

The Northern California COEH
& NIOSH ERC

presents the

Trainee Guidebook

2022-2023



COEH

CENTER FOR OCCUPATIONAL
& ENVIRONMENTAL HEALTH

We aim to:

Train the next generation of OSH leadership to protect workers and ensure a healthier national workforce.

Provide state-of-the-art interdisciplinary training for the next generation of OSH practitioners and researchers.

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Introduction to the Northern California COEH

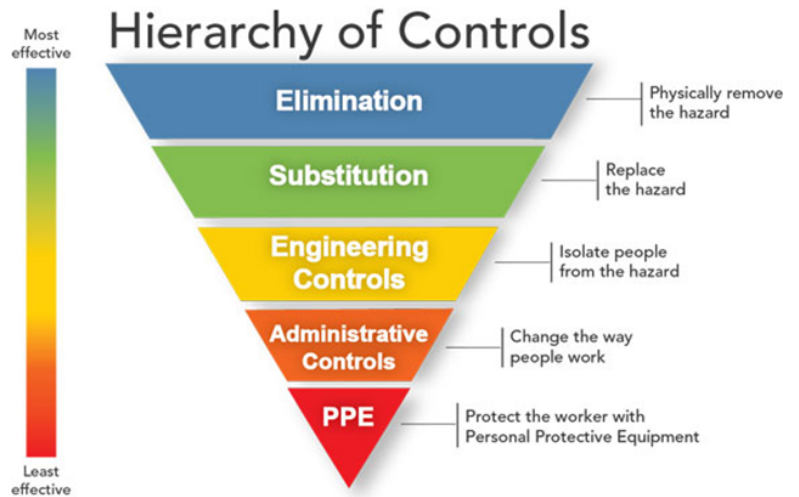
Welcome to the Northern California Center of Occupational & Environmental Health (COEH)! We are so pleased to have you as a trainee in one of our programs and look forward to supporting your growth and development in occupational and environmental health sciences. This Guidebook is meant as an overview to introduce you to COEH and the numerous opportunities available to you. Additionally, our Administrative team is here to support you to ensure that you have the best possible experience during your time with COEH.

History

Concerned that California lacked the knowledge and the trained professionals it needed to protect people from work-related hazards, the State passed legislation in 1978 mandating the University to establish teaching, research, and service centers in Northern and Southern California. The Center for Occupational and Environmental Health (COEH) and its sister centers in Los Angeles and Irvine serve government, industry, schools, health professionals, and the general public through programs and partnerships designed to deepen understanding of occupational and environmental hazards and to prevent disease, fatalities, and injuries. Since then, COEH has promoted health and safety in workplaces and communities through teaching, research, and service. We have trained hundreds of professionals, academics, and practitioners for careers in occupational and environmental health. We have conducted interdisciplinary research responding to the needs of people affected by hazards in their workplaces and communities and we have protected workers and communities from occupational and environmental health hazards through services such as continuing education courses, worksite training, and research to practice initiatives.



The World Health Organization has summarized the various ways that our environment impacts our health through exposures at home, in the workplace, and guide their community. The one item missing from this figure is of course infectious diseases which have had a devastating impact internationally as we struggle to cope with the SARS-COV2 virus. Regardless of whether the exposures are at home, work, or in the community, they can be broadly classified into Physical Exposures, Chemical Exposures, and Infectious Diseases. Regardless of the exposure type, adverse health risks can be mitigated using the Hierarchy of Controls.



Current Day Burden of Occupational Injury & Illness

On average, 12 people die from work-related causes each day, and over 4.1 million workers suffer from serious occupational injury or illness annually. Additionally, companies spend around \$1 billion per week on direct workers' compensation costs alone. The frequency and severity of occupational injuries and illnesses amass immense costs, proven equivalent to the financial burden of cancer. Researchers put the total direct and indirect costs at \$250 billion, with only 25% of that cost covered by workers' compensation, indicating that society is saddled with the majority of the burden. In a national analysis, occupational injuries comprised around 77% of the total cost, whereas occupational diseases accounted for approximately 23%. Direct costs of both occupational injuries and diseases were \$67 billion, with indirect being almost three times that amount (\$183 billion). Further, individuals carry the majority of the burden of a work-related injury or illness through lost income, uncovered medical costs, and long-term health implications. The research documented 5,600 worker deaths and 8,559,000 work-related injuries or illnesses in one year¹, identifying how millions of Americans personally bear the financial, emotional, and physical burden of workplace hazards.

Did You Know?
Occupational Health is fundamental to public health.

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5,147 workers died on the job last year

3.5 per 100,000 full-time equivalent workers

> 99 deaths a week

>14 deaths every day

And there were 2.8 million non-fatal workplace injuries & illnesses

That's 2.8 cases per 100 full-time equivalent workers

Our Mission & Vision

Our vision is for people to have safe and healthy environments that allow them to thrive: at home, at work, and in their communities.

We promote healthy environments that protect workers and communities from occupational and environmental health hazards through teaching, research, and service.

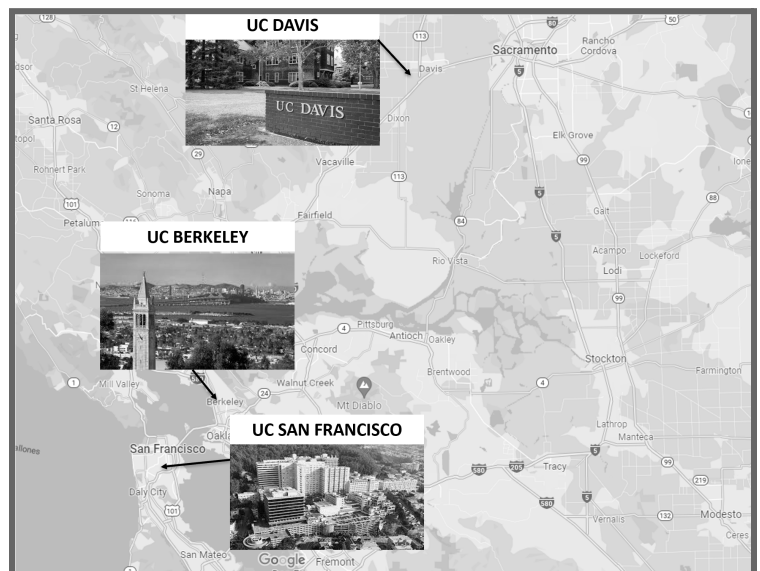
Our mission is to serve government, industry, schools, health professionals, and the public through programs and partnerships designed to deepen understanding of occupational and environmental hazards and to prevent disease, fatalities, and injuries.

We accomplish this by:

- Educating health professionals to be leaders in occupational and environmental health.
- Developing new knowledge through an interdisciplinary research agenda focused on preventing illness and injury.
- Responding to the needs of people affected by hazards in their workplaces or communities, with special attention to vulnerable populations.

Our Campuses

Our occupational and environmental health academic programs span across **three** University of California campuses (UC Berkeley, UCSF, and UC Davis) that are **all within 75 miles of one other** and host a variety of degrees & specializations.



UC Berkeley

COEH is based out of UC Berkeley in the Environmental Health Sciences division in the School of Public Health (BPH). UC Berkeley was the University of California's first public institution founded in 1868 born out of a vision in the State Constitution of a university that would "contribute even more than California's gold to the glory and happiness of advancing generations."

There are over 30,000 undergraduate and 11,548 graduate students and more than 350 various degree programs. It is consistently rated as the top public university worldwide.



UC Davis

UC Davis was founded in 1908 and currently has more than 37,581 undergraduate and graduate students in 103 majors and over 100 graduate programs. UC Davis has a world-renowned reputation for



agricultural and engineering studies and has a medical school that serves over 30,000 patients per year. UC Davis has a robust Medical Surveillance program that provides clinical occupational health services and provides graduate education in occupational epidemiology, toxicology, and medicine. Their Agricultural Safety & Health Program within the [Biological and Agricultural Engineering Department](#) is part of the NIOSH ERC Academic Training Programs.

UC San Francisco

UCSF is part of the 10-campus University System in California that is completely dedicated to health sciences. It is a major center for medical and biological research as well as teaching and service. UCSF only has graduate and professional education programs. UCSF is composed of dedicated scientists, clinicians, students, and staff who strive to make the world a better place through our singular focus on health. There are over 26,000 faculty and staff and over 6,000 students, residents, and post-docs participating in 30 graduate programs. There are multiple campuses throughout San Francisco.

The Occupational & Environmental Medicine Program is in the [Division of Occupational & Environmental Medicine](#), a specialty in the [Department of Medicine](#). The Occupational and Environmental Health Nursing Program is in the [School of Nursing](#) and offers [Adult-Gerontology Primary Care Nurse Practitioner — Occupational and Environmental Health \(AGPCNP-OEH\)](#) specialization.



Our Faculty

We have 71 core and affiliated faculty at 3 campuses that support our academic and outreach programs. Our website includes links to program websites that list their core and affiliated faculty, including links with their contact information. Trainees will interact with our faculty during classes that they teach, Symposia, community outreach engagements, and continuing education webinars, lectures, and workshops. The opportunity to learn from and with faculty is one of the most important aspects of our Center. Additionally, our faculty can help mentor and guide trainees as they choose their career specializations and pathways. See the full [Faculty List](#).

Our Trainees

We typically have between 40 and 50 trainees each year across the 6 academic training programs. Trainees receive graduate degrees in various disciplines including [Public Health](#) ([Environmental Health Sciences](#) or [Biostats/Epi](#)) or [Engineering](#) ([Mechanical Engineering](#), [Bioengineering](#), [Industrial Engineering & Operation Research](#), [Data Science & Management](#)) at UC Berkeley, [Public Health](#) or [Engineering](#) ([Biological and Agricultural Engineering](#)) at UC Davis, and [Nursing](#) at UCSF. The medical residents have the option of getting an MPH at UC Berkeley through the [JMP Program](#) during their clinical residency at UCSF.

Our External Advisory Board

The COEH External Advisory Board (see [Advisory Board Members](#)) is composed of various leaders in Occupational & Environmental Health from government, industry, labor organizations, and academia. They guide to ensure that COEH activities are relevant to today's most pressing problems in California. They are also a critical connection to collaborations within OEH that support student internships, research to practice, and service opportunities. Trainees may wish to be connected to one or more EAB members to ask questions about certain career pathways or opportunities and can coordinate such discussions through their Program Director.

Our Financial Support

COEH depends on state and federal funding to support academic, research, and service goals. The core of our funding is provided by the state of California. It supports faculty and staff salaries within the Environmental Health Sciences Division and NIOSH ERC Programs. Many programs receive additional support from the state through grants that support community engagement or research projects. Additionally, the National Institutes of Occupational Safety and Health (NIOSH) has supported our academic training programs, community engagement, and research projects over the past 4 decades. NIOSH is the primary federal agency responsible for conducting research and making recommendations for the prevention of work-related illness and injury. NIOSH provides leadership to avert workplace illness, injury, disability, and death and supports programs to improve the health and safety of workers. Many of our faculty also receive training and research grants from the NIH, **particularly NIEHS, NIAMS, and other NIH entities** which support work in Environmental Health Sciences.

HRSA grants also provide training grants for the development of clinical professionals. Training grants typically support student tuition and/or stipends while research grants support faculty and research assistant/staff time. Some research projects and training stipends are supported through industry collaborations with companies like Kaiser, Logitech, Pentax, Rainin, and others. These collaborations are made through gifts allowing the Program Director control to design, implement and publish independent research.

Collaborations & Centers within the Northern California COEH

The COEH supports many programs and initiatives that advance occupational and environmental health. One of the largest recipients of state budgetary support is the Division of [Environmental Health Sciences](#) at UC Berkeley where key faculty positions are funded in part with state funding.

The [Interdisciplinary Center of Healthy Workplaces](#) is also under the COEH umbrella. They integrate and apply interdisciplinary sciences to achieve worker health and well-being. Many COEH faculty support the ICHW activities and students may wish to reach out to their Director [Cristina Banks](#) to explore research or consulting opportunities.

COEH is also home to a [NIOSH Center of Excellence for Total Worker Health Center](#) led by [Dr. Ed Yelin](#) who is a Professor Emeritus in the Department of Medicine at UCSF and has an additional appointment at UC Berkeley. The goal of our Total Worker Health Center of Excellence, the California Labor Laboratory (CALL), is to describe, understand the causes of, and mitigate the health impacts of emergent working conditions, with a special emphasis on vulnerable populations, including members of racial and ethnic minorities; immigrants; low wage workers; young and old workers, especially those with chronic diseases; and persons with disabilities. CALL offers additional research and outreach opportunities to all COEH Trainees.

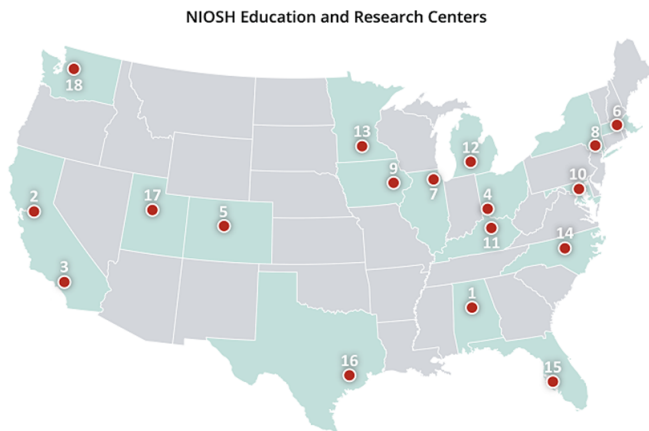


NIOSH Education and Research Center (ERC) Training Programs

About NIOSH & NIOSH ERCs

The Occupational Safety and Health Act of 1970 mandates that NIOSH provide an adequate supply of qualified personnel to carry out the purposes of the Occupational Safety and Health Act. NIOSH ERCs have a key role in helping meet this mandate and contribute to the Institute's core mission of providing national and world leadership to prevent workplace injuries and illnesses.

