

Invitation for Public Comment on the List of Candidates for the EPA Science Advisory Board (SAB) Chemical Assessment Advisory Committee (CAAC) Augmented for the review of the EPA's draft IRIS Ethyl Tertiary Butyl Ether (ETBE) and tert-Butyl Alcohol (tBA) Assessments

December 21, 2016

The U.S. Environmental Protection Agency (EPA) Science Advisory Board (SAB) Staff Office announced in a *Federal Register* Notice (Volume 81, Number 208, Pages 74782-74783) published on October 27, 2016 that it was augmenting the expertise on the SAB Chemical Assessment Advisory Committee (CAAC) to conduct a peer review of EPA's draft IRIS Ethyl Tertiary Butyl Ether (ETBE) and tert-Butyl Alcohol (tBA) Assessment. To augment the expertise on the CAAC, the SAB Staff Office sought nominations of nationally and internationally recognized experts with experience and expertise in one or more of the following areas, with a particular focus on tert-butanol and ETBE: toxicology, rat nephrotoxicity, liver toxicity, reproductive toxicity, cancer biology, physiologically-based pharmacokinetic (PBPK) modeling, toxicokinetics, and dose-response modeling of animal data.

Attached is a List of Candidates that includes the biosketches of both current members of the CAAC and other nominees. In total, the SAB Staff Office has identified 47 candidates based on their relevant expertise and willingness to serve.

The SAB Staff Office Director will make the final decision about who will serve on the Augmented Committee based on all relevant information. This will include a review of the confidential financial disclosure form (EPA Form 3110-48), relevant information gathered by staff, and public comments. For the SAB Staff Office, a balanced Augmented Committee is characterized by inclusion of candidates who possess the necessary domains of knowledge, the relevant scientific perspectives (which, among other factors, can be influenced by work history and affiliation), and the collective breadth of experience to adequately address the general charge. Specific criteria to be used in evaluating a candidate include: a) scientific and/or technical expertise, knowledge, and experience; b) availability and willingness to serve; c) absence of financial conflicts of interest; d) absence of appearance of a lack of impartiality; e) skills working in advisory committees and panels; and f) for the panel as a whole, diversity of scientific expertise and viewpoints.

We hereby invite comments on the attached List of Candidates for consideration by the SAB Staff Office in the formation of this Augmented Committee. Comments should be submitted to Dr. Shaunta Hill, Designated Federal Officer, no later than January 23, 2017. E-mailing comments (hill.shaunta@epa.gov) is the preferred mode of receipt. Please be advised that comments are subject to release under the Freedom of Information Act.

**List of Candidates for the Chemical Assessment Advisory Committee (CAAC) Augmented
for the review of the EPA's draft IRIS Ethyl Tertiary Butyl Ether (ETBE)
and tert-Butyl Alcohol (tBA) Assessments**

CAAC Augmented for the review of ETBE and tert-butanol

Anderson, Grant

University of Minnesota College of Pharmacy

Dr. Grant W. Anderson is an Associate Professor of Pharmacy Practice and Pharmaceutical Sciences in the University of Minnesota College of Pharmacy. He received a BS in Microbiology and Genetics and Cell Biology from the University of Minnesota and a PhD in Microbiology also at the University of Minnesota. After completing his doctorate Dr. Anderson received post-doctoral training in the laboratory of Dr. Jack H. Oppenheimer in the University of Minnesota Medical School whose research group studied the biological function and molecular mechanism of action of thyroid hormone. Dr. Anderson subsequently received academic appointments in the University of Minnesota Department of Medicine and the College of Pharmacy. Dr. Anderson's thyroid hormone-related research program has focused on studying the molecular basis of thyroid hormone action in the developing brain and lung, and the role of thyroid hormone in de novo lipid synthesis. Currently, Dr. Anderson studies the role of micronutrient deficiencies on thyroid hormone production and action during mammalian brain development, and the biochemical characterization of the blood-brain barrier thyroid hormone transporter Oatp1c1. His recent research directions include assessing the combinatorial effects of mild thyroidal perturbations, including dietary deficiencies and exposure to goitrogenic chemicals, on the production and action of thyroid hormones during mammalian development. This work has been funded by the National Institutes of Health, 3M Corporation, and the University of Minnesota. Dr. Anderson currently serves on the Editorial Board of the journal *Endocrinology* and is a member of the Endocrine Society and American Thyroid Association. He has served as an ad hoc member of NIH study sections including the Integrative and Clinical Endocrinology and Reproduction, and Developmental Biology study sections, and on an NIEHS Special Emphasis Panel.

Anderson, Henry

Wisconsin Division of Public Health

Dr. Henry A. Anderson holds positions as the State Environmental and Occupational Disease Epidemiologist, and Chief Medical Officer in the Wisconsin Division of Public Health, Department of Health Services, and 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 holds a B.A. in Biology from Stanford University, and an M.D. from the University of Wisconsin-Madison. Dr. Anderson's expertise includes public health; preventive, environmental, and occupational medicine; respiratory diseases; epidemiology; human health risk assessment; and risk communication. His active research interests include: disease surveillance, childhood asthma, lead poisoning, reproductive and endocrine health hazards, drinking water contaminants, occupational and environmental respiratory disease and sport fish consumption advisory communication. Dr. Anderson served on the U.S. Environmental Protection Agency's (EPA) National Advisory Committee for Acute Exposure Guideline Levels for Hazardous Substances. He was chair of the Environmental Health Committee of the EPA Science Advisory Board, served on the chartered EPA SAB, and is past Chair of the Board of Scientific Councilors for the National Institute of Occupational Safety and Health. Dr. Anderson has served on five National Academy of Sciences Committees including Toxicity Testing for Assessment of Environmental Agents and just completed service on the Committee, Water Reuse: Potential for Expanding the Nation's Water Supply Through Reuse of Municipal Wastewater. He was a founding member of the Agency for Toxic Substances and Disease Registry Board of Scientific Councilors (1988-1992). Dr. Anderson serves on the Presidential Advisory Board on Radiation Worker Compensation. He has served on the Armed Forces Epidemiology Board and the Centers for Disease Control and Prevention (CDC)/ National Center for Environmental Health Director's Advisory Committee. Dr. Anderson is a fellow of the Collegium Ramazzini and the American Association for the Advancement of Science. He is associate editor of the *American Journal of Industrial Medicine*. Dr. Anderson was certified in 1977 by the American Board of Preventive Medicine with a sub-specialty in occupational and environmental medicine and in 1983 became a fellow of the American College of Epidemiology. He is a state government employee and his research has been supported by the State of Wisconsin and grants from U.S. government agencies, primarily U.S. Department of Health and Social Services/Centers for Disease Control and Prevention and the U.S. Environmental Protection Agency.

Barrett, Jeffrey S.**Sanofi Pharmaceuticals**

Dr. Jeff Barrett is Vice President, Global Head of the Interdisciplinary Pharmacometrics Program (IPP) and Global Head of Pediatric Clinical Pharmacology at Sanofi Pharmaceuticals. He leads the modeling and simulation efforts across scientific core platforms at Sanofi -- developing, testing, and exploiting quantitative relationships to facilitate critical decisions. Jeff spent the previous 10+ years at the University of Pennsylvania where he was Professor, Pediatrics and Director, Laboratory for Applied PK/PD at the Children's Hospital of Pennsylvania (CHOP). His academic career was highlighted by sustained NIH support for pharmacometric research across numerous therapeutic areas in adult and pediatric populations. Prior to tenure at U Penn / CHOP, Jeff spent 13 years in the pharmaceutical industry, most recently as Head of Global Biopharmaceutics at Aventis. Jeff received his B.S. in Chemical Engineering from Drexel University and Ph.D. in Pharmacokinetics from University of Michigan. He is a fellow of ACCP and AAPS and the recipient of numerous honors including ACCP awards for Young Investigator (2002) and Mentorship in Clinical Pharmacology (2007) and the AAPS Award in Clinical Pharmacology and Translational Research (2011). Dr. Barrett was awarded for Exceptional Innovation and Advancing the Discipline of Pharmacometrics at the International Society for Pharmacometrics (2013). He has co-authored over 140 manuscripts, 160 abstracts and has given over 125 invited lectures on PK/PD, clinical pharmacology and pharmacometrics. He serves on the Editorial Boards of the Journal of Pharmacokinetics and Pharmacodynamics and the ASCPT Pharmacometrics & Systems Pharmacology Journal and is the co-Specialty Chief Editor of Frontiers in Obstetric and Pediatric Pharmacology.

Barton, Hugh A.**Pfizer, Inc.**

Dr. Hugh A. Barton is Associate Research Fellow for Pharmacokinetics, Dynamics, and Metabolism, at Pfizer, Inc. where he is lead modeler for the Pharmacokinetics/Safety area and a member of the global Translational Research Leadership Team. He has more than 20 years' experience in biological modeling for use in biologically based dose-response analyses for chemical risk assessment and translation of in vitro and in vivo nonclinical findings to humans. His analyses have formed the basis for drug registration in the US and guidance and regulatory activities of several offices within the US Environmental Protection Agency. Dr. Barton has held positions in government (US EPA), industry (Pfizer, consulting and contract organizations), and academia (adjunct professor at Boston University School of Public Health and in Toxicology at The University of North Carolina at Chapel Hill). He has served on committees for the US EPA Science Advisory Board (Perchlorate), the National Research Council (Inorganic Arsenic), and World Health Organization International Programme on Chemical Safety (PBPK Modeling). He has been as an invited peer-reviewer for Health Canada, National Institute of Environmental Health Sciences, and Toxicology Excellence for Risk Assessment and he is listed on the Joint FAO/WHO Meeting on Pesticide Residues Expert Roster. He is currently Vice President of the Risk Assessment Specialty Section of the Society of Toxicology. He received a B.S. in Life Sciences from the Massachusetts Institute of Technology, Cambridge, MA and a Ph.D. in Toxicology from the Department of Applied Biological Sciences at MIT. He is a reviewer for numerous scientific journals and serves on two editorial boards. Dr. Barton has published more than 50 articles in the scientific literature on physiologically based pharmacokinetic and pharmacodynamic (PBPK/PD) modeling and received awards from US EPA and others for that work and its applications in risk assessment. Dr. Barton's research is funded by Pfizer, Inc.

Benson, Janet**Lovelace Biomedical**

Dr. Janet Benson is a Senior Scientist and Director of the Applied Toxicology and Gene Therapy Program at Lovelace Biomedical (formerly Lovelace Respiratory Research Institute). Dr. Benson has been a toxicologist at Lovelace for 39 years. She has investigated the toxicity, PK, or biodistribution of metals, solvents, polymers, natural products, select agents, vesicants and gene therapeutics. She has evaluated the efficacy of a variety of pharmaceuticals to prevent pulmonary, ocular and cutaneous diseases. She has managed over 10 complex, multiyear contracts or grants with the government (Department of Energy, National Toxicology Program, National Institute of Allergy and Infectious Diseases, National Institute of Environmental Health Sciences, and the National Heart Lung Blood Institute's Gene Therapy Resources Program) as well as for industry consortia. She has extensive experience conducting studies under GLP

Guidelines. She has a demonstrated track record of successfully directing multiple projects simultaneously. As the current PI of the Gene Therapy Resources Program Pharmacology/Toxicology Core, she has participated in preparation and/or review of pre-pre-IND or pre-IND packages and participated in multiple associated meetings with investigators and the FDA. Dr. Benson holds a BS degree in Chemistry from the University of California, Berkeley and a PhD in Comparative Pharmacology and Toxicology from UC, Davis. She has been a Diplomate of the American Board of Toxicology since 1981. She has over 100 publications in the scientific literature, has served on scientific advisory Committees (National Academy of Sciences, American Conference of Industrial Hygienists Threshold Limit Value Committee), and is a member of the Society of Toxicology, American Conference of Government Industrial Hygienists, and the American Society for Gene and Cellular Therapy.

