Review of Methods in the Report on Carcinogens Handbook

Committee

Wendy Heiger-Bernays

Chair

Wendy Heiger-Bernays is clinical professor emerita in the Department of Environmental Health at the Boston University School of Public Health where she applied her training in molecular toxicology to questions about the health impacts of environmental chemicals and pharmaceuticals in water and waste streams on people’s health. She is currently Chief of Research in the Office of Research and Standards at the Massachusetts Department of Environmental Protection. Dr. Heiger-Bernays' work in toxicology and risk assessment relies on innovative technology and information transfer of the science to multiple audiences, including environmental regulatory and health agencies as well as with advocacy and community groups. She has served on multiple state and federal Advisory Committees including the MA Science Advisory Board for the Toxics Use Reduction Act, the US Environmental Protection Agency Science Advisory Committee on Chemicals and she serves as Chair of her local board of health. She is a past-president of the International Society for Children’s Health and Environment. Dr. Heiger-Bernays received her PhD in Biochemistry at the University of Nebraska Medical Center, and she completed post-doctoral fellowships at Cold Spring Harbor Laboratory and the Massachusetts Institute of Technology in the Program in Toxicology. She previously served on the National Academies ad hoc committee to Review the Texas Commission on Environmental Quality’s Ethylene Oxide Development Support Document.

Deborah H. Bennett

Member

Deborah H. Bennett is a Professor in the Division of Environmental and Occupational Health at the University of California, Davis School of Medicine. She is an expert on multipathway exposures, the indoor environment, and exposures through consumer products and food packaging. She is working to increase the landscape of compounds considered in environmental health studies. Her work includes modeling and measuring exposures, conducting intervention studies, and supporting environmental epidemiology and risk assessment projects. She is an internationally recognized exposure scientist and has published over 160 papers. She has received funding from NIEHS, EPA, American Chemistry Council, and the California Air Resources Board. She has served on the EPA Charter Science Advisory Board as well as other EPA advisory boards, including advising on the Exposure Factors Handbook. She has served as an Elected Councilor, Treasurer, and Chair of the Awards Committee for the International Society of Exposure Assessment. She has an MS and PhD from the University of California, Berkeley. She has previously served on National Academies consensus committees, including the Committee to Review EPA's TSCA Systematic Review Guidance Document and Committee on Texas Commission on Environmental Quality’s Ethylene Oxide Development Support Document.

Russell Cattley

Member

Russell Cattley is the Tyler & Frances Young Professor Emeritus of Pathology at Auburn University. Previously, he was an Assistant Professor of Pathology at the College of Veterinary Medicine at North Carolina State University, on the scientific staff of the Chemical Industry Institute of Toxicology in Research Triangle Park, NC and the Executive Director of Pathology at the biotechnology company Amgen in Thousand Oaks, CA. He joined the faculty at the Auburn University College of Veterinary Medicine in 2011 and served as Head of the Department of Pathobiology from 2014 to 2020. He is the principal member of Alaplains Pathology LLC, where he provides expertise in the evaluation of toxicologic pathology data. He has served on several Working Groups for International Agency for Research on Cancer’s (IARC) Monograph Programme, and is a member of an IARC Consultation Group for the evaluation of cancer evidence in experimental animals (anticipated publication in late 2026). He earned his VMD degree from the University of Pennsylvania and completed a residency in veterinary and comparative pathology jointly conducted by Auburn University and the University of Alabama-Birmingham. He received his PhD degree from the University of North Carolina-Chapel Hill.

