UNITED STATES ENVIRONMENTAL PROTECTION AGENCY CHARTERED SCIENCE ADVISORY COMMITTEE ON CHEMICALS (SACC) BIOGRAPHICAL SKETCHES

Henry Anderson, M.D.

Affiliation: University of Wisconsin-Madison, Madison, WI

Expertise: Disease and exposure surveillance systems; cancer and chronic disease epidemiology; reproductive and endocrine health hazards; drinking water contaminants; pesticides and dietary risk assessment including sport fish consumption advisory communication

Education: M.D., University of Wisconsin-Madison

Experience Summary: Dr. Henry Anderson holds adjunct professorships at the University of Wisconsin- Madison, School of Medicine and Public Health, Department of Population Health Sciences, and the University of Wisconsin Institute for Environmental Studies, Center for Human Studies. He recently retired from his positions as Wisconsin State Environmental and Occupational Disease Epidemiologist, and Chief Medical Officer in the Wisconsin Division of Public Health, Department of Health Services. Dr. Anderson is also board-certified by the American Board of Preventive Medicine with sub-specialty in Occupational and Environmental Medicine and is a fellow of the American College of Epidemiology. His primary research interests include disease and exposure surveillance systems, cancer and chronic disease epidemiology, reproductive and endocrine health hazards, drinking water contaminants, pesticides and dietary risk assessment, including sport fish consumption advisory communication and risk assessment for communities.

Panel Experience: Dr. Anderson previously served on five National Academies of Science Committees including Toxicity Testing for Assessment of Environmental Agents (2004-2007), the Presidential Advisory Board on Radiation Worker Compensation (2001-2006) and the United States Environmental Protection Agency's (U.S. EPA) National Advisory Committee for Acute ExposureGuideline Levels for Hazardous Substances (2006-2012). He is also the former chair of the U.S. EPA Science Advisory Board's Environmental Health Committee (2001-2003) and was alsoformer chair of the Board of Scientific Councilors for the National Institute of Occupational Safety and Health (1982-1988).

James Bruckner, Ph.D.

Affiliation: University of Georgia, Athens, GA

Expertise: Toxicology and toxicokinetics of volatile organic compounds (VOCs); drugchemical interactions at environmental exposure levels; metabolic and toxicokinetic bases for susceptibility of children to chemicals; and physiologically-based pharmacokinetics (PBPK) modeling of pyrethroid insecticides

Education: Ph.D., Toxicology, University of Michigan; M.S., Toxicology, University of Texas at Austin; B.S., Pharmacy, University of Texas at Austin

Experience Summary: Dr. James Bruckner is currently a professor at the University of Georgia (UGA) College of Pharmacy. His primary research focus is the toxicology and toxicokinetics of volatile organic compounds (VOCs), drug-chemical interactions at environmental exposure levels, metabolic and toxicokinetic bases for susceptibility of children to chemicals, and physiological modeling of pyrethroid insecticides.

Panel Experience: Dr. Bruckner has served on a variety of expert panels and committees for the United States Environmental Protection Agency (U.S. EPA), National Institute of Environmental Health Sciences (NIEHS), National Aeronautics and Space Administration (NASA), U.S. Air Force, Agency for Toxic Substances and Disease Registry, Center for Disease Control and Prevention (ATSDR/CDC), Food and Drug Administration (FDA), and the National Academy of Sciences (NAS). He has also served on the Chlorpyrifos PBPK-PD Modeling Linked to CARES (February 15-17, 2011) and the Organophosphate Pesticides: Preliminary OP Cumulative Risk Assessment (February 5, 2002). The National Academy of Sciences (NAS) appointments have included the Committees on Safe Drinking Water (1983-1985); Member of the Committee on Pesticides in the Diets of Infants and Children (1988-1994); Health and Safety Consequences of Child Labor 9 1997-1998); and the Committee on Toxicology (2004-2007). Dr. Bruckner has also served on the editorial boards of Toxicology and Applied Pharmacology (1984-1989), Journal of Toxicology and Environmental Health (1984-1992); Toxicology (2003- present).

Deborah Cory-Slechta, Ph.D.