The [National Assessment of the Occupational Safety and Health Workforce](#) documents a significant shortfall in the supply of trained OSH professionals to meet demand in the United States (U.S.). The report provides evidence of the continued need to support OSH training and education in the core and allied OSH disciplines.



There are a total of 18 NIOSH Education and Resource Centers (ERCs) nationwide that play a significant role in preparing the future OSH workforce to respond to new challenges posed by the changing nature of work.

These changes are the result of technological advances, globalization, new and emerging risks, occupational health disparities associated with the changing demographics of the U.S. workforce, and a myriad of other factors. The network of NIOSH ERCs addresses these challenges and provides the next generation of OSH leadership to protect workers and ensure a healthier national workforce.

The NIOSH ERC Traineeship provides well-trained graduates to meet the demand for a professional OSH workforce for federal, state, and local government agencies; not-for-profit agencies; industry; academia; business; healthcare; and labor organizations. The traineeship helps meet our nation's need for skilled, knowledgeable practitioners and researchers in OSH and enhances the diversity of the safety and health workforce. NIOSH ERCs translate scientific discoveries into practice through effective education, training, and outreach. NIOSH ERC trainees and key personnel collaborate with stakeholders to develop innovative approaches to improving workplace safety and health, by the translation of research to practice and prevention through design.

NIOSH ERC at the NorCal COEH

The NIOSH ERC at the Northern California (NorCal) COEH is a consortium of programs of the University of California. Its goal is to train professionals as practitioners and research leaders in occupational safety and

health by offering graduate degrees, residency training, clinical experiences, and research mentorship to trainees. Work-related injuries and illnesses have a significant public health impact. NIOSH aims to train the next generation of occupational safety and health (OSH) practitioners and researchers through the NIOSH ERC Traineeship at UC Berkeley, UC Davis, and UC San Francisco. The ERC aims to provide a broad, multidisciplinary educational experience involving student and faculty collaborations in the classroom and on research and service projects. Activities are grounded in multi-campus, interactive teaching programs that translate knowledge into information that can be used to improve worker safety and health. In addition, through the Continuing Education Program and the outreach components of the Labor Occupational Health Program, the ERC provides continuing education courses and outreach activities to other health professionals.

The NorCal COEH aims to provide an educational bridge from the University to external constituencies. This is to ensure that practicing professionals, workers, their representatives, supervisors, and other educators benefit from the University's occupational health and safety expertise.

NIOSH ERC Academic Training Programs at the NorCal COEH

The purpose of the **NIOSH ERC Traineeship** at UC Berkeley, UC Davis, and UC San Francisco are to address the burden of OSH in the United States by providing state-of-the-art interdisciplinary training for the next generation of OSH practitioners and researchers. Requirements for each degree vary by program and school.



Agricultural Safety & Health Program (Ph.D.)



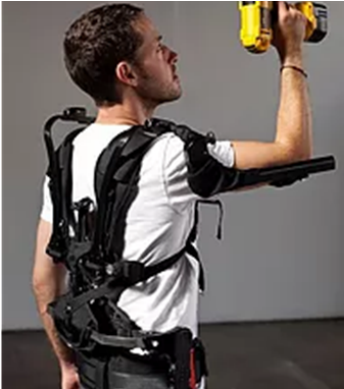
Campus: UC Davis
 Program Director:
 Fadi Fathallah, Ph.D. | fathallah@ucdavis.edu

The goal of the ASH program is to produce effective agricultural safety and health specialists who will serve California, Region IX, and US agriculture. The program's specific objective is to train students with interdisciplinary skills in agricultural safety and health research and practice.

California Agriculture has more than 75,000 farms and ranches producing nearly half of US-grown fruits, nuts and vegetables, and remains the number one state in cash farm receipts with over 13 percent of the US total. Agriculture has one of the highest occupational non-fatal injury rates for all industries, and California is no exception. California's nonfatal agricultural injury rate stands at 5.3 per 100 full-time workers; the highest among all industries in the state.

According to NIOSH, the estimated rate of disabling injuries for agricultural workers is 243 per day, and 5% result in permanent disability. California estimates that more than 800,000 workers and 120,000+ operators are in fields each year. Over half of California's nonfatal agricultural injuries result in missed workdays or job restrictions. Agriculture, including California's, has one of the highest disabling occupational injury rates and cost among all industries.

Human Factors & Ergonomics (MPH, MS, Ph.D.)



Campuses: UC Berkeley & UC San Francisco

Program Director:

Dr. Carisa Harris Adamson, Ph.D. CPE | carisaharris@berkeley.edu

Website: <https://www.ergo.berkeley.edu/>

The UC Human Factors and Ergonomics (HFE) Program provides high-quality training for students interested in a Master's or Ph.D. in an HFE-related discipline. Undergraduate students can also be trainees and assist in HFE Research as well as take some graduate classes during their senior year, particularly if they are interested in pursuing a career in HFE for Graduate Studies.

The goals of both our programs are to:

- 1) Develop excellent researchers that will continue to increase our understanding of work-related injuries and further the body of HFE science that can be translated to practice;
- 2) Raise the level of HFE practice by providing comprehensive evidence-based training; and
- 3) Increase the number of certified professional ergonomists that are effective in reducing the incidence and severity of workplace injuries while optimizing human performance and productivity.

Students come to the program from a variety of backgrounds, such as engineering, public health, or biology, and the program takes advantage of these differences through interdisciplinary learning experiences.

Trainees receive a Master's or Ph.D. degree from UC Berkeley's School of Public Health (Department of Environmental Health Sciences) or the UC Berkeley College of Engineering (Departments of Mechanical Engineering, Bioengineering, or Industrial Engineering).

Industrial Hygiene Program (MPH, MS, Ph.D.)



Campus: UC Berkeley

Interim Program Directors:

Elizabeth Noth, Ph.D. | bnoth@berkeley.edu

Ajay Pillarisetti, Ph.D. | hammondk@berkeley.edu

Website: [Berkeley Public Health: Industrial Hygiene](#)

The program in Industrial Hygiene trains technical professionals and scientists committed to preventing job-related disease and injury. Industrial hygiene is the science and art of recognizing, evaluating, and controlling exposure to harmful agents in the workplace. The goal of the Industrial Hygiene (IH) Program is to educate committed and passionate industrial hygienists with both a firm theoretical background to enable growth and flexibility in our rapidly changing world and a good grasp of the practical aspects of the field to implement this knowledge as practitioners (M.S. and M.P.H. students) and researchers (doctoral students).

This small, focused program provides a thorough, solid theoretical framework complemented by practical application within classes, laboratories, field trips, a twelve-week internship, and a capstone project for MPH students, with in-depth research immersion for doctoral students. While retaining the core education for IH, the program is also responsive to changing needs, as evidenced by the introduction of courses in green chemistry four years ago, and global occupational health last year.

Occupational & Environmental Epidemiology Program (Ph.D.)



Campus: UC Berkeley

Program Director:

Ellen Eisen, ScD | eeisen@berkeley.edu

Website: [Berkeley Public Health: Epidemiology](#)

The Occupational & Environmental Epidemiology Program provides training in the specific analytical tools needed to study health risks concerning workplace exposures. The active research programs of the faculty, post-doctoral fellows, and staff

researchers affiliated with the program provide a stimulating academic environment for trainees. Trainees learn how to analyze quantitative data on a variety of chemical and physical exposures in relation to health outcomes, primarily in large cohort studies.

The signature feature of our program is an appreciation of the potential for selection bias that operates in all workplace-based health studies of long-term exposures; there is a selection process operating for workers both entering and exiting the workforce based on health status. Ignoring this potential bias can lead to underestimating risks for workers. The analytic complexities required to address this potential bias mean that our training program has included more Ph.D. than MPH or MS students over the years.

Occupational & Environmental Health Nursing Program (MS, Ph.D.)

Campus: UC San Francisco

Program Director:

Oi Saeng Hong, RN, PHD, FAAN, FAAOHN | Oisaeng.hong@ucsf.edu

Website: [UCSF School of Nursing: OEHN](#)

Occupational and environmental health nurses play a pivotal role in preventing work-related injuries and illnesses, as well as promoting the health and safety of workers and communities. The Occupational and Environmental Nursing (OEHN) Program at UCSF School of Nursing offers two training programs (Master's and Ph.D.):

The Master's program offers the Adult-Gerontology Primary Care Nurse Practitioner (AGPCNP)-OEH to prepare advanced nurse practitioners, leaders with expertise in clinical practice, research, evaluation, and policy and program development leaders in the field of OEHN. The AGPCNP-OEH specialty focuses on direct patient care, the theory and practice of adult health maintenance, the diagnosis and management of chronic health problems, and the assessment and management of common health conditions. OEHN MS graduates develop careers in a variety of settings including

on-site employee health clinics in various industries, hospital-based primary care or specialty clinics, direct care or management in occupational health services, or consultation with companies, government agencies, academia, and communities. Detailed information about AGPCNP-OEH and certifications can be found [here](#).

The PhD program offers research training to prepare nurse scientists and leaders to contribute to knowledge development in the OEHN field and to assume University faculty and professional leaders in research and policymaking. Ph.D. trainees are advised to address the priority areas set by the National Institute for Occupational Safety and Health (NIOSH) in the National Occupational Research Agenda (NORA) and the Research Priorities defined by the American Association of Occupational Health Nurses (AAOHN) for their dissertation research. The OEHN program is funded by the NIOSH and provides full or partial financial support to eligible students.

Occupational & Environmental Medicine Program (MPH)

Campus: UC San Francisco

Program Director:

Paul Blanc, MD, MSPH | paul.blanc@ucsf.edu

Associate Program Director:

Robert Harrison, MD, MPH | robert.harrison@ucsf.edu

Website: [UCSF School of Medicine: OEM](#)

The UCSF Occupational and Environmental Medicine (OEM) Training Program is designed to prepare physicians for occupational and environmental medicine practice and leadership roles in clinical, academic, government, non-governmental organizations, consulting, or corporate settings.

The Program provides academic didactic instruction, clinical and non-clinical proctored experiences, and research opportunities. Training is provided by a large core and affiliated faculty based at UCSF, together with extramural clinical faculty and our faculty partners in nursing, industrial hygiene, and ergonomics programs.

Graduates of the UCSF OEM Program are currently leaders in all the practice settings listed above. Trainees achieve training in all core knowledge content areas in OEM and are encouraged to develop areas of special expertise. In keeping with this goal, the educational program is individually tailored to meet the needs of each trainee while also meeting the requirements and milestones of the American Board of Preventive Medicine and recognizing the core competencies promulgated by the American College of Occupational and Environmental Medicine. The UCSF OEM Program was founded in 1979 and is fully accredited by the Accreditation Council for Graduate Medical Education (ACGME) for up to ten trainees.

It receives training grant support from both NIOSH and from the Health Research Services Administration (HRSA) as well as recruiting additional trainees supported by the U.S. Navy and Air Force. Regardless of the source of training support, all OEM residents participate in COEH programming under its aegis.

Targeted Research Training Program

Campus: UC Berkeley

Program Director:

Sadie Costello Ph.D., MPH | sadie@berkeley.edu

The Targeted Research Training Fellowships are intended to promote interdisciplinary research training in occupational health and safety. The application process is competitive, but trainees receive a contribution to their research costs, as well as a substantial contribution toward their stipend for living expenses and in-state tuition and fees. Trainees are expected to attend a monthly training seminar which includes sessions involving practical research training, of a type not usually received during academic classes. We will also meet as a group to share research progress and provide feedback on presentations, etc. Before applying to the TRT, applicants should be accepted into their program by one of the other ERC Program Directors.

Graduate students in the School of Public Health, UC Berkeley (UCB), and Schools of Medicine and Nursing, the UC San Francisco (UCSF), and UC Davis (UCD) may apply for TRT Research Fellowships. These opportunities are funded by an award from the National Institute for Occupational Safety and Health (NIOSH), Northern California Education and Research Center (NorCal ERC), and are intended to promote interdisciplinary research training in occupational health and safety.

Participation in the seminar series and application to the fellowship is available to all applicants who are accepted into or accepted as being eligible for one of the NorCal ERC programs by the Director of that program. Preference for the fellowship will be given to doctoral students and medical residents who are part of the Northern California COEH NIOSH ERC Training Programs.

NIOSH ERC Outreach & Continuing Education Programs

Labor Occupational Health Program (LOHP)

Campus: UC Berkeley

Director: Laura Stock, MPH | lstock@berkeley.edu

Website: <https://lohp.berkeley.edu/>



LOHP promotes safe, healthy, and just workplaces and builds the capacity of workers and worker organizations to take action for improved working conditions. We work with a range of partners including unions, worker centers, and community organizations, agencies, employer groups, policymakers, and academics.