Marie C. Fortin

Member

Marie C. Fortin is Head of Toxicology at Edgewise Therapeutics. In this role, she is responsible for the nonclinical safety evaluation of novel therapeutic agents intended to treat muscle diseases such as muscular dystrophies and cardiovascular diseases. Dr. Fortin also contributes critical input on other aspects of drug development such as pharmacology, pharmacokinetics, evaluation of the risk-benefit ratio, and determination of first-in-human dose, and contributes to regulatory filings and interactions. In addition, Dr. Fortin is CEO and Principal Consultant of North Star Toxicology Consulting LLC, a boutique nonclinical development consulting firm dedicated to providing comprehensive and strategic toxicology consulting services to biopharmaceutical companies. Dr. Fortin is also Adjunct Professor in the Department of Pharmacology and Toxicology at the Ernest Mario School of Pharmacy at Rutgers University where she mentors graduate students, teaches in the Joint Program in Toxicology, and co-directs the graduate risk assessment course. In her previous industry and consulting roles, she authored or oversaw the development of multiple human health risk assessments for pesticides, metals, pharmaceuticals, cosmetic ingredients, and chemicals for all routes of exposure (oral, inhalation, dermal, parenteral) and oversaw an in vitro safety testing laboratory focused on organotypic models. Dr. Fortin is a Fellow of the Academy of Toxicological Sciences, and a Board-certified and European-registered toxicologist who is interested in the integration of new approaches to further the safety evaluation of pharmaceuticals and their translational application to the risk assessment of chemicals. Dr. Fortin earned her BSc in Biochemistry from Université Laval in Québec, received both her MSc in Neurosciences and PhD in Public Health - Toxicology from the Université de Montréal and completed her training with a Postdoctoral Fellowship at the University of Medicine and Dentistry of New Jersey (now Rutgers University). She has served previously on National Academies activities, including on the Board on Environmental Studies and Toxicology and the consensus report on Building Confidence in New Evidence Streams for Human Health Risk Assessment.

Mary Beth Genter

Member

Mary Beth Genter is Professor Emerita in the Department of Environmental and Public Health Sciences, University of Cincinnati, and Editor-in-Chief, International Journal of Toxicology. She has formal training in neurotoxicology and respiratory tract toxicology and is knowledgeable in toxicity endpoints in multiple other organ systems. She has served in advisory roles for the North Carolina Secretary's Scientific Advisory Board on Toxic Air Pollutants, for the Environmental Protection Agency in the reevaluation of naphthalene by the IRIS program, and on the National Toxicology Program's Board of Scientific Counselors. She also taught at the International Chemical Worker's Union in Cincinnati, where she extensively used Report on Carcinogens documents in teaching chemical industry workers about chemicals of concern in their workplaces. Dr. Genter has received multiple awards, including the 2025 American College of Toxicology Mildred Christian Award for Women's Leadership in Toxicology; the 2020 American College of Toxicology Service Award; and the 2019 Society of Toxicology Public Communication Award. In addition, she and collaborators received the 2019 NIOSH r2p Bullard-Sherwood Award for Research to Practice. She is a member of the American College of Toxicology, the Society of Toxicology, a fellow of the Academy of Toxicological Sciences, and a Diplomate of the American Board of Toxicology. Dr. Genter received her PhD in Toxicology and Pathology from Duke University and postdoctoral training at the Chemical Industry Institute of Toxicology. She previously served as a reviewer for the National Academies report, Review of the Styrene Assessment in the National Toxicology Program 12th Report on Carcinogens (2014).

Keeve Nachman

Member

Keeve Nachman is the Robert S. Lawrence Professor and Associate Chair of Environmental Health and Engineering at the Johns Hopkins Bloomberg School of Public Health, where he co-directs the Risk Sciences and Public Policy Institute and serves as the Associate Director of the Johns Hopkins Center for a Livable Future. Nachman has rigorous training and extensive practical experience in the risk sciences, regulatory toxicology, exposure science, epidemiology, occupational and environmental health, and environmental policy and communication. He has over twenty years of experience in the field of public health, with experience working in two federal agencies (EPA and DOD/USACE) on issues related to toxicology, epidemiology, exposure science, and risk assessment. Nachman's research is funded by the USEPA, USDA, NIH, and foundations. He has active projects focused on the development of novel methods to quantify infants' and children's soil and dust exposures, prioritization of novel contaminants in human biosolids, and development of occupational exposure factors in the agriculture sector. Nachman has a Ph.D. in Environmental and Occupational Health Policy and an MHS in Environmental Health Science from the Johns Hopkins Bloomberg School of Public Health. He has previously served on several National Academies committees, including the Committee to Review the Texas Commission on Environmental Quality's Ethylene Oxide Development Support Document.

