palisades are anticipated to be the second and third-most destructive fires in California history. Many of us in OECM have family, friends, and colleagues in the areas affected by the fire. At least one of our staff was forced to evacuate from his home.

In the immediate aftermath of the fires we received emails and calls from the media, health care providers in the LA area, local community groups, and members of the public. The early calls included questions about air quality, air filtration, appropriate masks, and other actions people could take to reduce their exposure to wildfire smoke. Over subsequent weeks, the questions shifted to focus on ash, debris, indoor contamination, and potential contamination of drinking water.

Our Division houses the Western States Pediatric Environmental Health Specialty Unit (WS PEHSU). The PEHSU offers a phone number and email address where people can ask questions relevant to children's environmental health; many calls and emails came to us through that resource. Those interested in learning more about the effects of wildfire smoke on children and families can get free CME through the PEHSU's "Sofia's Story", an engaging illustrated module that is full of useful information on wildfires and health.

Media coverage quoting our faculty included stories on ash and on drinking water in the Los Angeles Times, and a more in-depth piece on environmental impacts of the LA fires in EHS Daily Advisor. Dr. Gina Solomon also appeared on multiple Webinars discussing the fires, including ones hosted by the Coalition for Clean Air, EarthJustice, and Private Medical. She also spoke on the first Webinar of a series hosted by the University of California's Center for Climate, Health and Equity, titled "Urban Wildfires: State of the Evidence of the Los Angeles Wildfires and How to protect Your Health and Well-Being".

Dr. Suzaynn Schick, an expert on third-hand smoke in our Division, flew to Altadena 2 weeks after the fire to collect environmental samples from inside homes that survived 5 blocks or less from the burn. She collected surface wipes and samples of dust and cloth. She also invited people in the burn zone to send her cloth that was exposed to the air in their homes during the fire for analysis. At this point we have dozens of samples. We have preliminary analyses donated by the UCSF Department of Laboratory Medicine and the California Department of Public Health and are actively seeking funding to support this important research, which is critical to advancing our understanding of contaminants in homes that remain standing after nearby fires. There are major controversies as to the extent of clean-up required to make homes inhabitable after they have been tainted by smoke, and Dr. Schick's research will be a major help for advancing that effort. Please contact us if you are potentially interested in contributing to this effort and to our ongoing response to the aftermath of the LA fires.

Research Spotlight: The PULSE project

pictured below: Dr. Carisa Harris-Adamson's lab and factory workers

Led by co-investigators Carisa Harris-Adamson and Robert Harrison, UCSF OECM and UC Berkeley faculty and students helped to implement and complete two large studies of poultry and swine processing workers in January 2025. The US Department of Agriculture (USDA) Food Safety and Inspection Service (FSIS) had contracted with the UCSF research team to study the impact of

evisceration line speed on the risk of acute and chronic work-related musculoskeletal disorders (MSDs) and antimicrobial-related respiratory exposure. The UCSF studies were among the largest ever performed among workers in the animal processing and meatpacking industry, where the risk of MSDs has been well recognized for many decades.

Between November 2023 and April 2024, the team enrolled 1,047 poultry processing establishment workers at eleven establishments operating at evisceration line speeds between 140 and 175 birds per minute (BPM). The study team conducted surveys and medical interviews and took measurements of ergonomic exposures and airborne peracetic acid (PAA) concentrations.

The study team also conducted a study of swine processing establishment workers between July 2024 and January 2025. The study team enrolled 574 workers and conducted surveys, medical interviews, and measurements of ergonomic exposure and airborne peracetic acid (PAA) concentrations at six establishments.