Berger, Trish

University of California, Davis

Dr. Trish Berger earned her B.A. in Biochemistry from the University of Kansas after studying for one year in the Physiology and Biochemistry of Farm Animals Program at the University of Reading, UK. She obtained her M.S. and Ph.D. in Animal Science from Purdue University with the mentorship of Dr. Eric Clegg. She is a professor in the Department of Animal Science, College of Agricultural and Environmental Sciences, at University of California, Davis. Research interests are mammalian reproductive physiology. Influences of environmental chemicals on sperm fertilizing ability and fertilizability of oocytes used rat models and in vitro fertilization. Sperm-oocyte plasma membrane interaction studies have utilized a variety of species particularly to address evolutionary conservation of interacting molecules but have focused on the pig and plasma membrane isolation from pig gametes. Roles and associated mechanisms for endogenous estrogen regulation of Sertoli cell proliferation is a current research topic of interest. University Academic Senate leadership roles have included graduate education and the university personnel process.

Bredfeldt, Tiffany

Texas Commission on Environmental Quality

Dr. Tiffany Bredfeldt is a Senior Toxicologist with the Toxicology Division of Texas Commission on Environmental Quality (TCEQ). She received her bachelor's degree in Microbiology and a minor in Spanish from the University of Arkansas (Magna Cum Laude) and earned a Ph.D. in Pharmacology and Toxicology from the University of Arizona. She next worked as a postdoctoral fellow at the University of Texas, M.D. Anderson Cancer Center investigating the impact of early life exposure to endocrine disrupting chemicals. After her postdoctoral fellowship, she joined the TCEQ as a toxicologist in 2010. In this role, Tiffany has conducted health effects reviews for impacts associated with proposed air permits and evaluations of ambient air monitoring data. She also derives chemical-specific toxicity factor for environmental chemicals of health concern. Additional areas of some expertise include expert witness testimony, communicating human health risk information at various public meetings, and serving on the editorial board for Toxicology In Vitro. Since 2010, she has served as a member of the Dose-Response Advisory Committee of the Alliance for Risk Assessment. As part of this committee, Tiffany focuses on the emergence of new approaches in risk assessment, particularly those associated with the application of molecular data in human health risk assessment. In addition, she serves as a member of the USEPA Science Advisory Board's Chemical Assessment Advisory Committee, which provides scientific guidance regarding toxicological review of environmental chemicals produced by the Integrated Risk Information System (IRIS). As time permits, Tiffany enjoys working with students and postdoctoral fellows at the University of Texas or with the Society of Toxicology in areas of career planning, project strategy, interpersonal communication and professional networking..

Bruckner, James V.

University of Georgia

Dr. James V. Bruckner is currently a Professor of Pharmacology and Toxicology in the Department of Pharmaceutical and Biomedical Sciences of the College of Pharmacy of the University of Georgia (UGA). He holds a B.S. in Pharmacy and a M.S. in Toxicology from the University of Texas in Austin, and a Ph.D. in Toxicology from the University of Michigan. Dr. Bruckner organized and directed the UGA Interdisciplinary Toxicology Graduate Program in Toxicology for 15 years. Prior to that time, he held a tenured faculty position at the University of Texas Medical School at Houston. Dr. Bruckner's primary areas of expertise are general toxicology, toxicokinetics (TK) and human health risk assessment. His primary research focus is on the toxicology and TK of volatile organic chemical contaminants of drinking water, drug-chemical interactions at environmental exposure levels, metabolic and toxicokinetic bases for susceptibility of children to chemicals, and physiologically-based modeling of solvents and pyrethroid insecticides. The relevance of experimental designs to health risks of "real life" chemical exposures is of particular interest to Dr. Bruckner. His research funding for toxicology studies of problems of national concern from the past 40 years has consistently come from federal agencies including the U.S. Environmental Protection Agency (EPA), the U.S. Department of Energy, the Centers for Disease Control (CDC),

and the U.S. Air Force (USAF), and a contract from the Pyrethroid Working Group (PWG). Dr. Bruckner has published more than 200 journal articles, book chapters and abstracts. Many of these papers focus on the toxicology, TK and PBPK modeling. He has served on a variety of expert panels and committees for the EPA, the National Institute of Environmental Health Sciences, National Aeronautics and Space Administration, USAF, Agency for Toxic Substances and Disease Registry/CDC, the U.S. Food and Drug Administration, U. S. Department of Energy and National Academy of Sciences (NAS). Dr. Bruckner's NAS appointments have included, among others, the Committees on Safe Drinking Water, Pesticides in Diets and Infants and Children; Acute Exposure Guideline Levels; Health and Safety Consequences of Child Labor; Use of Third Party Pesticide Toxicity Research with Human Participants; and Contaminated Drinking Water at Camp Lejeune. Such work has frequently involved assessment of health risks to populations living in the proximity of military chemical and nuclear disposal sites (e.g., Camp Lejeune, NC; Fort Detrick, MD; Savannah River site, SC).

Budroe, John

California Environmental Protection Agency

Dr. John Budroe is Chief of the Air Toxicology and Risk Assessment Section of the Office of Environmental Health Hazard Assessment (OEHHA) in the California Environmental Protection Agency. He received his B.S. degree in Biology and an M.S. degree in Nutrition Science from Drexel University, Philadelphia PA and a Ph.D. in Interdisciplinary Toxicology from the University of Arkansas for Medical Sciences, Little Rock AR. He served as a postdoctoral fellow at the Norris Cancer Hospital of the University of Southern California, and as a staff scientist at the American Health Foundation in Valhalla NY. Dr. Budroe has done research on pharmaceuticals and environmental chemical genotoxicity and mechanisms of carcinogenicity. He has 20+ years of experience in performing non-cancer and cancer human health risk assessments on environmental chemicals, including diesel exhaust and tert-butyl acetate, in the California Toxic Air Contaminant, Air Toxic Hot Spots and Proposition 65 programs.

Chambers, Janice

Mississippi State University

Dr. Janice E. Chambers is the Director of the Center for Environmental Health Sciences, and is a William L. Giles Distinguished Professor in the College of Veterinary Medicine, Mississippi State University. She is originally from Berkeley, California. She holds an undergraduate degree in Biology from the University of San Francisco, and a Ph.D. in Animal Physiology from Mississippi State University. She held post-doctoral positions at Mississippi State University. Dr. Chambers has been the Principal Investigator of over \$20 million in federally-funded competitive grants in the field of toxicology, with current or previous support from NIH, EPA, NSF and the American Chemistry Council. She has served on a number of advisory boards and committees, including the National Research Council Board of Toxicology, the International Life Sciences Institute/Health and Environmental Sciences Institute, the Society of Toxicology and the American Chemistry Council. She is or has been a peer review panel member for NIH and NIOSH, and a member of journal editorial boards. She has received the International Award for Research in Agrochemicals from the American Chemical Society, Agrochemicals Division. She has received a Burroughs Wellcome Toxicology Scholar Award and a SmithKline Beecham award for Research Excellence, along with the Ralph E. Powe Research Award and the Alumni Association's Faculty Achievement Award in Research at MSU. She is board certified in general toxicology by the American Board of Toxicology and she is a Fellow of the Academy of Toxicological Sciences. She has held a number of committee positions in the Society of Toxicology. She is serving as a member of EPA's permanent Scientific Advisory Panel for FIFRA, and is also a member of EPA's Human Studies Review Board, and is a member of the Board of Scientific Counselors for the National Center of Environmental Health/Agency for Toxic Substances and Disease Registry, Centers for Disease Control and Prevention. The Center for Environmental Health Sciences at MSU, which she directs, is an interdisciplinary research center specializing in pesticide toxicology and is supported primarily by the National Institutes of Health. This center has about 30-40 faculty, staff and students associated with it. Its research areas are neurotoxicology, biochemical toxicology, cardiovascular toxicology, analytical chemistry, biostatistics, epidemiology, computational chemistry, computational simulation, biochemistry and endocrinology. Dr. Chambers directs a mechanistic research program specializing in pesticide toxicology with a major emphasis on organophosphorus insecticides, and she has been involved in the training of about 40 graduate students and post-docs. She directs several research projects on the effects of pesticides in mammalian systems to identify the potential human health effects of pesticide exposures, and is primarily interested in the biochemical determinants of toxicity levels in adult and developing animals; her research addresses a number of Food Quality Protection Act issues. Her program emphasizes a consideration of the dose-response relationships, and for making predictions of toxicity based on realistic levels of pesticide exposure. Specifically there are projects related to the neurochemical and behavioral effects of pesticides in developing organisms; the metabolism of pesticides in developing organisms; the role of esterases, oxidative stress and pesticides in cardiovascular disease; effects of chemical mixtures and the development of data related to cumulative risk assessment; mathematical predictions of the effects of

mixtures; and exposure assessment of children and adults from contact with a pet dog which has been treated with flea control insecticides.

Choi, Anna

Harvard School of Public Health

Dr. Anna L Choi is a Research Scientist at the Department of Environmental Health, Harvard School of Public Health. The quality of her extensive work in studying the effects of ocean pollutants on neurodevelopmental delays in children and type 2 diabetes and cardiovascular dysfunction among the elderly has been recognized by the publications of multiple scientific papers, book chapters, and invitations to speak in national and international conferences on the environment and health. Dr. Choi is a highly experienced environmental epidemiologist with extensive training in biostatistics. She has studied the mercury-exposed and PCB-exposure birth cohorts. She has applied her experience in advanced epidemiological and statistical methods including structural equation modeling to assess the association of marine food contaminants with adverse health outcomes, such as neurodevelopmental delays among children and type 2 diabetes and cardiovascular dysfunction among septuagenarians. Her current research projects include studying immunotoxicity in humans with lifetime exposure to ocean pollutants such as Persistent Organic Pollutants (POPs) and PFCs, glucose metabolism in adults who were prenatally exposed to diabetogenic pollutants, and the diabetogenic effects of POPs and health-policy in the prevention of obesity and type 2 diabetes. She has also led a feasibility study to assess the potential neurotoxicity of fluoride in child development in China, with the collaboration of researchers from the U.S. and China. The findings resulted in a submitted manuscript and the planning of a long-term study. She is also actively involved in the research on the impact of nutrients as possible negative confounders that may have caused an underestimation of methylmercury toxicity. In addition, she is a regular reviewer for peer-reviewed journals including Environmental Health, Environmental Health Perspectives, Environmental Research, Environmental Science and Technology, International Journal of Environmental Research and Public Health, Neurotoxicity, and Pediatrics. Dr. Choi received her B.A. degree in Statistics and Computer Science, with distinction, from the University of Rochester. Her M.S. degree in Biostatistics and ScD degree in Environmental Epidemiology were awarded by Harvard University. Dr. Choi's research is supported by the National Institute of Environmental Health Sciences (for examining the immunotoxicity in humans with lifetime exposure to ocean pollutants; glucose metabolism in adults prenatally exposed to diabetogenic pollutants; and gut microbiome in adults with early life exposures to environmental chemicals), and the National Science Foundation (joint support with the National Institute of Environmental Health Sciences to study the immunotoxicity in humans with lifetime exposure to ocean pollutants).

Chou, Karen

Michigan State University

Dr. Karen Chou is an associate professor of environmental toxicology in the Department of Animal Science and Environmental Science & Policy Program. She is the Chair of Michigan State University Chemical Hygiene Subcommittee. She received a BS in Human Nutrition from Ju Jen Catholic University, MS in Dairy Science from Michigan State University, and Ph.D. in Toxicology from the University of Michigan. She was a Visiting Scientist in the Department of Environmental Epidemiology, Harvard School of Public Health, 2004-2006. Dr. Chou teaches three graduate courses and two undergraduate courses in the areas of human health risk assessment, toxicology, food safety, and environmental management, including the topics on endocrine disruptors, metal toxicity, and nanotoxicity. She has studied the toxicity of pesticides, endocrine disruptors, and other environmental chemicals in human and animals. Dr. Chou has developed geospatial exposure models for the interactions between environmental contaminants, human reproductive health, and socioeconomic factors. She has published over 50 journal articles and book chapters and given over 100 invited talks and conference presentations. Dr. Chou was the toxicology advisor for the Technical Outreach Service for Communities and Technical Assistance to Brownfield. She has organized and presented several workshops on environmental risk assessment in Bulgaria and Romania, and also conducted research and co-organized an international conference on Balkan Endemic Nephropathy. She was an appointed member of the Michigan Governor's Task Force on Childhood Lead Poisoning Prevention. She has served on many review or advisory panels for EPA, NIEHS, NIOSH, Michigan Department of Environmental Quality, and Michigan Department of Agriculture, as a member, external reviewer, chairperson, or editor on environmental health related topics, including Health Risks of Arsenic Treated Wood for EPA, risk assessment of bovine spongiform encephalopathy, Air Toxic Rules, and over a dozen of other substances for EPA provisional human toxicity values. She holds two U.S. patents based on discoveries in the interactions between environmental chemicals and energy metabolism in sperm cells.