Affiliation: University of Rochester Medical School, Rochester, NY

Expertise: Development of animal models of behavioral toxicology that better simulate the context of the human environment, including assessment of behavioral consequences of the interactions of lead with prenatal stress, and with early behavioral adversity; as well as studies of the impact of air pollution on brain development and behavior; neurotoxicology, pathology, and psychology

Education: Ph.D., Psychology/Pharmacology, University of Minnesota; M.A./B.S., Psychology, Western Michigan University

Experience Summary: Dr. Deborah Cory-Slechta is a professor of Environmental Medicine, Pediatrics and Public Health Sciences at the University of Rochester Medical School and Acting Chair of the Department of Environmental Medicine and Principal Investigator (PI) of its National Institute of Environmental Health Sciences (NIEHS) Core Center Grant. She has also previously served as Dean for Research at the University of Rochester Medical School and as Director of the Environmental and Occupational Health Sciences Institute of Rutgers University. Her research includes both animal models and human studies where she has focused largely on the behavioral consequences of developmental exposures to environmental chemicals.

Panel Experience: Dr. Cory-Slechta has served on numerous advisory panels, including those of the National Institutes of Health (NIH) [2002-2006; 2008-2010; 2017-present], the Food and Drug Administration (FDA) [1988, 2004], the United States Environmental Protection Agency (U.S. EPA) [2002-present]; the National Academy of Sciences (NAS) [2007-2008, 2013-2017], the Institute of Medicine (IOM) [2016-2017], and the Agency for Toxic Substances and Disease Registry (ATSDR) [2006-2013; 2015-present]. She currently serves on the Board of Scientific Counselors of ATSDR (2015-present). She has also served on the U.S. EPA's Science Advisory Board (2003-2010) and the Chemical Assessment Advisory Committee (2012-present) as well as formerly serving as Chair of the Scientific and Technological Achievement Awards (STAA) Committee of EPA (2002-2005). Dr. Cory-Slechta has also served as Chair of NAS/ National Research Council (NRC)/IOM committees (2007-2008; 2014-2016) and on the Committee on Toxicology of the NAS/National Research Council (2011-2017).

Holly Davies, Ph.D.

Affiliation: King County Local Hazardous Waste Management Program, Seattle, WA

Expertise: Sustainability, human health and ecological risk assessments; scientific studies supporting state chemical policy

Education: Ph.D., Genetics, University of Washington; B.S., Biology, Cornell University

Experience Summary: Dr. Holly Davies is an experienced professional in chemical policy, scientific research, and teaching. Her previous employment with the Washington State, Department of Ecology was focused on Chemical Action Plans to identify, characterize, and evaluate all uses and releases of specific persistent, bioaccumulative, and toxic chemicals (PBT) or groups of PBTs followed by a suite of recommended actions needed to protect human health and the environment. Dr. Davies is a member of the Society of Environmental Toxicology and Chemistry, and actively participates in the Children's Environmental Health Working Group within the Washington Chapter of the Collaborative on Health and the Environment. Her postdoctoral research (2000-2004) was focused on mammalian reproduction and development, transcription factors, and genomics.

Panel Experience: Dr. Davies has served on the Peer Review of the Draft Risk Assessment for Toxic Substances Control Act (TSCA) Work Plan Chemical 1-Bromopropane (CASRN-106-94-5) [May 24-25, 2016] advisory panel and on the Chemical Safety Advisory Committee (CSAC) Orientation Session on Toxic Substances Control Act (TSCA) [May 11, 2016] advisory committee.

William Doucette, Ph.D.

Affiliation: Utah State University, Logan, UT

Expertise: Ecological risk assessment; fate and behavior of organic contaminants in the environment

Education: Ph.D., Aquatic Chemistry; B.S./M.S., Chemistry, University of Wisconsin-Madison

Experience Summary: Dr. William Doucette is a professor in the Department of Civil and Environmental Engineering at Utah State University (USU), and serves as the Associate Director of the Utah Water Research Laboratory. He is also a faculty member in the Toxicology Graduate Program and an Adjunct Professor (concurrently) in the Chemistry and Biochemistry and Geology Departments. Dr. Doucette's research focuses on the fate and behavior of organic contaminants in the environment with emphasis on phytoremediation, the uptake of industrial chemicals into plants, the measurement and prediction of physical-chemical properties using Quantitative Structure Property Relationships (QSPRs), emission of chlorinated solvents into indoor air, and the environmental fate of pharmaceuticals.

