Invitation for Public Comment on the List of Candidates for the EPA Science Advisory Board Chemical Assessment Advisory Committee Augmented for Benzo[a]pyrene Review

September 10, 2014

The U.S. Environmental Protection Agency (EPA) Science Advisory Board (SAB) Staff Office announced in a *Federal Register* Notice (Volume 79, Number 18, Pages 4465-4466) published on January 28, 2014 that it was augmenting the Chemical Assessment Advisory Committee (CAAC) to review and provide independent expert advice, through the Chartered SAB, on EPA's draft *Toxicological Review of Benzo[a]pyrene (September 2014 Draft)*. To augment the CAAC, the SAB Staff Office sought public nominations of recognized experts with demonstrated expertise and research in one or more of the following areas: toxicology of benzo[a]pyrene; epidemiology with expertise in PAHs and benzo[a]pyrene; developmental toxicity and neurotoxicity; reproductive toxicity (both male and female); immunotoxicity; genotoxicity; cancer biology; dermal toxicity and carcinogenicity, including toxicokinetic considerations (e.g., dose metrics, extrapolation from animals to humans); and quantitative risk assessment. 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 72 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 Panel based on all relevant information. This includes a review of the confidential disclosure form (EPA Form 3110-48), relevant information gathered by staff, and public comments. For the EPA SAB Staff Office, a balanced Panel 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, for the panel as a whole, f) 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 Panel. Comments should be submitted to Dr. Diana Wong, Designated Federal Officer, no later than October 2, 2014. E-mailing comments (wong.diana-M@epa.gov) is the preferred mode of receipt. Please be advised that comments received are subject to release under the Freedom of Information Act.

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List of Candidates for the Chemical Assessment Advisory Committee (CAAC) Augmented for the review of EPA's draft IRIS Benzo[a]pyrene Assessment

Acosta,Daniel

U. S. Food and Drug Administration

Dr. Daniel Acosta, Jr. was recently appointed Deputy Director for Research at the FDA's National Center for Toxicological Research in Jefferson, Arkansas. He was the endowed Carl Chair of Pharmacy at the Winkle College of Pharmacy of the University of Cincinnati. He holds a B.S. in Pharmacy from the University of Texas, and a Ph.D. in Pharmacology/Toxicology from the University of Kansas. Dr. Acosta was the 4th dean of the University of Cincinnati's James L. Winkle College of Pharmacy from 1996 to 2011. He was a member of The University of Texas College of Pharmacy faculty for 22 years where he helped develop a nationally ranked program in toxicology as the first Director of the Toxicology Training Program. Dr. Acosta's research has focused on the development of in vitro cellular models to explore and evaluate the mechanisms by which xenobiotics damage or injure specific cell types of various organs or tissues. He has worked on the development of primary culture systems of rabbit corneal epithelial cells, conjunctival cells, and iris epithelial cells and primary cultures of rat epidermal keratinocytes as in vitro models to evaluate selected chemicals for ocular and dermal toxicity. Dr. Acosta's laboratory has had extensive experience in in vitro toxicology and in the development of cell culture systems and methods for assessing cytotoxicity. He is very active in pharmacy organizations, such as the American Association of Colleges of Pharmacy and the Accreditation Council for Pharmacy Education. Dr. Acosta serves on several editorial boards of toxicology and in vitro journals, and has been appointed to a number of government and private committees, including: Chairman of the U.S. Food and Drug Administration (FDA) Scientific Advisory Board for the National Center for Toxicology Research; Past Chairman and member of the Texas A&M External Advisory Board of the National Institute of Environmental Health Sciences (NIEHS) Center for Environmental and Rural Health; a past member of the Board of Scientific Advisors for the Office of Research and Development of the Environmental Protection Agency; a past member of the National Advisory Committee to the Director of the Center for Environmental Health of the Centers for Disease Control and Prevention; a past member of the NIEHS Scientific Advisory Committee on Alternative Toxicological Methods which is advisory to NIEHS and the National Toxicology Program; and a past member of the Expert Committee on Toxicology and Biocompatibility of the United States Pharmacopoeia, 2000-2005. Dr. Acosta was appointed to the Committee on Toxicity Testing and Assessment of Environmental Agents for the National Academy of Sciences, which resulted in two pioneering reports on Toxicology in the 21st Century, 2007-2008. He was Chair of the Board of Directors of Toxicology Excellence in Risk Assessment, a non-profit organization that specializes in helping the public sector and government arena on risk assessment issues in the environment. Dr. Acosta was appointed to the Science Board of FDA, 2012-2013, which advises the Commissioner on national issues in the areas of drugs, food, and cosmetics. He is the recipient of several awards and honors, including President of the Society of Toxicology (2000-2001), the President of the International Union of Toxicology (2010-2013), the 2006 Foundation Award in Excellence from the Pharmaceutical Research and Manufacturers of America Foundation, and Fellow of the Academy of Toxicological Sciences. For the past 18 years, Dr. Acosta has not been actively involved in any personal research projects and has not received any research funding from external government or private organizations.

Anderson,Henry

Wisconsin Division of Public Health

Dr. Henry A. Anderson holds positions as the State Health Officer, 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

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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.

