

Respiratory Health Effects of Airborne Hazards Exposures in the Southwest Asia Theater of Military Operations

Committee

Mark J. Utell

Chair

Mark J. Utell, MD, is a Professor of Medicine and Environmental Medicine, the Director of Occupational and Environmental Medicine, and the former Director of Pulmonary and Critical Care Medicine at the University of Rochester Medical Center. His research interests center on the effects of environmental toxicants on the human respiratory tract. Dr. Utell has published extensively on the health effects of inhaled gases, particles, and fibers in the workplace and other indoor and outdoor environments. He was the co-principal investigator of a U.S. Environmental Protection Agency (EPA) funded particulate matter research center and is a former chair of the Health Effects Institute's research committee. Dr. Utell has served as chair of EPA's Environmental Health Committee and on the executive committee of the EPA Science Advisory Board. He is a recipient of the National Institute of Environmental Health Sciences Academic Award in Environmental and Occupational Medicine and the Mercer Award from the International Society for Aerosols in Medicine. Dr. Utell has served on several National Academies committees, including the Committee on Research Priorities for Airborne Particulate Matter; the Committee on Research Strategy for Environmental, Health, and Safety Aspects of Engineered Nanomaterials; the Committee on Gulf War and Health: Literature Review of Selected Environmental Agents, Pollutants, and Synthetic Chemical Compounds; and the Committee on the Assessment of The Department of Veterans Affairs Airborne Hazards and Open Burn Pit Registry. He previously chaired the National Academies Committee to Review EPA's Science to Achieve Results (STAR) Research Grants Program, Committee to Review the NIOSH Respiratory Disease Research Program, Committee to Review the Department of Defense Enhanced Particulate Matter Surveillance Program Report, and the Committee to Review the Department of Labor's Site Exposure Matrix. He also served on the Board on Environmental Studies and Toxicology. Dr. Utell received his BA from Dartmouth College and MD from the Tufts University School of Medicine.

Lung C. Chen

Member

Lung Chi Chen, PhD, is a Professor in the Department of Environmental Medicine at the New York University School of Medicine and Adjunct Professor at the Zhejiang Chinese Medical University, Hangzhou, China. Dr. Chen's field of study is inhalation toxicology and he has extensive experience in the measurement of cardiopulmonary effects of inhaled pollutants. He is also an expert in the generation and characterization of exposure atmospheres, and in the performance of toxicology studies using multiple routes of exposure, primarily those involving pulmonary exposure. He has served on a number of national and international committees and study sections in these areas. Dr. Chen has previously served on two National Academies Committees: the Committee on Acute Exposure Guideline Levels and the Committee on Beryllium Alloy Exposures. He is the author of over 200 research papers and book chapters dealing with the mechanisms underlying the adverse cardiopulmonary effects resulting from exposure to occupational and environmental air pollutants. Dr. Chen earned a BS in Public Health from the National Taiwan University, and an MS and PhD in Environmental Health Science from New York University.

Ellen A. Eisen

Member

Ellen A. Eisen, ScD, is a Professor in the School of Public Health at the University of California, Berkeley. Dr. Eisen is an occupational epidemiologist, bridging the fields of environmental health science, biostatistics and epidemiology. Her research focuses on exposure-response modeling in occupational cohort studies, with a particular interest in methods to reduce selection bias and address time-varying confounding. She has published studies on mortality and the incidence of ischemic heart and lung disease and cancer in worker populations, with a focus on the quantitative assessment of long term exposure to chemicals and fine particulate matter. Her professional activities include service on the editorial board of the American Journal of Epidemiology and on the scientific committee of the International Congress on Occupational Health – Epidemiology section. Dr. Eisen has served on numerous committees for The National Academies, including the Committee on Gulf War and Health, Volume 10: Update of Health Effects Serving in the Gulf War, and the Committee on the Long-Term Health Consequences of Exposure to Burn Pits in Iraq and Afghanistan. She earned an MS in Operations Research and Statistics from MIT, an MS in Biostatistics from the Harvard School of Public Health (HSPH), and an ScD in Biostatistics and Occupational Health from HSPH.

Meredith Franklin

Member

Meredith Franklin, PhD, is an Associate Professor in the Division of Biostatistics at the Keck School of Medicine of the University of Southern California (USC). She is also the Director of MS programs in Biostatistics, Health Data Science, and Epidemiology at the Keck School and holds an appointment at the USC Dornsife College of Letters, Arts and Sciences' Spatial Sciences Institute. Dr. Franklin's interests are in the areas of environmental statistics and epidemiology. Her research includes the development of functional regression models for dealing with spatially misaligned environmental data, spatiotemporal methods for remote sensing data, and assessment of the human health impact associated with exposure to particulate matter air pollution. Dr. Franklin's current research includes a NASA-funded study intended to enhance exposure-related health impact assessments and decision-making by 1) integrating satellite and ground data products to estimate size- and source-specific PM exposures in the Southwest Asia, Djibouti and Afghanistan region and 2) developing and disseminating a software tool that synthesizes these estimates and enables the end-user to create customized location- and time-specific PM exposure histories and source identification. She holds a BSc in Mathematics from McGill University, a MSc in Statistics from the Ottawa-Carleton Institute for Mathematics and Statistics, and a PhD in Statistics and Environmental Health from Harvard University.