Panel Experience: Dr. Doucette has served on numerous advisory panels [U.S. Environmental Protection Agency Chemical Safety Advisory Committee (CSAC) [May 2016]; International Life Sciences Institute (ILSI) Health and Environmental Sciences Institute (HESI) Bioaccumulation Project Committee Workshop on Terrestrial Bioaccumulation (January 8-10, 2013); National Institutes of Health (NIH), National Institute of Environmental Health Sciences (NIEHS) Proposal Review Panel, Superfund Research Program, P42 (November 1-2, 2012); State of Utah Solid and Hazardous Waste Control Board (1998-2007); National Institute of Environmental Health Sciences (NIEHS) Proposal Review Panel, Innovative Approaches to Remediation of Recalcitrant Hazardous Substances in Sediments (June 5-6, 2007); University of Wisconsin (UW) Sea Grant Peer Review Panel (August 7-8, 2007); EPA Science Advisory Board, EPI Suite Review Panel (March 7-9, 2006); CATABOL Review Panel (February 21-23, 2006); University of Wisconsin (UW) Sea Grant Peer Review Panel (August 19-20, 2003); Department of Energy (DOE)/ National Science Foundation (NSF) Peer Review Panel, Phytoremediation (April 1-2, 2003); EPA Peer Review Panel, Environmental Chemistry (Oct. 18-20, 1999); EPA Peer Review Panel, Small Business Innovation Research Phase 1 (January 26-29, 1999); EPA Peer Review Panel, Small Business Innovation Research Phase 1 (January 26-29, 1998); EPA Peer Review Panel, Environmental Chemistry (May 5-7, 1996); and EPA Peer Review Panel, Chemistry and Physics of Water and Soil (December 15-18,1990)].

Panos (Panagiotis) Georgopoulos, Ph.D.

Affiliation: Rutgers The State University of New Jersey, Piscataway, NJ

Expertise: Environmental chemistry/transport and exposure (including susceptible life stages and subpopulations); computational biology of exposure; physiologically-based pharmacokinetics (PBPK) modeling; informatics for environmental health applications

Education: Ph.D./M.S., Chemical Engineering, California Institute of Technology (Caltech); Dipl.-Ing., Engineering, National Technical University of Athens

Experience Summary: Dr. Panos Georgopoulos is a professor in the Department of Environmental and Occupational Health Sciences Institute (EOHSI) at Rutgers Biomedical and Health Sciences, School of Public Health with a joint appointment in the Department of Pharmacology, Rutgers R. W. Johnson Medical School. Dr. Georgopoulos' research and teaching activities at Rutgers include development and implementation of innovative methods for high-content to high-throughput environmental risk analysis and informatics. He currently serves as President of the Tri-State Chapter (NY-NJ-PA) of the International Society of Exposure Science (ISES). Since 1989, he has served on the faculty of Robert Wood Johnson Medical School and on the Graduate Faculties of Chemical & Biochemical Engineering, of Biomedical Engineering, and of Environmental Sciences at Rutgers University. As a member of the EOHSI, he directs the Informatics and Computational Toxicology Core of the National Institute of Environmental Health Sciences (NIEHS) Center for Environmental Exposures and Disease (CEED). At EOHSI, he established and directs the Computational Chemodynamics Laboratory (CCL), a high-performance scientific computing facility for informatics and modeling of environmental and biological systems.

Panel Experience: Dr. Georgopoulos has served on numerous national and international advisory committees and panels. From the past five years (2013-2017) they are Centers for Disease Control and Prevention (CDC)/Agency for Toxic Substances and Disease Registry (ATSDR) Peer Review Panel for Modeling Guidance on Indoor Water (2017); U.S. EPA Peer Review Panel for Lead in Drinking Water (2017); External Advisory Board of the Mount Sinai Transdisciplinary Center on Early Environmental Exposures, Icahn School of Medicine at Mount Sinai (2016-present); U.S. EPA Chemical Safety Advisory Committee (CSAC) (2015-2016); US-Israel Binational Science Foundation Grant Review Panel (2016); U.S. EPA Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel (FIFRA SAP) (2014-2015); U.S. EPA Technical Approach for Lead External Peer Review Committee (2014-2015); U.S. EPA Air, Climate and Energy (ACE) Centers Review Panel (2014); Danish Agency for Science, Technology and Innovation Grant Review Panel (2014); U.S. EPA National Health and Environmental Effects Research Laboratory (NHEERL) Technical Qualifications Board (TQB) External Panel Member (2014); Environment and Health Fund (EHF- Israel) Pilot Research Grants Review Panel (2014); EU Tiered Aggregate Exposure Assessment (TAGS) Project Advisory Board (2014-2015); U.S EPA Chartered Clean Air Advisory Committee (CASAC) NOx Science Advisory Board (SAB) (2013-2015); National Institutes of Health (NIH) Tobacco Centers of Regulatory Science (TCORS) Peer Review Committee (2013); and U.S. Food and Drug Administration (FDA) Review Panel for the iRisk Comparative Risk Assessment Tool (2013).

