

Standing Committee on Medical and Epidemiological Aspects of Air Pollution on U.S. Government Employees and their Families

Committee

Jonathan M. Samet

Chair

Jonathan M. Samet, M.D., a pulmonary physician and epidemiologist, is Dean and Professor for the Colorado School of Public Health. Dr. Samet received an A.B. degree in chemistry and physics from Harvard College, before receiving the MD degree from the University of Rochester School of Medicine and Dentistry. He also has an M.S. in epidemiology from the Harvard School of Public Health. Dr. Samet has investigated diverse health issues using epidemiological approaches. His research has focused on the health risks of inhaled pollutants—particles and ozone in outdoor air and indoor pollutants including secondhand smoke and radon. He has also investigated the occurrence and causes of cancer and respiratory diseases, emphasizing the risks of active and passive smoking. He has served on numerous committees concerned with using scientific evidence for the development of policy to protect public health. For several decades, he has been involved in global health, focused on tobacco control and air pollution. He currently chairs the Clean Air Scientific Advisory Committee of the U.S. EPA and also the FDA's Tobacco Products Scientific Advisory Committee. He was appointed to the National Cancer Advisory Board in 2011. Dr. Samet received the Surgeon General's Medallion in 1990 and 2006, the 2004 Prince Mahidol Award for Global Health awarded by the King of Thailand, and the 2006 Public Service Award of the American Thoracic Society. He is a member of the National Academy of Medicine.

Michael Brauer

Member

Michael Brauer, Sc.D., is a Professor in the School of Population and Public Health at the University of British Columbia. Michael Brauer joined the UBC faculty in 1991 in the Department of Medicine. He was an inaugural member of the Occupational Hygiene Program and served as Director of the School of Environmental Health from 2003-2008 and as the Occupational and Environmental Health theme co-lead in SPPH from 2011-2014. He is currently Director of the Bridge Program, a strategic training fellowship program linking public health, engineering and policy. He also holds associate appointments in the Division of Respiratory Medicine and the Institute for Resources, Environment and Sustainability at UBC. Dr. Brauer received bachelor's degrees in Biochemistry and Environmental Sciences from the University of California-Berkeley (1986) and a doctorate in Environmental Health from Harvard University (1990). He was a visiting scientist at the Institute of Environmental and Occupational Medicine at Arhus University in Denmark (1991), at the Institute for Risk Assessment Sciences at Utrecht University in The Netherlands (2000) and at the East-West Center in Hawaii, USA (2008). His research focuses on linkages between the built environment and human health, with specific interest in transportation-related and biomass air pollution, the global health impacts of air pollution and the relationships between multiple exposures mediated by urban form (air pollution, noise, greenness) and population health. He has participated in monitoring and epidemiological studies throughout the world and served on advisory committees to the World Health Organization, the Climate and Clean Air Coalition, the US National Academy of Sciences, the Royal Society of Canada, the International Joint Commission and governments in North America and Asia. He is an Associate Editor of Environmental Health Perspectives and a member of the Core Analytic Team for the Global Burden of Disease.

George M. Gray

Member

George Gray, Ph.D., is a Professor in the Department of Environmental and Occupational Health at the George Washington University Milken Institute School of Public Health. In both academic and policymaking settings, Professor Gray has long been committed to the effective use of science to inform public health choices, and emphasizes the importance of communicating those choices effectively to citizens, journalists, and lawmakers. Risk analysis, including the tradeoffs that must be made when risks exist on both sides of a decision, has been a core component of that work. Prior to joining the Milken Institute School of Public Health in 2010, Professor Gray served as assistant administrator for the EPA's Office of Research and Development and as the agency science advisor, promoting scientific excellence in EPA research, advocating for the continuing evolution of the agency's approach to analysis, and encouraging programs that provide academic research to support EPA's mission. His areas of focus included nanotechnology, ecosystem research, the influence of toxicology advances on testing and risk assessment, and sustainability. During his government service Professor Gray served on several committees of the National Science and Technology Council and co-chaired the National Nanotechnology Environmental Health Initiative. He has been a councilor for the Society for Risk Analysis and task force member for the Society of Toxicology. He has served on scientific advisory committees for the FDA Center for Food Safety and Applied Nutrition, and the National Institute of Environmental Health Sciences. From 2001 to 2005, Professor Gray was executive director of the Harvard Center for Risk Analysis, and a member of the faculty at the Harvard School of Public Health. In addition to teaching, he applied the tools of risk analysis to public health problems ranging from mad cow disease to pesticides in food to the risks and benefits of fish consumption.

