



Mural by Zackheim: "History of Medicine in California" Biddy Mason, one of the first African American midwives in the US, tends to a malaria patient in the mid-19th century.

# New Jobs, Novel Technologies, and Changing Hazards at Work and in the Environment *and* Updates in Occupational and Environmental Medicine

UCSF

## COURSE CHAIRS

### Paul D. Blanc, MD, MSPH

Professor of Medicine, Endowed Chair and Division Chief, Occupational and Environmental Medicine  
University of California, San Francisco

### Robert Kosnik, MD, DIH

Professor of Medicine, Medical Director, UCSF Occupational Health Services, Division of Occupational and Environmental Medicine  
University of California, San Francisco

### Samuel M. Goldman, MD, MPH

Professor of Medicine and Neurology  
Division of Occupational and Environmental Medicine  
University of California, San Francisco

THURSDAY – SATURDAY

**March 11-13, 2021**

Live Stream Conference



**ADDITIONAL EVENT WEDNESDAY, MARCH 10**

Evening Virtual Poster Session – Call for Abstracts to Follow

These courses are presented by the Division of Occupational and Environmental Medicine in the Department of Medicine at the University of California San Francisco. They provide targeted reviews of one topic area along with a broader update of current topics in occupational and environmental health. The curriculum is designed for occupational and environmental health professionals, including occupational physicians and nurses, and industrial hygienists. It also meets the needs of primary care providers and others engaged in practice and research, including physicians (family medicine practitioners, internists, emergency medicine specialists), advanced practice nurses and other nursing professionals, and physician assistants. Policy makers and medical-legal practitioners also benefit from the curriculum offered.

The first day of the 2021 course, **New Jobs, Novel Technologies, and Changing Hazards at Work and in the Environment**, addresses the evolving nature of work today arising from changing jobs, the introduction of newer technologies, and the emergence and re-emergence of a range of physical and chemical hazards. This will also be placed in a broader environmental health context. A virtual poster session the evening before the first conference day will supplement this content, including case reports and research data. The second day and final half-day of the course will cover a multi-topic theme: **Updates in Occupational and Environmental Medicine**.

## TARGET AUDIENCE

This course is designed to provide the experienced clinician with a review of the epidemiology, and the evaluation of occupational and environmental diseases and injuries. The curriculum will also include a substantial component focused on issues specifically pertinent to occupationally and environmentally-related disease. Most attendees will be occupational physicians, but some are specialists in related fields who will profit by an in-depth presentation of occupational and environmental medicine topics. Thus, although targeted for physicians, some non-physicians, in particular graduate nurses, usually attend and benefit from the curriculum. Some attendees are from developing countries where physicians are not available to provide consultation to industry for the development of health and safety programs; others have been U.S. nurse practitioners who play a pivotal role in occupational health.

## OBJECTIVES

Attendees completing this course will be able to:

- Improve their understanding of the role of investigating sentinel events in occupational and environmental health practice;
- Adopt new medical knowledge into preventive activities addressing emerging risk factors and new disease entities as well as longstanding problems with new manifestations;
- Increase their knowledge relevant to the evaluation of scientific data in the field of occupational and environmental medicine;
- Expand the differential diagnosis to incorporate a wider range of environmental and occupational factors in various disease processes;
- Increase their knowledge of diagnostic methods and treatment options for selected occupational and environmental conditions;
- Improve management in terms of required regulatory management of specific work-related scenarios;
- Inform the prioritization of clinical care, research, and public health policy with state-of-the-art updates.

## ACCREDITATION

The University of California, San Francisco School of Medicine (UCSF) is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

UCSF designates this live activity for a maximum of **18.00 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This CME activity meets the requirements under California Assembly Bill 1195, continuing education and cultural and linguistic competency.

**Geriatric Medicine:** The approved credits shown above include **3.75** geriatric credits toward meeting the requirement under California Assembly Bill 1820, Geriatric Medicine.

**Pain Medicine:** The approved credits shown above include **1.75** Pain Credits towards meeting the requirement under California Assembly Bill 487, Pain Management and Care for the Terminally Ill.

**Trauma:** The approved credits shown above include **3.75** credits toward satisfying the American College of Surgeons Committee on Trauma requirement for trauma-related continuing medical education.

**Nurses:** For the purpose of recertification, the American Nurses Credentialing Center accepts **AMA PRA Category 1 Credit™** issued by organizations accredited by the ACCME.

**Physician Assistants:** AAPA accepts category 1 credit from AOACCME, Prescribed credit from AAFP, and **AMA PRA Category 1 Credit™** from organizations accredited by the ACCME.

**Pharmacy:** The California Board of Pharmacy accepts as continuing professional education those courses that meet the standard of relevance to pharmacy practice and have been approved for **AMA PRA Category 1 Credit™**.