LOHP looks broadly at the impact of work on health and we advance the principle that Healthy Jobs – which pay a living wage, provide job security and benefits, protect against hazards and harassment, have reasonable workloads, and engage workers in the decisions that affect them – are a basic human right.

Continuing Education Program



Campus: UC Berkeley
Director: Michelle Meyer | mmeyer@berkeley.edu
Website: <https://www.coeh.berkeley.edu/aboutce>

The Center for Occupational and Environmental Health Continuing Education at the University of California, Berkeley is committed to providing professional education to health professionals who serve the occupational health needs of workers and employers, as well as promote environmental health, in the communities where they live and work.

CE promotes health and safety in workplaces and communities by:

- *Educating* health professionals in epidemiology, ergonomics, industrial hygiene, medicine, nursing, toxicology, and related fields to be leaders in occupational and environmental health
- *Advancing the knowledge* of practicing health and safety professionals by offering short occupational and environmental health and safety continuing education courses
- *Offering continuing medical education* courses that are developed and evaluated by a standing NorCal ERC Continuing Medical Education Committee
- *Responding to the needs* of people affected by hazards in their workplaces or communities, with special attention to vulnerable populations

These goals are enacted through Continuing Education activities (such as symposia, skills workshops, online courses, and webinars) designed to provide skills-based training and increase professional certifications, and to create lasting impacts (such as reduced occupational illness and injuries, and reduced morbidity and mortality).



Becoming a Trainee

A student enrolled in a degree program at UC Berkeley, UC Davis, UC San Francisco and has been accepted into the NIOSH ERC Training program by the Programs Director is considered a trainee. Additionally, any resident accepted into the OEM Residency Program is also considered a trainee. Every trainee benefits from the grant funding provided by both the state and NIOSH since they both support faculty and staff critical to each program.

Every trainee is eligible to participate in interdisciplinary education opportunities such as classes, continuing education workshops, Symposia, and field trips. Most programs will require trainee attendance at least some of these opportunities most pertinent to their training.

Opportunities & Benefits

COEH Trainees have many benefits by being part of the NIOSH ERC at the Northern California COEH. Trainees are part of a network of Occupational and Environmental Professionals that includes faculty, staff, alumni, professionals, and state leaders from the NIOSH ERC at UC Berkeley, UC Davis, and UC San Francisco.

By engaging in the various opportunities that COEH offers, you will meet leaders in this space to help you:

- Learn more about Occupational & Environmental Health
- Develop new skills that will make you more effective in Occupational & Environmental Health
- Discover various career pathways in Occupational & Environmental Health
- Connect with individuals for internships or post-graduate career opportunities
- Meet new potential mentors
- Collaborate across disciplines

Below is a list of opportunities to consider throughout your time as a graduate student. Please **discuss these opportunities with your Program Director** to understand their expectations around your participation. Also, please look for **COEH Monthly Newsletters** emailed from COEH that include important information about these opportunities including registration links. Calendar invites will also be sent to all trainees from COEH for some of the events below.

Symposia

There are three symposia each year that all trainees are invited to attend. If you can not attend, you should notify your Program Director/Associate Program Director ahead of time. The symposia are the only events all year that all disciplines will be present for; thus, they serve an important purpose to meet your peers, colleagues, and the broad network of COEH faculty and advisory board members. Annually, the Symposia include:

- **Welcome Back Symposium:** Typically the third Friday of September is just before UC Davis and UCSF starting their fall quarter. This Symposium, typically held at UC Berkeley, will present an overview and updates from each Program Director and will present various awards for grants and theses submitted over the summer followed by a social gathering with food and drinks (pending COVID restrictions).
- **Fall Get Together:** Typically the 2nd week of November, this symposium will highlight student work by including 2-3 research presentations followed by a social gathering with food and drinks (pending COVID restrictions). The location for this event is UC Berkeley.
- **COEH Builds Bridges; The Lela Morris Symposium:** Typically held at the end of January or early February with an optional CME (Continuing Medical Education) course on Saturday. This Symposium features speakers from academia, government, and labor to discuss current-day research, policies, and practices important to occupational and environmental health. The location rotates between UC Berkeley and UC Davis.

Field Trips

In addition to field trips provided by individual programs, COEH plans 4-8 field trips per year that all trainees can register for. The intent is for these field trips to be in person, though COVID restrictions may require some months to be virtual. The benefits of field visits are numerous. Most importantly, they provide an up-close opportunity for seeing the work done while discussing existing and possible hazards and exposures that are/ need to be mitigated. We highly recommend that each trainee attend at least 2 field trips per year, though please check with your Program Director for more specific Program expectations. Field trips are typically scheduled on the third Friday of each month (September, October, November, February, March & April) in the morning, though times may vary based on the individual site location and requirements. Some field trips will have a hybrid option (Zoom) to increase attendance. Please watch out for the monthly emails from COEH which will have details and registration links for upcoming field trips.



Continuing Education Classes & Workshops

The COEH Continuing Education Program hosts multiple webinars, courses, Symposia, and workshops throughout the year. The webinars are all free of charge for trainees. COEH supports the registration of trainees who attend our Symposia and individual programs may support class and workshop registration fees, which are offered at reduced rates (cost) for all COEH trainees. We hope that cost is never a barrier for trainees; if a program can not



support a workshop or course that a trainee wants to attend, please contact COEH Business Manager, Gina Grayson, (see COEH staff summary) to request fee support from COEH. A complete list of upcoming continuing education opportunities can be found [online](#) and upcoming events will be highlighted in the COEH Monthly Newsletters emailed to trainees and faculty. Of note is that the UCSF Occupational and Environmental Medicine CME course is held annually in March and includes presentations on a variety of important topics and opportunities for trainees to present their work via poster presentations.

Internship & Job Opportunities

COEH receives numerous announcements and postings for employment and internship opportunities. These will be emailed to all COEH Trainees in the COEH Monthly Newsletter. If you have a particular interest in an area of practice or industry, please let your Program Director know so he/she can explore opportunities within the COEH network.

Conferences

All COEH trainees should strive to present their research at some point during their graduate studies. Opportunities include University, regional, national, and international conferences. Trainees can present their work via a poster or oral presentation, depending on the conference, their experience, and their work. Please discuss opportunities and format with your Program Director and/or Research Mentor. Some of the more regional opportunities include:

- The UCSF Occupational and Environmental Medicine [CME Course](#) is held annually in March.
- The Annual Regional National Occupational Research Agenda ([NORA](#)) [Young/New Investigators](#) Conference held in Salt Lake City annually in April

Please remember that as a COEH Trainee who is part of one of our programs, you should acknowledge the NIOSH ERC Training Grant on every presentation of your work (written, oral, or poster). Please see below for the exact language.

Professional Certificates

Every trainee has the opportunity (and some programs require it) to receive their OSHA 10 (10 hours) or OSHA 30 (30 hours) certification that verifies that you have received training on critical workplace safety topics. This certificate is an excellent addition to your resume and is financially supported by COEH. In the early summer, all trainees will receive notification of enrollment opportunities via the COEH Monthly Newsletter. Academic programs that require the OSHA 10 (OEHN, OEM) or 30 (ERGO, IH, ASH) will provide the names of trainees who are expected to take the course by June 30th.

Registration will occur in July and the online portion can be completed as soon as able but before the end of the calendar year (December 31). We highly recommend that those taking the OSHA 30 (and receiving 298 (Independent Study) course credit) perform a Job Hazard Analysis in the field and complete their online education before September 1st.

All registrants will also be invited to fall three seminars (2nd Wednesday of October, November, December from 8:10 am-10:00 am) to hear about the Fatality Assessment & Control Evaluation Program ([FACE](#)), Injury & Illness Prevention Plans ([IIPPs](#)), and Industry Specific Regulations in California. Again, please read your COEH Monthly Newsletters for more information.

Some programs prepare trainees for a specific professional certificate in their field. Please discuss preparation for your discipline-specific professional certificate preparation with your Program Director. Many of the certifications require field experience; thus, you may not receive your certification until well after you have graduated. With that said, Program Directors encourage you to plan your preparation and are always a resource for you, even after graduation.

Some of the Professional Certifications include:

- CIH, Graduates of the Industrial Hygiene (IH) Program can apply to be a Certified Industrial Hygienist accredited by the [American Board of Industrial Hygienists](#)
- CPE, Graduates of the Human Factors & Ergonomics (ERGO) Program can apply to be a Certified Professional Ergonomist, accredited by the [Board of Certified Professional Ergonomists](#)
- NP, Graduates of the Occupational & Environmental Health Nursing Program (OEHN) are eligible to apply for national certification for NP through the American Academy of Nurse Practitioners ([AANP](#)) or the American Nurses Credentialing Center ([ANCC](#)) and the American Board for Occupational Health Nurses (ABOHN) for certification for occupational health nurses.

Outreach Opportunities



Through Program facilitated opportunities, the Labor Occupational Health Program, and our Diversity, Equity & Inclusion Committee, COEH offers numerous opportunities for you to provide your time to community and occupational groups that could benefit from your expertise. Service opportunities range from a single lecture, webinar, or workshop to semester-long engagements with a particular group. Service opportunities will be presented at Symposia, through your program meetings and announced in the COEH Monthly Newsletters emailed to all trainees and faculty.

Given our mission, we invite every COEH trainee to volunteer for at least one service engagement during their time of study.

Each program may have different expectations so discuss your Program requirements with your Program Director. Please remember to report all service engagements to your Program Director so he/she/they can record them in your Program's Metrics. We track all aspects of community service to ensure that we are serving our mission.

Mentoring

Your Program Director is likely your primary mentor however, you may find that you are interested in additional mentors for research or practice. Given our broad reach across sectors, industries, and disciplines, we can support you and your Program Director in finding additional mentors to support your growth in a particular area. Research and service project announcements are included in the COEH Monthly Newsletters emailed to all trainees and faculty.

NIOSH ERC Trainee Funding

As part of the NIOSH ERC Training grant, each academic program has funded traineeships that trainees can apply for. These NIOSH ERC traineeships may support some or all tuition and/or a monthly stipend depending on your program and your level of graduate studies. There are some requirements to receiving this funding, which is allocated annually by your Program Director:

- Be enrolled as a full-time graduate student in the field in which the award is made and in good academic standing
- Be a US Citizen
- Report other tuition and stipend support, including GSI/GSR appointments, to COEH Business Manager or student services coordinator and your Program Director. If you have other support, this grant will provide the tuition and fees due in excess of other support. Stipends in lieu of tuition support need to be discussed with your Program Director (Applies to UC Berkeley Trainees Only).
- Adhere to the “COEH Trainee Expectations” below.

Registering for eRA Commons:

The eRA Commons system can be a little problematic. You will first receive a notice directly from eRA Commons asking that you register for an online account. Once you are registered, you'll receive eRA Commons login information and at that point, you can log into the system and complete all of your personal information. I will have entered very basic information, including your award amounts and you'll need to search through the various panels and include SSN (optional), residence, citizenship, and educational information, etc. While eRA Commons gives you 30 days to complete this information, we expect the trainee to start the xTrain process within 14 days to ensure there is time to troubleshoot any errors with eRA Commons. Late submissions have been rejected within the system and the trainee will have to start the registration process from the beginning. eRA Commons has a great help desk; please contact them at 866-504-9552.

Additional Funding Opportunities

There are a variety of funding sources available for trainees to support their tuition and, at times, a stipend. Additionally, funding may be available for conference travel through your Program or COEH.

COEH Grants & Awards

- **Healthy Equity in the Workplace (\$5,000)** The purpose of this award is to encourage students to think creatively about how to advance workplace equity, build the capacity of workers and community groups to take action, and enhance interdisciplinary collaboration and communication skills. *Application Deadline: early August of each year*
- **Llewellyn Student Project Award (\$5,000)** The Center for Occupational and Environmental Health (COEH) invites applications from UCB and UCSF graduate students and medical residents wishing to conduct a multidisciplinary research project in occupational or environmental health. Teaching, service, community intervention, and policy projects will also be considered. The purpose is to encourage students to work in teams with students from other disciplines to better address real-world problems. *Application Deadline: early August of each year*
- **M. Donald Whorton Writing Award (\$500)** Students and recent alumni (within two years of graduation) from any of the COEH-affiliated programs are eligible to submit a manuscript for consideration for the M. Don Whorton Writing Award. Papers may be co-authored; however, the student/alumnus must be the first or senior author. To be considered, papers must be *submitted* for publication. *Applications are due in August of each year.*

- **Targeted Research Training Grants (Tuition & Stipend).** The Targeted Research Training Fellowships are intended to promote interdisciplinary research training in occupational health and safety. The application process is competitive, but trainees receive a contribution to their research costs, as well as a stipend for living expenses and in-state tuition and fees. *Application Deadline: early July of each year*
- **STEER Short-Term Educational Experiences in Research (Summer Stipend).** Undergraduate Students who are interested in Environmental & Occupational Health can apply for a paid summer internship the summer of their Junior or Senior year. The goal of the STEER Program, funded by NIEHS, is to provide a short-term research experience and introductions to the various specializations within Environmental Health Sciences. *Applications are due in February of each year.*
- For more on COEH Awards, visit coeh.berkeley.edu/student-grants-and-writing-awards

Small Grants for Research or Travel

- The annual Utah NORA Young Investigator [Symposium](#) offers the opportunity to present posters and presentations to peers. Travel grants are available. Applications are typically due in March of each year.
- [SCERC Pilot Training Grant](#) offers between \$10,000-\$15,000 to support small research projects. Applications are typically due in April (letter of Intent) and May (full proposals)

HRSA

- The Health Resources and Services Administration provides [funding](#) to our Occupational and Environmental Medicine Residency Program.