Anderson,Kim

Oregon State University

Dr. Anderson is a professor in the Department of Environmental and Molecular Toxicology and Director of the Food Safety and Environmental Stewardship program both at Oregon State University. She received her PhD from Washington State University. Dr. Anderson's research focuses on environmental exposure of contaminants, contaminant mixtures and development of novel bio-analytical technologies for assessing bioavailability in multi-contaminant environments. Dr. Anderson has more than 50 referred articles, and holds 4 patents. Dr. Anderson was recruited by the Food and Agriculture Organization of the United Nations (FAO) in collaboration with the Global Environmental Fund (GEF) to develop and lead a new program of international scope, briefly to design bio-analytical technologies to conduct environmental assessment for use in setting of protective standards for human and environmental health. Dr. Anderson has served on numerous panels and committees, to name a few, the Board of Directors for the Society of Environmental Toxicology and Chemistry (SETAC) North America, Chair of the Chemist Steering Committee for SETAC, Expert Advisory Panel for the Canadian Network of Toxicology Centres.

Bartell,Scott

University of California - Irvine

Dr. Scott M. Bartell is Associate Professor in public health, statistics, and epidemiology at the University of California, Irvine. His research interest is environmental health methodology, with applications in environmental epidemiology, exposure science, and risk assessment. Recent projects include epidemiologic analysis of particulate matter exposure and arrhythmia in the Cardiovascular Health and Air Pollution Study, linkage of fate and transport models and a pharmacokinetic model for perfluorooctanoic acid with data from the C8 Health Project, and development of statistical methods for biomarker based exposure estimation and for epidemiologic analysis of aggregated data. He has served on a variety of scientific advisory committees for the National Research Council, the Environmental Protection Agency, the Centers for Disease Control and Prevention, the National Institute of Environmental Health Sciences, and the Department of Energy. Dr. Bartell earned his PhD in epidemiology and MS in statistics from the University of California, Davis, and his MS in environmental health from the University of Washington. Current and recent research funding sources include the National Institutes of Health, the Centers for Disease Control and Prevention, the U.S. Environmental Protection Agency, California Air Resources Board, and Garden City Group, Inc.

Baynes,Ronald

North Carolina State University

Dr. Baynes obtained his B.Sc. (Biology) from the University of the West Indies (1984), DVM degree from Tuskegee University (1990), MS in Pharmacology from the University of Georgia in 1992, and PhD in pharmacology from North Carolina State University (NCSU) in 1997. He is currently Professor of Pharmacology at NCSU College of Veterinary Medicine and was a toxicologist at Syracuse Research Corporation prior to his appointment at NCSU. He is currently Director of the UNC-Chartered Center for Chemical Toxicology Research and Pharmacokinetics (CCTRP) and Director of the NCSU Regional Office of the Food Animal Residue Avoidance Depletion, FARAD, program funded by USDA. Dr. Baynes' primary responsibilities at the College of Veterinary Medicine for the last 16 years include teaching and research in

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pharmacology and toxicology. His primary research interest is understanding how industrial formulations (e.g., pesticides, repellents, jet fuels, metal working fluids) influence skin absorption using various in vitro and QSAR methods. He has also established a research program in drug and pesticide residue pharmacokinetics and residue mitigation in food animals. Dr. Baynes' research at NCSU has been supported by several NIH/NIOSH, USDA/NIFA, and industrial grants. He has generated more than 102 peer-reviewed publications and book chapters pertaining to his teaching, extension, and research activities and he holds several patents related to the above research. In addition to training of veterinary graduate students in his laboratory, he is actively involved in preparing undergraduate and DVM students for careers in research through several honors and summer programs.

Bruckner, James

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 physiological 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 35 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, 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, 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). Dr. Bruckner is currently a member of the American Conference of Governmental Industrial Hygienists Threshold Limit Value (ACGIH TLV) chemical substances panel and the NAS Committee on Toxicology.

Bukowski, John

WordsWorld Consulting

Dr. John Bukowski is a senior associate at WordsWorld Consulting, a biomedical consultancy located in Dayton, Ohio. He provides clients with research assistance on epidemiology and public/occupational health, as well as general assistance on issues relating to clinical medicine. Past clients include trade associations, US EPA, the US Chamber of Commerce, and advisory groups such as Toxicology Excellence for Risk Assessment (TERA). His epidemiology and public health career has spanned 25 years, including a broad base of experience within government, academia, and private industry. Dr. Bukowski held a position at US EPA NCEA, and received two superlative achievement awards during his tenure. He was the secretary of the ExxonMobil Occupational Exposure Limit committee, and chaired the provincial Pesticide Advisory Council on Prince Edward Island. John has a Masters in Public Health from the University of Michigan and a PhD in epidemiology from the University of Medicine and Dentistry of New Jersey. He also has a doctorate in veterinary medicine from Michigan State University, and practiced clinical medicine for several years. He sat on the Editorial Board for the journal Nonlinearity in Biology, Toxicology, and Medicine, and is an Adjunct Associate Professor at the Boonschoft School of Medicine, Wright State University. John's research experience covers a wide range of topics, including air pollution epidemiology. Between 1999 and 2004, he

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participated in several reviews of the US EPA draft criteria document on particulate matter. He has also authored papers on both indoor and outdoor air pollution, as well as a multitude of reports, critiques, reviews, and white papers.