Kathleen Gilbert, Ph.D.

Affiliation: University of Arkansas for Medical Sciences, Little Rock, AR; and Colorado State University, Fort Collins, CO

Expertise: Toxicology; immunology; pathology; and links between toxicant exposure and autoimmune disease

Education: Ph.D., Tulane University

Experience Summary: Dr. Kathleen Gilbert is a professor in the Department of Microbiology and Immunology at the University of Arkansas for Medical Sciences, and is based in the Arkansas Children's Hospital Research Institute. She has worked for over 30 years as an Immunologist and Immunotoxicologist. Dr. Gilbert has served as the Director of the Arkansas Center for Environmental Exposure Research (ACEER) since its inception in 2002. Her broad-based expertise is underlined by the fact that Dr. Gilbert's environmental research has focused on how chronic exposure to low concentrations of immunotoxicants such as chlorinated solvents (e.g. trichloroethylene or heavy metals) can trigger autoimmune diseases.

Panel Experience: Dr. Gilbert has served on several advisory panels for the EPA and the National Toxicology Program concerning the impact of chlorinated solvents as triggers of autoimmune disease and other types of toxicity. This includes participation on expert panel that reviewed EPA Toxic Substances Control Act (TSCA) Workplan Chemical Risk Assessment for Trichloroethylene: Degreaser and Arts/Crafts Uses (2013) and Environmental Protection Agency Chemical Safety Advisory Committee (CSAC) [May 2016] review of 1-Bromopropane (2016). She also served on a TCE Information Group tasked with assisting the NTP Office of the Report on Carcinogens as they considered a possible change in listing status for TCE in the Report on Carcinogens (2014). As part of her career in research Dr. Gilbert has also served on National Institutes of Health (NIH) review panels for Digestive, Kidney, and Urological Systems; Immunology; Microbiology and Infectious Diseases; and Superfund Basic Research (2007-2016) and the EPA's Chemical Safety Advisory Committee (CSAC) (2016).

Concepcion Jimenez-Gonzalez, Ph.D.

Affiliation: GlaxoSmithKline, Research Triangle Park, NC

Expertise: Green chemistry and engineering; chemistry and exposure; sustainability and environmental health and safety; chemical engineering and new product development

Education: Ph.D., Chemical Engineering (Fulbright Scholar), North Carolina State University; RaMBA, North Carolina State University; MS, Environmental Engineering, ITESM, Monterrey, Mexico; BS, Chemical and Industrial Engineering, CIT, Mexico

Experience Summary: Dr. Concepcion Jimenez-Gonzalez is the Graduate Program Lead for Global Manufacturing and Supply at GlaxoSmithKline (GSK). Prior to this position, she served as Director of New Product Development, Director of Operational Sustainability, and Director of Engagement, Planning, Analysis and Reporting. She also previously served as Manager of New Product Support. Prior to working at GSK, Dr. Jimenez-Gonzalez worked as an Environmental Engineer for Geo Environmental Consultants, Inc. She was also employed as a Program Manager, Researcher, and Project Engineer at ITESM in Mexico. During the same timeframe, she was a visiting professor at Pfizer (2001). In addition to working for GSK, Dr. Jimenez-Gonzalez is an Adjunct Professor at North Carolina State University in the Chemical and Biomolecular Engineering Department. Dr. Jimenez-Gonzalez research interests cover sustainability, environment, health, and safety, sustainability analytics, life cycle assessment, risk assessment. She has dozens of technical publications and international presentations on these topics, including two co-authored books.

Panel Experience: Dr. Jimenez-Gonzalez serves on the Governing Board of the American Chemistry Society's Green Chemistry Institute (2011-present) and on the Environmental Genome Initiative (2017-present). She has also served as a U.S. EPA Reviewer for Grants and Judge in competitions (SBIR, STAR, P3) [since 2002]; as a Member of U.S. EPA's Board of Scientific Counselors (2006-2008); and as a Co-chair of the American Chemical Society Green Chemistry Institute Pharmaceutical Roundtable (2010-2012).

Alan Kaufman

Affiliation: Toy Industry Association, Inc., New York, NY

Expertise: Chemistry and exposure (including susceptible life stages and subpopulations); development and implementation of technical policies and strategies relating to toy safety, the environment, supply chain issues, and factory processes

Education: Bachelor's Degree (biology, with Organic Chemistry minor), University of California, Los Angeles

Experience Summary: Alan Kaufman is a toy industry expert with more than 35 years of experience addressing product safety, quality assurance, regulatory compliance and product testing issues for toy companies and retailers.

