

Environmental Health

The Fellow will be assigned to the Division of Occupational and Environmental Disease Control (DEODC) of the California Department of Public Health. This Division is the largest state-based program for the study and prevention of occupational and environmental health problems, including environmental epidemiology, occupational health tracking and investigations, toxicology, childhood and adult lead poisoning prevention, asthma surveillance, risk assessment, chemical terrorism prevention, biomonitoring, and extensive laboratory capabilities. More information about the Division can be found at <http://www.dhs.ca.gov/ps/deodc>.

The Fellow will have the opportunity to work with two of the programs: the Occupational Health Branch (OHB) and Environmental Health Investigations Branch (EHIB). These two programs have a broad public health practice that encompasses investigations of outbreaks, surveillance, emergency response, data analysis, and working with interdisciplinary teams:

- o NIOSH-funded programs for the tracking and investigation of work-related asthma, carpal tunnel syndrome, fatalities, pesticide poisoning, silicosis and construction falls: Large surveillance databases are available for analyses of specific endpoints and follow-up interviews (epidemiology), and workplace investigations are routinely conducted of sentinel injuries and illnesses (industrial hygiene). Health education and outreach materials are prepared and disseminated widely (health education).
- o A major NIOSH-funded study is underway of work-related violence in California hospitals. Data collection is underway (nurse practitioner), and a large dataset will be available for analysis.
- o Prevention of workplace injuries and illnesses among high-risk occupations, such as garment workers: A NIOSH-funded intervention study is underway among garment workers to determine the effectiveness of engineering controls in reducing the incidence of musculoskeletal diseases among garment workers (industrial hygiene and ergonomics).
- o Prevention of toxic exposures and pollution prevention: A major focus of our work has been on toxics use reduction and collaboration with environmental agencies in anticipating technology changes that may increase toxic exposures to workers. Workplace investigations will be conducted among high-risk workers such as automobile mechanics and dry cleaners (toxicology, industrial hygiene).
- o Investigation of outbreaks of workplace injury and illness: Routine response and investigation of requests from employers, employees, health care professionals, or unions routinely lead to opportunities for health studies. Recent examples include diesel exhaust exposure among longshore workers; ergonomic and blood borne pathogen exposures among hazardous materials workers; and pesticide exposure to flight attendants.

EHIB, with partners in academia, government, and local stakeholders, has a cooperative agreement with the federal Centers for Disease Control and Prevention (CDC) to support development of an Environmental Public Health Tracking (EPHT) Program. The overall goals of this program are to (1) develop and implement a standards-based and interoperable health and environmental tracking network which allows linkages of health and environmental hazard or exposure data; (2) increase the capacity in environmental public health at the local and state level by developing a trained environmental health workforce; (3) develop or improve collaborations

between public health and environmental agencies; and (4) improve dissemination of environmental public health data among the government, researchers, and the public.

CDC has funded a five-year project in California to implement the Statewide Strategic Plan for Asthma. EHIB's many asthma-related projects include continuing the asthma surveillance program, and investigation of asthma near-deaths.

Autism Spectrum Disorders are complex disorders of development that first become noticeable in early childhood. Children with autism have difficulty relating and communicating with other people. EHIB received a five-year grant from CDC to become a Center of Excellence in autism epidemiology, and to conduct public health research on autism incidence, and factors that contribute to it.

EHIB has a number of studies examining illness in relation to possible environmental causes, such as agricultural pesticide usage, toxic emissions from industrial sources, water contaminants, and traffic emissions.

EHIB investigates a number of potential environmental hazards, many of which fall between the cracks of regulatory agencies, including toxic exposures from molds and fungi, consumption of non-commercial ocean and freshwater fish, and contaminants in private drinking water wells.

Finally, DEODC coordinates a Division-wide team for emergency response and environmental terrorism preparedness integrated with the Department's Emergency Preparedness Office, and Fellows would be welcomed to participate in this effort as well.

More information about the Occupational Health Branch and the Environmental Health Investigations Branch can be found on-line, respectively, at <http://www.dhs.ca.gov/ohb> and <http://www.ehib.org>

Assignment Location: Richmond, CA

Primary Mentor:	Robert Harrison, MD, MPH Clinical Professor of Medicine, University of California, San Francisco Chief, Occupational Health and Surveillance and Evaluation Program California Department of Public Health Visiting Professor, University of California, Berkeley
Advanced Degrees:	MD, Albert Einstein College of Medicine (1979) MPH, University of California, Berkeley (1983)
Secondary Mentor:	Daniel Smith, Dr.P.H. Research Scientist Supervisor II Chief, Environmental Epidemiology Section California Department of Public Health
Advanced Degrees:	Dr.P.H., University of California, Los Angeles MS, University of Minnesota

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