GSI / GSR (UC Berkeley, UC Davis)

- Students may also apply to be a Graduate Student Instructor (GSI) or a Graduate Student Researcher (GSR)

Work-Study Opportunities

- COEH has work-study positions available each year. Students will support various projects and initiatives and will be supported by the COEH Administrative Team. Look for announcements and opportunities in the Monthly COEH Monthly Newsletters emailed around the 15th of each month.

American Industrial Hygiene Association - Northern California Section Awards

- **Bernard D. Tebbens Memorial Award**
 - The award is given for academic excellence and is open to students who have completed at least one year in the U.C. Berkeley Environmental Health Program. The awardee receives a monetary award. To apply, you must be a full-time graduate student at U.C. Berkeley, School of Public Health, majoring in Environmental Health Sciences. The awardee (and guest) will receive a complimentary dinner at the March meeting and will make a short presentation on his/her academic interest and professional goals.
- **Robert T. Legge Award.**
 - The award is open to students attending colleges or universities in the Bay Area that offer 4-year undergraduate and/or graduate programs in industrial hygiene or related environmental health studies. A maximum of two awards is given out each year, one to an undergraduate student and one to a graduate student. The recipients receive a monetary award and certificate. The awardee(s) (and guest) also receive a complimentary dinner at the March meeting and are invited to make a short presentation on his/her academic interest and professional goals.
- **Charles H. Powell Award**

- The award is for a full-time undergraduate or graduate student at a Northern California University with strong coursework in Safety Sciences, demonstrated sincere interest/or involvement in the safety profession, and is a current AIHA-NCS Student member. Extra-curricular and work or internship experience, as well as academic excellence, will be considered. The recipient will receive a monetary award and certificate. The awardee (and guest) also receive a complimentary dinner at the March meeting and are invited to make a short presentation on his/her academic interest and professional goals.
- **Christine Einert Award**
 - The AIHA-NCS has established this award to be given annually to a local section member whose qualities as a professional and a colleague have been marked and appreciated over the years by his or her fellow members. Recipients should be active members of the local section, generally for a decade or longer, and have contributed to the success of the local section. Certificate of appreciation (or plaque). Recognition by the membership at the July dinner meeting. Dinner paid for awardee and guest.
- View all available AIHA awards: <https://aiha-ncs.org/Awards#legge>

Military Affiliation

- Veterans may be eligible for tuition assistance and stipends under the [GI Bill](#).

Visiting Scholarships

- At times, funding is provided by other Universities to support trainees visiting and participating in one of our programs for up to 2 years. Although Visiting Scholars are not eligible for US Government grants, there may be stipend opportunities available through the Program. Information on visiting scholar programs is specific to the campus ([UC Davis](#), [UC Berkeley](#), [UCSF](#)) of affiliated programs

COEH Trainee Commitments and Expectations

COEH Trainees are expected to participate fully in their home program and are also invited to engage in COEH activities. Under COEH aegis, trainees accepted to any of the 6 Academic Programs have access to numerous opportunities and benefits and are encouraged to complete the following:

- Take required coursework specific to your Program/Specialization (discuss with your Program Director)
- Commit to Interdisciplinary Education opportunities (the specifics of which should be discussed with your Program Director) by:
 - Attending Annual Symposia
 - Taking or auditing Interdisciplinary Courses, as appropriate (see appendix)
 - Attending TRT Seminars, as appropriate (see calendar)
 - Engage in Field Visit opportunities
- Engage in one or more scholarly research activities and consider presenting and/or publishing your work (the scope of which should be discussed with your Program Director)
- Consider at least 2 hours of service/outreach related activity (presentations, projects, outreach in the community)
- Read COEH communications(emails) and respond when appropriate

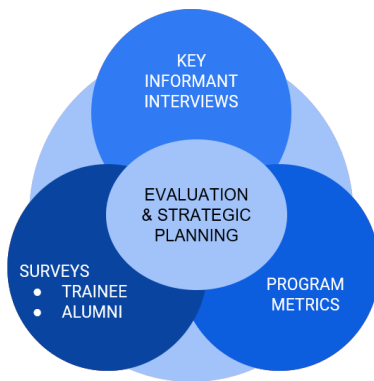
In addition, **COEH Trainees need to acknowledge our support from NIOSH in all current and future publications**, journal articles, conference proceedings that are a result of work performed during your time as a Graduate Student. The acknowledgment should use the following language:

“This publication (journal article, etc.) was supported by the Training Grant, T42OH008429, funded by the National Institute for Occupational Safety and Health (NIOSH) / Centers for Disease Control and Prevention (CDC).”

COEH Program Evaluations

Trainees are expected to complete NIOSH ERC evaluations to provide program feedback twice as a trainee and as an alumnus of the program. Evaluations are important to the NIOSH ERC and the Northern California COEH to continually improve program outcomes, and to report to NIOSH. Overall, there are three evaluations that you will be asked to complete:

- **Trainee Pre-Survey:** This survey is taken by trainees starting their traineeship during their first semester.
- **Trainee Follow-Up Survey:** This survey is taken by continuing trainees during their second / the following year(s)
- **Trainee Alumni Survey:** This survey is taken by alumni of the NIOSH ERC 1 year after graduation, 3 years after the first survey, and every 5 years after the second alumni survey.



Additionally, you may be asked to participate in a Key Informant Interview during or after your graduate studies. Finally, you will be asked by your Program Director to submit all presentations, publications, and service hours that you completed during the school year. We compile these metrics within each Program and across Programs to describe the output of the Center.

These Program Metrics are used in numerous ways including:

- Evaluating our current program
- Describing the impact of COEH
- Soliciting more support from Gov’t entities and other funders

Alumni Connections

There is no better way to know what it means to be a part of the COEH Family than to hear from alumni who were once where you are today. The COEH Website and many program individual websites include a variety of stories and testimonials that you might find helpful. By attending Symposia, you will have an opportunity to meet other alumni and hear about what they are doing in the occupational and environmental health sectors. Soon, our website will also host short videos from alumni and leaders in the field that want to share their experiences with you. Many programs host alumni and current trainee get-togethers, particularly at annual national conferences, to provide you with the opportunity to meet other alumni.

Appendix A: COEH Trainee Calendar of Events

Date	Item
September 16 th , 2022 3-5:00pm	Welcome Back Symposium
October 7 st , 2022 10am-11:00am	TRT (Targeted Research Training) Seminar via Zoom Occupational Health and Equity #1 (watch this first, we will discuss together) Meeting ID: 970 4318 5158 Passcode: 174873 Zoom link
November 4 th , 2022 10am-11:00am	TRT (Targeted Research Training) Seminar via Zoom Occupational Health and Equity #2 (watch this first, we will discuss together) Meeting ID: 970 4318 5158 Passcode: 174873 Zoom link
November 18 th , 2022 10:00am-12:00pm	COEH Interdisciplinary Field Trip*- TBA
December 2 nd , 2022 10am-11:00am	TRT (Targeted Research Training) Seminar via Zoom Occupational Health and Equity #3 (watch this first, we will have Q&A with Guest Speaker) Meeting ID: 970 4318 5158 Passcode: 174873 Zoom link
January 27 th , 2023 10am-11:00am	TRT (Targeted Research Training) Seminar via Zoom Meeting ID: 970 4318 5158 Passcode: 174873 Zoom link
February 3 & 4th, 2023 8:00am to 5:00pm	Lela Morris Symposium on Occupational Health UC Davis
February 17 th , 2021 10:00am-12:00pm	COEH Interdisciplinary Field Trip*- TBA
March 3rd, 2023 10am-11:00am	TRT (Targeted Research Training) Seminar via Zoom Meeting ID: 970 4318 5158 Passcode: 174873 Zoom link
March 9-11 th , 2023	Poster Presentations & OEM Conference * "The Musculoskeletal System at Work & Updates in OEM."
March 17 th , 2022 10:00am-12:00pm	COEH Interdisciplinary Field Trip*- TBA
April 7th, 2022 10am-11:00am	TRT (Targeted Research Training) Seminar via Zoom Meeting ID: 970 4318 5158 Passcode: 174873 Zoom link
April 28th, 2021 10:00am-12:00pm	COEH Interdisciplinary Field Trip*- TBA

Appendix B: List of Interdisciplinary Education Opportunities

Interdisciplinary Courses	Course # (for credit)
Occupational Toxicology (UCSF)	M180
Toxicology	NUSCTX 110 / PB HLTH 270B
Occupational and Environmental Epidemiology*	PB HLTH 254
Fundamental of Occupational Health & Safety (OSHA 10/30)*	PB HLTH 298
Occupational Biomechanics/ Ergonomics	PH 269C / EBS 128
Ergonomics Seminar: Evidence Based Approach to Preventing MSDs*	PH 269D
Management of Clinical Occupational Health Problems	N271.06
Science and Policy for Health & Environment	PH 271E
Agricultural Safety and Health	EBS 289C
Global Occupational Health*	PH 298
Social Justice & Worker Health*	PH 271J
Quantitative Research Design	N209B
Targeted Research Training Seminar*	PH 298

Color Codes:

UC Davis

UC Berkeley

UC San Francisco

COEH

** Online available to off campus participants*

Appendix C: COEH Trainee & NIOSH Traineeship FAQs

Q: Who is a COEH Trainee?

A: A COEH Trainee is any student or medical resident who is a part of the 6 academic programs. Each Program Director is available to discuss the program with potential trainees and must accept them into the position.

Q: Who is eligible to be a COEH Trainee?

A: Each program has its own requirements to become a part of the Program. Look at the Program's particular website and discuss the requirements with the Program Director.

Q: What happens if you graduate and don't finish your paper(s)?

A: It is expected that you complete your research as previously negotiated with your program director despite you completing your degree.

Q: What happens if you're presenting at a conference after graduation?

A: Funds from the NIOSH ERC may NOT be used for National Conferences after graduation. Support would have to come from other funds and should be discussed with your Program Director before submitting any abstracts.

Q: Can I travel to an international conference?

A: Funds from the NIOSH ERC may NOT be used for International Conferences. Support would have to come from other funds and should be discussed with your Program Director before submitting any abstracts.

Q: Who is eligible for a NIOSH ERC-funded traineeship?

A: Must be a US citizen or permanent resident alien (green card holder). The Northern California ERC is currently funded to support students in Industrial Hygiene, Ergonomics, and Epidemiology at UC Berkeley, Agricultural Safety and Health at UC Davis, and Occupational Health Nursing and Occupational Medicine at UC San Francisco.

Q: Is there any advantage to becoming a California resident?

A: Yes. Overall tuition is cheaper and because of limited funding, the Northern California ERC will pay for out-of-state fees only for the first year. Therefore, it is important for out-of-state students to begin establishing California residency as soon as possible in their first year. It takes about one year to complete. See the person who handles student affairs for your program for details.

Q: If I am receiving a NIOSH ERC-funded traineeship when are appointment forms due?

A: The Appointment of Trainee form (PHS # 2271) should be completed by each trainee and the program in which the trainee is enrolled no later than 30 days after the beginning of the appointment. This form is available from your program and on the Internet at: <http://grants.nih.gov/training/phs2271.pdf>.

Q: For what length and period of time can traineeship appointments be made?

A: The minimum trainee appointment time is nine months and the maximum is twelve months. Exceptions are possible—for example when a trainee graduates mid-year. The student's appointment period does not have to coincide with the time period of the grant. It is possible to appoint a student for 12 months beginning in any month of the grant year as long as the appointment ends within the 5-year grant period. Only the beginning date must fall within the grant period.

Q: Is there a maximum number of years allowed for receiving federal support?

A: Yes. The maximum number of years an individual can receive NRSA (National Research Service Award) support (including NIOSH traineeships and NIH Fellowships from all schools attended) is five years pre-doctoral and three years post-doctoral (for both institutional and individual awards) unless a waiver is granted.

Q: Can a student be employed by the university while receiving a traineeship?

A: Yes, but students receiving a stipend (plus T&F) during the academic year may be limited to how much they can work. In the summer, employment will be supplemented only up to a GSR appointment at 100% (Northern California ERC policy).

Q: Can a student receive funding from two federal sources?

A: Generally, trainees cannot be supported simultaneously on two federal funding sources, except in certain instances. The rule is: compensation may not be paid from a (federal) research grant which supports the same research that is part of the trainee's planned training experience as approved in the training grant application. (NIH Guide for Contracts and Grants, Vol. 13, No. 1, 1/6/84). However, if both sources are federal training grants, and the combined support from both does not exceed the stipend ceiling, a student can receive funding from two federal sources.

Q: How much support does a student receive from a NIOSH traineeship?

A: It varies, depending upon how much money each NIOSH-approved program receives in a given year, and how many students are enrolled. Support can include out-of-state tuition (first year only), fees, health insurance, travel, and a maximum stipend set by the federal government. Appointments for stipends can be made only to full-time students.

Q: Is income from a NIOSH traineeship taxable?

A: The stipend portion of a traineeship award may be taxable, depending on the trainee's tax situation and other school expenses. Trainees should obtain IRS Publication 4, Student's Guide to Federal Income Tax, and IRS Publication 520 on gift aid and tax requirements. The University does not issue a W-2 or 1099 and does not withhold taxes on traineeships.