Kirk D. Jones

Member

Kirk D. Jones, MD, is a Clinical Professor at the University of California San Francisco (UCSF). Dr. Jones' specialty areas are pulmonary pathology and cytopathology. His research and clinical interests are primarily in pulmonary pathology and cytopathology. He is currently working on elucidating the role of airway rejection in chronic obliterative bronchiolitis, the leading cause of the failure of lung transplant graft survival. In addition, he is participating in a project to investigate the pathophysiology of acute lung injury. Dr. Jones has many publications on topics relating to these interests. He is a member of the United States and Canadian Academy of Pathology, Pulmonary Pathology Society, International Association for the Study of Lung Cancer, College of American Pathologists and South Bay Pathology Society. Dr. Jones earned his MD and completed his residency in anatomic pathology and laboratory medicine at UCSF. He also completed a fellowship in cytopathology at UCSF and was subsequently a visiting scholar at the Mayo Clinic in Scottsdale, Arizona, where he studied pulmonary pathology.

Meredith McCormack

Member

Meredith C., McCormack MD, MHS, is an Associate Professor of Medicine at the Johns Hopkins University School of Medicine with a joint appointment in environmental health and engineering at the Johns Hopkins Bloomberg School of Public Health. Dr. McCormack has clinical expertise in asthma, COPD, general pulmonary and critical care medicine, as well as pulmonary physiology and pulmonary function testing. She serves as the medical director of the Johns Hopkins University Pulmonary Function Laboratory and the vice chair of the American Thoracic Society Committee for Proficiency Standards in Pulmonary Function Testing. Dr. McCormack is a physician-scientist with a research focus on the effect of environmental influences on underlying obstructive lung disease—specifically air pollution, diet, and obesity influences on COPD and asthma. She has been funded by the NIEHS and the EPA to conduct environmental cohort studies to understand the effects of indoor and outdoor air pollution on children and adults with underlying respiratory disease. Her work is largely focused in Baltimore City but has included rural areas of Washington State, Appalachia, and the Caribbean. Dr. McCormack serves as the associate program director of the Johns Hopkins Pulmonary and Critical Care Fellowship program and plays an active role in mentoring fellows and junior faculty. She earned her MD from Jefferson Medical College of Thomas Jefferson University and her MHS from the Johns Hopkins Bloomberg School of Public Health. Dr. McCormack completed internal medicine residency at Thomas Jefferson University Hospital and a fellowship in pulmonary and critical care medicine at Johns Hopkins.

Cecile S. Rose

Member

Cecile S. Rose, MD, is a Professor of Medicine at National Jewish Health in the Division of Environmental and Occupational Health Sciences, with an academic appointment at University of Colorado School of Medicine in the Division of Pulmonary Sciences and Critical Care Medicine. Her research interests focus on environmental and occupational lung diseases, specifically respiratory diseases affecting active duty military personnel and veterans. Dr. Rose has been involved in multi-disciplinary collaborative research in noninfectious granulomatous lung diseases including sarcoidosis and hypersensitivity pneumonitis and in mining-related lung diseases including silicosis and rapidly progressive pneumoconiosis in coal miners. Dr. Rose has served on several National Academies committees, including the Committee on Personal Protective Equipment in the Workplace, the Committee on the Study of Control of Respirable Coal Mine Dust Exposure in Underground Mines, the Committee on the Assessment of the Department of Veterans Affairs Hazards and Open Burn Pit Registry, the Planning Committee for a Workshop on the Integration of FDA and NIOSH Conformity Assessment Process of Respiratory Protective Devices for Health Care Workers, and the Planning Committee for a Workshop on the Use and Effectiveness of Powered Air-Purifying Respirators in Health Care. Dr. Rose received her MD and Masters of Public Health from University of Illinois. She completed her Residency in Internal Medicine and Fellowship in Pulmonary Medicine at the Medical College of Virginia. She is board-certified in internal medicine, pulmonary medicine, and occupational/environmental medicine.