Julie Herbstman

Member

Julie Herbstman was trained as an environmental and molecular epidemiologist at the Johns Hopkins Bloomberg School of Public Health and completed a postdoc in environmental health sciences at Columbia before joining the faculty. She is the Director of the Columbia Center for Children's Environmental Health (CCCEH). She directs multiple NIH-funded longitudinal birth cohort studies at the CCCEH and is a pediatric cohort grantee within the NIH Environmental Influences on Child Health Outcomes (ECHO) consortium. Her research focuses on the impact of prenatal and early life exposures to endocrine-disrupting environmental pollutants, including polybrominated diphenyl ethers (PBDE), pyrethroid pesticides, polycyclic aromatic hydrocarbons (PAH), environmental phenols (e.g., BPA), perfluorinated compounds, and phthalates and their impact on child health and neurodevelopment. She oversees the CCCEH's work involving the integration of epigenetic biomarkers.

Philip K. Hopke

Member

Philip Hopke, Ph.D., is the Bayard D. Clarkson Distinguished Professor Emeritus at Clarkson University and the Director of the Center for Air Resources Engineering and Science. Professor Hopke received his B.S. in Chemistry from Trinity College (Hartford) and his M.A. and Ph.D. degrees in chemistry from Princeton University. After a post-doctoral appointment at M.I.T., he spent four years as an assistant professor at the State University College at Fredonia, NY. Dr. Hopke joined the University of Illinois at Urbana-Champaign, rising to the rank of professor of environmental chemistry, and subsequently came to Clarkson in 1989 as the first Robert A. Plane Professor with a principal appointment in the Department of Chemistry. He moved his appointment to the Department of Chemical and Biomolecular Engineering in 2000 and accepted his current appointments in 2002. His research interests are characterization of the ambient aerosol including development of sampling, analysis, and data analysis tools. In 2008, Dr. Hopke was awarded a Jefferson Science Fellowship to work with the State Department in the Bureau of Intelligence and Research, focusing his work on climate change and the potential for rapid progress on global warming through controls of black carbon particle, methane, and ozone-precursor emissions. Dr. Hopke assisted in carrying out the Improved Cook Stove Initiative, which was a cooperative effort to examine the needs and potential technologies for improved cook stoves in developing countries, which could dramatically impact air quality and public health in those countries while also helping to restore the global climate.

Clarion E. Johnson

Member

Clarion E. Johnson, M.D., is the former global medical director of the Medicine and Occupational Health Department for ExxonMobil Corporation. The department delivers services to more than 88,000 ExxonMobil and affiliate employees worldwide. In addition to traditional work-related health services, the department delivers travel medicine to the many ExxonMobil employees who are engaged in exploration and production in a number of challenging environments in Africa, the CIS, China, and Southeast Asia. Dr. Johnson is board-certified in internal medicine, cardiology, and occupational medicine. He did his undergraduate work at Sarah Lawrence College and studied medicine at the Yale University School of Medicine. He has published numerous articles in various fields and is the 2012 recipient of the Society of Petroleum Engineers' Health, Safety, Security, Environment, and Social Responsibility Award.

Lee Ann Kahlor

Member

Dr. Kahlor has published more than 40 peer-reviewed research articles, book chapters and white papers, and has co-edited two books. Her primary research interest is in health and environmental risk communication with an emphasis on information behaviors, including seeking, sharing and avoiding. She has explored information behaviors in contexts ranging from cancer to nanotechnology to indoor microbiology. A secondary interest is in cultural and racial norms related to health behaviors and message processing. Her work has appeared in myriad journals including Health Communication, Human Communication Research, Science Communication, Mass Communication and Society, Communication Theory, Environment and Behavior, and Indoor and Built Environment. Dr. Kahlor also has a robust funding portfolio; she is co-principal investigator on a \$4.5 million grant from the National Science Foundation, and has received additional funds from the Alfred P. Sloan Foundation, and the U.S. Department of Energy to fund her work in science communication. Dr. Kahlor's undergraduate teaching has been recognized with a Moody College Teaching Excellence Award and a University of Texas System Regents Outstanding Teaching Award. She currently is a Provost's Teaching Fellow. Dr. Kahlor is the Stan Richards School's minority liaison, working extensively with students from underrepresented backgrounds, and she leads the Stan Richards School's Diversity and Inclusion Student Council. Prior to academia, Kahlor worked in journalism, as a freelance writer, and as communication officer for a Robert Wood Johnson Foundation national program office.