Melissa J. Perry

Member

Melissa J. Perry is an epidemiologist and professor and the inaugural dean of the College of Public Health at George Mason University. Her research has advanced understanding of human exposure to pesticides and generated new evidence on the mutagenic and hormonal effects of these exposures among agricultural workers, farming communities, and the general population.

Dr. Perry recently chaired the Review Committee of the Health Effects Institute and served on the National Academies of Sciences, Engineering, and Medicine Committee on Clinical Follow-Up and Care for Those Impacted by the JP-5 Releases at Red Hill. She has also served as co-chair of the National Academies Committee on the Use of Emerging Science for Environmental Health Decisions and as a member of the National Academies Board on Environmental Studies and Toxicology.

She is a past chair of the Board of Scientific Counselors for the National Center for Environmental Health and the Agency for Toxic Substances and Disease Registry and a former president of the American College of Epidemiology.

Before joining George Mason University, Dr. Perry chaired the Department of Environmental and Occupational Health at George Washington University and spent many years on the faculty of the Harvard T.H. Chan School of Public Health. She was also a Fulbright Scholar in Albania in 2021.

She earned a BA from the University of Vermont and an MHS and ScD from the Johns Hopkins Bloomberg School of Public Health, as well as an MBA from George Mason University.

David B. Richardson

Member

David B. Richardson is Associate Dean for Research and professor of environmental and occupational health at the University of California, Irvine, Joe C. Wen School of Population and Public Health. Prior to his current position, he was a professor in the department of epidemiology in the School of Public Health at the University of North Carolina at Chapel Hill. His research focuses on the health effects of occupational and environmental exposures, particularly with regard to carcinogens. He has conducted studies of cancer among workers in the United States and abroad. Dr. Richardson’s current research includes studies of mortality among nuclear industry workers and uranium miners, and development of new methods for occupational cancer studies. He has served as a member of the U.S. President’s Advisory Board on Radiation and Worker Health and on the Science Advisory Board for the Environmental Protection Agency. He previously served as Lead Coordinating Writer for the United Nations Committee on Epidemiological Studies of Radiation and Cancer, Scientific Committee on the Effects of Atomic Radiation. He serves as Associate Editor of the journals Occupational and Environmental Medicine and American Journal of Epidemiology. Dr. Richardson received a PhD and MSPH, both in epidemiology, from the University of North Carolina at Chapel Hill.

Ivan Rusyn

Member

Ivan Rusyn is a University Professor in the Department of Veterinary Physiology and Pharmacology in the College of Veterinary Medicine and Biomedical Sciences at Texas A&M University. He is also Director of Texas A&M University Superfund Research Center. His laboratory has an active research portfolio with a focus on the mechanisms of action of environmental toxicants, the genetic determinants of susceptibility to toxicant-induced injury, and the use of new approach methods in regulatory toxicology. His studies on the health effects of environmental agents have resulted in over 350 peer-reviewed publications. He was a member of the Research Committee of the Health Effects Institute and was on the Board of Scientific Councilors of the National Institute of Environmental Health Sciences. Dr. Rusyn received his M.D. from Ukrainian State Medical University in Kyiv and his Ph.D. in Toxicology from the University of North Carolina at Chapel Hill. He has served on several committees of the National Academies, including committees that reviewed the formaldehyde and styrene assessments in the National Toxicology Program 12th Report on Carcinogens. He chaired the Committee to Review Report on Long-Term Health Effects on Army Test Subjects and recently served on the committee to Review of EPA's 2022 Draft Formaldehyde Assessment.