Clewell, Harvey

ScitoVation

Dr. Harvey J. Clewell III is a professional research manager with over forty-five years of experience in environmental quality and toxicology research, chemical risk assessment and hazardous materials management. He is currently a Distinguished Research Fellow with ScitoVation. He received a Master's Degree in Chemistry from Washington University, St. Louis, and a PhD in Toxicology from the University of Utrecht, the Netherlands. He is a Diplomate of the American Board of Toxicology and a Fellow of the Academy of Toxicological Sciences, and holds the position of Visiting Scientist at the University of Utrecht in the Netherlands. He has authored more than 200 peer-reviewed scientific publications (h-index=40) and a number of book chapters. He served for 20 years as an officer in the U.S. Air Force, where his duties included Deputy Director of the Air Force Toxic Hazards Research Unit, Director of Hazardous Materials Safety for the Air Force Aeronautical Systems Center, and consultant to the Air Force Surgeon General on Chemical Risk Assessment. He has gained an international reputation for his work in the application of physiologically based pharmacokinetic (PBPK) modeling to chemical risk assessment and pharmaceutical safety assessment, having played a major role in the first uses of PBPK modeling in cancer and non-cancer assessments by EPA, ATSDR, OSHA, and FDA, for such chemicals as methylene chloride, trichloroethylene, vinyl chloride, and retinoic acid. In 2007 the Society of Toxicology recognized Dr. Clewell with the Arnold J. Lehman Award for major contributions to chemical safety and risk assessment. Dr. Clewell has served on the EPA's FIFRA Scientific Advisory Panel for CCA Treated Wood Structures and the EPA Scientific Advisory Board for Dioxin, as well as on the external peer reviews for a number of EPA guidelines, including those for cancer risk assessment, risk characterization, benchmark dose modeling, and dermal absorption. He also recently served as a member of the ECVAM Scientific Advisory Panel. Over the years he has performed research for a variety of clients, including the EPA, FDA, NIEHS, Health Canada, TCEQ, ACC, CEFIC, Pfizer, CAPRA, EPRI, NIPERA, and Syngenta. His current research interests include the application of PBPK modeling to support in vitro to in vivo extrapolation of cell based toxicity assays, the incorporation of genomic dose-response information in quantitative risk assessment, and the application of systems biology methods to better understand drug and chemical toxicity.

Cohen, Samuel

University of Nebraska Medical Center

Dr. Samuel M. Cohen, M.D., Ph.D. (University of Wisconsin), is board certified in pathology (ABP) and a Fellow of the Academy of Toxicological Sciences (ATS) and International Academy of Toxicologic Pathology (IATP). He has extensive experience in chemical carcinogenesis, toxicology and pathology research and continues to be active as a surgical pathologist. He has more than 400 publications on various aspects of carcinogenesis, toxicology, and pathology, and has also been involved with epidemiologic and clinical investigations. His research has focused primarily on mechanisms of carcinogenesis, with an emphasis on the role of cell proliferation, and extrapolation from animal models to human diseases. He has served on numerous NIH, EPA, FDA, NAS, IARC, and IPCS panels and committees, served on the Boards of Scientific Counselors of the National Toxicology Program (NTP) and of the National Institute of Environmental Health Sciences (NIEHS), and has been president of the Society of Toxicology (SOT) Carcinogenesis Specialty Section and the SOT Central States Regional Chapter. He currently serves on the Board of Directors of ATS and has been on the Boards of Trustees for ILSI and HESI. He has served as Associate Editor or member of the editorial board of numerous journals and has been a reviewer for granting agencies around the world. He has received numerous awards in recognition of his achievements, including the Arnold J. Lehman award from the SOT, Lifetime Achievement Award from the Society of Toxicologic Pathology, and the Distinguished Scientist Award from the American College of Toxicology. He will receive the Merit Award from SOT in March, 2017. Current funding for his research comes from the National Institutes of Health, an endowed professorship and private sources.

Cory-Slechta, Deborah

University of Rochester

Dr. Deborah Cory-Slechta became a faculty member at the University of Rochester Medical School (URMC) in 1982. She became Chair of its Department of Environmental Medicine and Director of the NIEHS Environmental Health Sciences Center in 1998, and served as Dean for Research from 2000-2002. She then became Director of the Environmental and Occupational Health Sciences Institute (EOHSI) and Chair of the Department of Environmental and Community Medicine at the UMDNJ-Robert Wood Johnson Medical School from 2003-2007, before returning to URMC as Professor in Environmental Medicine, Pediatrics and Public Health Sciences. Dr. Cory-Slechta has served on national review and advisory panels of the National Institutes of Health, the National Institute of Environmental Health Sciences, the Food and Drug Administration, the National Center for Toxicological Research, the Environmental Protection Agency, the National Academy of Sciences, the Institute of Medicine, and the Agency for Toxic Substances and Disease Registry, Centers for Disease Control. In addition, Dr. Cory-Slechta has served on the editorial boards of the journals Neurotoxicology,

Toxicology, Toxicological Sciences, Fundamental and Applied Toxicology, Neurotoxicology and Teratology, and American Journal of Mental Retardation. She has held the elected positions of President of the Neurotoxicology Specialty Section of the Society of Toxicology, President of the Behavioral Toxicology Society, and been named a Fellow of the American Psychological Association. Her research has focused largely on the relationships between brain neurotransmitter systems and children's neurodevelopment, and how such relationships are altered by exposures to environmental toxicants, including the role played by environmental neurotoxicant exposures in developmental disabilities and neurodegenerative diseases. Most recently this work has included the effects of developmental exposures to air pollutants. These research efforts have resulted in over 155 papers and book chapters to date. Her research funding sources include the Department of Health and Human Services (HHS) National Institutes of Health and the U. S. Environmental Protection Agency.

Cragg, Steven

Meridian HES

Dr. Steven Cragg has 30 years' experience as a toxicologist serving in the petroleum and chemical industries as well as the federal government. He received his PhD from the University of Cincinnati under an NIEHS toxicology training grant. He has been an independent consultant for over a decade. Dr. Cragg is board certified with extensive experience in industrial site and new chemical risk assessments and has authored numerous chapters in toxicology books as well as peer reviewed journals. He has written hundreds of hazard assessments and toxicology profiles on new and existing chemicals and pesticides in a variety of formats for the federal government and private industry clients. These have included derivation of RfD/RfCs and potency slopes when necessary. Dr. Cragg has conducted and authored many risk assessments of Superfund and other multi-chemically contaminated industrial sites. These risk assessments consisted of multi-disciplinary teams headed by Dr. Cragg which included hazard assessments with either published or generated reference doses/concentrations with exposure assessments involving multi-media chemical migration modeling culminating in dose estimation and risk characterization. He has been a member of the Society of Toxicology for over 25 years. His curriculum vitae is available on request.

Cullen, Alison C.

University of Washington

Dr. Alison Cullen is Professor of Public Affairs at University of Washington's Evans School of Public Affairs. She holds a B.S. in Civil/Environmental Engineering from MIT (1984), and an M.S. in Environmental Health Science, Exposure Assessment, and Engineering (1989) and an Sc.D. in Environmental Health Management (1992) from Harvard University School of Public Health. Dr. Cullen joined the faculty at University of Washington in 1995, and has served as Associate Dean for Academic Affairs. Her research involves the analysis of environmental risks, decision making in the face of uncertainty and variability, and the application of value of information and distributional techniques. Dr. Cullen's areas of specialization include Environmental Risk Analysis and Policy, Civil/Environmental Engineering, Quantitative Uncertainty Analysis, and Statistical Decision Theory. She was a 2007-08 visiting professor at the Swiss Federal Institute of Technology (ETH) in Zürich, Switzerland, and is active in projects in the U.S. and internationally. Dr. Cullen serves on the board of the University of Washington's Environmental Management Program. She is also the past president of the Society for Risk Analysis. Dr. Cullen previously served on the faculty of the Harvard University School of Public Health. Her research is published in numerous peer reviewed articles and a book with co-author H.C. Frey entitled Probabilistic Techniques in Exposure Assessment: A Handbook for Dealing with Uncertainty and Variability in Models and Inputs. She is a recipient of the U.S. Environmental Protection Agency's Special Recognition in the Field of Air Toxics, the Chauncey Starr Award from the Society for Risk Analysis, and the Outstanding Young Scientist Award from the International Society of Exposure Assessment. Outside of academia, Dr. Cullen has held positions in the Water Quality Branch of the U.S. Environmental Protection Agency (EPA) and served as a technical consultant and advisor to many groups, including the U.S. Consumer Product Safety Commission, the State of Washington's Department of Ecology, the City of Seattle's Office of Sustainability, the Sloan Foundation and the Gates Foundation. She also served on the U.S. Environmental Protection Agency (EPA)'s Clean Air Scientific Advisory Committee (CASAC) committee on Sulfur Dioxide National Ambient Air Quality Standards (NAAQS) (2014), the U.S. National Academy of Sciences Committee on the Coeur d'Alene Superfund site, and was an affiliate scientist on the National Center for Atmospheric Research's Uncertainty Initiative. Dr. Cullen's research over the past three years has been supported by grants from and contracts with both government agencies and non-profit foundations, with core research support from the federal government (EPA and U.S. National Science Foundation), with additional support from the Alfred P. Sloan Foundation and the Bill and Melinda Gates Foundation.

Dourson, Michael

University of Cincinnati

Michael Dourson is Professor in the Toxicology Excellence for Risk Assessment Center (the TERA Center) at the University of Cincinnati, College of Medicine. He also founded and led the nonprofit Center's predecessor of 21 years, also called TERA. Prior to directing TERA, he worked for 15 years in the U.S. Environmental Protection Agency in numerous leadership positions. He has won several awards including 4 bronze medals at EPA, the Arnold J. Lehman award from the Society of Toxicology, and the International Achievement Award by the International Society of Regulatory Toxicology and Pharmacology. He has also been elected as a Fellow of the Academy of Toxicological Sciences and as a Fellow for the Society for Risk Analysis. Dr. Dourson has co-published more than 150 papers on risk assessment methods or chemical-specific analyses. He has co-authored well over 100 government risk assessment documents, many of them risk assessment guidance texts. He has made over 150 invited presentations to a variety of organizations, and has chaired over 150 sessions at scientific meetings and independent peer reviews. He has been elected to multiple officer positions in the American Board of Toxicology (including its President), the Society of Toxicology (SOT), the Society for Risk Analysis, and is the President of the Toxicology Education Foundation. In addition to numerous appointments on government panels, such as EPA's Science Advisory Board, he is also a media resource specialist in risk assessment for the SOT, and a member on the editorial board of several journals. Research funding for TERA has been approximately 2/3rds government and other nonprofit work and approximately 1/3rd for industry and industry-related (summary of funding is at <http://www.tera.org/about/FundingSources.html>).