Joel Kaufman

Member

Joel Kaufman is a physician-epidemiologist, board-certified in internal medicine and occupational medicine. He has been a full-time faculty member at the UW since 1997, currently holding appointments in the Departments of Environmental & Occupational Health Sciences, and Medicine (General Internal Medicine), and Epidemiology. His current research activities are primarily focused on environmental factors in cardiovascular and respiratory disease. He is the principal investigator of a major epidemiological prospective cohort study of air pollution and cardiovascular disease (The Multi-Ethnic Study of Atherosclerosis and Air Pollution, or "MESA Air"). He served as the principal investigator of an NIH-funded Specialized Center for Research at the University of Washington on Cardiovascular Disease and Traffic-Related Air Pollution. He directs the UW Northlake Controlled Exposure Facility, a facility customized for experimental inhalation toxicology studies on health effects of combustion products including diesel exhaust. Dr. Kaufman's research integrates the disciplines of epidemiology, exposure sciences, toxicology, and clinical medicine. From 2016 to 2018 he was the interim dean of the University of Washington School of Public Health.

Howard M. Kipen

Member

Howard M. Kipen, M.D., M.P.H., is professor and interim chair of Environmental and Occupational Medicine, acting associate director, Environmental and Occupational Health Sciences Institute, and director, Clinical Research and Occupational Medicine Division at the Rutgers School of Public Health. His research focuses on clinical and epidemiological studies of the health effects of exposure to environmental agents such as ambient air pollution, benzene, asbestos, and airway irritants. Dr. Kipen is chair of the NASA Human Research Program's Advanced Environmental Health Standing Review Panel and has served on numerous ad hoc grant review panels (e.g., NIEHS, Department of Defense). He has also served as a member or chair of several IOM committees, including the Committee on the Persian Gulf Syndrome Comprehensive Clinical Evaluation Program and the Committee on the Development of a Consensus Case Definition for Chronic Multisymptom Illness. He received his M.D. from UC San Francisco, and his M.P.H. from the Columbia University School of Public Health. He is board certified in internal medicine and occupational medicine.

Elizabeth Matsui

Member

Elizabeth Matsui, M.D., M.H.S., is a professor of population health and pediatrics at the Dell Medical School at the University of Texas at Austin, where she is also director of clinical and translational research. Dr. Matsui's areas of clinical expertise include allergic diseases, allergic rhinitis, asthma, eczema, and food reactions. She is a leading international expert on environmental allergies and asthma. She received her undergraduate degree in molecular biology and her medical degree from Vanderbilt University. She completed her residency in pediatrics at the University of California at San Francisco in 1996. After completing her residency, she spent several years practicing general pediatrics. During that time, she developed an interest in asthma and allergies and subsequently completed her fellowship in allergy and immunology at Johns Hopkins University School of Medicine. Dr. Matsui also completed a Master of Health Science in epidemiology at the Johns Hopkins Bloomberg School of Public Health. Dr. Matsui's research focuses on examining the impact of allergen exposure on allergic disease. She serves on the editorial board of the Journal of Allergy and Clinical Immunology and is a member of the American College of Asthma, Allergy and Immunology and the American Academy of Allergy, Asthma and Immunology. In 2012, Dr. Matsui was named the top young investigator in allergy and immunology by an international body of scientists assembled by Phadia Allergy Research Forum.