Bunge,Annette

Colorado School of Mines

Dr. Annette Bunge, Professor Emeritus of Chemical and Biological Engineering at the Colorado School of Mines (CSM), is a recognized scientist in the field of dermal absorption. She has conducted extensive work over 27 years on dermal absorption from a variety of media including water, non-aqueous solutions, and soils with support from the U.S. Environmental Protection Agency (EPA), National Institutes of Health (NIEHS and NIAMS), National Institute of Occupational Safety and Health (NIOSH), Food and Drug Administration (FDA) and others. She has served as a technical advisor on the subject of dermal absorption to governmental agencies and other organizations in North America (e.g., U.S. EPA, NIOSH and Health Canada) and Europe (OECD) for many years. In particular, she has worked with the EPA to develop consistent, scientifically supported strategies for estimating dermal absorption from water, pesticides and soils. She has been a collaborator on a recent experimental investigation led by Professor John Kissel at the University of Washington studying dermal absorption of benzo[a]pyrene from soils. Professor Bunge has BS and PhD degrees in Chemical Engineering from the State University of New York at Buffalo and the University of California, Berkeley, respectively. She has been a member of the CSM faculty since 1981, starting as an Assistant Professor and promoted to Associate Professor in 1985 and Professor in 1991. During her tenure at CSM, she has supervised almost 40 graduate students and post-doctoral scholars, and published more than 80 refereed papers, 23 book chapters and about 150 published conference proceedings, the majority of which describe experiments and mathematical models of dermal absorption. As Professor Emeritus, she no longer teaches but does continue to work on dermal absorption research in a part-time capacity as allowed by the rules of the CSM pension system. She currently has research funding and collaborations with skin scientists in the U.S. and England. In recognition of her activities in research and education at CSM, she received the Distinguished Lecture Award from the Faculty Senate in 2010 and the George R. Brown award from for distinguished service to the field of engineering education from the Board of Trustees in 2011.

Burchiel,Scott

University of New Mexico

Dr. Scott Burchiel is a Distinguished Professor of Pharmaceutical Sciences at the University of New Mexico Health Sciences Center (HSC) and is the Senior Associate Dean in the University of New Mexico (UNM) College of Pharmacy. He served as the Director UNM HSC Signature Program in Environmental Health Sciences and the Director of the New Mexico Center for Environmental Health Studies, an NIEHS-funded Center operated by the UNM HSC and the Lovelace Respiratory Research Institute in Albuquerque, NM. Dr. Burchiel's lab has been jointly funded by federal grants and private industry. Dr. Burchiel received his Ph.D. from UC San Francisco in 1977 and has been on the faculty at UNM for 36 yrs. Dr. Burchiel is an expert in immunotoxicology and environmental carcinogenesis. He has authored approximately 115 scientific manuscripts and has been continually funded by the NIH for over 25 yrs. He is an active NIH reviewer and is an Editor-In-Chief of Toxicology and Applied Pharmacology. His laboratory is known for the use of flow cytometry to study immune cell phenotyping and function, as well as signaling and cell injury pathways. He is also an active breast cancer researcher. Dr. Burchiel's laboratory is active in the use of toxicogenomics, pharmacogenomics, and the use of genomic and epigenomic tools to analyze mechanisms of action of xenobiotics. Environmental toxicology studies examine the effects of environmental agents, such as polycyclic aromatic hydrocarbons (PAHs) and other carcinogens, on signal transduction pathways in lymphocytes and human breast epithelial cells. These studies suggest that certain environmental chemicals may induce chemical anergy (tolerance) and oxidative stress due to epigenetic alterations in resulting from intracellular Ca2+ homeostasis and tyrosine kinase activation in lymphocytes and mammary epithelial cells. Dr. Burchiel's laboratory has shown that PAHs, which are known to produce immunosuppression and cancer, increase src and EGFR tyrosine kinase activity leading to activation of downstream signaling pathways. He has recently been funded by NIH to examine synergistic immunosuppression produced by the combination of PAHs (cigarette smoke) and arsenic and in human cohorts in Bangladesh. These studies seek to identify human susceptibility factors, such as polymorphisms in receptor signaling, metabolism, and DNA repair genes. Dr. Burchiel is an expert in immunotoxicity testing, and has served on an FDA Expert Working Group in Vasculitis and on numerous National Academy and Institute of Medicine committees. He has chaired the FDA's National Center for Toxicologic Research (NCTR) Science Advisory Board, and he currently serves of the Systemic Injury from Environmental Exposures (SIEE) Study Section of NIH.

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Cavalieri,Ercole

University of Nebraska

Dr. Ercole Cavalieri received a D.Sc. in chemistry from the University of Milan, Milan, Italy, in 1962 and spent a year at the Polytechnic of Zurich in Switzerland conducting postdoctoral research on the photochemistry of steroid hormones. He then spent three years (1965-1968) as an Assistant Professor in the Department of Chemistry, University of Montreal, Montreal, Canada, before joining the laboratory of Nobel Laureate Melvin Calvin's laboratory at the University of California, Berkeley, to conduct research on mechanisms of carcinogenesis of polycyclic aromatic hydrocarbons (PAH). Dr. Cavalieri joined the faculty of the Eppley Institute in 1971 and continued research on mechanisms of carcinogenesis of PAH. In recent years, his research has evolved into studying the mechanism of carcinogenesis of natural estrogens. His research interests include the mechanisms of carcinogenesis of PAH and estrogens. This research has led to the discovery of specific estrogen metabolites responsible for the initiation of breast, prostate and other human cancers. He is the author of 200 research articles and 22 review articles. His research has been funded by the National Cancer Institute, Department of Defense Breast Cancer Research Program and Prostate Cancer Research Program.

