Identifying Opportunities to Understand, Control, and Prevent Exposure to PFAS

Committee

Jonathan M. Samet

Chair

Jonathan M. Samet, MD, MS, a pulmonary physician and epidemiologist, is Dean of the Colorado School of Public Health. Dr. Samet's research has focused on the health risks posed by inhaled pollutants. He has served on numerous committees concerned with public health: the U.S. Environmental Protection Agency Science Advisory Board; committees of the National Academies, including chairing the Biological Effects of Ionizing Radiation VI Committee, the Committee on Incorporating 21st Century Science in Risk-Based Evaluations, the Committee on Research Priorities for Airborne Particulate Matter, the Committee to Review EPA's Draft IRIS Assessment of Formaldehyde, the Committee to Review the IRIS Process, and the Board on Environmental Studies and Toxicology, among others; and the National Cancer Advisory Board. He is a member of the National Academy of Medicine. Dr. Samet received his MD from the University of Rochester, School of Medicine and Dentistry.

John L. Adgate

Member

John L. Adgate is Professor and Chair of the Department of Environmental and Occupational Health at the Colorado School of Public Health. His research on exposure science, risk analysis, and children's environmental health has focused on improving exposure estimation in epidemiologic studies by documenting the magnitude and variability of human exposures to chemical and biological stressors. His current funded research focuses on the risks, health, and community impacts of oil and gas development; the impact of heat and air pollution on the development of chronic kidney disease in Guatemalan sugarcane workers; the impact of residential weatherization and wildfires on indoor environments; and health effects stemming from perfluoroalkyl chemical (PFAS) exposure. Dr. Adgate has served on multiple science advisory panels for the U.S. Environmental Protection Agency and National Academies committees exploring technical and policy issues related to residential exposure to pesticides and air pollutants, impacts of energy development, lead-exposure interventions, children's environmental health, and the impacts of climate change on indoor air quality. He received an MSPH in environmental science from the School of Public Health of the University of North Carolina at Chapel Hill and a PhD in environmental health sciences granted jointly by the University of Medicine and Dentistry of New Jersey and Rutgers University.

Rula Deeb

Member

Rula Deeb is a Senior Principal Civil and Environmental Consultant for Geosyntec and has more than 25 years of experience focused on private practice and academia addressing the cross-media fate and transport of contaminants and the remediation of complex soil and groundwater sites impacted by non-aqueous phase liquids. She earned her Ph.D. in civil and environmental engineering from the University of California, Berkeley, where her research focused on substrate interactions of gasoline aromatics and oxygenates. As a post-doctoral fellow at Berkeley, she developed and implemented research programs in collaboration with scientists and engineers at other universities, consulting firms, and the U.S. Air Force on the remediation of sites affected by contaminant mixtures. Following teaching assignments at Berkeley and Stanford University between 1992 and 2000, Dr. Deeb was selected as a National Science Foundation Engineering Education Scholar for Excellence in Engineering Education. Focusing on emerging contaminants in natural and treatment environments, she has led many research and demonstration efforts. Her work has promoted awareness and improved the understanding of the sources, occurrence, fate and transport, and behavior of several of the most challenging environmental contaminants to date, including per- and polyfluoroalkyl substances (PFAS), 1,4-dioxane, MTBE, perchlorate and others. She is heavily engaged in the National Academy of Engineering's Frontiers of Engineering program, which brings together emerging engineering leaders from industry, academia, and government to discuss pioneering technical work and leading edge research in various engineering fields and industry sectors. She has served as a member of EPA’s Science Advisory Board Environmental Engineering Committee. In 2010, Dr. Deeb earned an Industry Recognition Award for her outstanding contribution as a member of the Interstate Technology and Regulatory Council's Remediation Risk Management team. She is the recipient of the 2008 Berkeley Engineering Innovation Young Outstanding Leader Award and was recently inducted into Berkeley’s Civil and Environmental Engineering Academy of Distinguished Alumni (Class of 2019).

Elizabeth Harriman

Member

Elizabeth Harriman is Deputy Director of the Toxics Use Reduction Institute (TURI) at University of Massachusetts, Lowell, and is responsible for managing the operations and technical functions of the Institute and for working with the other Massachusetts Toxics Use Reduction Act (TURA) agencies to set direction for the program. In more than 25 years working at the Institute, she has provided technical research and support services to Massachusetts companies and communities with the goal of identifying safer alternatives to toxic chemicals used in manufacturing and products. Recent technical work includes prioritization and hazard evaluation of chemicals, chemical alternatives assessment, flame retardants, and fluorinated chemicals (PFAS). Ms. Harriman has been involved with PFAS for about 3 years, assisting with TURI’s Science Advisory Board as they evaluate and consider recommending the addition of selected PFAS to the TURA reportable chemical list. This work spans from researching environmental health and safety information to understanding uses, precursors and degradation chains and strategizing how to approach the large class of chemicals to avoid regrettable substitutions. She also participates in PFAS workgroups of the Interstate Chemicals Clearinghouse and the Green Science Policy Institute. Ms. Harriman is a registered Professional Engineer (Civil/Structural) and has a BS and ME from Cornell University in civil engineering and a MS in civil engineering focused on hazardous materials management from Tufts University.