Rob McConnell

Member

Rob S. McConnell, M.D., is a professor of Preventive Medicine and Deputy Director of the NIEHS/EPA-supported Children's Environmental Health Center at the University Of Southern California Keck School Of Medicine. His research interests include effects of air pollution on the development and exacerbation of asthma, and he is the principal investigator of a large prospective cohort study in the Children's USC Health Study to investigate these relationships. His work examining the associations between ozone and fresh traffic emissions with the development of asthma has contributed to the current policy debate on proper regulation of these exposures. Dr. McConnell is also interested in the effects of psychosocial stress and other social characteristics on asthma and on the application of new biomarkers of exposure to air pollutants in population based studies. He teaches the survey course on environmental health in the USC Masters of Public Health program.

Andrew Persily

Member

Andrew Persily is Chief, Energy and Environment Division, at the National Institute of Standards and Technology. Dr. Persily research has focused on indoor air quality and ventilation in commercial and residential buildings, including the development and application of measurement techniques to evaluate airflow and air quality characteristics in a variety of building types. He has also been involved with the development and application of multi-zone airflow and contaminant dispersal models. Dr. Persily was a vice-president of the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) from 2007 to 2009, and is past chair of ASHRAE SSPC 62.1, responsible for the revision of the ASHRAE

ventilation and indoor air quality standard. He is also a past chair of Standard 189.1, Design of High-Performance Green Buildings, past chair of ASTM Subcommittee E6.41 on Air Leakage and Ventilation Performance, and past vice-chair of subcommittee D22.05 on Indoor Air Quality. Dr. Persily's first two years at the National Bureau of Standards were as a National Research Council Postdoctoral Research Associate, working on air infiltration in homes and large buildings. He received the Department of Commerce Bronze Medal in December 1989 and Silver Medal in 2008, and was named Young Engineer of the Year by the D.C. Council of Engineering and Architectural Societies in 1990. He was named an ASTM Fellow and an ISIAQ Fellow in 2002, and an ASHRAE Fellow in 2004.

Jorge E. Tolosa

Member

Dr. Jorge E. Tolosa, M.D., M.S.C.E., is a Professor of Obstetrics & Gynecology with a special focus on maternal-fetal medicine and perinatology and the Coordinator of the Global Network for Perinatal & Reproductive Health at Oregon Health & Science University. Dr. Tolosa has a special interest in preterm birth, medical complications of pregnancy, prenatal diagnosis and ultrasound. He has completed various fellowships in perinatal medicine and ultrasound, maternal-fetal medicine, clinical epidemiology, and perinatology. His research interests include prevention of preterm birth and low birth weight, exposures in pregnancy (tobacco, pesticides and environmental exposures such as phthalates and how they affect the mother and the baby), and ultrasound use in pregnancy. He has a special interest in global health as it relates to mothers (prevention of postpartum hemorrhage and preeclampsia) and children (prevention of low birthweight, preterm birth and adverse neonatal outcomes) in the most disadvantaged communities. Originally from Colombia in South America, and after living and studying in England and the East coast of the U.S., Dr. Tolosa joined OHSU because it is one of the leading teaching centers in the U.S. in his areas of interest.

Joyce S. Tsuji

Member

Joyce Tsuji, Ph.D., is Principal Scientist at Exponent, an Engineering and Scientific Consulting company. Dr. Tsuji is a board-certified toxicologist and a Fellow of the Academy of Toxicological Sciences. She specializes in assessing exposure and risks associated with chemicals, and in communication of scientific issues. She has worked on projects in the United States and internationally for industry, trade associations, U.S. EPA and state agencies, the U.S. Department of Justice, the Australian EPA, municipalities, and private citizens. Dr. Tsuji's experience includes human health and environmental toxicology related to a wide variety of chemicals in the environment, consumer products, and medical devices. She has designed and directed dietary and environmental exposure studies and community programs involving health education and biomonitoring for populations potentially exposed to chemicals in the environment, including soil, water, and food-chain exposures. She has also assessed exposure and health risks associated with chemical exposures from air, foods, medical devices, and a variety of consumer products (e.g., cleaners, air fresheners, cosmetics, personal care products, paints and coatings, carpets, glues, wood preservatives, building materials, and children's toys and play equipment), including those containing nanotechnology or nanomaterials. Dr. Tsuji has served on expert panels on toxicology and health risks issues for the National Academy of Sciences/National Research Council (including their Board on Environmental Studies and Toxicology), Institute of Medicine, and federal and state agencies.