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.

Cory-Slechta,Deborah

University of Rochester

Dr. Deborah Cory-Slechta received her Ph.D. degree from the University of Minnesota in 1977 and worked as a junior staff fellow of the National Center for Toxicological Research beginning in 1979. She was appointed to the faculty of the University of Rochester Medical School in 1982 was appointed Chair of the Department of Environmental Medicine and Director of the NIEHS Environmental Health Sciences Center at the University of Rochester in 1998. From July 2000-July 2002, she was the Dean for Research and Director of the AAB Institute for Biomedical Sciences, a newly established post at the University and as such, became the first female dean in the history of the Medical School. From 2003-2007 she served as Director of the Environmental and Occupational Health Sciences Institute (UMDNJ/Rutgers) and Chair of the Department of Environmental and Occupational Medicine at the Robert Wood Johnson Medical School (UMDNJ). In 2007, she returned to the Department of Environmental Medicine at the University of Rochester School of Medicine where she serves as Professor. Her research has focused largely on environmental neurotoxicants as risk factors for behavioral disorders and neurodegenerative disease. Currently she has also begun to examine mixtures of neurotoxic chemicals and risk modifiers for effects of neurotoxicants, including factors such as stress and those related to low socioeconomic status as well. These research efforts have resulted in

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over 130 papers and book chapters to date. Dr. Cory-Slechta has served on numerous national research review and advisory panels, including committees 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 several journals including 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. Dr. Cory-Slechta's research addresses the behavioral and central nervous system effects arising from exposures to various metals including lead, mercury and arsenic particularly in combination with stress (NIH, EPA Star).

Crowell,Susan

Pacific Northwest National Laboratory

Over the last ten years, Dr. Crowell engaged in a variety of toxicologically relevant research, including in vitro assays of enzyme activity and expression, metabolism kinetics, and chemical disposition, in vivo studies of pharmacokinetics, mutagenesis, and carcinogenesis, and computational modeling including physiologically based pharmacokinetic (PBPK) modeling. As a graduate student, she studied polycyclic aromatic hydrocarbons (PAH) induced mutagenesis and carcinogenesis in vivo in transgenic fish, as well as the in vitro and in vivo metabolism and disposition, and computational prediction thereof, for conazole pesticides in rodents and humans. As a post-doctoral fellow, and now a staff scientist at Pacific Northwest National Laboratory, she built upon her strong foundation in experimental and computational toxicology through initial PBPK model development and supporting experimentation for PAHs and the tobacco smoke constituent butadiene. Recently, has focused on metabolizing enzymes, including the cytochrome P450 superfamily, as key determinants of chemical disposition and exposure outcomes, with special emphasis on changes in activity during key life stages (e.g. pregnancy and fetal development) as well as subsequent to chemical exposure.

Di Giulio,Richard

Duke University

Dr. Richard T. Di Giulio is Professor of Environmental Toxicology in the Nicholas School of the Environment at Duke University. At Duke, he also serves as Director of the Integrated Toxicology and Environmental Health Program, Director of the Superfund Research Center, and Co-Principal Investigator for the Center for the Environmental Implications of Nanotechnology. Dr. Di Giulio has published extensively on subjects including biochemical and molecular mechanisms of adaptation and toxicity, biomarkers for chemical exposure and toxicity, effects of chemical mixtures and multiple stressors, and chemical contamination of sediments. His current work focuses on mechanisms by which polycyclic aromatic hydrocarbons (PAHs) and nanomaterials perturb embryonic development in fish models (zebrafish and killifish), the evolutionary consequences of hydrocarbon pollution on fish populations, and the ecological and human health impacts of mountaintop coal mining in Appalachia. Additionally, he has organized symposia and workshops, and written on, the broader subject of interconnections between human health and ecological integrity. Dr. Di Giulio's research is supported by the National Institute of Environmental Health Sciences, the National Science Foundation, U.S. EPA, and the Foundation for the Carolinas. Dr. Di Giulio is a member of the Computational Toxicology Committee for the Board of Scientific Counselors, U.S. EPA, is a member of the National Academy of Science Committee on Exposure Assessment in the 21st Century, and is associate editor for Environmental Health Perspectives. Dr. Di Giulio received a B.A. in comparative literature from the University of Texas at Austin, the M.S. in wildlife biology from Louisiana State University and the Ph.D. in environmental toxicology from Virginia Polytechnic Institute and State University. He is an active member of the Society of Environmental Toxicology and Chemistry (SETAC), where he previously served on the Board of Directors, and the Society of Toxicology (SOT).