Key findings for the poultry processing establishment study

- 81% of workers were at increased risk of musculoskeletal disorders across all establishments.
- Musculoskeletal disorder risk was greater among workers who worked at a higher piece rate, a job-level measure of work pace.
- Models indicate that reducing piece rate, by increasing job-specific staffing or decreasing job-specific line speed, may reduce musculoskeletal disorder risk for workers.
- 40% of workers across all establishments reported experiencing moderate to severe work-related pain during the past 12 months. Such pain was not reported more frequently at establishments with higher evisceration line speeds.
- Peracetic acid (PAA) airborne exposures in one in five jobs sampled across all establishments exceeded the ACGIH Short Term Exposure Limit (STEL) of 0.4 ppm.

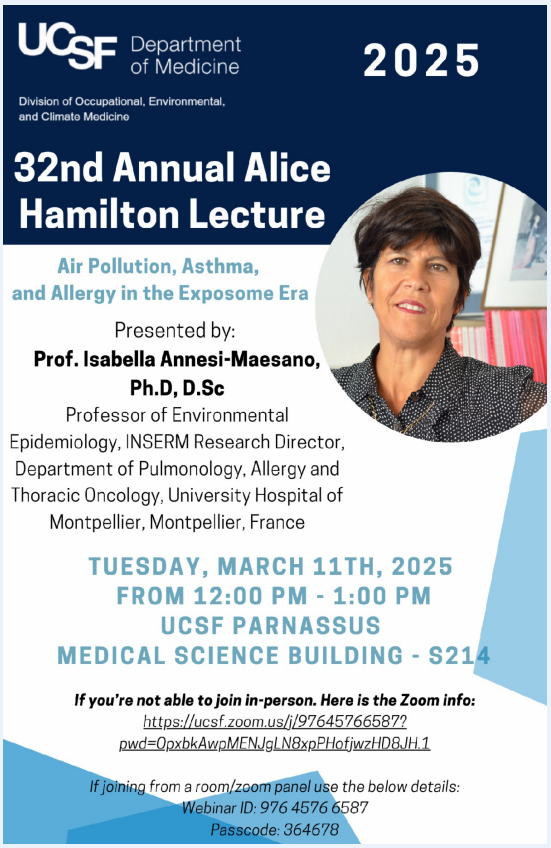
Key findings for the swine processing establishment study

- 46% of evaluated workers across all establishments were at high risk (i.e., PFI-TLV score > 1.0) for musculoskeletal disorders (MSDs).
- Piece rate, i.e., the number of hog parts handled per minute by a worker, was associated with MSD risk.
- The effect of evisceration line speed increase on MSD risk varied between establishments.
- Over 42% of workers across all establishments reported moderate to severe upper extremity pain during the 12 months prior to the site visit.

Starting 2025 Together !

The Division of OECM celebrated the beginning of 2025 together at the UCSF Alumni House at Parnassus. We welcomed 24 faculty and 19 staff, as well as our current residents and many friends of our Division and residency program. We enjoyed Peruvian food from Lima and had a fun raffle organized by Division Manager Serena Lee. Although 2025 has already brought challenges, it has reinforced the importance of supporting each other as a team. We look forward to more gatherings throughout the year.

32nd Alice Hamilton Lecture and 2025 CME Course



The 2025 OECM CME course is right around the corner ! It is not too late to register. This year's CME will be held at:

Omni Hotel San Francisco from March 12th - 14th, 2025.

Details and Registration Here

The 32nd Annual Alice Hamilton Lecture is being held on:
Tuesday, March 11th, 2025 from 12:00 PM - 1:00 PM. It is presented by Professor Isabella Annesi-Maesano, Ph.D, D.Sc.

If you're not able to join in-person here is the Zoom information:

https://ucsf.zoom.us/j/97645766587?pwd=OpxbkAwpMENJgLN8xpPHofjwzHD8JH.1

Webinar ID: 976 4576 6587
Passcode: 364678

OEM Residency Alumni Reunion

If you're attending the AOHC 2025 in Austin Texas, please RSVP to the Evite e-mail to attend the UCSF OEM Residency Alumni Reunion ! If you have not received an Evite e-mail. Please contact Jason Nghe at Jason.Nghe@ucsf.edu.

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