Q: Will NIOSH pay the fees for adding and dropping courses?

A: No. NIOSH only pays fees to which all students are subject.

Q: Can a part-time student receive NIOSH support?

A: Part-time students, as defined by the institution in which they are enrolled, can receive Tuition and Fees from a NIOSH traineeship, but not a stipend.

Appendix D: COEH Core Administrative Team

Roles, Responsibilities, and Contact Information

- **Director;** *Carisa Harris, PhD*
 - carisaharris@berkeley.edu
- **Deputy Director;** TBA
- **Business Manager;** *Gina Grayson*
 - g.grayson@berkeley.edu
- **Interim Financial Management Support;** *Carl Pacheco, MBA*
 - carlpacheco@berkeley.edu
- **Student Services & Traineeship Coordinator;** *Norma Firestone*
 - nstone@berkeley.edu
- **Data System Analyst II;** *Jesús Alfaro*
 - jalfaro@berkeley.edu
- **Communications & Evaluation;** *Linda Neuhauser, PhD*
 - lindan@berkeley.edu
- **Program Evaluation;** *Winston Tseng, Ph.D.*
 - winston@berkeley.edu
- **Website and COEH Technical Support;** *Jessica Gorsuch, MS.Ed*
 - jgorsuch@berkeley.edu

Appendix E: COEH Executive Committee (Program Directors)



[Dr. John Balmes, MD](#)

Director: [Center for Occupational & Environmental Health](#)

Director: [NIOSH Education and Research Center \(ERC\)](#)

UC Berkeley & UC San Francisco

john.balmes@ucsf.edu

Research Interests:

- Effects of exposure to outdoor air pollution on respiratory and cardiovascular health, immune and glucose dysregulation, and obesity in children and adults
 - Effects of exposure to household air pollution (from combustion of biomass fuels for domestic cooking) on respiratory and cardiovascular health in children and adults
 - Effects of early-life exposure to pesticides on respiratory health later in the life course
 - Effects of arsenic in drinking water on respiratory health
 - Interactive health effects of exposures to air pollution and psychosocial stress
-



[Dr. Cristina Banks, PhD](#)

Program Director:

Interdisciplinary Center for Healthy Workplaces

UC Berkeley

cbanks@berkeley.edu

Research Interests:

- Organizational behavior
 - Human resource management
 - Optimizing the built environment
-



[Dr. Paul Blanc, MD, MSPH](#)

Program Director:

[Occupational & Environmental Medicine](#)

UC San Francisco

paul.blanc@ucsf.edu

Research Interests:

- Asthma and COPD in relation to workplace and environmental factors
 - Occupational and environmental toxicology with a focus on pulmonary responses
 - The history of occupational and environmental medicine
-



[Dr. Sadie Costello, Ph.D., MPH](#)

Program Director:

[Targeted Research Training Fellowship](#)

UC Berkeley

sadie@berkeley.edu

Research Interests:

- Exposure-response models for health outcomes from occupational exposures
 - Healthy workers survivor bias
 - Chronic disease
 - Administrative data
-



[Dr. Ellen Eisen, ScD](#)

Program Director:

Occupational and Environmental Epidemiology Training Program

UC Berkeley

eeisen@berkeley.edu

Research Interests:

- Exposure-response models for occupational health studies
 - Healthy worker survivor bias
 - Occupational respiratory disease
 - Opioid mortality and suicide in manufacturing workers
-



[Dr. Fadi Fathallah, PhD](#)

Program Director:

Agriculture Safety and Health

UC Davis

fathallah@ucdavis.edu

Research Interests:

- Exposure assessment and development of interventions for the prevention of musculoskeletal disorders among agricultural workers
 - Basic understanding of the effects of stooped postures and stooped work on the spine
 - Biomechanics of ladders in agriculture
-

**[Dr. Carisa Harris Adamson, PhD CPE](#)**

Director: [Center for Occupational & Environmental Health](#)

Director, [NIOSH Education and Research Center \(ERC\)](#)

Program Director, [UC Ergonomics Program](#)

UC Berkeley & UC San Francisco

carisaharris@berkeley.edu

Research Interests:

- Development of wearable technology that can be used for physical exposure assessment
 - Use of video tracking to quantify physical exposures associated with risk of MSDs
 - Exoskeleton assessment and application to high-risk occupations
 - The influence of cueing to reducing sedentary behavior
 - The impact of ergonomic interventions on endoscopy
 - Assessment of healthy worker survivor bias and ACGIH TLV for Hand Activity in a multi-country longitudinal cohort
-

**[Dr. Robert Harrison, MD, MPH](#)**

Associate Program Director:

[Occupational & Environmental Medicine](#)

UC San Francisco

robert.harrison@ucsf.edu

Research Interests:

- Risk factors and prevention strategies for work-related carpal tunnel syndrome
 - Heat stress
 - Asthma and pesticide poisoning in the California workforce
 - Risk factors and prevention strategies for work-related fatalities
 - Tracking of work-related injuries and diseases in California
 - Investigation of novel cases and outbreaks in the California workplace
-



[Dr. Oi Saeng Hong, RN, PhD, FAAN](#)

Program Director:

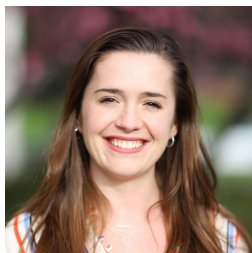
[Occupational & Environmental Health Nursing Program](#)

UC San Francisco

oisaeng.hong@ucsf.edu

Research Interests:

- Auditory impairment due to exposure to environmental and occupational ototoxins
 - Health disparities among vulnerable immigrant and migrant workers
 - Workplace and community-based participatory research
 - Environmental health, Global health, and international collaborations
 - Population Health
 - Health and technology-based nursing interventions
 - Prevention of occupational diseases and injuries
 - Cardiovascular disease risk factors
 - Health behavior change
 - Training advanced occupational health nursing workforce
-



[Michelle Meyer](#)

Program Director:

[COEH Continuing Education](#)

UC Berkeley

mmeyer@berkeley.edu

Research Interests:

- Climate Change and Public Health
 - Human-Centered Agriculture
 - Diversity, Equity, Inclusion & Belonging and Health Equity
 - Communication & Marketing Strategies for Continuing Education
-



[Dr. Elizabeth M. Noth, PhD](#)

Associate Program Director:

Industrial Hygiene Program

UC Berkeley

bnoth@berkeley.edu

Research Interests:

- Air pollution exposure assessment for epidemiology studies
 - Traffic- and rail-related air pollution sources and trends in California
 - Intentional and unintentional biomass burning as a source of increased exposure to toxic air contaminants, specifically polycyclic aromatic hydrocarbons
 - Industrial hygiene and the health of workers
-



[Dr. Ajay Pillarisetti, Ph.D.](#)

Associate Program Director:
Industrial Hygiene Program
UC Berkeley

ajaypillarisetti@berkeley.edu

Research Interests:

- Air Pollution
 - Burden of Disease Estimation
 - Energy, Health, and Climate Change
 - Exposure Assessment
 - Global Environmental Health
 - Implementation Science
 - Low(er) Cost Environmental Sensors
-



[Laura Stock, MPH](#)

Program Director:
[Labor Occupational Health Program \(LOHP\)](#)
UC Berkeley

lstock@berkeley.edu

Research Interests:

- Worker Occupational Safety and Health Training and Education Program (WOSHTEP)
 - Homecare Workers
 - Workplace Ergonomics
 - Comprehensive and effective health and safety programs
 - Injury and illness prevention programs
-

Appendix F: COEH External Advisory Board

Table 2. Executive Advisory Board Members during the Program Period	Type
Garrett Brown, CIH Retired special assistant to Cal/OSHA Chief, >20yrs as a Field Compliance Safety Officer	Government
^James Craner, MD, MPH Senior Industrial Hygiene Program Manager at Tesla	Industry
Ann Dinh, OEHN Health Services Nurse Manager at San Francisco Marriott Marquis	Industry
Michael Fischman, MD Owner Fischman Occupational Medicine Group	Consultant
Robin Baker, MPH Retired; Former Deputy Director of COEH	Academia
Nina Townsend, CIH Associate Safety Engineer Cal/OSHA; Former Chief of Lead Poisoning Prevention	Government
Richard Hirsch, CIH Director EHS Nektar Therapeutics	Industry
Meg Honan, MS CPE Former Director of Genentech Ergonomics Program; Current Lead Consultant & Course Instructor for UC Ergo Program	Industry; Academia
^Lynette Landry, PhD RN Chair & Professor of Nursing at California State University Channel Islands	Academia
Barbara Materna, PhD Chief of Occupational Health Branch, California Department of Public Health	Government
Laurel Davis, MPH Environmental Health & Safety Manager at Lawrence Berkeley National Laboratory	Government
Victoria Sharpneck , Communication Analyst Western Center for Agricultural Health & Safety at UC Davis	Academia
^Nancy Menzel, PhD RN Associate Professor University of Nevada Las Vegas	Academia
Robert Nacco, CIH Retired from Chevron	Industry
Maggie Robins , Occupational & Environmental Health Specialist, Worksafe	NGO*
^Bernyce Peplowski, DO Occupational and Emergency Medicine Specialist Honolulu HI	Healthcare
Melinda Vertin, NP Good Samaritan Hospital	Healthcare

*^ represents Hawaii, Nevada or Guam | * Non-Governmental Organization*

Appendix G: COEH Information Sheet



We promote healthy workplaces and environments that protect workers and communities from occupational and environmental health hazards through teaching, research, and service.

COEH has been a **NIOSH** Education & Research Center since 1980.

TEACHING

Educating health professionals and researchers in occupational and environmental health.

112 Trainees across **6** Programs

Degrees Completed { **56** Masters **15** PhDs

21 Medical Residents

31% Under-Represented Minorities

97 Faculty **3** UC Campuses

RESEARCH

Developing new knowledge through an interdisciplinary research agenda focused on preventing illness and injury.

400+ manuscripts, book chapters, publications by faculty and student trainees

600+ participants have attended free monthly CE webinars on OSH topics

SERVICE

Responding to the needs of people affected by hazards in their workplaces or communities.

1,500 industry individuals reached yearly through LOHP outreach

281 CE courses **13,665** learners served

61,619 total hours of training

71% of attendees were likely to change their practice as a result of CE courses taken



Data Source is 2015–2020.

We serve government, industry, schools, health professionals, and the general public through programs and partnerships designed to deepen the understanding of occupational and environmental hazards, and to prevent disease, fatalities, and injuries.

TRAINING TOMORROW'S LEADERS

Academic programs provide financial support and intensive mentorship for students interested in pursuing practitioner or research-based careers in occupational and environmental medicine and nursing, agricultural safety, human factors and ergonomics, industrial hygiene, occupational epidemiology.

ENSURING EFFECTIVE RESEARCH TO PRACTICE

The Labor Occupational Health Program (LOHP) leads community outreach efforts and provides a key connection between academics, researchers, students, workers and labor organization groups, ensuring that research has a direct impact on public health.

ADDRESSING THE NEEDS OF THE GREATER COMMUNITY

The Continuing Education (CE) program provides numerous classes, workshops and webinars to promote best practices, share the latest research, and meet professional (re)certification licensure needs.

WWW.COEH.BERKELEY.EDU



#1 Public University



#2 Medical School



#1 Agricultural Program



Our Impact

Through teaching, research, and service, we improve workers health, productivity, and quality of life.

COVID RESPONSE:

COEH responded to the pandemic comprehensively and collectively to meet the needs of our most vulnerable workers.

Our Occupational Medicine Residents and Nurses **managed UCSF health care workers hotline** and contact tracing protocols.

A survey study of Grocery Workers collected data presented to state officials considering workplace policies for frontline workers.

All students and faculty have engaged in research, teaching, health care, or contact tracing efforts to reduce the spread of COVID-19.

Nearly 20 online classes, webinars and workshops on COVID-19 prevention and response in the workplace have been developed to help workers stay safe during the pandemic.

A study on air particles and ventilation in elevators will help people return to the office.



“Which Mask Do I Need?”

infographic created and disseminated by IH for the general public on use of PPE during the pandemic

TEACHING: TRAINING TOMORROW’S EXPERTS

When Charles Miller (MS 2019) took his first ergonomics course, he immediately understood the impact that an ergonomist could have on people like his Dad who had worked for a curbside recycling company for his entire career. Manually lifting and emptying recycle bins took an irreversible toll on Mr. Miller’s shoulders and knees to the point where he could no longer work. Charles now helps workers prevent injuries so they can work without the pain and disability that his dad endured.



RESEARCH: THE IMPACT OF WILDFIRES ON HEALTH

COEH investigators have studied the hazards of wildland firefighting for many years. Notable findings include reduced lung function after a fire season, personal exposure to polycyclic aromatic hydrocarbons (PAHs) during firefighting, and estimated increased risk of death from heart disease and lung cancer. We have also measured community exposure to wildland fire smoke that increases risk of attacks of asthma and eczema.



SERVICE: PROTECTING YOUNG WORKERS

Using a “train the trainer” approach, LOHP trains 4–6 Richmond Youth Workers to lead 1-hour workshops to the peers about Young Workers and Occupational Health and Safety. Last summer, students put their training to use by alerting adults when an employer asked them to clean up rat droppings without any training or personal protective equipment. Investing in training our youth today produces safer work places for decades to come.