Prior to joining the Toy Industry Association (TIA), Mr. Kaufman was Vice President for Global Product Safety and Regulatory Affairs at Toys "R" Us, Inc. He spent more than a decade directing production, sourcing and technical services within the Walt Disney Company and its affiliated companies. Earlier in his career, he held technical and production positions at a number of toy manufacturers, including Mattel, Knickerbocker and Coleco.

As part of the External Affairs Team, Mr. Kaufman leads the continuing development and implementation of technical policies and strategies relating to toy safety, the environment, supply chain issues, factory processes and other related matters.

Mr. Kaufman is a member of the Board of Directors of the International Consumer Product Health and Safety Organization (ICPHSO). He is also a member of the executive board of American Society for Testing and Materials (ASTM) International Committee F15 for Consumer Products and is active on many of its subcommittees, responsible for toy and juvenile product safety standards.

Panel Experience: N/A

John Kissel, Ph.D.

Affiliation: University of Washington (Retired), Seattle, WA

Expertise: Chemistry, human exposure (including susceptible life stages and subpopulations) to environmental contaminants

Education: Ph.D., Civil Engineering, Stanford University, S.M., Environmental Engineering, Harvard University, B.S., Civil Engineering, University of Notre Dame

Experience Summary: Dr. John Kissel is Professor Emeritus of Environmental and Occupational Health Sciences at the University of Washington in Seattle, where he was a member of the faculty since 1990. He held a prior position in the School of Public and Environmental Affairs at Indiana University. He is a registered Professional Engineer who was previously employed as a process engineer at Black and Veatch Engineers located in Kansas City, MO.

Dr. Kissel's former research interests involved human exposure assessment with emphasis on exposures related to waste management, agricultural and residential use of pesticides, and consumer products. He also conducted research in probabilistic prediction of aggregate exposure and reconciliation of model predictions with observed biomarker data. Dr. Kissel is a former President of the International Society of Exposure Science.

Panel Experience: Dr. Kissel served one term as Chair of the Exposure Assessment Specialty Group within the Society for Risk Analysis (1995-1996), on two National Academy of Sciences Committees (2004 - 2005 and 2014 - 2015), on nine USEPA FIFRA Science Advisory Panels (1998 - 2010), and on EPA's Human Studies Review Board (2014 - 2015).

Melanie Marty, Ph.D.

Affiliation: California Environmental Protection Agency (Retired), Oakland, CA. and Adjunct Associate Professor, University of California- Davis

Expertise: Human health risk assessment, and risk assessment of environmental contaminants

Education: Ph.D., Pharmacology and Toxicology, University of California, Davis; A.B., Biological Sciences, University of California, Berkeley

Experience Summary: Dr. Melanie Marty recently retired from her position as Acting Deputy Director for the Science Division at the Office of Environmental Health Hazard Assessment (OEHHA), California Environmental Protection Agency where she oversaw the scientific activities of the division.

Dr. Marty previously served as Assistant Deputy Director, and Chief of the Air Toxicology and Epidemiology Branch. Her work has largely been in risk assessment of environmental contaminants, including developing guidance to adequately address susceptible subpopulations such as children.

Dr. Marty is also an Adjunct Associate Professor at the University of California-Davis, in the Department of Environmental Toxicology, where she teaches a course on risk assessment of toxicants and contributes to other teaching activities.

Panel Experience: Dr. Marty served on the United States Environmental Protection Agency's peer review committees, including review of the *Framework for Assessment Health Risks to Children* (2005), and *Supplemental Guidance to Assessing Early-Life Exposure to Carcinogens* (2003). Dr. Marty served as Chair of the EPA Children's Health Protection Advisory Committee (2002 to 2009). Additional experience includes serving as a member of EPA's Chemical Assessment Advisory Committee (2017) and as a member of the South Coast Air Quality Management District Clean Fuels Advisory Committee for 15 years. Dr. Marty previously served on the Peer Review Advisory Panels for the Chemical Safety Advisory Committee (CSAC) (2016) and the Toxic Substances Control Act (TSCA), Draft Risk Assessment Work Plan Chemical for 1-Bromopropane (2016).

Kenneth Portier, Ph.D.