**Family Physicians:** Application for CME credit has been filed with the American Academy of Family Physicians. **Determination of credit is pending.**

**American Board of Preventive Medicine:** The American Board of Preventive Medicine (ABPM) has approved this activity for a maximum of **18.00** LLSA credits towards ABPM MOC Part II requirements.

**California Division of Workers Compensation – Medical Unit (QME Credit):** The California Division of Workers Compensation – Medical Unit for Qualified Medical Evaluator credit has been approved for a maximum of **18.00** credits.

# New Jobs, Novel Technologies, and Changing Hazards at Work and in the Environment *and* Updates in Occupational and Environmental Medicine • March 11-13, 2021

## WEDNESDAY, MARCH 10, 2021

6:30-8:30 pm *Virtual Scientific Poster Session*

## THURSDAY, MARCH 11, 2021

### New Jobs, Novel Technologies, and Changing Hazards

7:45		<b>Welcome &amp; Overview</b>	Course Leaders
8:00		<b>Changing Technologies in the History of Occupational and Environmental Health</b>	Paul D. Blanc, MD, MSPH
8:50	<b>G</b>	<b>From Piece Work to Gig Work – Facing the Futures of a Digital Information Economy</b>	Mary Gray, PhD
9:40		<i>Break</i>	
10:10		<b>Climate Change and Classic Occupational/ Environmental Hazards: Wildland Fires, Heat Stress, Infection, and Allergens</b>	John Balmes, MD
11:00		<b>Emerging Environmental Health Hazards for the 21st Century</b>	Gina Solomon, MD, MPH
11:50		<i>Lunch Break</i>	
1:10 pm	<b>G</b>	<b>KEYNOTE: The Lessons of COVID-19: Emerging Pathogens and High Risk Workers</b>	Robert Kosnik, MD
2:10	<b>P</b>	<b>The New Built Environment – Materials, Spaces, and the Human Condition</b>	Cristina Banks, PhD
3:00		<i>Break</i>	
3:30	<b>Rx</b>	<b>New or Exotic Poisons and Toxicants – More Than Just Answers to Stump Test Questions</b>	Jacob Lebin, MD Anita Mudan, MD
4:20	<b>T</b>	<b>From Outer Space to Work on the Ground: NASA Insights for Astronaut Occupational Healthcare</b>	Ronak V. Shah, DO, MBA, MPH Mary Van Baalen, PhD
5:10		<b>Closing Panel: New Jobs and Novel Technologies – Has Anything Really Changed?</b>	Moderator: Robert Harrison, MD, MPH Panelists: Ronak V. Shah, DO, MBA, MPH Mary Van Baalen, PhD Cristina Banks, PhD
6:00 pm		<i>Adjourn</i>	

**P** • Pain Credit    **G** • Geriatric Credit    **T** • Trauma Credit    **Rx** • Pharmacotherapeutics Credit

### GENERAL INFORMATION

Registration for this live stream conference will be available until 8:00 am on Thursday, **March 11th**. Registrants will be given instructions to access the virtual conference and the electronic course materials 1 week in advance of the conference. Recordings of the talks will be available to view on demand post-course.

### HOW TO ENROLL

#### FULL COURSE Registration Fees

(Three Days • March 11-13, 2021)

**18.00 AMA PRA Category 1 Credits™**

**\$600** – Physicians

**\$550** – Advanced Health Practitioners

**\$425** – Residents/Fellow/Trainee

Current graduate trainees should inquire regarding special registration options.

If you would like to register for only the **New Jobs, Novel Technologies, and Changing Hazards at Work and in the Environment or Updates in Occupational and Environmental Medicine**, see information on **INDIVIDUAL SECTIONS** below:

**New Jobs, Novel Technologies, and Changing Hazards at Work and in the Environment**  
(One Day • March 11, 2021)

**8.0 AMA PRA Category 1 Credits™**

**\$275** – Physicians

**\$225** – Allied Health Professionals

**\$200** – Residents/Fellows

**Updates in Occupational and Environmental Medicine Section**

(Two Days • March 12-13, 2021)