WWW.COEH.BERKELEY.EDU

Appendix H: Core & Affiliated Faculty & Support Personnel

(in alphabetical order)

Thomas Allems, MD, MPH*

Campus: UC San Francisco

Bio: Assistant Clinical Professor of Medicine, Division of OEM, UCSF.
Consultant in Occupational Medicine

Link: <https://directory.ucsf.edu/people/search/id/627>

Latifat Apatira, MD MPH*

Campus: UC San Francisco

Bio: (Assistant Clinical Professor, UCSF and Staff Physician, Kaiser Permanente Medical Group).
Site co-preceptor, Kaiser SF clinical rotation; Member, RAC.

Link: <https://mydoctor.kaiserpermanente.org/ncal/providers/latifatapatira>

Mehrdad Arjomandi, MD

Campus: UC San Francisco

Bio: Professor of Medicine, UCSF. Director, Human Exposure Laboratory SFGH. Environmental Medicine Clinic, SFVAMC

Research Focus Areas:

- Exposure-related lung diseases
- Air pollution's contribution to the development and progression of respiratory (asthma and COPD) and cardiovascular (atherosclerosis) diseases
- Ozone inhalational challenge as a model of respiratory disease exacerbation

Link: <https://profiles.ucsf.edu/mehrdad.arjomandi>

Robert Atwill, DVM, MPVM, PhD

Campus: UC Davis

Bio: Over the past 20 years, Dr. Atwill has developed a comprehensive research, outreach, and teaching program in zoonotic infectious disease control, which is primarily focused on bacterial and protozoal pathogens in the agricultural production environment.

Research Focus Areas:

- Characterizing fundamental biotic and abiotic processes governing the fate and transport of zoonotic pathogens
- Developing on-farm disease control strategies for reducing food and waterborne zoonotic infection
- Multiscale sociobiological processes driving transmission of enteric zoonotic pathogens within human-animal networks.

Link: <https://www.vetmed.ucdavis.edu/faculty/edward-robert-atwill>

John Balmes, MPH, MD

Campus: UC Berkeley

Bio: Professor of Medicine, UCSF with a joint appointment, UCB School of Public Health [SPH]; Chief, Division of OEM, SFGH; Director, NorCal- ERC (Professor of Medicine, UCSF with a joint appointment, UCB School of Public Health [SPH]; Chief, Division of OEM, SFGH; Director, COEH). Dr. Balmes is Chief of the Division of Occupational and Environmental and Medicine at San Francisco General Hospital (UCSF), a faculty member of the Division of Environmental Health Science (EHS)

Division at UC Berkeley, and Director of both the Northern California Center for Occupational and Environmental Health and the NIOSH Educational Resource Center.

Research Focus Areas:

- Occupational lung disease and public health policy
Health effects of ozone, nitrogen dioxide, and particulate matter.
- Controlled exposure chamber studies on human subjects, epidemiologic studies on air quality and asthma in Fresno
- Exposures to indoor smoke from cookstoves and health effects in Guatemala and Malawi.

Courses:

- PB HLTH 270

Link: <https://profiles.ucsf.edu/john.balmes>

Rahmat Balogun, DO, MPH*

Campus: UC San Francisco

Bio: Assistant Clinical Professor, UCSF, Clinical preceptor and staff physician, Tang Health Center, UC Berkeley, member, RAC.

Research Focus Areas:

- Role of osteopathic manipulation in employee health clinical practices

Link: <https://profiles.ucsf.edu/rahmat.balogun>

Alan Barr, MS

Campus: UC San Francisco

Bio: (Mechanical Engineering) Senior Engineer UC San Francisco (100%)

Research Focus Areas:

- Teaches and supports the use of all lab equipment
- Supports activities in the HFE Work Simulation Center

Courses:

- PB HLTH 269C/D
- Applied Skills in Ergonomics (ERGO Workshop)

Link: <https://www.ergo.berkeley.edu/faculty>

Michael Bates, PhD

Campus: UC Berkeley

Bio: Adjunct Professor of Epidemiology at UC Berkeley

Research Focus Areas:

- Cross-sectional studies of occupational exposures
- Heavy Load Carrying in Developing Countries

Courses:

- PB HLTH 250A
- Interdisciplinary Research Seminar (UCSF)

Link: <https://publichealth.berkeley.edu/people/michael-bates/>

Timothy Beatty, PhD

Campus: UC Davis

Bio: Professor of Economics in the Department of Agricultural and Resource Economics at UC Davis. Co-Editor of the American Journal of Agricultural Economics. His research relates to the empirical analysis of consumption behavior, specifically as it relates to health outcomes. His research tends to

focus on food consumption and the demand for nutrition and health, at both the household and aggregate levels. He has recently been involved in research related to the cost of agricultural injuries and illnesses. He will be available to serve on trainees' Qualifying Exam and dissertation committees, as appropriate.

Link: <https://are.ucdavis.edu/people/faculty/tim-beatty/>

Deborah Bennett, PhD

Campus: UC Davis

Bio: Faculty member of the Graduate Group in Pharmacology and Toxicology and the Graduate Group in Epidemiology. Research focuses on the fate, transport, and exposure of organic compounds and chemicals in multi-scale applications, including direct consumer product use, and indoor and outdoor multimedia environments within the context of both environmental epidemiology and environmental risk assessment. Her work utilizes both modeling and measurement techniques, bridging the gap between these two lines of inquiry. Research interests related to agriculture include the development of exposure assessment methods and the exposures to particulate matter, endotoxins, and pesticides among farmworker populations. She also conducts exposure studies focusing on flame retardants, hazardous air pollutants, and perfluorinated compounds. Over the last 16 years, Dr. Bennett has mentored several master's students, four predoctoral students, and four post-doctoral fellows.

Link: <https://profiles.ucdavis.edu/deborah.bennett>

Paul Blanc, MD, MPH

Campus: UC San Francisco

Bio: Professor of Medicine, Division of OEM, UCSF. Chief, Division of OEM: Parnassus-Mt Zion, SFGH, and VAMC. Occupational pulmonary medicine, asthma, and other respiratory diseases, disease severity, occupational disability, musculoskeletal injuries in hospital workers. Co-teaches N271.06 (Management of Clinical Occupational Health Problems) with OEHN faculty (Domeracki)

Research Focus Areas:

- Occupational lung disease
- Asthma and COPD in relation to workplace and environmental factors
- occupational and environmental toxicology with a focus on pulmonary responses
- the history of occupational and environmental medicine.

Link: <https://profiles.ucsf.edu/paul.blanc>

Garrett Brown, MPH, CIH

Campus: UC Berkeley

Bio: Lecturer UCB SPH

Research Focus Areas:

- IH
- Global Occupational Health

Courses:

- PH290 GOH

Link: <http://mhssn.igc.org/>

Andre Cardenas, MPH, PhD

Campus: UC Berkeley

Bio: Assistant Professor of EHS/UC Berkeley. Studies the impact of prenatal exposure to metals, air pollution, and endocrine-disrupting chemicals, including pesticides, on the epigenome of infants and children.

Research Focus Areas:

- Environmental molecular epidemiology

Courses:

- PH 150B

Link: <https://publichealth.berkeley.edu/people/andres-cardenas/>

Jessica Chuang, MD MPH

Campus: UC San Francisco

Bio: (Assistant Clinical Professor, UCSF). Chief, Employee Health Zuckerberg General Hospital. Clinical preceptor, employee health rotation; Member, CCC, RAC.

Research Focus Areas:

- OEM resident education methods and outcomes

Link: <https://oem.ucsf.edu/people/jessica-chuang>

Richard Cohen, MD, MPH*

Campus: UC San Francisco

Bio: Clinical Professor of Medicine, Division of OEM, UCSF
Private Practice — Occupational Medicine and Industrial Toxicology

Research Focus Areas:

- Exposure assessment
- Development of occupational exposure limits
- Corporate global medical director
- Medical surveillance and biologic monitoring
- Pharmaceutical industry occupational exposure containment,
- Litigation consultation and testimony.

Link: <https://profiles.ucsf.edu/richard.cohen>

Nicole Collman, RN, ANP-BC, CNS

Campus: UC San Francisco

Bio: Assistant Clinical Professor, has practiced in OH for over 13 years. Currently practices as an OH NP at Pixar (computer animation co.) and Adult Nurse Practitioner at UCSF's Screening and Acute Care Clinic. She is an expert in the prevention and treatment of work-related injuries and disorders. Her areas of interest include OEHN and primary care, OEHN role/ case management, program planning, aerosol transmissible diseases, infection control, ergonomics, and urgent care. She plans the OEHN-NP students' clinical practica and provides clinical supervision for them, teaches OEHN role (N414.02A) and program planning practica (N414.02B), and manages clinical training for 1st-year MS students (N414.28B). She assumes recruitment and screening responsibilities for MS applicants.

Link: <https://profiles.ucsf.edu/nicole.collman>

Kathryn Conlon, PhD

Campus: UC Davis

Bio: Dr. Conlon is an Assistant Professor, jointly appointed in the UC Davis School of Medicine Department of Public Health Sciences and School of Veterinary Medicine Department of Medicine and Epidemiology. Dr. Conlon incorporates traditional environmental epidemiological study design,

Spatio-temporal exposure assessment, weather and climate modeling, land-use modeling, and mixed-methods for social and behavioral epidemiology. She works with state and local health practitioners to systematically characterize and implement climate change and public health actions in support of building an evidence base for climate change and health interventions.

Research Focus Areas:

- How climate change influences human, animal, and environmental health

Link: <https://profiles.ucdavis.edu/kathryn.conlon>

Sadie Costello, PhD

Campus: UC Berkeley

Bio: EHS Lecturer and Assistant Researcher/UC Berkeley (Lecturer and Assistant Researcher/ UC Berkeley) focuses on ischemic heart disease in relation to PM2.5 and shift work in the AMC and UAW-GM cohort studies. She also studies heart disease mortality in relation to diesel exhaust exposure in the Diesel Exhaust in Miners Study (DEMS) and has published several recent studies on silica exposure, silicosis, and lung cancer. Dr. Costello provides substantial student mentoring on data analysis methods, coding, and study design, as well as program research support, and is listed as key personnel on this training grant.

Research Focus Areas:

- Occupational Cohort Studies

Courses:

- PB HLTH 254

Link: <https://publichealth.berkeley.edu/people/sadie-costello/>

Mark Cullen, MPH, MD

Campus: UC Berkeley

Bio: Professor Medicine and Public Health, Director, Stanford Center for Population Health Sciences, Associate Vice Provost for Research, Stanford. Since 1997, his research has shifted towards large population health studies of social, economic, and environmental risk factors. The single largest project is a study of disease, disability, and death in a large cohort of aluminum workers. The ongoing studies of Alcoa employees, recently renamed the American Manufacturing Cohort (AMC), have produced more than 70 papers and trained over 40 doctoral and postdoctoral students in medicine, epidemiology, biostatistics, and economics.

Research Focus Areas:

- Disease, disability, and death in aluminum workers

Link: <https://med.stanford.edu/sino-us/speakers/mark-cullen.html>

James Craner, MD, MPH

Campus: UC San Francisco

Bio: (Assistant Clinical Professor of Medicine, UCSF; Corporate medical, Tesla. Consultant/Clinician—Occupational and Environmental Medicine, Reno & Las Vegas, NV / Sacramento, CA. Summer industrial hygiene site visit preceptor, Nevada; Member, COEH External Advisory Committee.

Research Focus Areas:

- Electric vehicle and EV lithium-ion battery manufacturing
- Medical surveillance
- Biological monitoring and audiometric data analytics
- Health and safety compliance & software

Link: <https://directory.ucsf.edu/people/search/id/6841>

Rupali Das, MD, MPH*

Campus: UC San Francisco

Bio: (Clinical Professor of Medicine, UCSF; Medical Director, Zenith Insurance) Site preceptor, Senior Vice President, and California Medical Director, Zenith Insurance; Member, RAC.

Research Focus Areas:

- Early intervention following work-related illness or injury to mitigate the negative impact of chronic comorbidities and psychosocial factors on recovery
- Promoting safer alternatives to chemicals used in the home and workplace
- Tracking work-related illness to understand etiology and recommend preventive measures
- Measuring human exposures to chemicals through biomonitoring to reduce health effects and promote safer and more responsible chemical use policies

Link: <https://profiles.ucsf.edu/rupali.das-melnyk>

Laurel Davis, MPH, CIH, EHS

Campus: UC Berkeley

Bio: Manager at Lawrence Berkeley Lab

Research Focus Areas:

- Ventilation

Courses:

- 6wk module
- PH 290 EA&C II

Link: <https://www.linkedin.com/in/laureldaviscih/>

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

Campus: UC San Francisco

Bio: Associate Clinical Professor with a focus on OH in healthcare settings including medical surveillance programs, injured worker care, and case management, infectious disease prevention and management of exposures, immunizations, and bloodborne pathogen exposures. She also practices as an NP for the San Francisco VA Health Care System's OEH services. Ms. Domeracki provides clinical training for 1st-year MS students (N414.28B) and co-teaches an OEH illness and injury management course (N271.06) with Dr. Blanc, OEM Program Director. She is a liaison faculty for the OEHN program advisory board.