DiGiovanni,John

The University of Texas at Austin

Dr. John DiGiovanni received his B.S degree in Pharmacy and his Ph.D degree in Pharmacology from the University of Washington, Seattle, Washington. He did his postdoctoral work at the McArdle Laboratory for Cancer Research, University of Wisconsin, Madison, WI in carcinogenesis and cancer biology. After joining the University of Texas MD Anderson Cancer Center in 1983, Dr. DiGiovanni became the Director of the Science Park-Research Division and

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Chair of the Department of Carcinogenesis in 1997 until he joined the University of Texas at Austin in January of 2010. Dr. DiGiovanni is currently Professor in the Division of Pharmacology and Toxicology, College of Pharmacy and in the Department of Nutritional Sciences, School of Human Ecology, College of Natural Sciences at the University of Texas at Austin. He currently holds the Coulter R. Sublett Endowed Chair in Pharmacy. Dr. DiGiovanni is also a full member in the Cancer Development and Progression Research Program of the Cancer Treatment and Research Center at the University of Texas Health Sciences at San Antonio (an NCI Designated Cancer Center). He is also currently serving as a regular member of the Chemo-Dietary Prevention Study Section of the National Institutes of Health. Dr. DiGiovanni has published more than 300 research articles (including peer-reviewed research articles and book chapters). He is currently the Editor-in-Chief for the journal Molecular Carcinogenesis.Dr. DiGiovanni's research program focuses on understanding mechanisms involved in cancer development and progression with the goal of identifying targets and mechanisms for cancer prevention and treatment. He has identified and studied growth factor signaling pathways that are altered in cancer cells that are targets for therapeutic interventions (e.g., Stats 1 and 3, mTORC1 and others). His recent work includes studies on how diet influences cancer development and progression, particularly how dietary energy balance (across the spectrum of calorie restriction to obesity) impacts cancer development as well as understanding the underlying mechanisms. He has also identified several natural phytochemicals that have calorie restriction mimetic effects and that are under study in the laboratory as potential cancer chemopreventive agents.

Emond,Claude

University of Montreal

Dr. Claude Emond is a clinical adjunct professor in the Department of Environmental and Occupational Health at the University of Montreal, Quebec, Canada and associated professor at the University du Québec à Montreal. He received a Ph.D. in Public Health (Toxicology and Human Risk Assessment option) in 2001 from the University of Montreal. From 2001 to 2004, Dr. Emond received grants from the NRC, a branch of the National Academy of Sciences (NAS), to perform postdoctoral studies for 2½ years at the U.S. Environmental Protection Agency (EPA) in North Carolina. At EPA, Dr. Emond's work focused on describing a developmental physiologically based pharmacokinetic (PBPK) model on dioxins. The research conducted by Dr. Emond's team led to recognition from EPA administration and a presentation of EPA's Scientific and Technological Achievement Award to the team. His research and consulting interests address problems in toxicology and focus on different chemicals, including polychlorinated biphenyls (PCBs), dioxins, flame retardants (polybrominated diphenyl ether [PBDE] and hexabromocyclododecane [HBCD]), bisphenol A, pyrethroid, and xenoestrogens. Dr Emond's research interests also focus on the development and the improvement of mathematical PBPK models to address and reduce the uncertainty for toxicology risk assessment in human health. Much of his research activities focus on the toxicokinetic and dynamic effects to further characterize the mode of action between chemicals and biological matrices for individuals or populations. He is also interested in occupational toxicology, mainly on the effects of organic solvents, modeling physiological changes in aging compared to younger workers, and nanotoxicology. Dr. Emond has also offered his expertise and extensive knowledge on various topics by participating as a peer-reviewer for Health Canada, as a reviewer of toxicological risk assessments associated with herbicide spraying operations, and as a consultant on several projects for U.S. universities and for private research institutes. He is President of an Endocrine Disruptor Review Work Group for the French Agency for Food, Environmental, and Occupational Health and Safety (ANSES). Dr. Emond has published many papers and is often invited to present his research at international meetings on persistent organic chemicals and nanotechnology. Taken as a whole, Dr. Emond's work contributes to the improvement of health, safety, and environmental assessment and regulations. Source of funding for Dr. Emond's research include the Institut de Recherche Robert-Sauvé en Santé et en Sécurité du Travail (IRSST) in Quebec, the International Life Sciences Institute, Genberal Dynamics, U.S. Environmental Protection Agency, National Institute of Environemental Helath, and the French agency L'Agence nationale de sécurité sanitaire.

Faustman,Elaine M.

University of Washington

Dr. Elaine M. Faustman is Professor in the Department of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington, where she has received the Outstanding Teaching Award. Dr. Faustman holds an A.B. in Chemistry and Zoology from Hope College and a Ph.D. in Pharmacology/Toxicology from Michigan State University. Her research includes quantitative risk assessment for non-cancer endpoints, molecular mechanisms

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of developmental and reproductive toxicity, and in vitro and molecular biological methodologies. Dr. Faustman's research expertise also includes development of decision-analytic tools for communicating and translating new scientific findings into risk assessment and risk management decisions. She is the principal investigator of the Pacific Northwest National Children's Study Center. She also directs the Pacific Northwest Center for Human Health and Ocean Studies. The goals of Dr. Faustman's research are to discover the mechanisms that define susceptibility in at-risk populations and to provide linkages across disciplines. Through her research, she seeks to train the next generation of scientists. Dr. Faustman is an elected fellow of the American Association for the Advancement of Science and the Society of Risk Analysis. She has served as chair for the National Academy of Sciences Committee on Developmental Toxicology and as a member for the National Institute of Environmental Health Sciences (NIEHS)-National Toxicology Program (NTP) Committee on Alternative Toxicology Methods, the NIEHS-NTP Board of Scientific Counselors, National Academy of Sciences Committee in Toxicology and the Institute of Medicine Upper Reference Levels Subcommittee of the Food and Nutrition Board. Dr. Faustman also served on the executive boards of the Society of Toxicology, the Teratology Society, the Society for Risk Analysis, and NIEHS Council. She has served as Associate Editor of Fundamental and Applied Toxicology and on the editorial boards of Birth Defects Research Journal, Reproductive Toxicology and Toxicology Methods. Dr. Faustman's research is currently supported by the United States Environmental Protection Agency, NIEHS, the National Science Foundation, the National Institute for Child Health and Human Development, the U.S. Department of Health and Human Services, and the U.S. Food and Drug Administration.