Eastmond, David

University of California - Riverside

Dr. David A. Eastmond is a professor and chair of the Department of Cell Biology & Neuroscience at the University of California, Riverside. He received a B.S. in zoology and an M.S. in entomology from Brigham Young University in Provo, Utah, and a Ph.D. in environmental health sciences from the University of California, Berkeley. After serving as a Hollaender Distinguished Postdoctoral Fellow at Lawrence Livermore National Laboratory, he joined the faculty at UC Riverside where he is actively involved in research and teaching. His research focuses on the mechanisms involved in the toxicity and carcinogenesis of environmental chemicals and their associated risks. He has published more than 125 scientific articles in these and related areas. At UC Riverside, Dr. Eastmond teaches classes in toxicology and risk assessment. In recent years, he has received funding from the NIH, the University of California, and the Vandium Producers and Reclaimers Association. Dr. Eastmond previously served as the president of the Environmental Mutagen Society and as a Jefferson Science Fellow in the US State Department. He has also participated on a variety of expert panels related to chemical mutagenesis, carcinogenesis and risk assessment including panels for the US Environmental Protection Agency (EPA), the US Food and Drug Administration, the National Toxicology Program, the International Programme for Chemical Safety, the International Agency for Research on Cancer, the WHO's Joint Meeting on Pesticide Residues, the Organisation for Economic Cooperation and Development, and Health Canada. He currently serves as a member of the Carcinogen Identification Committee for the California EPA and the Chemical Assessment Advisory Committee for the US EPA.

Engelward, Bevin

Massachusetts Institute of Technology

Dr. Bevin P. Engelward is currently a Professor of Toxicology and Biological Engineering at the Massachusetts Institute of Technology (MIT). For her graduate work, she attended the Harvard School of Public Health (HSPH) and worked under Dr. L. D. Samson where she studied DNA repair. She studied Aag (the alkyladenine DNA glycosylase) and she contributed to the creation of Aag deficient cells and mice, which enabled studies of the role of Aag in relation to exposures and disease. In 1997, she started her own laboratory at MIT. Realizing that the inability to detect sequence changes in vivo was a barrier to studies of genetically- and exposure-induced mutagenesis, her laboratory was the first to create a mouse model in which sequence rearrangements can be detected by a fluorescent signal (so-called 'recombomice', where an homologous recombination [HR] event at an integrated transgene gives rise to expression of a fluorescent protein). They have used the recombomice models to study questions related to the role of aging, genetic factors, cell proliferation and inflammation in modulating the risk of mutations (defined as HR-driven sequence rearrangements). Recently, her laboratory showed that inflammation acts synergistically with exposure to a methylating agent to cause HR-driven mutations (PLOS Genetics, 2015; see the MIT Press, <http://news.mit.edu/2015/link-between-inflammation-and-cancer-0115>). With an eye on human studies, they developed the "CometChip", a high throughput platform based upon the traditional comet assay that enables detection of physical DNA strand breaks. It is anticipated that the CometChip will be commercially available within the next year, enabling broader distribution (she is a co-inventor on the corresponding patent). Recently, she has turned her attention to lung, and in particular, lung inflammation. Her

laboratory has shown that *S. pneumoniae* induces DNA damage and that when DNA repair is inhibited, the levels of DNA damage increase, pointing to repair as an important susceptibility factor (PNAS, 2015; see the MIT press, <http://news.mit.edu/2015/pneumonia-harm-dna-lung-cells-0615>). They have also studied asthma, and this work has recently been published in JACI [impact factor of 11.5]. Taken together, she has been involved in mechanistic studies of DNA damage and repair as well as in the development of both in vivo technologies and in vitro technologies that are focused on overcoming technical challenges associated with toxicology. Funding for her research comes primarily from the National Institutes of Health (NIH).

English, Joanne

Independent Consultant

Dr. Joanne Caroline English, Ph.D., DABT, is an environmental toxicologist and public health professional with over 30 years of experience in the toxicological assessment of chemicals. She was Senior Principal Toxicologist for NSF International, an independent, not-for-profit, nongovernmental organization whose mission is to protect and improve global human health, until her retirement in 2016. Dr. English specializes in quantitative health risk assessment, drinking water, food and dietary ingredient safety, nanomaterials, and the critical review of toxicological information in the selection of safer chemical alternatives. While at NSF, she led the institution's team in risk assessment, focused on developing and refining scientifically sound methods that employ mode of action data and predictive modeling. She served on the U.S. Technical Advisory Group to ISO/TC 229 Nanotechnologies, the executive committee of the NSF International Health Advisory Board, and the World Health Organization Chemical Risk Assessment Network Coordinating Committee. She is the primary or contributing author on numerous externally peer-reviewed health risk assessments for drinking water treatment chemicals, disinfection byproducts, and contaminants, available through the National Library of Medicine at the International Toxicity Estimates of Risk (ITER) website (<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?iter>) and has published in the areas of pharmacokinetics, genetic and systemic toxicology, and life-stage susceptibility in cancer risk assessment. Before joining NSF in 2007, she worked for Eastman Kodak Company (1985-2007) where she held a variety of technical and leadership roles in the company's Health and Environment Laboratories that included design and oversight of research in support of product development and stewardship. Dr. English is a member of the Society of Toxicology, having served as Councilor of the Risk Assessment Specialty Section from 2010-2012; in the presidential track of the Michigan Chapter from 2009-2012; and on the board of the Northern California Chapter from 2012 - 2015. She was adjunct faculty for 10 years in the Department of Environmental Medicine at the University of Rochester, and subsequently served as a member of the University's Environmental Health Sciences Center External Advisory Board. She earned her B.S. with honors in biology from the University of Michigan, an M.S. in environmental toxicology from Utah State University, and her Ph.D. in toxicology from the University of Rochester. She is certified by the American Board of Toxicology through 2019.

Fisher, Jeffrey

Food & Drug Administration

Dr. Jeffrey Fisher is a research toxicologist with the U.S. Food and Drug Administration, National Center for Toxicological Research. He was formerly a Professor in the Department of Environmental Health Science, College of Public Health at the University of Georgia (UGA). He joined the University of Georgia in 2000 and served as Department Head of the Department of Environmental Health Sciences from 2000 to 2006 and Director of the Interdisciplinary Toxicology Program at UGA from 2006-2010. He spent 25 years at the Toxicology Laboratory, Wright Patterson AFB, where he was Principal Investigator and Senior Scientist in the Toxics Hazards Division and Technical Advisor for the Operational Toxicology Branch. Dr. Fisher's research interests are in the development and application of pharmacokinetic and biologically based mathematical models to ascertain health risks from environmental, food-borne and occupational chemical exposures. Recently with FDA he has become involved in the use of PBPK models for drugs and pediatrics. Dr. Fisher's chemical toxicology modeling experience includes working with chlorinated and non-chlorinated solvents, fuels, pesticides, perchlorate, PFOA, and bisphenol A. He has developed PBPK models for use in cancer risk assessment, estimating lactational transfer of solvents, understanding in utero and neonatal dosimetry, quantifying metabolism of solvent mixtures and developing biologically motivated models for the hypothalamic-pituitary-thyroid axis in rodents and humans. Dr. Fisher has 30 years of experience in physiological modeling and has trained several graduate students and postdoctoral fellows on the concepts and application of physiological models. He was a Visiting Scientist at the Chemical Industry Institute of Toxicology in 1996 and at the NIOSH Taft Laboratory in 1999. During this time, he also served as Adjunct Professor in the Department of Pharmacology and Toxicology at Wright State University. Dr. Fisher has published over 160 papers on pharmacokinetics and PBPK modeling in laboratory animals and humans. He has served on several national panels and advisory boards for the DoD, ATSDR, USEPA and non-profit organizations. He was a U.S. delegate for the North Atlantic Treaty Organization. Dr. Fisher served on the International Life Sciences Institute Steering Committee, which evaluated chloroform and dichloroacetic acid using EPA-proposed Carcinogen Risk Guidelines. He is

Past President of the Biological Modeling Specialty Section of the Society of Toxicology, reviewer for several toxicology journals, and was Co-Principal Investigator on a National Institutes of Health (NIH)-supported workshop on Mathematical Modeling at the University of Georgia in the fall of 2003. He was a member of the National Academy of Sciences subcommittee on Acute Exposure Guideline Levels (AEGLs) from 2004-2010 and Science Advisory Board for the US EPA (2007-2010). He is an ad hoc member of the SABs for dioxin and perchlorate. He is a fellow of the Academy of Toxicological Sciences and an associate editor for Toxicological Sciences. Dr. Fisher has a B.S. degree in biology from the University of Nebraska at Kearney, a M.S. degree in biology from Wright State University, and a Ph.D. in Zoology/Toxicology from Miami University.

Foster, William Michael

Independent Consultant

Dr. W. Michael Foster is a consultant for toxicologic information focused on the respiratory system of mammalian species. Dr. Foster has recently retired on March 31, 2015, from an Academic position as Professor in Medicine, in the Division of Pulmonary, Allergy, and Critical Care Medicine of the School of Medicine at Duke University in Durham, NC, where he served on faculty from 2000 to 2015. Dr. Foster received his graduate Ph.D. degree in Physiology from New York University and continued training in Pulmonary toxicology as a Research Fellow in Pulmonary Medicine at the State University of New York at Stony Brook. Although retired from the School of Medicine at Duke University, on an annual basis he continues to provide lectures to graduate and undergraduate students in the Nicholas School of the Environment of Duke University. Previously Dr. Foster held faculty and teaching appointments at the State University of New York at Stony Brook (1977-1991), and the Johns Hopkins University School of Public Health (1991-2000). Dr. Foster frequently participated as a scientific reviewer for the NIH Center for Scientific Review (2005-2014) and was a participant in the peer review of EPA Clean Air Research Centers (2010). Dr. Foster has been a member of the American Physiologic Society (since 1982), and the American Association for the Advancement of Science (2005). At present (2012-2015) Dr. Foster is a member of the Environmental Protection Agency (EPA) SAB Chemical Assessment Advisory Committee (CAAC), and previously from 2009 to 2012 Dr. Foster participated on the EPA Science Advisory Board member of the Ozone Review Panel. For the period 2007 to 2008, Dr. Foster served on the committee of the National Research Council of the National Academies that evaluated morbidity and mortality risk from tropospheric ozone. For the years 2006/2007 he served as the President of the Inhalation and Respiratory Specialty Section of the Society of Toxicology. Dr. Foster has recently resigned (March 31, 2015) from the editorial board of the Environmental Health Perspectives journal on which he was an Associate Editor from 2010 to 2015. Dr. Foster's expertise in environmental health, pulmonary physiology and inhalation toxicology has enabled him to edit two books on air pollution, and author or co/author over 115 journal articles and book chapters. His research interests, and in a sense hallmarks of his scientific career and accomplishments, encompass a paradigm that links cardio-pulmonary injury to inhalation exposures using established data bases of epidemiological investigations and his own previously researched and acquired laboratory-based studies on humans and animal models. Now that Dr. Foster is fully retired from academia and active research management, Dr. Foster's laboratory is closed and he does not receive extramural funding or scientific resources from Federal grants of the National Institutes of Health or the Environmental Protection Agency. Dr. Foster's research and editorial experience encompasses 3 separate areas: 1) environmental triggers of injury and exacerbation to the respiratory tract; 2) development of therapeutic targets to treat inflammatory airway disease; and 3) host (genetic) factors of susceptibility to oxidant lung injury. A strong feature of Dr. Foster's academic career and continued participation in the scientific community as a private consultant, has been to enhance understanding of health risk from inhalation and dermal exposures to airborne chemicals and toxins, and the interdependence between therapy, health risk, and establishment of regulatory standards for safety that enhance good health outcomes.

Harris, Cynthia M.