Affiliation: Consulting Biostatistician, Athens, GA (formerly National Cancer Society)

Expertise: Statistical applications in agriculture, natural resources, environmental sciences and environmental health. More recently providing administrative and statistical support on design and analysis of cross-sectional and longitudinal sample surveys, program evaluations, models of cancer mortality and incidence, text mining and GIS in cancer program planning. Specific expertise in statistical aspects of environmental sampling, toxicology, program evaluation, and geographical information systems

Education: Ph.D., Biostatistics and M.S., Statistics, University of North Carolina- Chapel Hill; B. S., Mathematics, Nicholls State University

Experience Summary: Vice President 2015-2017, Managing Director 2010-2015, Director of Statistics 2006-2010, Statistics & Evaluation Center, Intramural Research Department, American Cancer Society (ACS), Atlanta, GA. Affiliate Professor of Biostatistics, School of Public Health, Emory University, 2006-2917. Assistant Research Scientist 1979-1981, Assistant Professor 1981-1986, Associate Professor 1986-2006, Experiment Station Statistician 1979-2006, Institute of Food and Agricultural Sciences and College of Agriculture, University of Florida, Gainesville. Courtesy faculty, 2001-present, Center for Environmental and Human Toxicology, College of Veterinary Medicine, University of Florida, Gainesville.

Dr. Portier's research interests include statistical issues in environmental and human health risk assessment, applied statistical methods, multivariate data analysis, data and text mining, GIS applications in environment and public health, use of technology in the learning of statistics, survey methodology including data imputation.

Panel Experience: Dr. Portier has participated in over 60 EPA FIFRA Scientific Advisory Panel meetings (1999 to 2013) and five EPA Science Advisory Board Review Panels (2012 to 2015). In addition, Dr. Portier served on expert and advisory panels for the National Institutes of Health (NIH), National Institute of Environmental Health Sciences (NIEHS), National Toxicology Program (NTP), and the World Health Organization Food and Agriculture Organization (WHO/FAO). Other panels Dr. Portier served on include: NIH/NIEHS, Breast Cancer & Environmental Research Coordinating Committee (2010-2012); World Health Organization, Expert Panel, Toxicological and Health Aspects of Bisphenol A. (2010); American Statistical Association, Section on Risk (2010); NTP/NIEHS/NIH Board of Scientific Councilors (2007-2009), Chair (2009); NTP/NIEHS/NIH, Center for the Evaluation of Risks to Human Reproduction, Expert Panel (2003 and 2008); Biometric Society (ENAR & WNAR) representative to the Ag and Life Sciences Committee of the AAAS (2005 – 2007). Dr. Portier previously served as Chair on the Peer Review Advisory Panel for the Chemical Safety Advisory Committee (CSAC) (2016) and as Chair on the Toxic Substances Control Act (TSCA), Draft Risk Assessment Work Plan Chemical for 1-Bromopropane (2016).

Craig Rowlands, Ph.D.

Affiliation: Underwriters Laboratories (UL), LLC, Northbrook, IL.

Expertise: Human health risk assessment, molecular biology, systems biology, toxicology applications to chemical risk assessments, sustainability and toxicant modes of action.

Education: Ph.D., Toxicology, and. B.S., Biochemistry, Texas A&M University.

Experience Summary: Dr. Craig Rowlands is a Senior Toxicologist with UL Supply Chain and Sustainability where he provides leadership in the development of new approaches and capabilities for safety assessments of chemicals and consumer products. He is an expert in navigating regulatory compliance for new substances and products through delivery of the appropriate safety data and risk assessments.

His research focuses on systems biology and toxicology applications to chemical risk assessments, sustainability and toxicant modes of action. He is an Adjunct Professor of Toxicology at Michigan State University, Diplomate of the American Board of Toxicology, and a Fellow of the American College of Nutrition.

Prior to his tenure at Underwriters Laboratories, Dr. Rowlands was employed with the Toxicology and Environmental Research & Consulting program at DowChemical Company, where he practiced chemical risk assessment and led the development of new approaches to risk assessment policy and practices on the application of 21st century non-animal toxicity testing methods.

Panel Experience: Dr. Rowlands serves on the Society of Toxicology, Current Concepts in Toxicology Committee [2015-Present]; Co-chair, American Chemistry Council, Public Health and Science Policy Sub-team, Science Integrity and Risk Assessment Working Group [2009 - Present], Steering Committee, International Life Sciences Institute, Health and Environmental Sciences Institute, Risk21 Project [2010 - Present]; Co-chair, International Life Sciences Institute, Risk21 Project, Dose-Response sub-team [2010 - Present]; Co-chair, International Life Sciences Institute, Risk21 Project, Dose-Response sub-team [2010 - Present]; Co-chair, International Life Sciences Institute, Framework Project [2014 - Present].

Sheela Sathyanarayana, M.D.