Frank E. Speizer

Member

Frank E. Speizer, MD, is a Professor of Environmental Science at the Harvard T.H. Chan School of Public Health and the Edward H. Kass Distinguished Professor of Medicine at the university's School of Medicine. Dr. Speizer's research efforts are divided between his role as a senior investigator in the Environmental Epidemiology Program in the Department of Environmental Health and his responsibilities in the Channing Division of Network Medicine in the Department of Medicine. The two programs are integrated in the area of study of the natural history of respiratory diseases and in studies of environmental risks for chronic diseases, including risks for cancer and cardiorespiratory diseases. The projects in respiratory diseases involve population-based studies of large groups of subjects who are identified by acute and chronic exposure to indoor and outdoor air pollutants and monitored for symptoms and pulmonary function. He has over 500 papers and reports published on these and on several other topics. Dr. Speizer is a Member of the National Academy of Medicine. His other honors include the 2010 John Goldsmith Award in Environmental Epidemiology from the International Environmental Epidemiology Society. He has previously served on the National Academies Committee on Acute exposure Guideline Levels, the IG14 Planning Committee, the Committee on Research Priorities for Airborne Particulate Matters, the Committee on an Assessment of a Study of Possible Occupational Health Effects on Ionizing Radiation among Nuclear Utility Workers, and the Subcommittee on Pulmonary Toxicology. Dr. Speizer earned his MD from the Stanford University School of Medicine.

Elaine Symanski

Member

Elaine Symanski, PhD, is a Professor in the Department of Epidemiology, Human Genetics and Environmental Sciences at The University of Texas Health Science Center at Houston (UTHealth) School of Public Health. She also holds a secondary appointment in the Department of Biostatistics and Data Science and serves as Director of UTHealth's Southwest Center for Occupational and Environmental Health. Dr. Symanski's primary research interests include the investigation of health effects associated with environmental and occupational exposures in vulnerable populations using community-engaged approaches; development and application of quantitatively based approaches for evaluating occupational and environmental exposures; and retrospective exposure assessment. Her professional activities include serving as President of the American Association of Programs in Occupational Safety and Health (for 2018), a member of the Advisory Committee to the Texas Cancer Registry, and an advisory board member of the Texas Occupational Health & Safety Surveillance Program. Dr. Symanski has previously served on two National Academies committees: the Committee on the Review of the Styrene Assessment in the National Toxicology Program 12th Report on Carcinogens and the Committee on Contaminated Drinking Water at Camp Lejeune. She also served on the Working Group for the IARC Monograph on the Evaluation of Carcinogenic Risks to Humans - Volume 120 (Benzene). Dr. Symanski received her PhD in Environmental Sciences and Engineering and her MSPH in Environmental Sciences and Engineering from the School of Public Health at the University of North Carolina at Chapel Hill.

Sverre Vedal

Member

Sverre Vedal, MD, MSc, is Professor Emeritus in the Department of Environmental and Occupational Health Sciences at the University of Washington (UW) School of Public Health. He holds the AXA Research Fund Chair in Air Pollution and Health at the Chinese Research Academy of Environmental Sciences in Beijing, China and works with collaborators on air pollution exposure and health studies in China. Dr. Vedal is an epidemiologist with research interests in occupational lung disease and in the adverse health effects of community air pollution. He was director of the US Environmental Protection Agency (EPA) Center for Clean Air Research at UW, which employed the disciplines of exposure science, toxicology, epidemiology and biostatistics to investigate the cardiovascular health effects of exposure to multi-pollutant atmospheres. Dr. Vedal has published widely on air pollution exposure and health effects and served on advisory committees of the US EPA and the National Institutes of Health. He has been on two previous National Academies committees: the Committee on Evaluation of the Presumptive Disability Decision-Making Process for Veterans and the Committee on Air Quality Management in the United States. Dr. Vedal received his MD from the University of Colorado and MSc in epidemiology from Harvard University. He is board certified in Internal Medicine and Pulmonary Medicine.

Jody R. Wireman

Member

Jody Wireman PhD, MSPH, MPA, CIH, DABT, is an Environmental Health Advisor for the Defense Health Agency, counseling senior Department of Defense officials on public health, toxicology, environmental exposure, and occupational health and safety for industrial and operational chemical, biological, and radiological hazards. In that capacity, he leads efforts to evaluate of historical, ongoing, and future exposures, refining Joint Health Risk Management-related capabilities and supporting personal sample collection advancements. Dr. Wireman has over 25 years of experience as a public health professional, manager, and educator. He previously served as Director of Force Health Protection at the North American Aerospace Defense Command and U.S. Northern Command. Earlier, he was a toxicologist and a human and ecological health scientist at the U.S. Air Force School of Aerospace Medicine. His previous efforts focused on worker health protection and environmental restoration of radiologically- and chemically-contaminated hazardous waste sites. Dr. Wireman earned a BS in Safety Sciences from the Indiana University of Pennsylvania, an MSPH from the University of Alabama at Birmingham, Mid-Career Masters in Public Administration from Harvard University and a PhD in Environmental Toxicology from Texas Tech University.