Foster,Warren

McMaser University

Dr. Warren Foster is a professor and director, Dept. of Obstetrics and Gynecology, McMaster University. His areas of research include the mechanism of cigarette smoke-induced ovarian follicle loss, novel reproductive tract proteins, toxicant-induced resistance to ANOIKIS is estrogen sensitive target tissues. Dr. Foster has received numerous awards and has served on a variety of scholarly panels including the following: The Canadian Breast Cancer Foundation grant review and panel member; CIHR Clinical Investigation A panel; NICHD Study Section member, Effects of Aspirin on Gestation and Reproduction; National Toxicology Program, Center for the Evaluation of Risk to Human Reproduction, member of Expert Registry; National Cancer Institute of Canada; Canadian Tobacco Control Research Initiative Peer Review Panel member; NICHD, Child Study, Study Section member; and, the US EPA Star program, Grant Review Panel member. He has authored and/or co-authored a number of publicatons and is a member of several professional organizations.

Foster,William Michael

Duke University Medical Center

Dr. W. Michael Foster joined the faculty of School of Medicine at Duke University in Durham, NC in 2000 and is a Research Professor in the Department of Medicine in the Division of Pulmonary, Allergy and Critical Care Medicine. Dr. Foster has a Ph.D. in Physiology from New York University and was a Research Fellow in Pulmonary Medicine at the State University of New York at Stony Brook. He provides on an annual basis lectures to undergraduate students in the Nicholas School of the Environment of Duke University, and mentoring at the post-doctoral level to physician scientists in fellowship training of the Pulmonary Division. In addition to faculty and committee responsibilities as a member of the Department of Medicine, Dr. Foster supervises a Small Animal Model and Human Inhalation Core Facility within the Pulmonary Division. Before coming to Duke University 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 participates as an ad hoc reviewer for the NIH Center for Scientific Review (2005-present) 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 (2009-2012) Dr. Foster is an EPA Science Advisory Board member of the Ozone Review Panel for the Clean Air Scientific Advisory Committee (CASAC), and previously during 2007 and 2008 he served on the committee of the National Research Council of the National Academies that evaluated morbidity and mortality risk from trophospheric 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 joined the editorial board of the Environmental Health Perspectives journal as an Associate Editor in 2010, and is an editorial board member of the American Journal Respiratory Cell and Molecular Biology (2009- present). He is the author or co/author of over 115 journal articles and book chapters that focus on the pulmonary system and/or environmental health. His research

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interests, and in a sense hallmarks of his scientific career and accomplishments, encompass a paradigm that links cardio-pulmonary injury to air pollutant exposure using established data bases of epidemiological investigations and his own laboratory-based studies on humans and animal models. Dr. Foster's laboratory is currently supported through extramural funding sources from the Department of Health and Human Services and includes program project (P01, n=1) and investigator initiated (R01, n=5) type awards for which he is the designated Principal and/or Co-Investigator of the research plans. These awards have term dates ranging from 2012 to 2017; 2 additional awards with fundable priority scores are pending NIH Council approval. Research in his lab encompasses 3 separable areas: 1) environmental triggers of exacerbation for obstructive airway disease; 2) development of therapeutic targets to treat inflammatory airway disease; and 3) host (genetic) factors of susceptibility to oxidant lung injury. The end points of this research enhance understanding of health risk from exposure to airborne toxins, and the interdependence between therapy, health risk, and establishment of regulatory standards for air quality that reduce poor health outcomes following exposure to ambient air pollutants.

Gennings,Chris

Icahn School of Medicine at Mount Sinai

Dr. Chris Gennings is a Professor of Biostatistics, Department of Preventive Medicine, Icahn School of Medicine at Mount Sinai, New York, NY. She received her B.A in mathematics, University of Richmond, Richmond, VA and her Ph.D. in biostatistics from the Medical College of Virginia, Virginia Commonwealth Univeristy. Dr. Gennings brings expertise in the area of protocol review, study design and statistical support; chemical mixtures risk assessment including developing and implementing statistical techniques useful for estimating risk assessment of exposure to combinations of chemicals; designing economical study designs for mixtures of many chemicals; statistical modeling of pesticide mixtures; and integration of mixtures toxicology and statistics. She was the founding Director of a T32 NIEHS training grant entitled "Integration of Mixtures toxicology, Toxicogenomics, and Statistics" which supports 4 pre-doctoral students and one post-doctoral student in the Department of Biostatistics at VCU from 2002-2014. She was also funded by the NIEHS to develop statistical methods associated with evaluating sufficiently similar complex mixtures. She served on the Chronic Hazard Advisory Panel (CHAP) for the U.S. Consumer Product Safety Commission, a committee tasked to conduct a risk assessment of mixtures of phthalates. Part of Dr. Gennings' contribution to this committee focused on the use of biomonitoring data in the hazard assessment of mixtures – an approach she presented to the U.S. EPA Workshop on Risk Assessment of Phthalates in December, 2010. She served the National Academies of Science, National Research Council, Committee on the Health Risks of Phthalates, 2007-08; and currently, on the Committee on Inorganic Arsenic, 2013-2015.