Philip R. Johnson

Member

Philip R.S. Johnson is Director of The Heinz Endowments' Environment & Health Program, which is part of the foundation's sustainability team and focuses on clean economy and environmental and public health goals. He currently manages a grants portfolio and community initiatives that focus on environmental systems (including air and water), public health, susceptible populations and at-risk communities, energy impacts and alternative energy, green infrastructure, community resilience, and climate change. Before joining the Endowments, Dr. Johnson worked for government agencies and nonprofits in fisheries and ecological restoration, public health, and environmental science. He is chair emeritus of the Health & Environmental Funders Network and serves on the board of Environmental Grantmakers Association. Dr. Johnson received his MPH in environmental health, MS in environmental science, and PhD in risk analysis and management from Yale University.

Patricia L. Mabry

Member

Patricia L. Mabry is an interdisciplinary scientist who specializes in utilizing non-experimental methods aimed at understanding whole systems (e.g., network science, modeling and simulation, deep learning) to address health research questions with behavioral and social underpinnings. Dr. Mabry is a Core Research Investigator at the non-profit, HealthPartners Institute. Her current research areas include developing simulation models to improve decision making in tobacco control policy and colorectal cancer screening, understanding career trajectories in the biomedical research workforce through deep learning and social network analysis, and developing a dental-practice-based behavioral intervention to improve HPV vaccination rates in children. She is also a Co-Project Director on a federally funded project to develop a cloud-based platform for sharing public and proprietary data and research resources.

Previously, Dr. Mabry was the Executive Director of the Indiana University Network Science Institute (IUNI,) where she supported a variety of interdisciplinary network science-focused research projects. She also spent over a decade working at the National Institutes of Health where she founded the first systems science program out of the NIH Office of Behavioral and Social Sciences Research (OBSSR).

Dr. Mabry's has published in peer reviewed journals such as Science, The Lancet, PLoS Computational Biology, Nicotine and Tobacco Research, the American Journal of Public Health, and she has delivered nearly 160 presentations including six conference keynotes and five invited presentations to the National Academies. She has served as Guest Editor of several journal issues, contributed to the Surgeon General's Report, co-founded and co-directed the Envision obesity modeling network, chaired the 3rd International Meeting on Social Computing Behavioral Modeling and Prediction (SBP), chaired the federal interagency Tobacco Policy Modeling Meeting in 2014, and mentored AAAS Fellows and junior faculty. Her work has been recognized through teaching awards, election to Fellow of the Society of Behavioral Medicine, awards for federal service, the Applied Systems Thinking Award, and federal grant funding.

Elsie Sunderland

Member

Elsie Sunderland is an environmental chemist and the Gordon McKay Professor of Environmental Chemistry at Harvard University with expertise in the fate and transport of contaminants, human exposure modeling, and risk analysis. She holds faculty appointments in the Harvard John A. Paulson School of Engineering and Applied Sciences, the Harvard T.H. Chan School of Public Health, and the Department of Earth and Planetary Sciences. She is a faculty associate in the Harvard University Center for the Environment and the Harvard Center for Risk Analysis. Her research group focuses on how releases of persistent environmental contaminants are transformed by the physical environment and biological processes and how this affects human exposures and risk of adverse health outcomes. Before joining the faculty at Harvard, she spent 5 years working to inform environmental policy decisions with best-available science at the U.S. Environmental Protection Agency (EPA) in various offices. Her work at EPA included regulatory impact assessments and development of guidance on how best to use environmental models to inform regulatory decisions. In 2010, she was the lead author of a chapter on human and ecological health concerns associated with hemispheric transport of air pollution as part of the United Nations Convention on Long Range Transport of Air Pollution. She worked closely with the EPA delegation informing the U.S. position on UNEP's development of the first global treaty regulating anthropogenic mercury releases to the environment in 2013 and is now an ad hoc expert on the technical group working on effectiveness evaluation. Her recent work has focused on characterizing diverse exposure sources for per- and polyfluoroalkyl substances (PFASs), including drinking water and seafood, and developing chemometric indicators for source attribution. Her group has developed and applied physiologically based toxicokinetic models for a variety of pollutants to interpret exposure data and evaluate the importance of different sources for diverse human populations. She is a project leader for an NIH funded Superfund Center on Sources, Transport, Exposure, and Effects of PFASs led by the University of Rhode Island. Dr. Sunderland has received EPA's Highest Level Scientific and Technological Achievement Award, the EPA Gold Medal for Exceptional Service, the Smith Family Foundation Award for excellence in biomedical research, and the Harvard Star Family Award for promising scientific research. She is a member of the advisory board for several journals including Environmental Science and Technology and Environmental Science Processes and Impacts. Dr. Sunderland received a PhD in environmental toxicology from Simon Fraser University.