Florida A&M University

Dr. Cynthia M. Harris is Director and Professor of the Institute of Public Health of Florida A&M University. Dr. Harris holds a B.A. (Honors) in Biology (1978) and an M.A. in Genetics (1981) from the University of Kansas, and a Ph.D. in Biomedical Sciences from Meharry Medical College (1985) with concentration in the areas of nutritional biochemistry and toxicology. Dr. Harris was awarded a postdoctoral fellowship in the Interdisciplinary Programs in Health of the Harvard School of Public Health, where she conducted research regarding the effects of heavy metals on pulmonary function and environmental risk assessment. She is a Diplomate of the American Board of Toxicology (DABT). From 1990-1996, Dr. Harris served as a staff toxicologist and branch chief with the Agency for Toxic Substances and Disease Registry, a sister agency of the Centers for Disease Control and Prevention, in Atlanta, Georgia. Dr. Harris was the first African American branch chief of the Agency for Toxic Substances and Disease Registry. As branch chief of the Community Health Branch, she was responsible for the administration and management of staff who conducted environmental health assessments, at the request of individual citizens and community groups across the nation. During her employment, she received the award

of “Employee of the Year” and served as program director for the first, ever conference, by the Department of Health and Human Services, on the disproportionate impact of environmental contamination on the poor and underserved. In 1996, Dr. Harris accepted the position of Director of the Institute of Public Health at Florida A&M University. Since her tenure, she has been actively engaged in the general planning and development of the public health program. The 1997 Florida State Legislature approved and appropriated funding to support the MPH program and, in 2005, the Institute of Public Health developed the first Doctor of Public Health Program (DrPH) in the state of Florida. Under her leadership and administration, the FAMU Public Health Program has received full, maximum accreditation for its initial review and its two subsequent reviews. It was the first accredited public health program in North Florida and the first Doctor of Public Health (DrPH) Program in the state of Florida, graduating the first doctoral graduate (DrPH) in the state of Florida. In addition, under her leadership, FAMU is the only Historically Black College and University that now also offers the Master of Public Health (MPH) degree online and is ranked among the Top 50 Best Graduate Degrees Online by Master’s Degrees Online. Her students also, over the past five years, have achieved a pass rate of 100% on the National Certified Health Educator Specialist (CHES) Examination and have garnered prestigious international and national fellowships with the Centers for Disease Control and Prevention, acceptance to additional doctoral programs including Johns Hopkins University, University of North Carolina-Chapel Hill, and the University of Texas- Houston, as well as medical and law schools. Her alumni also are employed in the public and private sector, including serving as senior aides to the U.S. Congress and pharmaceutical company administrators. Dr. Harris has served on numerous committees and panels, which includes membership on the Board of Directors for the Florida Public Health Association, Chair of the Florida Public Health Partnership Council on Stroke, member of the Pregnancy Mortality Review Board, member of the Florida Sickle Cell Task Force, member of the American Public Health Association, member of the editorial board of the Harvard Journal of Public Health, reviewer for the Journal of Environmental Health, and board member for the Panhandle Chapter of the Florida March of Dimes. She has also provided a review for the Food and Nutrition Board of the National Academy of Sciences. She was appointed by the Secretary of the U.S. Department of Health and Human Services to the Agency for Toxic Substances and Disease Registry Board of Scientific Counselors and served on the Board of Councilors of the Council for Education and Public Health – the national accrediting body for all schools and programs of public health. She is currently Vice-President of the Board of Directors for Trust for America’s Health and is a member of the charter U.S. Environmental Protection Agency’s Science Advisory Board. She was recently appointed to the Board of Directors of the Association of School and Programs in Public Health (ASPPH). She was recently also awarded the Distinguished Alumnus Award in the Biomedical Sciences from Meharry Medical School in Nashville, Tennessee (October 2014). Dr. Harris has the distinction of also attaining this same award in 1997 from Meharry. In addition, she was also recently selected for the University of Kansas Black Alumni Leaders and Innovators Award. This award will be presented in September of 2015. In addition, she has served on numerous grant reviews for several federal agencies such as the Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH), National Institute of Environmental Health Services (NIEHS), and the Health Resources and Services Administration (HRSA). Dr. Harris’ research has been supported by grants primarily from the federal government (CDC and HRSA), with additional grant support from state and local governments and foundations. She led the establishment of a coalition to fight childhood obesity in Tallahassee that resulted in the proactive partnership of over (70) organizations and funded projects (thru the Florida Blue Foundation – fiscal arm of Blue Cross Blue Shield of Florida). She has been proactive in working with community partnerships in reducing the disparities in infant mortality evident in African Americans in Gadsden County, Florida by initially conducting a county-wide needs assessment that resulted in the funding of a local community group making substantial gains in increasing maternal and child health. During her tenure at FAMU, her public health program has garnered over \$15 million in extramural funding.

Hoberman, Alan

Charles River Laboratories

Dr. Alan Hoberman has been employed by Charles River Laboratories, Preclinical Services, Pennsylvania (formerly Argus Research Laboratories, Inc.) since 1981, serving as Study Director, Director of Reproductive Toxicology and currently as Executive Director, Global Developmental, Reproductive and Juvenile Toxicology. Prior to joining Argus Research, Dr. Hoberman was the Head of Reproductive Toxicology at Hazleton Laboratories in Vienna, Virginia. He received his BS in Biology from Drexel University, and was a graduate student in Anatomy at the University of Virginia before moving to Arkansas and completing a MS in Interdisciplinary Toxicology from the University of Arkansas and a Ph.D. in Toxicology from Pacific Western University. He is a Diplomat of the American Board of Toxicology and a Fellow of the Academy of Toxicological Sciences, with over 85 publications and book chapters. He is the co-editor of “Pediatric Non-Clinical Drug Testing, Principles, Requirements, and Practices” published in January 2012. Dr. Hoberman has been a member of the Teratology Society since 1978 and in the current Vice-President Elect. He is also a member of the European Teratology Society since 1982 and past councilor. He has been a member of the American College of Toxicology since 1979 and is currently the Treasurer and serves on the Editorial Board of the ACT Journal, International Journal of Toxicology. He is

Past President of the Reproductive and Developmental Toxicity Specialty Section of the Society of Toxicology and Past President of the Middle Atlantic Reproductive and Teratology Association, as well as Past President of the Arkansas Biotechnology Organization.

Hughes-Oliver, Jacqueline

North Carolina State University

Dr. Jacqueline M. Hughes-Oliver is Professor of Statistics at North Carolina State University (NC State). She earned her PhD in Statistics from NC State in 1991, following a BA in Mathematics from the University of Cincinnati in 1986. After one year at the University of Wisconsin—Madison, Dr. Hughes-Oliver returned to NC State where she transitioned through the usual academic ranks. She has held a visiting appointment at Stanford University, served as Faculty Fellow at the Statistical and Applied Mathematical Sciences Institute (SAMSI), and was Professor of Statistics at George Mason University. From 2005 to 2009, Dr. Hughes-Oliver was Director of the Exploratory Center for Cheminformatics Research at NC State. During her graduate and undergraduate training, Dr. Hughes-Oliver held positions at the National Institute of Environmental Health Sciences and at the Environmental Protection Agency. Dr. Hughes-Oliver has a variety of research interests. Since 2000, her research has been sponsored by a number of agencies, including multiple awards from the National Science Foundation, the North Carolina Department of Transportation, and more recently the National Institutes of Health through the Roadmap Initiative. Her methodological research focuses on prediction and classification, analysis of high-dimensional data, variable and model selection with dimension reduction, design and analysis of pooling or mixture experiments, optimal design, and spatial modeling. Application areas include drug discovery, ontology-driven analysis of microarray studies, metabolomics, point sources, engineering manufacturing and transportation modeling. Her research is motivated by current health-related and environmental issues, and to discover new drugs in an efficient way. Service to the profession includes elected and appointed positions in the American Statistical Association (ASA) and the Eastern North American Region (ENAR) of the Biometrics Society. She has served on review panels for the National Science Foundation and the National Institutes of Health and has been referee for many articles submitted to various professional journals. Some of her awards include the ASA's 2006 Statistics in Chemistry Award, being named a Fellow of the ASA in 2007, and receiving the Blackwell-Tapia Prize in 2014.

James-Todd, Tamarra

Harvard T.H. Chan School of Public Health

Dr. Tamarra James-Todd is the Mark and Catherine Winkler Assistant Professor of Environmental Reproductive and Perinatal Epidemiology at Harvard T.H. Chan School of Public Health. Dr. James-Todd's research focuses on the role of environmental endocrine-disrupting chemicals on women's health outcomes, with a particular focus on diabetes and reproductive health issues that disproportionately affect minority populations. She received her Ph.D. in epidemiology from Columbia University in 2008 and completed two postdoctoral fellowships in reproductive and diabetes epidemiology at Brigham and Women's Hospital and Harvard School of Public Health (2008-2010). In 2011, she joined the faculty of Harvard Medical School as Instructor in Medicine. She also became an Associate Epidemiologist at Brigham and Women's Hospital's Connors Center for Women's Health and Gender Biology, where she studied the role of phthalates and diabetes risk in women. Her research on racial/ethnic differences in environmental endocrine disrupting chemicals and diabetes risk factors, as well as adverse pregnancy outcomes was funded by the American Diabetes Association and the National Institutes of Health Office of Research in Women's Health, where she was a Building Interdisciplinary Research Careers in Women's Health (BIRCWH K12) scholar. She was among the first to document the association between phthalates and diabetes risk in women. She was also the first to publish on endocrine disrupting chemicals in black hair care products and to evaluate the role of these chemicals in hair products on risk of earlier age at menarche among black girls. Dr. James-Todd has published in highly-respected peer-review journals, including *Environmental Health Perspectives* and *Epidemiology*. She is currently working with a number of U.S.-based pregnancy cohorts, as well as a Kuwait-based pregnancy cohort to evaluate the role of phthalates and other endocrine-disrupting chemicals on adverse pregnancy outcomes.

Kusewitt, Donna

University of New Mexico

Dr. Donna Kusewitt is a board-certified veterinary pathologist with 30 years of experience working with animal models of human disease. For the last 20 years, she has specialized in working with standard and genetically engineered mouse models. She presently serves as the veterinary pathologist for the Animal Models Shared Resource of the University of New Mexico Comprehensive Cancer Center and holds the rank of Research Scientist in the Department of Pathology at the University of New Mexico School of Medicine. She previously directed two Comprehensive Cancer Center core facilities focused on mouse pathology: the Mouse Phenotyping Service at the Ohio State University Cancer Center and the Mutant Mouse Pathology Service at the M.D. Anderson Cancer Center. At both of these institutions, she also headed the histology

and immunohistochemistry laboratories. She attained the rank of Professor at both the Ohio State University and M.D. Anderson Cancer Center. Dr. Kusewitt has a continuing interest in morphometry and in the quantification of histologic lesions. She has considerable experience in toxicology studies employing rodents, including two years at the Inhalation Toxicology Research Institute in Albuquerque, NM, and over a year at the National Center for Toxicology Research in Jefferson, AR. From 1987 until 2014, she headed a federally funded research effort focused on the role of Snail family transcription factors in skin cancer, wound healing, and cutaneous inflammation. She remains active in a number of collaborative research efforts at the University of New Mexico and elsewhere. Dr. Kusewitt received the B.A. in Biology (1973) and the D.V.M. (1977) from the University of Missouri and a doctorate in Medical Science with a specialization in molecular biology from the University of New Mexico School of Medicine (1987). She is a member of the American College of Veterinary Pathologists and the Society of Toxicologic Pathology. She has served as a reviewer on a number of NIH study sections and special emphasis panels and on DOD review panels. During her career, Dr. Kusewitt has authored or co-authored 133 peer-reviewed articles, as well as a number of book chapters. She reviews articles for several scientific journals and was Editor-in-Chief of the journal *Veterinary Pathology* for three years.

Laffan, Susan

GlaxoSmithKline

Dr. Susan Laffan is a scientific director in pharmaceutical research and development at GlaxoSmithKline. She is an experienced toxicologist in the field of the nonclinical safety assessment of medicines in development, with expertise in reproductive and developmental toxicity. Susan has a BS in Chemistry from the University of Wisconsin in Madison and earned a PhD in toxicology from the University of North Carolina at Chapel Hill. She conducted her dissertation research at the US Environmental Protection Agency, Reproductive Toxicology Division in Research Triangle Park, NC. Since 2003, she has served as a toxicologist and study director in the Reproductive Toxicology Group of GlaxoSmithKline's Safety Assessment Department. Her research interests are in the study of mechanisms of reproductive toxicity, in particular, endocrinologic changes that manifest as pathophysiological events and pharmacologically-mediated mechanisms of teratogenicity. She serves as an internal consultant on nonclinical pediatric advisory panel, directly influencing several nonclinical drug development plans to support the enrollment of women and children in clinical trials. As a speaker at national professional associations and book chapter author, Susan is a recognized expert in reproductive and developmental toxicology. Susan is a topic expert for the International Council for Harmonization (ICH) guidance for nonclinical support of pediatric drug development and an active industry representative for ILSI-HESI developmental and reproductive toxicology technical committee and is past president of a regional association in the discipline. She is a member of the Society of Toxicology, The Teratology Society and the Mid-Atlantic Reproduction and Teratology Association (MARTA).