John F. Wambaugh

Member

John Wambaugh is a scientist at Chemical Insights, where he develops computational tools to assess chemical risks to public health. He joined the organization in 2025 after 19 years as a scientist in the U.S. Environmental Protection Agency’s Office of Research and Development. Dr. Wambaugh’s primary research expertise lies in translating new approach methods (NAMs) for chemical safety into real-world applications. His work focuses on in vitro–in vivo extrapolation (IVIVE), toxicokinetics, and exposure assessment, with extensive use of applied statistics, including machine learning, Bayesian methods, and Monte Carlo simulations, to characterize uncertainty and support model selection. He has published extensively on the toxicokinetics of per- and polyfluoroalkyl substances (PFAS) and chemicals found in consumer products. He has co-authored more than 120 peer-reviewed journal articles and served as an Associate Editor for Environmental Health Perspectives from 2017 to 2023. An active member of the Society of Toxicology, he co-founded the Exposure Specialty Section, has served as president of the Biological Modeling Specialty Section, and has contributed to multiple Society committees. Dr. Wambaugh holds a doctorate in physics and master’s in computer science from Duke University. He trained as a post-doctoral researcher at EPA’s National Center for Computational Toxicology.

Tracey J. Woodruff

Member

Tracey J. Woodruff (NAM) is a Professor at Stanford University in the Department of Epidemiology and Population Sciences in the School of Medicine & Woods Institute at the Doerr School of Sustainability. Previously, she was the Alison S. Carlson Endowed Professor in the Department of Obstetrics, Gynecology, and Reproductive Sciences at University of California, San Francisco and the Director of the Program on Reproductive Health and the Environment. She is a recognized expert on environmental chemical exposures and impacts on health and health equity, with a focus on pregnancy, infancy and childhood. She has expertise in environmental exposures and epidemiology, hazard and risk assessment, and in silico/in vitro approaches to evaluating environmental chemical influences on health. She previously served on several National Academies Boards and committees, including the Board on Environmental Studies and Toxicology.

Lauren Zeise

Member

Lauren Zeise (retired 2024) was director of the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA). She oversaw the department's activities, including the development of risk assessments, hazard evaluations, toxicity reviews, cumulative impact analyses, frameworks and methods for assessing toxicity and cumulative effects of vulnerability and environmental exposures on communities, and the department's activities in the California Environmental Contaminant Biomonitoring Program. She played a leading role in OEHHA's development of CalEnviroScreen, a tool used to identify the California communities most burdened by pollution from multiple sources and most vulnerable to its effects. She has contributed to hundreds of chemical health risk assessments, science-based regulations, and guidance documents for conducting risk assessments. Zeise was the 2008 recipient of the Society for Risk Analysis' Outstanding Practitioners Award and is an Associate of the National Academies. She has served on advisory boards and committees of the U.S. Environmental Protection Agency, the Office of Technology Assessment, the World Health Organization, and the National Institute of Environmental Health Sciences. Zeise received a Ph.D. from Harvard University. She has previously served on numerous National Academies committees, including the Committee on Toxicity Testing and Assessment of Environmental Agents and the Committee on Improving Risk Analysis Approaches Used by EPA.

Kathryn Guyton

Staff Officer

Kathryn Guyton is a Senior Program Officer on the program area, Life Science and Biotechnology at the National Academies. She joined the National Academies after seven years as a Senior Toxicologist at the International Agency for Research on Cancer, World Health Organization. Her prior experience includes eight years as a Toxicologist at the US Environmental Protection Agency, and seven years as the Director of Scientific Affairs at CCS Associates. Dr. Guyton received her BA and PhD from Johns Hopkins University and her postdoctoral training at the US National Institutes of Health. She has been certified as a Diplomate of the American Board of Toxicology since 1998.