**10.00 AMA PRA Category 1 Credits™**

**\$350** – Physicians

**\$300** – Allied Health Professionals

**\$225** – Residents/Fellows





## FRIDAY, MARCH 12, 2021

7:50 am	<b>Welcome &amp; Overview</b>	Course Leaders
<b>Updates in Occupational and Environmental Medicine</b>		
8:10	<b>G A Primer on Vaccinations and Immunity from the OEM Perspective</b>	Rahmat Balogun, DO, MS, MPH
9:00	<b>Why Should an Occupational Provider Care About Pediatrics?</b>	Mark Miller, MD, MPH
9:50	<i>Break</i>	
10:20	<b>Attribution and Causality – What an OEH Practitioner Needs to Know</b>	David Caretto, MD, MPH
11:10	<b>PT Injuries That Can be Overlooked as Being Work-Related: from Tennis Leg to Arterial Dissection</b>	Sandra Domeracki, RN, MSN, FNP-BC, COHN-S, FAAOHN
12:00 pm	<i>Lunch Break</i>	
1:30	<b>T What Military Service Teaches Us About Civilian Work Hazards</b>	Patrick Laraby, MD, MPH, MBA
2:30	<b>G How Reasonable is Reasonable Accommodation?</b>	Leslie M. Israel, DO, MPH, FACOEM
3:30	<i>Break</i>	
4:00	<b>OEM Published Research: The Year in Review</b>	Samuel Goldman, MD, MPH
4:50 pm	<i>Adjourn</i>	

## SATURDAY, MARCH 13, 2021

8:15 am	<b>Welcome &amp; Overview</b>	Course Leaders
<b>Updates in Occupational and Environmental Medicine</b>		
8:30	<b>Why Immigrant, Asylum Seeker, and Refugee Health is Germane of Occupational Health</b>	Xóchitl Castañeda
9:20	<b>T Homicide on the Job</b>	Bruce Bernard, MD, MPH
10:10	<i>Break</i>	
10:30	<b>Slavery, Indentured Service, and Migrant Workers from an Occupational Health Perspective</b>	Sergio Iavicoli, MD, PhD
11:20	<b>Closing Panel – What are the Social Challenges for Occupational and Environmental Medicine in 2021 and Beyond?</b>	Moderator: Samuel Goldman, MD, MPH Panelists: Sergio Iavicoli, MD, PhD Xóchitl Castañeda Patrick Laraby, MD, MPH, MBA
12:00 pm	<i>Adjourn</i>	

### GREENER MEETING

We're saving paper! The syllabus will be available electronically one week prior to the course.

**Refund Policy:** Cancellations received in writing before the first day of the course will be refunded, less a \$75 administrative fee. No refunds will be made on cancellations received after that date.

### REGISTER VIA

**Online:** [cme.ucsf.edu](https://cme.ucsf.edu)

**Mail:** Complete course registration form and send with payment to:

**UCSF Office of  
Continuing Medical Education**  
490 Illinois Street, Floor 8  
San Francisco, CA 94158

**Fax:** Fax completed registration form to: (415) 502-1795 (be sure to include your credit card number)

**Phone:** To register by phone or to inquire about registration status, please call UCSF's CME Registration Office at (415) 476-5808.

### LIVE STREAM MEETING

This course will be offered as a live stream interactive conference. Login instructions along with the digital syllabus will be shared with attendees 1 week prior to the meeting. Included in your registration fee is access to the course recordings on demand after the conference and for 30 days after the course.

general info

For more information or to register online visit our website at [cme.ucsf.edu](http://cme.ucsf.edu)  
You may also reach us by calling the Office of CME at (415) 476-4251 or email [info@ocme.ucsf.edu](mailto:info@ocme.ucsf.edu).

♻️ Printed on Recycled Paper

UCSF

0569  
**University of California,  
San Francisco**  
Office of Continuing  
Medical Education  
490 Illinois Street, Floor 8  
San Francisco, CA 94143

#### COURSE CHAIRS

University of California, San Francisco

**Paul D. Blanc, MD, MSPH**

Professor of Medicine  
Endowed Chair and Division Chief  
Occupational and Environmental  
Medicine

**Robert Kosnik, MD, DIH**

Professor of Medicine, Medical  
Director, Occupational Health  
Services, Division of Occupational  
and Environmental Medicine

**Samuel M. Goldman, MD, MPH**

Professor of Medicine and Neurology,  
Division of Occupational and  
Environmental Medicine

#### COURSE FACULTY

(University of California, San Francisco  
unless indicated)

**John Balmes, MD**

Professor of Medicine Emeritus

**Rahmat Balogun, DO, MS, MPH**

Assistant Professor of Medicine,  
UCSF, Occupational Health  
Clinic – Clinical Lead  
University Health Services  
University of California Berkeley

**Cristina Banks, PhD**

Director, Interdisciplinary Center  
for Healthy Workplaces  
(*HealthyWorkplaces*)  
Senior Lecturer, Haas  
School of Business  
University of California Berkeley

**Bruce Bernard, MD, MPH**

Captain, United States Public  
Health Service (ret);  
Consultant, Centers for Disease  
Control and Prevention,  
Atlanta, GA

#### COURSE FACULTY (CONT'D)

**David Caretto, MD, MPH**

Occupational Medicine  
Mercy Medical Group – Dignity Health  
Sacramento CA

**Xóchitl Castañeda**

Associate Director of Health  
Initiative of the Americas  
School of Public Health  
University of California Berkeley