Lash, Lawrence

Wayne State University

Dr. Lawrence H. Lash is a Professor and Associate Chair of the Department of Pharmacology at Wayne State University School of Medicine in Detroit, MI. He received his B.A. in biology in 1980 from Case Western Reserve University in Cleveland, OH and his Ph.D. in biochemistry in 1985 from Emory University School of Medicine in Atlanta, GA. After a postdoctoral fellowship in pharmacology and toxicology at the University of Rochester in Rochester, NY (1985–1988), he joined the faculty at Wayne State. Dr. Lash teaches medical and graduate students and has research interests in the areas of drug metabolism and transport, renal toxicology, and in vitro toxicology models. His research has been funded by the National Institutes of Health, the U.S. EPA, the Department of Defense Peer-Reviewed Medical Research Program, and the pharmaceutical industry. Major research contributions have included discovery and identification of transport mechanisms for glutathione across renal basolateral plasma and mitochondrial inner membranes, identification of mitochondria as a potent and early intracellular target in the nephrotoxicity induced by the trichloroethylene metabolite DCVC, provision of pharmacokinetic and metabolic data for the environmental contaminants tri- and perchloroethylene in human and rodent liver and kidney, and demonstration of the therapeutic potential of modulating mitochondrial glutathione transporters in diabetic nephropathy, compensatory renal hypertrophy, and prostate cancer. Dr. Lash has authored more than 180 peer-reviewed publications and reviews and has edited or co-edited 4 books. Dr. Lash is very active in service to the academic and regulatory scientific community. He is Editor-in-Chief of *Toxicology Reports*, has served for several years as an Associate Editor for *The Journal of Pharmacology and Experimental Therapeutics*, *Toxicology and Applied Pharmacology*, *Pharmacology and Therapeutics*, and *Advances in Nephrology*, is on 7 other editorial boards, reviews manuscripts for several other journals in the fields of pharmacology, toxicology, and physiology, and has served as both a regular and ad hoc member of several study sections for the National Institutes of Health Center for Scientific Review, the National Institute of Environmental Health Sciences, and the National Institute of Diabetes, Digestive and Kidney Diseases. Dr. Lash has served since 2009 as an established peer reviewer for U.S. EPA Provisional Toxicity Value (PTV) manuscripts, he has been a workshop participant for 4 IRIS database risk assessment reviews,

consulted for the National Research Council for their report on “Biomarkers of Urinary Toxicity” (1992-1995) and for the U.S. EPA on their human health risk assessments for trichloroethylene (1996-2000) and perchloroethylene (1998-2000), and was a workshop participant for two monographs for the International Agency for Research on Cancer.

Lichtveld, Maureen

Tulane University

Dr. Maureen Lichtveld, M.D., M.P.H has 35 year experience in environmental public health and currently is Professor and Chair, Department of Global Environmental Health Sciences, Tulane University, School of Public Health and Tropical Medicine. Her research focuses on environmentally-induced disease including asthma and cancer, health disparities, environmental health policy, disaster preparedness, and public health systems. She holds an endowed chair in environmental policy and is Associate Director, Population Sciences, Louisiana Cancer Research Consortium. Dr. Lichtveld has a track record in community-based participatory research with a special emphasis on persistent environmental health threats affecting health disparate communities living in disaster prone areas. As Director of the Center for Gulf Coast Environmental Health Research, Leadership, and Strategic Initiatives, Dr. Lichtveld serves as Principal Investigator of several Gulf Coast-associated environmental health research and capacity building projects ascertaining the potential impact of the Gulf of Mexico Oil spill: the NIH-funded Transdisciplinary Research Consortium for Gulf Resilience On Women’s Health, addressing potential post- oil spill effects on vulnerable pregnant- and non-pregnant women; “Risk and Resilience in Environmental Health”, a project designed to implement rapidly deployable community-based research, outreach and education; and the Gulf Region Health Outreach Program’s Environmental Health Capacity and Literacy Project, aimed at strengthening individual and community resilience through an environmental health clinical referral network, emerging scholars, and trained community health workers navigating frontline health services. Dr. Lichtveld was honored as CDC’s Environmental Health Scientist of the Year and twice named Woman of the Year by the City of New Orleans. She was recently elected to the National Academy of Sciences-Institute of Medicine Roundtable on Environmental Health Sciences, Research, and Medicine, and as the incoming Editorial Board Chair of the American Journal of Public Health. Dr. Lichtveld serves as the current President of the Hispanic Serving Health Professions Schools.

Marty, Melanie

University of California, Davis

Dr. Melanie Marty is Assistant Deputy Director for the Science Division at the Office of Environmental Health Hazard Assessment (OEHHA), California Environmental Protection Agency. Dr. Marty received her Ph.D. from the University of California, Davis in Pharmacology and Toxicology. She has been at OEHHA for more than 25 years focusing on evaluating public health impacts and assessing risk of environmental chemicals. She has been a leader in evaluating health risks from early life exposure to environmental toxicants. As Assistant Deputy Director, Dr. Marty reviews OEHHA technical documents evaluating public health impacts and risk of exposure to contaminants in drinking water, air, and other media, recommendations for health-based standards for pollutants in air and water, risk assessment guidelines, chemical listings and designations, and other departmental reports. She also participates in policy development for OEHHA and works with other Cal/EPA departments on policy related issues. Dr. Marty is also one of the key scientists for OEHHA on the California Green Chemistry initiative. She has served on a number of EPA peer review committees, including the Science Advisory Board’s ad hoc committee evaluating the 2005 Supplemental Guidance for Assessing Risk from Early Life Exposure to Carcinogens. She was Chair of the U.S.EPA’s Children’s Health Protection Advisory Committee from 2001-2009, which advises the Administrator on issues related to children’s environmental health. During this time, she was also liaison between the CHPAC and the SAB. Dr. Marty has served on a number of committees in California, and is currently a member of the California Breast Cancer Research Program Advisory Committee, which advises the University of California Office of the President on funding breast cancer research, and the South Coast Air Quality Management District Clean Fuels Advisory Committee. Dr. Marty is also an Adjunct Associate Professor at the University of California, Davis, Department of Environmental Toxicology, where she teaches a course in risk assessment of environmental chemicals.

Meistrich, Marvin

University of Texas

Dr. Marvin L. Meistrich is Professor of Experimental Radiation Oncology at the University of Texas M.D. Anderson Cancer Center. He received a Ph.D. in Solid State Physics at Cornell University studying radiation damage to crystalline solids. He did postdoctoral research at Bell Telephone Laboratories on mutagenic effects of specific photochemical lesions in DNA and at the Ontario Cancer Institute developing biophysical methods for separation of testicular cells. Since 1972 he has been on the faculty of the University of Texas MD Anderson Cancer Center. His interests include reproductive biology, mutagenesis, radiation biology and toxicology. He has been involved with basic studies of the cell and molecular

biology of spermatogenesis and the effects of toxicants on the process. In particular, his focus has been on the effects of radiation and chemotherapeutic drugs on killing and mutation induction in stem cells and on the somatic environment altering the ability of spermatogenesis to recover. His research and clinical studies included rodents (mice, rats) and primates (macaques, humans). He has developed models for extrapolation of experimental data for human quantitative reproductive risk assessment. In addition he has demonstrated induction of testicular cancer by fetal exposure of mice to radiation or an alkylating agent. He was Program Director for Reproductive Biology Program of the University of Texas Graduate School of Biomedical Sciences at Houston from 1992 to 2003. His research has been continuously funded by NIH and other agencies since 1975. Dr. Meistrich has authored over 250 peer-reviewed journal articles and over 80 invited reviews, editorials, and book chapters. Dr. Meistrich has served on a wide variety of editorial and review boards for scientific journals and government agencies. He served on several NIH Study Sections. In 1998 he received a Fogarty Senior International Fellowship to investigate radiation induced genetic damages in individual sperm cells. He was elected as a Fellow of the American Association for the Advancement of Science in 2009.

Morandi, Maria

Independent Consultant

Dr. Maria Morandi received a BS degree in Chemistry from the City College of New York, and MS and Ph.D. degrees in Environmental Health Sciences from the Norton Nelson Institute of Environmental Medicine at New York University. She is certified in the comprehensive practice of industrial hygiene by the American Board of Industrial Hygiene. She was a Research Professor and the Director of the Inhalation and Pulmonary Physiology Core at the Center for Environmental Health Sciences in the Department of Biomedical and Pharmaceutical Sciences at the University of Montana in Missoula, Montana, until her retirement from academia in 2012. Prior to that, she was in the faculty of the School of Public Health at the University of Texas in Houston. Dr. Morandi's research focus at the University of Montana was on developing methods for assessing exposures to wood smoke and respiratory effects in humans and in animal models, and on determining the physiochemical characteristics of engineered nanoparticles that might explain their bioactivity and potential risk to public health. She has done extensive research on the development of passive sampling methods for monitoring personal exposures to volatile organic compounds. These methods have been applied by she and others to assess adult and children's exposures in large population studies, including residents of disadvantaged communities disproportionately burdened by outdoor source emissions and a subset of participants in NHANES. She has over fifty peer-reviewed publications on these methods, other exposure-related subjects, and aerosol characterization and source apportionment. Dr Morandi has served in multiple national-level committees and review panels, including EPA's Chemical Assessment Advisory Committee, the Clean Air Scientific Advisory Committee for Ozone and Lead Review Panels, the Integrated Human Exposure/Health Effects Committee and the Research Strategies Advisory Committee of the Science Advisory Board; the Committee on Acute Exposure Guideline Levels of the Board on Environmental Studies and Toxicology of the National Research Council, National Academies of Science; the Mine Health Research Advisory Committee of the Mining Safety and Health Administration, the Board of Scientific Councilors of the National Toxicology Program of the National Institute of Environmental Health Sciences, and the Board of Scientific Councilors of the Agency for Toxic Substances and Disease Registry. She was a member of the Occupational Safety and Health Study Section of the National Institute of Occupational Safety and Health for over 12 years and continues to serve as ad-hoc consultant to this panel.

Morris, Marilyn

University at Buffalo, State University of New York

Dr. Marilyn Morris is Distinguished Professor and Vice-Chair in the Department of Pharmaceutical Sciences, School of Pharmacy and Pharmaceutical Sciences University at Buffalo, State University of New York. She received her B.Sc. (Pharmacy) from the University of Manitoba, Canada, M.Sc. (Pharmacology) from the University of Ottawa, Canada, and Ph.D. (Pharmaceutics) from the University at Buffalo. She was a Medical Research Council Fellow at the University of Toronto, Canada, before joining the University at Buffalo as an Assistant Professor. Her NIH-funded research focuses on the influence of drug transporters on drug pharmacokinetics and pharmacodynamics and the identification of transporters as therapeutic targets. Her current research focuses on monocarboxylate transporters. Earlier work, most relevant for the EPA, was research on inorganic sulfate membrane transport and homeostasis. Additionally, she has been funded through the University at Buffalo Center for Protein Therapeutics for a number of years for studies evaluating determinants of the disposition of monoclonal antibodies and the effect of disease on protein therapeutics. Her overall research contributions have been recognized through the presentation of a number of awards including the State University of New York Chancellor's award for excellence in research and creative activities, a Francis Dudley Meyer Award for Breast Cancer Research, Cancer Research and Prevention Foundation, and election as a Fellow of the American Association of Pharmaceutical Scientists and Fellow of the American Association for the Advancement of Science. She was the recipient of the Faculty of Pharmacy University of Manitoba Distinguished Alumni 2013 award and the University at Buffalo

Distinguished Postdoctoral Mentor Award in 2012. Dr. Morris has provided significant contributions to the Pharmaceutical Sciences through her role as elected President of the American Association of Pharmaceutical Sciences (AAPS) 2012-15. She currently serves as Past-President. She has served since 2006 on the Food and Drug Administration (FDA) Advisory Committee in the Pharmaceutical Sciences and Clinical Pharmacology, as well as on National Institutes of Health and other grant review and advisory panels. She is currently an elected member on the Executive Committee of the Board of Pharmaceutical Sciences for the International Federation of Pharmacy (FIP). Dr. Morris is an Associate Editor for the AAPS Journal.