Goeden,Helen

Minnesota Department of Health

Dr. Goeden is a principal toxicologist and human health risk researcher for the Health Risk Assessment Unit at the Minnesota Department of Health (MDH). She received her Ph.D. degree in Environmental Health/Toxicology at the University of Cincinnati and a B.S. in Biological Sciences at the College of St. Scholastica, Minnesota. She is currently the scientific lead for the Drinking Water Contaminants of Emerging Concern program. Responsibilities include: toxicological assessment of a wide range of environmental contaminants (e.g., industrial, agricultural, pharmaceutical, consumer product); development of state-wide health-based criteria for groundwater and drinking water; leadership role in state and federal workgroups regarding the development, improvement, and integration of risk assessment methods and public health policies that are protective of sensitive or more highly exposed populations (e.g., infants and children); and case-by-case health risk assessments or research projects specific to emerging environmental health threats (e.g., perfluorochemicals). Dr. Goeden has served on the Water Quality Association Toxicological Review Committee and currently serves as a member of the NSF International Health Advisory Board and the Federal State Toxicology and Risk Assessment Committee (FSTRAC) planning committee. She has lectured on toxicology and risk assessment at UM Schools of Public Health. She is a member of the Society of Toxicology and was a founding member of the national Dose-Response Specialty section of the Society for Risk Analysis.

Groopman,John

Johns Hopkins Bloomberg School of Public Health

Dr. John Groopman is the Anna M. Baetjer Professor of Environmental Health at the Johns Hopkins Bloomberg School of Public Health and the Associate Director for Cancer Prevention and Control at the Sidney Kimmel Comprehensive Cancer Center in the School of Medicine. He received his Ph.D. degree from the Massachusetts

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Institute of Technology and was also a post-doctoral fellow at MIT. He received further training as a staff fellow at the National Cancer Institute in the Laboratory of Human Carcinogenesis. Prior to coming to Johns Hopkins in 1989, Dr. Groopman was the Associate Dean at the Boston University School of Public Health. Dr. Groopman's main research interests involve the development and application of molecular biomarkers of exposure, dose and effect from environmental carcinogens. The environmental carcinogens studied include agents that are naturally occurring in the diet. A major emphasis of the research has been in the elucidation of the role of aflatoxins, a common contaminate of the food supply, in the induction of liver cancer in high-risk populations living in Asia and Africa. This work has led to the identification of a very strong chemical-viral interaction between aflatoxin and the human hepatitis B virus in the induction of liver cancer. These biomarkers have also been used in many collaborative molecular epidemiology studies of liver cancer risk and recently employed to assess the efficacy of a number of chemopreventive agents in trials in high-risk aflatoxin-hepatitis B virus exposed populations. This research is now being extended to develop genetic biomarkers of p53 mutations in human samples as early detection of disease biomarkers using a novel mass spectroscopy based method for genotyping developed in the laboratory. The most cited research publication from this research was the finding from a prospective cohort of over 18,000 people in Shanghai that established for the first time a viral-chemical interaction essential to the etiology of liver cancer, a leading cause of cancer death in the world. This work has led to the collaborative chemoprevention trials in China. Collectively, Dr. Groopman's expertise involves the biological consequences of exposures to mycotoxins and other environmental contaminates on human health. Thus, the research in our laboratory, resulting in over 250 peer-reviewed publications and chapters, focuses on the translation of mechanistic research to public health based prevention strategies. Dr. Groopman is the Principal Investigator on the National Institute for Environmental Health Sciences (NIEHS) program project grant, P01 ES 006052, Molecular Biomarkers of Environmental Carcinogens, since 1993 and the Director of the NIEHS Center in Urban Environmental Health (P30 ES003819). Dr. Groopman also served as a member of the National Advisory Council for the NIEHS and numerous other committees at the national and international level. Thus, Dr. Groopman has a long-standing record of commitment to interdisciplinary and translational research in oncology and public health. Finally, in recognition of his contributions to cancer prevention efforts, Dr. Groopman was the recipient of the 2010 American Association for Cancer Research – Prevent Cancer Foundation Award for Excellence in Cancer Prevention Research.

Harris,Cynthia M.

Florida A&M University

Dr. Cynthia M. Harris is Director of and Professor in the Institute of Public Health of Florida A&M University. Dr. Harris holds a B.A. 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 Diplomat 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. 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 MPH program. The 1997 Florida State Legislature approved and appropriated funding to support the MPH program and the MPH program received full, maximum accreditation for its initial review (2000-2005). 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 is a Full Member of the Society of Toxicology and 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. 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 Health Resources and Services Administration (HRSA). Dr. Harris' research has been supported by grants

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primarily from the federal government (CDC and HRSA), with additional grant support from state and local governments and foundations.