Link: <https://profiles.ucsf.edu/sandra.domeracki>

Timur Durrani, MD, MBA, MPH*

Campus: UC San Francisco

Bio: (Associate Clinical Professor of Medicine, UCSF; Director, Occupational Health Services (OHS), Lawrence Berkeley National Laboratory [LBL]). Site director, LBL rotation; preceptor, California State Poison Control System, SF Division; Member, PEC, and RAC.

Research Focus Areas:

- Occupational and environmental toxicology and emergency preparedness

Link: <https://profiles.ucsf.edu/timur.durrani>

Ellen Eisen, ScD

Campus: UC Berkeley

Bio: Director Occupational Epidemiology Program. Ellen Eisen is a professor at the UC Berkeley School of Public Health. She is interested in methods in occupational epidemiology. Her expertise bridges three fields — occupational and environmental health, biostatistics, and epidemiology. Trained in biostatistics and motivated by questions about the occupational causes of disease, interested in methods for addressing analytical limitations imposed by conventional approaches to exposure-response modeling.

Research Focus Areas:

- Epidemiologic methods
- Healthy worker survivor effect

Courses:

- PB HLTH 254

Link: <https://publichealth.berkeley.edu/people/ellen-eisen/>

Fadi Fathallah, PhD

Campus: UC Davis

Bio: Director Agricultural Safety & Health. Dr. Fathallah is a Professor in Biological and Agricultural Engineering. His research focuses on exposure assessment and the development of interventions for the prevention of musculoskeletal disorders among agricultural workers. He is the Associate Director of the Western Center of Agricultural Health and Safety and oversees the Small Grant Program. Dr. Fathallah is also the Associate Vice Provost for Global Education and Services and directs the USDA California AgrAbility Project and the UC Agricultural Ergonomics Research Center.

Research Focus Areas:

- Agriculture
- Wearables
- Exoskeleton
- Tool Evaluation
- Spine Biomechanics

Courses:

- PB HLTH 269C

Link: <https://aghealth.ucdavis.edu/fadi-fathallah>

Michael Fischman, MD, MPH*

Campus: UC San Francisco

Bio: (Clinical Professor of Medicine, UCSF; Medical Director, Intel Corporation and Pixar) Site preceptor, consulting rotation including Intel and other corporate industrial sites; Coordinator, OEM UCSF volunteer clinical faculty; Member, CCC, and RAC.

Link: <https://directory.ucsf.edu/people/search/id/14566>

Ken Goldberg, PhD

Campus: UC Berkeley

Bio: Professor UCB IEOR & Electrical Engineering & Computer Science

Research Focus Areas:

- Robotics

Courses:

- Varies- IEOR Courses

Link: <https://www2.eecs.berkeley.edu/Faculty/Homepages/goldberg.html>

Samuel Goldman, MD, MPH

Campus: UC San Francisco

Bio: (Professor of Clinical Medicine) Environmental Medicine Clinic, SFVAMC Parkinson's Disease Research, Education and Clinical Center, SFVAMC. Curriculum program leader, OEM grand rounds; Member, PEC, and RAC.

Research Focus Areas:

- Occupational and environmental epidemiology of Parkinson's and other neurodegenerative diseases

Courses:

- MED180 Occupational Toxicology (OEHN)
- PH298 Occupational and Environmental Toxicology Tutorial

Link: <https://profiles.ucsf.edu/samuel.goldman>

Jay Graham, ScD

Campus: UC Berkeley

Bio: Assistant Professor of EHS/UC Berkeley

(Assistant Professor of EHS/UC Berkeley) studies household and small farm exposures to the spatial and temporal transmission of antimicrobial resistance and zoonotic infectious diseases. He has also worked on the development of public health initiatives for the prevention and control of environmental infectious diseases.

Research Focus Areas:

- Antimicrobial resistance and zoonotic infectious disease

Courses:

- PH 270A

Link: <https://publichealth.berkeley.edu/people/jay-graham/>

Sandeep Guntur, MD, MPH*

Campus: UC San Francisco

Bio: (Associate Clinical Professor of Medicine, UCSF and Staff Physician, SF VAMC). Assistant Chief for Compensation and Pension, San Francisco VAMC. Site director, SF Veterans Administration Medical Center; Member, CCC, and RAC.

Link: <https://profiles.ucsf.edu/sandeep.guntur>

S Katharine Hammond, Ph.D., CIH

Campus: UC Berkeley

Bio: (Professor of EHS, Associate Dean of UC Berkeley School of Public Health) focuses on the characterization of airborne chemicals and exposure assessment for epidemiologic studies, including the AMC and UAW-GM cohort studies. She is also one of the multiple PIs (along with John Balmes) on the Children's Health Study of Air Pollution (CHAPS).

Research Focus Areas:

- Exposure assessment
- Industrial hygiene (IH)
- Occupational epidemiology and exposure assessment

Courses:

- PH 267B
- PH 290 EA&C II*
- PH 290 GOH**

Link: <https://publichealth.berkeley.edu/people/s-katharine-hammond/>

Carisa Harris-Adamson, PhD, CPE

Campus: UC Berkeley

Bio: Assistant Professor UCSF Department of Medicine & UCB School of Public Health; Director UC Ergo Program; Deputy Director NorCal-ERC. She has been teaching, doing research, and consulting in the field of ergonomics for nearly 15 years and is a Certified Professional Ergonomist. Dr. Harris-Adamson is an ad hoc reviewer for the OSH study section, a member of the International Ergonomics Association team designated to write a Human Factors and Ergonomics policy for adoption by the International Labor Organization, and is currently a Science Policy Fellow of the Human Factors & Ergonomics Society.

Research Focus Areas:

- Wearables & Exoskeletons
- Epidemiology of MSDs
- Sedentarianism
- Hand-Computer Interaction
- Tool Design Assessment
- Occupational ergonomics
- Peripheral nerve entrapment, work-related tendon disorders
- Cardiovascular load
- Workplace intervention studies

Courses:

- IEOR 170
- PB HLTH 269 C/D
- PB HLTH 298B
- Summer Skills Lab

Link: <https://publichealth.berkeley.edu/people/carisa-harris-adamson/>

Robert Harrison, MD, MPH

Campus: UC San Francisco

Bio: Clinical Professor UCSF Department of Medicine; Chief Occupational Health Branch of the California Department of Public Health

Research Focus Areas:

- Public Policy

Courses:

- PH 269E

Link: <https://profiles.ucsf.edu/robert.harrison>

Stephanie Holm, MD MPH*

Campus: UC San Francisco

Bio: (Assistant Clinical Professor of Medicine, UCSF; doctoral candidate, epidemiology, UCB SPH). Faculty of PEHSU (Pediatrics and OEM); member of PEC and RAC.

Research Focus Areas:

- Adverse health effects of indoor and ambient air pollution in pediatric and general populations.

Link: wspehsu.ucsf.edu/about-us/our-team/ucsf-pehsu-staff/stephanie-holm-md-mph/

OiSaeng Hong, PhD, RN, FAAN

Campus: UC San Francisco

Bio: Professor, OEHN Program Director (more information about her clinical background, teaching commitment, and research expertise, see A.1 and C.1)

Link: <https://profiles.ucsf.edu/oisaeng.hong>

Sarah Janssen, MD, MPH, PhD*

Campus: UC San Francisco

Bio: (Assistant Clinical Professor of Medicine, UCSF and Staff Physician, Kaiser Permanente Medical Group). Site director, Kaiser SF clinical rotation; Member, CCC, and RAC.

Research Focus Areas:

- Environmental exposures to endocrine-disrupting chemicals such as phthalates, bisphenol A, and flame retardants; chemical screening
- Testing strategies for carcinogens and endocrine disruptors.

Link: <https://oem.ucsf.edu/faculty>

Paul Johnson, MD

Campus: UC San Francisco

Bio: (Assistant Clinical Professor of Medicine, UCSF; Physician, Kaiser Permanente Medical Group San Francisco). Site preceptor, Kaiser SF clinical rotation; Member, CCC, and RAC.

Link: <https://oem.ucsf.edu/faculty>

Ann Keller, PhD

Campus: UC Berkeley

Bio: Professor, UCB SPH

Research Focus Areas:

- Occupational and Environmental Policy

Courses:

- PH 271E

Link: <https://publichealth.berkeley.edu/people/ann-keller/>

Farzaneh Khorsandi, PhD

Campus: UC Davis

Bio: Dr. Khorsandi is an Assistant Agricultural Safety and Health Extension Specialist in the Department of Biological and Agricultural Engineering at the University of California, Davis. She is working on several outreach and research programs focusing on ATV safety. She successfully finished a project titled "ATV Rollover Hazards and Interventions" which includes evaluating previous studies related to ATV rollovers and reviewing reported ATV rollover accidents. She is developing the first agricultural ATV safety test station in the US. :

Link: <https://bae.ucdavis.edu/people/farzaneh-khorsandi>

Robert Kosnik, MD

Campus: UC San Francisco

Bio: (Clinical Professor of Medicine, UCSF; Chief Occupational Health Services, UCSF) Role in the program: Director, MT Zion outpatient OEM clinical activities, including a multidisciplinary clinic; Preceptor, needle stick surveillance hotline rotation; Course co-leader (with Dr. Blanc), annual CME updates course; Member, CCC, and RAC.:

Link: <https://profiles.ucsf.edu/robert.kosnik>

Niklas Krause, PhD

Campus: UC San Francisco

Bio: UC Berkeley Mechanical Engineering

Research Focus Areas:

- Hotel Housekeeping
- Public Policy Impact

Courses:

- Guest Lecturer

Link: <https://coeh.ph.ucla.edu/people/niklas-krause/>

Soo-Jeong Lee, RN, ANP, PhD

Campus: UC San Francisco

Bio: Associate Professor. Dr. Lee has 19 years of research experience in OH, including work as a research contractor at the California Department of Public Health, OH Health Branch. She works closely with Dr. Hong in Ph.D. students' research training through participation in the doctoral seminar (N240.11) and serving on the qualifying examination and dissertation committees for Ph.D. students. She teaches OH & Diverse Worker Populations (273A) and Principles & Methods of Epidemiology (N212C).

Research Focus Areas:

- Safety behavior and Risk perception
- Musculoskeletal Disorders
- Chemical Exposure
- Healthcare Workers
- OH Surveillance
- Epidemiology
- Public Policy Impact
- Safe Patient Handling

Courses:

- N240.11
- N273A
- N212C
- PB HLTH 269C

Link: <https://profiles.ucsf.edu/soo-jeong.lee>

Barbara Materna, PhD, CIH

Campus: UC San Francisco

Bio: Chief, Occupational Health Branch, Center for Healthy Communities, California Department of Public Health (CDPH). Hazard identification, evaluation, and control; injury and illness prevention; respiratory protection; occupational infectious diseases; lead poisoning; chemical exposures.

Courses:

- N274A Health and Safety Hazards

Link: <https://www.phi.org/experts/barbara-materna/>

Stephen McCurdy, MD, MPH

Campus: UC Davis

Bio: Dr. McCurdy is a Professor Emeritus involved in the research, administrative, and teaching activities of the NorCal-ERC for over two decades. Relevant activities include multidisciplinary research in agricultural health, with focuses on injury and respiratory disease in diverse populations; including farmers, farm youth, and migrant Hispanic farmworkers. Teaching activities include Directorship of the UC Davis MPH Program and instructing courses in research methods, topical issues in public health, a practicum experience in public health, and preventive medicine for UC Davis medical students.

Link: <https://profiles.ucdavis.edu/stephen.mccurdy>

Raymond Meister, MD, MPH*

Campus: UC San Francisco

Bio: Associate Clinical Professor of Medicine, Division of OEM, UCSF
Executive Medical Director - California Division of Workers Compensation:

Link: <https://directory.ucsf.edu/people/search/id/28204>

Mark Miller, MD

Campus: UC San Francisco

Bio: (Associate Clinical Professor, UCSF; Public Health Officer, CalEPA, Air Toxicology, and Epidemiology Section, OEHHA) Operating director (S Goldman, PI) and site preceptor for PEHSU.

Research Focus Areas:

- The unique susceptibility of children to environmental chemicals, particularly the impact of early life exposures on neurological and pulmonary development and associated signaling events
- Recent chemicals of interest include perchlorate, secondhand smoke, and lindane
- Translating new epidemiologic and toxicologic findings relevant to pediatric environmental health to the clinical audience.

Link: <https://directory.ucsf.edu/people/search/id/45352>

Mark Nicas, Ph.D., CIH

Campus: UC Berkeley

Bio: Professor Emeritus UCB SPH

Research Focus Areas:

- Modeling exposure
- Respirators
- Infectious disease transmission

Courses:

- PH 267b
- PH 270
- PH 290 EA&C II

Link: <https://publichealth.berkeley.edu/people/mark-nicas/>

Elizabeth Noth, MPH, PhD

Campus: UC Berkeley

Bio: Assistant Researcher, UC Berkeley School of Public Health

Research Focus Areas:

- Exposure assessment
- measurement of airborne contaminants
- modeling exposures

Courses:

- PH 267B

- PH 290 EA&C II

Link: <https://publichealth.berkeley.edu/people/elizabeth-noth/>

Grace O'Connell, NR

Campus: UC Berkeley

Bio: Associate Professor UC Berkeley Mechanical Engineering

Research Focus Areas:

- Using IMUs to quantify spinal motion to model stress / strain on IV discs
- Using ultrasound to quantify the stress / strain in the FDS tendon to inform fatigue failure models

Courses:

- ME C210
- BioE C214

Link: <https://me.berkeley.edu/people/grace-oconnell/>

Kent Pinkerton, PhD

Campus: UC Davis

Bio: Dr. Pinkerton's work focuses on the health effects of gases, particles, fibers, and tobacco smoke in both indoor and outdoor environments, with an emphasis on lung development and the fetal basis of adult-onset respiratory diseases (asthma and chronic obstructive pulmonary disease) and infectious lung disease. He serves as the Director of the Western Center for Agriculture Health and Safety (WCAHS) at UC Davis. Since air pollution and respiratory disease are serious problems in many major farming areas of California, Dr. Pinkerton has conducted comparative urban and rural field studies in California's San Joaquin Valley. Dr. Pinkerton leads an active research program in environmental pulmonary toxicology with funding from federal, state, and private agencies and has mentored more than 40 graduate students.