O'Callaghan, James

Centers for Disease Control and Prevention

Dr. James P. O'Callaghan serves as Distinguished Consultant, Centers for Disease Control and Prevention, and Head of the Molecular Neurotoxicology Laboratory in the Toxicology and Molecular Biology Branch of the Health Effects Laboratory Division at the Centers for Disease Control (CDC) and Prevention, NIOSH. Dr. O'Callaghan received his Ph.D. in Neuropharmacology from Emory University School of Medicine in 1975 as the first doctoral student of the late Stephen G. Holtzman. He then served as a National Institute on Drug Abuse postdoctoral fellow with Doris H. Clouet in New York City. In 1978 he was awarded a Pharmacology Research Associate Trainee Fellowship from the National Institute of General Medical Sciences, NIH. He served his tenure in this position while working in the laboratory of Dr. Walter M. Lovenberg in the Heart, Lung and Blood Institute, Section of Biochemical Pharmacology, prior to taking a position with the U.S. Environmental Protection Agency in Research Triangle Park, NC. Prior to joining CDC-NIOSH, Dr. O'Callaghan served as the Senior Science Adviser to the Neurotoxicology Division of the National Health and Environmental Effects Research Laboratory, U.S. Environmental Protection Agency (EPA). His research group investigates the molecular and cellular basis of gliosis, a dominant response of the central nervous system to chemical- and disease-induced injury. At the EPA and CDC-NIOSH, Dr. O'Callaghan has conducted extensive research on the neurotoxicity profiles of many types of chemicals. He also has examined the neurotoxic effects of drugs of abuse under sponsorship of the National Institute on Drug Abuse (NIDA). As a senior investigator in the Congressionally Directed Medical Research Program, Department of Defense, Dr. O'Callaghan currently directs research aimed at discovering and characterizing molecular and cellular biomarkers of Gulf War Illness in animal models. Dr. O'Callaghan has co-authored over 250 scientific papers in the area of neurotoxicology and his research findings have been presented by invitation at numerous national and international conferences. In 1992 he was awarded the EPA's and the Society of Toxicology's Science Achievement Award for his work in developing and validating a bioassay for neurotoxicity. Because of Dr. O'Callaghan's expertise in the area of neurotoxicity, he has worked as a consultant for a number of private and public institutions, including the U.S. FDA, the Veterans Administration, the U.S. Army and the NIH. Dr. O'Callaghan has also held adjunct faculty appointments at the New York University School of Medicine, The Laboratory of Molecular and Cellular Neuroscience at The Rockefeller University and West Virginia University Center for Neuroscience. He served for 23 years as Associate Editor of Neurotoxicology and Teratology and is a member of several other editorial boards.

Persky, Victoria

University of Illinois at Chicago

Dr. Victoria Persky is a Professor of Epidemiology in the School of Public Health, University of Illinois at Chicago. She received her undergraduate degree from Radcliffe College, M.D. from Albert Einstein College of Medicine and completed residencies in Internal Medicine at the University of Alabama in Birmingham, Montefiore Hospital in New York and Northwestern University Medical School. In addition to her epidemiology research, she practiced medicine part time for 30 years in a community-based health center on the Westside of Chicago. For the last 20 years, her research focus has been in environmental epidemiology with a major focus on the endocrine effects of organochlorines. Currently, she is Principal Investigator or Co-investigator of grants examining the effects of community-based interventions on morbidity from asthma and associations of organochlorines with endogenous hormones and components of the metabolic syndrome. She is a past member of the National Institutes of Health (NIH) Infectious, Reproductive, Asthma and Pulmonary conditions (IRAP) epidemiology study section and is currently a member of the Board of Mobile C.A.R.E. foundation, the Environmental Justice Journal Editorial Board, the Illinois State Board of Health, and the EPA Science Advisory Board (SAB) Chemical Assessment Advisory Committee (CAAC).

Pessah, Isaac

University of California, Davis

Dr. Isaac Pessah obtained his B.S. in Biological Sciences from Cornell University and his Ph.D. in Toxicology from the University of Maryland College Park in 1984 under the mentorship of Professor Robert Menzer. He pursued postdoctoral training at UC Berkeley from 1984 to 1987 during which time he discovered a family of calcium channels termed ryanodine receptors. Since then, his research and academic interests have spanned the broad area of molecular and cellular

mechanisms by which Ca²⁺ channels regulate cellular signaling in muscle, neurons, and immune cells. He studies the organization and function of the macromolecular complexes regulating ryanodine-sensitive Ca²⁺ channels and how marine toxin (e.g. bastadins and xestospongins) and environmental chemicals (e.g. PCBs, PBDE's, pyrethroids) promote toxicity. Members of his laboratory have been studying gene-environment interactions influencing susceptibility that are relevant to autism and related developmental disorders using humanized mice possessing mutations known to contribute susceptibility to disease. He received the Pfizer Award for Research Excellence in 1997 and the Neurobehavioral Toxicology Society's Distinguished Lecture Award in 2010. Dr. Pessah is a member of the UC Davis Superfund Research Program, Society of Toxicology and Neurotoxicology Specialty Section, the American Chemical Society and Pesticide Toxicology Specialty Section, the American Society for Pharmacology and Experimental Therapeutics, the Biophysical Society, and International Neurotoxicology Association. He is on the editorial board of several journals. Currently he is Professor of Toxicology and in the Department of Molecular Biosciences, and Associate Dean of Research and Graduate Education at UC Davis School of Veterinary Medicine. He is Deputy Director of the UC Davis Center for Children's Environmental Health and Disease Prevention. The Center, established under his direction in 2000, is an NIEHS/US EPA funded multidisciplinary program aimed at understanding how environmental factors influence developmental neurotoxicity. Recently he has been appointed by Governor Brown to serve on the California Developmental and Reproductive Toxicant Identification (DART) Committee. His laboratory provides a truly unique opportunity for training graduate students and postdocs interested in developing strong interdisciplinary research experience that implement basic biophysical, chemical, and cellular physiological methods to answer important questions about etiological factors contributing to developmental disorders. I have been PI or Co-PI on 14 major multi-year NIH grants from several institutes (NIEHS, NIAMS, NICHD, NIA, and NINDS), most of which have been successfully renewed at least once. He has successfully mentored 18 PhD students and 18 postdoctoral fellows, which have gone on to successful careers in academia, as well as leadership positions in industry and government. His research addresses the causes, consequences, prevention, and treatment of neurodevelopmental disorders, especially in the area of susceptible populations and gene by environment interactions. His research program has had important translational implications for understanding gene environment interactions that promote human and animal disorders of the nervous system. Dr. Pessah has co-authored more than 200 peer reviewed primary research publications and several reviews and book chapter.

Powell, Joann Brooks

Clark Atlanta University

Dr. Joann Powell is currently an assistant professor in the Center for Cancer Research and Therapeutic Development (CCRTD) at Clark Atlanta University. Prior, she completed one year of postdoctoral training in the department of hematology and oncology and three subsequent years as a fellow in research and science teaching at Emory University School of Medicine. During that time, she assisted in training two graduate students. While an instructor in the biology department at Spelman College, she was responsible for teaching and designing an undergraduate research course. In addition, five Spelman undergraduates conducted research in my laboratory. Two of her Spelman students have entered PhD programs and two have been accepted and will begin dental school in August 2011. The current aim of Dr. Powell's lab at Clark Atlanta University is to understand the molecular mechanisms by which cancer cells progress into advanced and malignant phenotypes. In particular, we focus on the role of the aryl hydrocarbon receptor (AhR) in prostate cancer progression. AhR is widely known for its role in mediating the harmful effects of a number of environmental toxins. However, evidence suggests that it may also play a key role in the progression of prostate cancer from castration dependent to castration independent. Specific project goals of her lab are to: 1. Determine the role of AhR in the development of castration independent prostate cancer via interaction with the androgen signaling pathway; 2. Investigate the effects of environmental toxins (AhR agonist) on prostate cancer progression; 3. Establish AhR as a potential therapeutic target in the treatment of castration independent prostate cancer.

Ramos, Kenneth

University of Arizona

Dr. Kenneth Ramos is Associate Vice President for Precision Health Sciences and Professor of Medicine at the University of Arizona Health Sciences Center. He also serves as Director of the Center for Genetics and Genomic Medicine. He is a leading expert in the study of gene-environment interactions and personalized and genomic medicine. A major focus in his laboratory is the elucidation of molecular mechanisms of reactivation of mammalian retroelements and their role in reprogramming the human genome. Dr. Ramos completed a B.S. in Pharmaceutical Sciences and Chemistry (Magna Cum Laude) at the University of Puerto Rico, a Ph.D. in Biochemical Pharmacology at the University of Texas at Austin, and an M.D. degree with postgraduate training in Internal Medicine at the University of Louisville Health Sciences Center. He previously held faculty positions at the University of the Sciences in Philadelphia, Texas Tech University Health Sciences Center, Texas A&M University and the University of Louisville School of Medicine. He is currently affiliated with the Arizona Respiratory Center, Arizona Cancer Center and BIO5 Institute. Dr. Ramos is a recipient of the Society of

Toxicology Achievement Award, Astra Zeneca Traveling Lectureship Award and Distinguished Service Award from the American Heart Association. He was named Associate of the National Academy of Sciences and Fellow of the Academy of Toxicological Sciences. His recent sources of grants include the National Institute of Environmental Health Sciences, the National Cancer Institute, Astra Zeneca, and the Kentucky Lung Cancer Research Program. He has published over 250 peer-reviewed publications and served on numerous national and international committees in the areas of environmental health sciences, genomics, molecular medicine and toxicology.

Rhomberg, Lorenz

Gradient

Dr. Lorenz R. Rhomberg, Ph.D. Fellow ATS, is a Principal at Gradient, an environmental consulting firm based in Cambridge, Massachusetts, where he specializes in critical review of toxicological information, weight-of-evidence evaluation, human health risk assessment, quantitative risk analysis, and science policy issues for environmental and consumer chemical exposures. He is a member of several scientific societies, including the Society for Risk Analysis, for which he served as a Councilor from 2002-2004, and as President of the New England Chapter in 1997-1998, as well as the Society of Toxicology, serving as a Councilor of the Risk Assessment Specialty Section from 2003-2005 and Councilor for the Regulatory and Safety Evaluation Specialty Section from 2012-2014. Before joining Gradient in 1999, he was on the faculty of the Harvard School of Public Health. From 1984-1994 he was a risk assessor at the U.S. Environmental Protection Agency in Washington. Dr. Rhomberg earned his Ph.D. in population biology from the State University of New York at Stony Brook and an Honours B.Sc. in biology from Queen's University in Ontario. In 2009, Dr. Rhomberg was named Outstanding Risk Practitioner of the Year by the Society for Risk Analysis, and in the same year was named a Fellow of the Academy of Toxicological Sciences. He has served on seven committees convened by the National Academy of Sciences, two as chair. For the U.S. EPA, he served on several FIFRA Scientific Advisory Panels and on chemical assessment peer review groups, including the 2000 EPA Dioxin Peer Review panel and the recent 2009 public meeting on reassessment issues. He currently sits on the Chemical Assessment Advisory Committee of the US Environmental Protection Agency's Science Advisory Board.

Roberts, Stephen M.