Affiliation: Seattle Children's Research Institute, Seattle, WA

Expertise: Pediatrics, epidemiology, pediatric environmental health, exposures to endocrine-disrupting chemicals, including phthalates and bisphenol A and their impact on reproductive development

Education: M.D., University of Southern California School of Medicine; MPH, Epidemiology, University of Washington; B.A., Environmental Science & Policy/Philosophy, Duke University

Experience Summary: Dr. Sheela Sathyanarayana is an Associate Professor of Pediatrics and Adjunct Associate Professor within the Department of Environmental and Occupational Health Sciences at the University of Washington. She is the medical director of the University of Washington Nursery.

Her research interests focus on exposures to endocrine-disrupting chemicals, including phthalates and bisphenol A and their impact on reproductive and child health development.

Panel Experience: Dr. Sathyanarayana previously served as Chair of the United States Environmental Protection Agency's Children's Health Protection Advisory Committee (2013 - 2015), and Co-Chair (2012 - 2013); US Environmental Protection Agency, Science Advisory Board (SAB) (2013 - 2015); the National Academies of Sciences Committee on Endocrine-Disrupting Chemicals and Low Dose Toxicity (2015 - 2017); Centers for Disease Control and Prevention, World Trade Center Health Program Scientific/Technical Advisory Committee (2016 - present).

Valentine Schaeffer, Ph.D.

Affiliation: U.S. Occupational Safety and Health Administration, Washington, DC

Expertise: Human health risk assessment, permissible exposure limits for chemical hazards, rulemakings for beryllium, silica, and hexavalent chromium,

Education: Ph.D., Biochemical Toxicology, Johns Hopkins School of Hygiene and Public Health; M.S., Nutritional Sciences, UCLA School of Public Health; B.A., Chemistry, University of California, San Diego

Experience Summary: Dr. Valentine Schaeffer works as a Health Scientist in the Directorate of Standards and Guidance at the U.S. Occupational Safety and Health Administration (OSHA), where he directs preparation of health risk assessments to support occupational health standards.

His duties also involve development of OSHA scientific policy and the coordination of OSHA health science activities with other Federal agencies and professional organizations and liaison with the National Toxicology Program. Project areas include updating permissible exposure limits for chemical hazards; rulemakings for beryllium, silica, and hexavalent chromium; and liaison with the National Toxicology Program.

Prior to working at OSHA, Dr. Schaeffer was a Health Scientist at the Consumer Product Safety Commission, responsible for evaluating human health risk from exposure to chemicals in consumer products.

Panel Experience: Dr. Schaeffer has served on the National Science and Technology Council (NSTC)Toxics and Risk Subcommittee (2011-2018); US Environmental Protection Agency (EPA) IRIS Interagency Workgroup (2008-2014); Peer Review Panel for the National Institute of Occupational Safety and Health (NIOSH) Risk Evaluation Program (2011); US Delegation for the Global Risk Dialogue, Brussels Belgium (2011); NSTC Nanotechnology Environment and Health Implications (NEHI) Workgroup of the Nanotechnology Science Engineering and Technology (NSET) Subcommittee (2004-2006); NIOSH National Occupational Research Agenda (NORA) Risk Assessment Methodology Team (1999-2006); National Cancer Institute (NCI) Chemical Selection Workgroup (1998-2004); EPA Interagency Testing Committee (1992-2003 – Chairman, 2000-2001); EPA/OPPTS Carpet Policy Dialogue Product Testing Subgroup (1990-1991); EPA/OHEA Interagency Pharmacokinetic Group (1990-1992).

Daniel Schlenk, Ph.D.

Affiliation: University of California, Riverside, California

Expertise: Understanding the biochemical factors that influence susceptibility to environmental and natural chemicals, aquatic organisms, metabolism, mode of action analysis, and ecological risk assessment

Education: Ph.D., Biochemical Toxicology, Oregon State University; B.S., Toxicology, Northeast Louisiana University

Experience Summary: Dr. Daniel Schlenk is Professor of Aquatic Ecotoxicology and Environmental Toxicology at the University of California-Riverside. He is a Fellow of the American Association for the Advancement of Science, and from 2007-2014, he was a permanent member of the US EPA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Science Advisory Panel of which he chaired from 2012-2014.

From 2003-2006, Dr. Schlenk was a member of the Board of Directors for the North American Society of Environmental Toxicology and Chemistry. His research interests focus on mechanisms of action of pesticides, PAHs, and emerging compounds in aquatic organisms.