Research Focus Areas:

- How the size and chemical composition of particulate matter in the air influences uptake, transport, and biological response in the respiratory tract

Link: <https://profiles.ucdavis.edu/kent.pinkerton>

Jim Potvin, PhD

Campus: UC Berkeley

Bio: Online HFE Program Instructor

Research Focus Areas:

- Muscle Fatigue
- Exposure & Simulation Modeling
- Field Services

Courses:

- ERG120 / 140

Link: <https://potvinbiomechanics.com/about/>

Justin Remais, PhD

Campus: UC Berkeley

Bio: Associate Professor of EHS/UC Berkeley

(Associate Professor of EHS/UC Berkeley) studies infectious diseases, such as West Nile Virus and coccidioidomycosis, and other health risks that result from a wide range of environmental changes,

such as rapid urbanization, industrialization, changes in water resources, and a changing and more variable climate.

Research Focus Areas:

- Environmental causes of infectious diseases

Courses:

- PH 273

Link: <https://publichealth.berkeley.edu/people/justin-remais/>

David Rempel, MD, MPH*

Campus: UC San Francisco

Bio: Professor of Medicine Emeritus, UCSF. Ergonomics content area expertise and lecturer, (former Ergonomics Program Director); Member, RAC.

Research Focus Areas:

- Occupational ergonomics
- Peripheral nerve entrapment
- Work-related tendon disorders
- Hand biomechanics
- Tool design
- Workplace intervention studies
- Exoskeletons
- Construction Work
- Epidemiology
- Hand-Computer Interaction studies using (micro) gestures

Courses:

- PB HLTH 269C
- PB HLTH 298a

Link: <https://profiles.ucsf.edu/david.rempel>

Jordan Rinker, MD, MPH*

Campus: UC San Francisco

Bio: (Clinical Professor of Medicine, UCSF; Private Consultant, OEM). Member, RAC.

Research Focus Areas:

Courses:

Link: <https://oem.ucsf.edu/faculty>

Michelle Robertson, PhD

Campus: UC Berkeley

Bio: UCB / COEH CE Online Ergonomic Program Lecturer; Executive Director of the Office Ergonomics Research Committee (OERC); Research scientist at Harvard's TH Chan SPH, Lecturer at Northeastern University

Research Focus Areas:

- Macroergonomics
- Systems Approach Training
- Sedentarianism

Courses:

- ERG150 Macroergonomics: A Systems Approach to HFE

Link: <https://www.coeh.berkeley.edu/erg150>

Jonathan Rutchik, MD**Campus:** UC San Francisco**Bio:** (Assistant Clinical Professor, UCSF; Private Practice, Neurology and Occupational Medicine)
Site preceptor, neurology component of multispecialty outpatient rotation.**Research Focus Areas:**

- Individuals and populations with neurological conditions and occupational and environmental injuries or exposures
- Neurological trauma
- Safety sensitive workers and disability

Link: <https://oem.ucsf.edu/faculty>**Marc Schenker, MD, MPH****Campus:** UC Davis**Bio:** Dr. Schenker is a Professor Emeritus epidemiologist and occupational health physician with over 30 years of professional experience. He is the founding director of the NIOSH-supported Western Center for Agricultural Health and Safety (WCAHS) at UC Davis. Dr. Schenker has extensive professional experience in successfully researching numerous aspects of occupational illness and injury. His work includes studies on varied health outcomes, such as respiratory disease, pesticide illness, skin disease, acute and chronic musculoskeletal injuries, adverse pregnancy outcomes, heat stress, and cancer. A large portion of Dr. Schenker's research has focused on diverse causes of agricultural illness and injury, including agricultural dusts, pesticides, biologic agents, sunlight, physical forces, animals, and heat stress. Dr. Schenker continues to be involved in many educational efforts aimed at various populations, including legislators, NGOs, professional associations, farmers, and hired farmworkers.**Link:** <https://profiles.ucdavis.edu/marc.schenker>**Megan Schwarzman, MD, MPH****Campus:** UC Berkeley**Bio:** Lecturer UCB SPH**Research Focus Areas:**

- Green Chemistry
- Chemicals Policy
- Reproductive Health
- Clinical Practice and Instruction

Courses:

- PH 271H
- PH 271E

Link: <https://publichealth.berkeley.edu/people/megan-schwarzman/>**Erika Schwilk, MD, MPH*****Campus:** UC San Francisco**Bio:** Staff Physician, Tang Center at UC Berkeley:**Link:** <https://oem.ucsf.edu/faculty>**James Seward, MD, MPP, MMM****Campus:** UC Berkeley

Bio: (Clinical Professor UCSF and UCB School of Public Health; Medical Director (ret), Lawrence Livermore National Laboratory). Chair, PEC and RAC; Co-Director, UCSF-UCB Joint Residency in Preventive Medicine; Course co-leader, Preventive Medicine Seminar (with Dr. Harrison).

Research Focus Areas:

- Environmental Medicine
- Preventative Medicine
- Radiation Health
- Occupational Stress
- Chronic Diseases in Global Health
- Ionizing radiation health effects
- Health promotion in the workplace
- Management of occupational health programs

Courses:

- PH 269E

Link: <https://publichealth.berkeley.edu/people/james-seward/>

Dennis Shusterman, MD, MPH*

Campus: UC San Francisco

Bio: (Professor of Clinical Medicine Emeritus, UCSF and Public Health Medical Officer (ret), California Department of Public Health). Member, PEC, and RAC.

Research Focus Areas:

- Health effects of irritant air pollutants on the upper airway, including the nose, paranasal sinuses, and vocal cords
- The effects of sidestream tobacco smoke on the upper airway

Link: <https://profiles.ucsf.edu/dennis.shusterman>

Christopher Simmons, PhD

Campus: UC Davis

Bio: Dr. Simmons' undergraduate and graduate education was obtained in the Department of Biological and Agricultural Engineering and UC Davis under its Biological Systems Engineering program. He developed the soil amendment strategies that induce desirable pest-inactivating biological activity in the soil during the harsh conditions of biosolarization. Furthermore, he was the first researcher to utilize next-generation sequencing to understand the changes in the soil microbiome in response to passive solar heating and organic amendment. In his current role as Assistant Professor, he has two ongoing biosolarization projects.

Link: <https://foodscience.ucdavis.edu/people/christopher-simmons#/>

Martyn Smith, PhD

Campus: UC Berkeley

Bio: Professor UC Berkeley School of Public Health

Research Focus Areas:

- Toxicology

Courses:

- PH 270B

Link: <https://publichealth.berkeley.edu/people/martyn-smith/>

Andrew Smith, PhD

Campus: Samuel Merritt

Bio: Professor Samuel Merritt University & Director of the Motion Analysis Research Center

Research Focus Areas:

- Supports student / faculty research at his lab when the larger view motion capture system, balance master, or overhead support systems are needed

Link: <https://www.samuelmerritt.edu/faculty/drew-smith>

Gina Solomon, MD, MPH

Campus: UC San Francisco

Bio: (Clinical Professor, UCSF). Principal Investigator, Public Health Institute. Former Program Director and advisor to current leadership; Member, PEC, and RAC.

Research Focus Areas:

- Health effects associated with climate change, including heatwaves, infectious disease shifts, and disaster response post-Katrina
- Public health strategies for preparing for climate change; environmental exposure assessment.

Link: <https://profiles.ucsf.edu/gina.solomon>

Craig Steinmaus, MD, MPH*

Campus: UC San Francisco

Bio: (Associate Adjunct Professor, UCSF and Associate Adjunct Professor of Epidemiology, UCB SPH; Public Health Medical Officer, Office of Environmental Health Hazard Assessment, CalEPA) Member, RAC.

Research Focus Areas:

- Health effects of drinking water contaminants such as arsenic and perchlorate
- Meta-analysis and epidemiologic methods.

Link: <https://directory.ucsf.edu/people/search/id/41831>

Stavros Vougioukas, PhD

Campus: UC Davis

Bio: Dr. Vougioukas is a Professor in the Department of Biological and Agricultural Engineering. Professor Vougioukas has established a very successful research program that applies innovative and novel approaches in the area of mechanization and automation of specialty crop production, with the immediate and long-term goals of addressing the important labor shortage problem in California agriculture. His work on collaborative robots (co-bots) to optimize productivity and minimize the risks of musculoskeletal disorders in strawberry harvesting, in collaboration with Professor Fathallah, is one relevant example of the emerging areas that professor Vougioukas works on in agriculture.

Link: <https://bae.ucdavis.edu/people/stavros-vougioukas>

Christina Wang, MD, MPH

Campus: UC San Francisco

Bio: Assistant Clinical Professor of Medicine, Division of OEM, UCSF Staff Physician, Kaiser Permanente Medical Group, San Francisco

Link: <https://directory.ucsf.edu/people/search/id/27254>

Appendix I: Health & Wellness Resources



UC Berkeley

- [University Health Services](#)
- [Anonymous Screenings for Mental Health](#) - online screenings for depression, anxiety, eating disorders, bipolar disorder, and post-traumatic stress.
- [Look For The Signs](#) - mental health resources and support.
- [Crisis Text Line](#) - text HOME to 741741 to connect with a Crisis Counselor. Free 24/7 support at your fingertips.

UC Davis

- [Student Health and Counseling Services](#)
- [Mental Health Support](#) - mental health resources and support.
- [Accessing Medical Services](#) - booking health appointments and services
- [Crisis Text Line](#) - text HOME to 741741 to connect with a Crisis Counselor. Free 24/7 support at your fingertips.

UC San Francisco

- [Student Health and Counseling Services](#)
- [Counseling and Psychiatry Services](#) - same day web-booked appointments are available via the portal
- [Medical in-person visits and HIPAA-compliant Zoom visits](#) - can now be booked online through the MyHealthRecord portal
- [Crisis Text Line](#) - text HOME to 741741 to connect with a Crisis Counselor. Free 24/7 support at your fingertips.

View [Full-Size Version of the "Look for the Signs" Depression Infographic](#) shown above.

Appendix J: Helpful Links

UC Berkeley

- bCal - [Access Calendar](#)
- bConnected – [Access Tools](#)
- bMail – [Access Inbox](#)
- Berkeley Library –
 - [Information](#)
 - [Library services and resources during COVID-19](#)
- Zoom – [Berkeley Zoom Login Page](#)
- Zotero – [Tutorials](#) | [Download](#)

UC Davis

- [Office of Graduate Studies](#)
- [Aggie Compass Basic Needs Center](#)
- [Internship and Career Center](#)
- [Student Disability Center](#)
- [Office of Educational Opportunity and Enrichment Services](#)
- [Nutritious Food Resources](#)
- [Housing Resources](#)
- [Academic Assistance and Tutoring Centers](#)
- [UC Davis Canvas](#)
- [Register for Classes](#)

UCSF

- [About UCSF](#)
- [Services and Resources for Students at UCSF](#)
- [Campus Life at UCSF](#)
- [Fees & Financial Support](#)
- [Welcome to Prospective Students](#)

UC Regents

- UC Learning Center - [Multi-Campus Login](#)

Appendix K: National/International Organizations

Numerous National and International organizations support Occupational and Environmental Health that you may want to explore and consider joining. Please check with your Program Director to see which ones he/she recommends for your particular field of expertise.

- [NIOSH](#): National Institute of Occupational Safety and Health
- [CDC](#): Center for Disease Control
- [NIH](#): National Institute of Health
- [NIEHS](#): National Institute of Environmental Health Sciences
- [APHA](#): American Public Health Association
- [ASSP](#): American Society of Safety Professionals
- [ACOEM](#): American College of Occupational & Environmental Medicine
- [AIHA](#): American Industrial Hygiene Association
- [HFES](#): Human Factors and Ergonomics Society
- [IEA](#): International Ergonomics Association

Appendix L: Non-Discrimination Statement

The University of California prohibits discrimination against or harassment of any person employed by or seeking employment with the University on the basis of race, color, national origin, religion, sex, physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or status as a covered veteran (special disabled veteran, Vietnam era veteran, or any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized). The University of California is an affirmative action/equal opportunity employer.

The University undertakes affirmative action to assure equal employment opportunity for minorities and women, for persons with disabilities, and for special disabled veterans, Vietnam era veterans, and any other veterans who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized. This non-discrimination policy covers admission, access, and treatment in University programs and activities.

The NorCal ERC and COEH are committed to providing an inclusive and welcoming environment for all interns and mentors. We join the University of California in taking affirmative action measures to ensure against forms of discrimination.

Trainee-related complaints can be reported to the COEH/NIOSH ERC Deputy Director, carisaharris@berkeley.edu.

Additional information on UC-wide policy [can be found here](#).