**Sandra Domeracki, RN, MSN,  
FNP-BC, COHN-S, FAAOHN**

Associate Clinical Professor and  
Family Nurse Practitioner  
School of Nursing,  
Community Health Systems  
Occupational and Environmental  
Health Nursing Graduate Program

**Mary Gray, PhD**

Senior Principal Researcher,  
Microsoft Research  
Associate Professor, Luddy School  
of Informatics, Computing, and  
Engineering; Anthropology;  
Gender Studies  
Indiana University  
Faculty Associate, Berkman Klein  
Center for Internet and Society  
Harvard University

**Robert Harrison, MD, MPH**

Clinical Professor of Medicine;  
Public Health Medical Officer,  
California Department of Public Health

**Sergio Iavicoli, MD, PhD**

Research Director, INAIL  
Italian Workers  
Compensation Authority  
Rome, Italy

#### COURSE FACULTY (CONT'D)

**Leslie M Israel, DO, MPH, FACOEM**

Medical Director,  
Occupational Health Services  
Human Resources, LA Department  
of Water and Power

**Patrick Laraby, MD, MS, MPH,  
MBA, FACOEM**

Medical Officer, US Navy (ret)

**Jacob Lebin, MD**

Medical Toxicology Fellow,  
California Poison Control System,  
San Francisco Division

**Mark Miller, MD, MPH**

Associate Clinical Professor of  
Pediatrics and of Medicine  
Co-director, Western States Pediatric  
Environmental Health Specialty Unit  
University of California, San Francisco  
Director, Children's Environmental  
Health Center, and Public Health  
Medical Officer  
California Office of Environmental  
Health Hazard Assessment  
Oakland, California

**Anita Mudan, MD**

Medical Toxicology Fellow,  
California Poison Control System,  
San Francisco Division

**Ronak V. Shah, DO, MBA, MPH**

Medical Director  
NASA Johnson Space Center Clinic

**Gina Solomon, MD, MPH**

Clinical Professor of Medicine

**Mary Van Baalen, PhD**

Lead Lifetime Surveillance of  
Astronaut Health  
NASA Johnson Space Center

faculty

COURSE REGISTRATION FORM • MDM21N01

New Jobs, Novel Technologies, and Changing Hazards at Work and  
in the Environment and Updates in Occupational and Environmental  
March 11-13, 2021 • LIVE STREAM • INTERACTIVE WEBINAR

Mail to : UCSF Office of CME  
490 Illinois Street, Floor 8  
San Francisco, CA 94158  
Fax: (415) 502-1795

Online registration: [cme.ucsf.edu](http://cme.ucsf.edu)  
Registration Information: (415) 476-5808  
Course Information: (415) 476-4251

☐ Dr. ☐ Ms. ☐ Mr. ☐ Mrs. ☐ Mx.

LAST NAME	FIRST	M.I.
<hr/>		
DEGREE	SPECIALTY	
<hr/>		
ADDRESS		
<hr/>		
CITY	STATE	ZIP
<hr/>		
DAYTIME PHONE	FAX	
<hr/>		
EMAIL	CELL PHONE	
<hr/>		

Address Label Code Letter (see address label: example, A, B, C, D, etc.) \_\_\_\_\_

Would you like to be on our priority email list? ☐ Yes ☐ No

FULL COURSE Registration Fees

(Three days • March 11-13, 2021) 18.00 AMA PRA Category 1 Credits™

- ☐ \$600 Physicians  
☐ \$550 Advanced Health Practitioners  
☐ \$425 Residents/Fellow/Trainee

INDIVIDUAL SECTIONS:

New Jobs, Novel Technologies, and Changing Hazards at Work and in the Environment  
(One day • March 11, 2021) 8.00 AMA PRA Category 1 Credits™

- ☐ \$275 Physicians  
☐ \$225 Allied Health Professions  
☐ \$200 Residents/Fellows/Trainee

Updates in Occupational and Environmental Medicine

(Two Days • March 12-13, 2021) 10.00 AMA PRA Category 1 Credits™

- ☐ \$350 Physicians  
☐ \$300 Advanced Health Practitioners  
☐ \$225 Residents/Fellows/Trainee

Check enclosed payable to UC Regents

Please charge my credit card: ☐ Visa ☐ MasterCard ☐ AmEx for \$ \_\_\_\_\_

CARD #	_____/_____/_____ EXPIRATION DATE
--------	--------------------------------------

NAME ON CARD (PLEASE PRINT)

AUTHORIZED SIGNATURE

**Refund Policy:** Cancellations received in writing before **March 11, 2021** will be refunded, less a \$75 administrative fee. No refunds will be made on cancellations received after that date.

Please check our website for up-to-date information on the course: [cme.ucsf.edu](http://cme.ucsf.edu)