Panel Experience: Dr. Schlenk's experience on Federal panels includes: Chair US EPA FIFRA Science Advisory Panel (2012-2014); Permanent Member US EPA FIFRA Science Advisory Panel (2007-2012); USEPA Chemical Safety Advisory Committee (CSAC) (2016) and the Toxic Substances Control Act (TSCA), Draft Risk Assessment Work Plan Chemical for 1-Bromopropane (2016); US EPA Science Advisory Committee on Chemicals (2017present); Ad hoc reviewer National Institute of Environmental Health Sciences (NIEHS) Freshwater Biomedical Centers (1996); US Department of Agriculture (1997-2000) and National Science Foundation (1996-present); National Oceanic and Atmospheric Administration (NOAA) Oceans and Human Health Initiative Grant Review Panel (2005); US EPA Endocrine Disrupter Mixtures Grant Review Panel (2005); US EPA Science Advisory Board, Aquatic Life Criteria Guidelines (2005); NIEHS P30 Core-Center Applications (2008); and NIEHS Superfund Research Program P42 Center Applications (2016). Dr. Schlenk has also served on numerous State and foundation review panels and committees.

Christopher Waller, Ph.D.

Affiliation: Merck Research Laboratories, Boston, MA.

Expertise: Physiologically-based pharmacokinetics (PBPK) modeling, translational data science, predictive modeling, analytical chemistry and business transformation.

Education: Ph.D., Medicinal Chemistry and Natural Products, University of North Carolina, Chapel Hill; B.S., Pre-medicine, Davidson College

Experience Summary: Dr. Christopher Waller is an Executive Director in the Merck Research Laboratories Division of Merck & Co., where he leads the Scientific Modeling Platform and Applied Math and Modeling teams and is responsible for Information Technology solutions in support of Merck's Center for Observational and Real-world Evidence. His current primary interests are in translational data science, predictive modeling, and businesstransformation.

Dr. Waller has held a variety of positions in academic, government, biotech, and large pharmaceutical company sectors. Dr. Waller was a founding board member of the Pistoia Alliance, serves on the Board of Visitors at the School of Pharmacy at the University of North Carolina-Chapel Hill, and is a member of the Strategic Advisory Board for the Department of Computer Science at North Carolina State University.

Dr. Waller received his Ph.D. in Medicinal Chemistry and Natural Products from the University of North Carolina in Chapel Hill.

Panel Experience: Dr. Waller has served on the Committee on Advances in Technology and the Prevention of Their Application lo Next Generation Biowarfare, Institute of Medicine and National Research Council, National Academy of Sciences, Washington, DC, (2003 – 2005); Research Centers in Minority Institutions (RCMI), National Institutes of Health, Washington, DC, (1999); Endocrine Disruptor Screening and Testing Advisory Committee, Keystone Foundation for United States Environmental Protection Agency, Washington, DC (1997 – 1999); and the Specialized Programs of Research Excellence (SPORE) in Breast Cancer Committee, National Cancer Institute, National Institutes of Health, Bethesda, MD (1994).

Catherine Willett, Ph.D.

Affiliation: The Humane Society of the United States, Gaithersburg, MD

Expertise: Toxicology, pathology, *in vitro* to *in vivo* extrapolation, science, policy and regulatory aspects of replacing animals as the basis of chemical safety assessment

Education: Ph.D. in Genetics, and M.S., Genetics, University of California, Davis

Experience Summary: Dr. Catherine Willett is currently the Director of Science Policy at the Humane Society of the United States and Coordinator of the Human Toxicology Project Consortium. Her work focuses on the science, policy and regulatory aspects of replacing animals as the basis of chemical safety assessment and involves working with regulatory agencies, scientists and policy-makers in the U.S. and Internationally, to facilitate the development and implementation of new scientific approaches to chemical assessment.

Dr. Willett has served in the Organisation for Economic Co-Operation and Development (OECD) Test Guidelines Program for several expert groups and as part of the Task Force on Hazard Assessment and Extended Advisory Group on Molecular Screening and Toxicogenomics. She has also served on the U.S. Department of Health and Human Services, National Toxicology Program's (NTP), Scientific Advisory Committee on Alternative Toxicological Methods (SACATM).

Panel Summary: Dr. Willet serves on the following: Scientific Advisory Committee on Alternative Toxicological Methods (SACATM), National Institute of Environmental Health Sciences (2014 – 2017); Scientific Advisory Royal Dutch Shell Animal Testing External Panel (2014 – present); The Institute for In Vitro Sciences - Scientific Advisory Board (2012 – present); The Center for Alternatives to Animal Testing at the Johns Hopkins University School of Public Health - Advisory Board (2015 - present).