University of Florida

Dr. Stephen M. Roberts is Professor at the University of Florida with joint appointments in the College of Veterinary Medicine, College of Medicine, and College of Public Health and Health Professions. He also serves as Director of the Center for Environmental & Human Toxicology at the University of Florida. Dr. Roberts received a B.S. in Pharmacy from Oregon State University and a Ph.D. from the University of Utah College of Medicine. After a postdoctoral fellowship at SUNY Buffalo (1977 – 1980), he served on the faculties of the University of Cincinnati College of Pharmacy (1980-1985) and the College of Medicine at the University of Arkansas for Medical Sciences (1986-1989). Dr. Roberts has been a faculty member at the University of Florida since 1989. His research addresses mechanisms of toxicity, particularly involving the liver and immune system. Dr. Roberts also has an active research program in toxicokinetics, especially involving bioavailability of environmental toxicants, as well as approaches to evaluation of potential toxicity of nanomaterials. Dr. Roberts' research has been supported by the National Institutes of Health, the Department of Defense, the U.S. EPA, Gulf Power Corporation, and HSF Pharmaceuticals. He serves as an advisor to regulatory agencies on topics related to risk assessment

Skoglund, Robert

Independent Consultant

Dr. Skoglund is a toxicologist, environmental chemist, and industrial hygienist. He is presently retired from his position as a Senior Laboratory Manager at the 3M Company in St. Paul, Minnesota, and is responsible for the science-based and globally consistent assessment and communication of the hazards and risks of materials important to 3M. In addition he serves as an Adjunct Professor at the University of Minnesota, where he teaches and advises students in both the Toxicology Graduate Program and the School of Public Health's Division of Environmental Health Sciences. Dr. Skoglund has a doctorate and a master's degree in Environmental Health from the University of Minnesota where he specializes in environmental chemistry and toxicology, is board-certified in both general toxicology by the American Board of Toxicology and the comprehensive practice of industrial hygiene by the American Board of Industrial Hygiene, and has over twenty-five years of experience in regulatory and applied toxicology. Areas of expertise include the assessment and communication of the physical, health, and environmental hazards and risks of consumer and industrial products and their manufacturing processes. Areas of limited research and teaching include the incorporation of advances in toxicology testing and risk analysis into the assessment of materials within a global legislative and regulatory framework and the science-based assessment of sustainable or green products. Dr. Skoglund is presently active, through technical, advocacy, governing, and advisory boards, in professional organizations including the Society of Toxicology, the American Industrial

Hygiene Association, and the Society for Chemical Hazard Communication, and trade organizations, including the Consumer Specialty Products Association and the American Chemistry Council. Dr. Skoglund presently serves on the Advisory Board for the NIEHS Midwest Consortium for Hazardous Waste Worker Training. In the past he served as a US industry representative to the Coordinating Group for the Harmonization of Chemical Classification Systems during the development of the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS), as well as at the European Commission's REACH Implementation Projects (RIP) during the development of their guidance, including RIP 3.2: Chemical safety reports and safety data sheets and RIP 3.3: Information requirements on intrinsic properties of substances.

Stayner, Leslie T.

University of Illinois

Dr. Stayner is currently a Professor of Epidemiology at the University of Illinois' School of Public Health in Chicago (UIC SPH). He is also Director of the Occupational and Environmental Epidemiology Program and was formerly the Director of the Division of Epidemiology and Biostatistics at UIC SPH. He also previously worked at the National Institute for Occupational Safety and Health in Cincinnati for nearly 25 years and in his last position was the Chief of their Risk Evaluation Branch. He has been a Visiting Scientist with the International Agency for Research on Cancer (IARC) in Lyon France and has participated in numerous of their monograph meetings. He received a M.S. in Epidemiology and Occupational Health and Safety in 1980 from the Harvard School of Public Health and his PhD in Epidemiology from the University of North Carolina at Chapel Hill in 1989. His major research interests are in the area of occupational and environmental epidemiology with a primary focus on carcinogenic hazards, and on the development of epidemiologic methods. He has been involved in conducting research on cancer and exposure to asbestos, 1,3-butadiene, formaldehyde, diesel exhaust, hexavalent chromium, cadmium, silica and ethylene oxide. He has served as an advisor to numerous agencies including ATSDR, EPA, NRC/IOM, OSHA, MSHA and the WHO. He is currently engaged in a CDC funded study to examine the potential association between exposures to atrazine and nitrates in drinking water and the rate of adverse pregnancy outcomes and childhood cancer in eight Midwestern states.

Stern, Alan

New Jersey Department of Environmental Protection/University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School

Dr. Alan H. Stern is the Bureau Chief for Risk Analysis in the Office of Science of the New Jersey Department of Environmental Protection; Adjunct Associate Professor in the Department of Environmental and Occupational Health of the Rutgers University School of Public Health. He received a bachelor's degree in biology from the State University of New York at Stony Brook (1975), a master's degree in cellular and molecular biology from Brandeis University (1978), a master of public health degree (1981) and a doctorate in public health from the Columbia University School of Public Health (1987). Dr. Stern is board-certified in toxicology by the American Board of Toxicology (Diplomate of the American Board of Toxicology). Dr. Stern's areas of expertise include risk assessment and exposure assessment including the application of probabilistic techniques to quantitative estimation of exposure and risk. His research interests have focused on heavy metals including lead, mercury, chromium and cadmium as well as on risk and benefit from fish consumption. Dr. Stern is currently a member of the Chemical Assessment Advisory Standing Committee of the USEPA's Science Advisory Board. Dr. Stern was a member of the National Research Council/National Academy of Sciences Committee on the Toxicology of Methylmercury (1999-2000) and an invited panel member of the USEPA IRIS Workshop on the NRC Recommendations (October 15-16, 2014), the USEPA Science Advisory Board panel for the National-Scale Mercury Risk Assessment for Coal- and Oil-Fired Electrical Generating Units (June-July 2011) as well as the USEPA Science Advisory Board Panel for Peer Review of the All-Ages Lead Model (Oct. 27-28, 2005). He has also served on numerous USEPA-IRIS review panels including Toxicological Review of Urea (Dec. 13, 2010, Panel Chair), Toxicological Review of Trichloroacetic Acid (Dec. 10, 2009, Panel Chair), Toxicological Review of 2-Hexanone (May 22, 2008, Panel Chair), Toxicological Review of Toluene (Feb. 5, 2004, Panel Chair). Other panels, committees and workshops include, ATSDR Toxicological Profile Review of Revised Minimal Risk Levels (MRLs) for 1,4-Dioxane (March-April, 2010), ATSDR Toxicological Profile Review of Revised Inhalation MRL for 1,4-dioxane (Sept. 2011), USEPA Panel for the Review of Draft Exposure Factors Handbook (March 3-4, 2010), USEPA Workshop on Cardiovascular Toxicity of Methylmercury (Jan. 12-13, 2010), USEPA Panel for Review of "Draft Child-Specific Exposure Factors Handbook" (Sept. 19-20, 2007). Dr. Stern has authored numerous articles in peer-reviewed journals, and contributed a book chapter on Exposure Assessment for Neurotoxic Metals in "Human Developmental Neurotoxicology" D. Bellinger, ed. (Taylor & Francis, New York, 2006), and the article on "Environmental Health Risk Assessment" in the Encyclopedia of Quantitative Risk Assessment and Analysis, John Wiley and Sons Ltd., 2008.

Turesky, Robert

University of Minnesota

Dr. Robert Turesky is a Professor in the Department of Medicinal Chemistry, and Director of the Masonic Cancer Center's Analytical Biochemistry shared resource, a mass spectrometry facility devoted to the cancer and chemoprevention programs at the University of Minnesota, Minneapolis, MN. Dr. Turesky received his B.Sc. in biochemistry from the University of Massachusetts, Amherst, and PhD in nutrition and food science from M.I.T. Prior to this position, Dr. Turesky was Group Leader of the Biomarkers Unit, Nestlé Research Center, Lausanne, Switzerland (1986 – 2000); Division Director of Chemistry, National Center for Toxicological Research, U.S. Food and Drug Administration, Jefferson, AR, (2000 – 2004); and Principal Investigator, Wadsworth Center, New York State Department of Health (2004 – 2013). His research is focused on the biochemical toxicology of genotoxicants present in the environment, diet, tobacco, and herbs used in traditional medicinal remedies. The laboratory characterizes pathways of metabolism of these chemicals. Employing synthetic and bioorganic approaches, the laboratory establishes biomarkers of genotoxicants, their metabolites, and protein- and DNA adducts. Mass spectrometric methods are applied to measure these biomarkers in collaborative molecular epidemiology studies that seek to understand the role of chemical exposures in the origin of cancer. Dr. Turesky is currently establishing novel techniques to identify DNA adducts of carcinogens, by MS-based technologies, in formalin fixed paraffin embedded tissues and exfoliated urinary cells, two largely underutilized biospecimens in cancer biomarker research. Dr. Turesky was recognized as a Distinguished Foreign Scientist, Japanese Journal of Cancer Research, 1998, and bestowed as Senior Biological Research Scientist, by the United States Food and Drug Administration, 2000, and selected as a member of the Senior Health Research Advisory Services, by New York State Department of Health, 2004. He has published over 150 scientific peer-reviewed articles, serves as an editorial advisory board member for toxicology and chemistry journals, and provides lectures on carcinogen metabolism and application of mass spectrometric methods in biomonitoring exposure to carcinogens.

York, Raymond

R.G.York & Associates

Dr. York is a formally trained toxicologist with 30 years of research experience. He earned his Ph.D. in Toxicology at the University of Cincinnati and completed a two-year postdoctoral fellowship at Children's Hospital's Institute for Developmental Research in Cincinnati. He was board-certified as a Diplomat of the American Board of Toxicology in 1986 and has served 4 years on its Board of Directors. He is certified as a European Registered Toxicologist (2006) and a Fellow of the Academy of Toxicological Sciences, as well as a Fellow for Toxicology Excellence for Risk Assessment. He has served as a study director on over 700 safety evaluation studies and published over a 100 manuscripts, review articles, book chapters and abstracts. The most recent chapters were York and Parker: Test Methods for Assessing Female Reproductive and Developmental Toxicology (Chapter 34) and Parker and York: Hormone Assays and Endocrine Function (Chapter 35). In: Principles and Methods of Toxicology (6th Edition). Ed. A Wallace Hayes, Informa Healthcare, New York and London (2014). Dr. York has been a member of the Society of Toxicology since 1985, and the American College of Toxicology since 1998. He is currently President of the Reproductive and Developmental Toxicology Specialty Section of SOT. He has served as President of the Middle-Atlantic Regional Section (MASOT; 2012), the Midwest Teratology Association (MTA; 1989) and Mid- Atlantic Reproduction and Teratology Association (MARTA; 2004). Dr. York has been a member of the Teratology Society since 1984. He has served as a reviewer for Toxicology and Applied Pharmacology and International Journal of Toxicology and as a member of the Editorial Board of Fundamental and Applied Toxicology. Dr. York was the Principal Investigator for the Interlaboratory Validation of the Male and Female Pubertal Study and the Interlaboratory Validation of the 15-Day Adult Intact Male Rat Study for EPA as part of the Endocrine Disruptor Screening Program. In addition, Dr. York had processed a DEA Schedule I Researcher controlled license (RY0298427) and had worked extensively with controlled substances such as levo-alpha-acetylmethadol (LAAM), ibogaine and tetrahydrocannabinol, as well as amphetamine, hydrocodone, and morphine. Dr. York was an ad hoc member of the Peer Consultation Panel for the Voluntary Children's Chemical Evaluation Program (VCCEP) and the reproductive toxicologist reviewer expert for the USEPA Biodiesel Program. Peer review consultation panels for assessment of the potential risk of health effects have included exposures to tertiary-butyl acetate (TBAC), perfluorinated hexanoic acid, acetone, metabolites of brominated flame retardants, and selected bisphenols, ethyleneamines, nitroguanidine, BaP, acrylonitrile, PFOS, PFOA, tris(2-chloroethyl)phosphate (TCEP), 1,3,5-trinitro-1,3,5-hexahydrotriazine (RDX), naphthalene, and trichloroacetic acid. Dr. York is a peer consultant for assessment of the potential health-effect risks for a number of consulting and legal firms (potential adverse reproductive effects from SSRIs) and recently served on a GRAS Panel for a caffeine food additive.