Hattis,Dale

Clark University

Dr. Dale Hattis is Research Professor with the George Perkins Marsh Institute at Clark University. For the past 37 years he has been engaged in the development and application of methodology to assess the health, ecological, and economic impacts of regulatory actions. His work has focused on approaches to incorporate interindividual variability data and quantitative mechanistic information into risk assessments for both cancer and non-cancer endpoints. Recent research (nearly all funded directly or indirectly by EPA) has explored PBPK-based dosimetry for chlorpyrifos, based on observations of blood levels in pregnant women and their newborn infants, possibilities for the use of new in vitro gene expression and similar measurements as contributors to risk assessments, use of continuous biomarkers such as birth weight and thyroid hormone levels to predict effects on infant mortality and IQ, quantitative analysis of uncertainties for cancer and non-cancer health risks of dioxin, and age-related differences in sensitivity to carcinogenesis and other effects. He is a leader in efforts to replace the current system of uncertainty factors with distributions based on empirical observations. He has been a member of the Environmental Health Committee of the EPA Science Advisory Board, and for several years he served as a member of the Food Quality Protection Act Science Review Board. He has also served as a member of the National Research Council Committee on Estimating the Health-Risk-Reduction Benefits of Proposed Air Pollution Regulations. He has been a councilor and is a Fellow of the Society for Risk Analysis. Recently (12/11) he received the Society's Distinguished Educator award. He holds a Ph.D. in Genetics from Stanford University and a B.A. in biochemistry from the University of California at Berkeley. His research is funded directly or indirectly (e.g. via consulting firms) from EPA.

Hauser,Russ

Harvard University

Dr. Russ Hauser's research focuses on the health risks of exposure to environmental chemicals that alter human development and reproductive function through disruption of endocrine signaling. Dr. Hauser is the Frederick Lee Hisaw Professor of Reproductive Physiology at the Harvard School of Public Health and Professor of Obstetrics, Gynecology and Reproductive Biology at Harvard Medical School. Dr. Hauser, in collaboration with physicians from the Massachusetts General Hospital, Harvard Medical School, is studying the effects of bisphenol A, phthalates, parabens and chlorinated chemicals on male and female reproductive health. He is also conducting a prospective cohort study on children in Chapaevsk, Russia, where he is investigating the relationship of exposure to dioxins and dioxin-like compounds with growth and pubertal development. Dr. Hauser served on the National Research Council, National Academies committee that prepared the report, Phthalates and cumulative risk assessment: The tasks ahead. He served on two committees of the Institute of Medicine, National Academies, on Gulf War and Health and one committee on Veterans and Agent Orange, Update 2010. Dr. Hauser is a member of two U.S. EPA Science Advisory Boards, Exposure and Human Health Committee (EHHC) and the Dioxin Review Panel. He is serving on the U.S. Consumer Product Safety Commission's Chronic Hazard Advisory Panel (CHAP) examining the effects of phthalates on children's health. Dr. Hauser is an Advisory Board member of Environmental Health Perspectives, Journal of the National Institute of Environmental Health Sciences. He is a member of the Environmental Health Sciences Review Committee for the National Institute of Environmental Health Sciences. He was a member of The Endocrine Society's Endocrine Disruptors Task Force. Dr. Hauser has served as the Chair of the Environment and Reproduction Special Interest Group, American Society for Reproductive Medicine. He received an M.D. from Albert Einstein College of Medicine and an M.P.H. and Sc.D. from the Harvard School of Public Health where he completed a residency in occupational medicine. He is board certified in occupational medicine.

Hays,Sean

Summit Toxicology

Dr. Sean Hays is the President and founder of Summit Toxicology, a toxicology and risk assessment consulting firm headquartered in Colorado, and is Assistant Clinical Professor in the Colorado School of Public Health at the University of Colorado Denver and affiliate faculty in the Department of Chemical and Biological Engineering at Colorado State University. Sean received a B.S. in biomedical engineering from Texas A&M University, an M.S. in Physiology from the University of Vermont, an M.S. in chemical engineering from Colorado State University, and a Ph.D. in Toxicology from the University of Utrecht. Sean has over 18 years of experience, where he specializes in

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conducting exposure assessments, deriving acceptable exposure limits (i.e., reference doses and reference concentrations, cancer slope factors, occupational exposure limits, and minimal risk levels), and developing pharmacokinetic (PK), physiologically based pharmacokinetic (PBPK), and pharmacodynamic (PD) models for drugs and chemicals. Dr. Hays is also regarded as a leader in the field of interpreting human biomonitoring data. He has authored and coauthored over 70 peer-reviewed manuscripts and one book chapter in the field of exposure assessment and risk assessment. Sean has previously served as President of the Biological Modeling Specialty Section and is currently serving as the vice-president elect of the Risk Assessment Specialty Section of the Society of Toxicology. He also serves on the Industry Advisory Board for the Colorado State University School of Biomedical Engineering. Dr. Hays is currently serving on the Chemical Assessment Advisory Committee of the Science Advisory Board of the United States Environmental Protection Agency (US EPA) and has previously served on the Clean Air Scientific Advisory Committee on lead for the US EPA. Dr. Hays does not currently receive any research grants.

James,Margaret

University of Florida

Dr. Margaret O. James is Professor and Chair of the Department of Medicinal Chemistry, College of Pharmacy, University of Florida. She received her B.Sc. (honours) in chemistry from University College London in 1969 and her Ph.D. in organic chemistry in 1972 from St. Mary's Hospital Medical School, University of London, under the direction of Professor R.T. Williams. After a post-doctoral fellowship in the pharmacology branch of the National Institute of Environmental Health Sciences (NIEHS), North Carolina, she conducted research at the NIEHS satellite laboratory at the Whitney Marine Research Lab., St. Augustine. She joined the faculty of the Department of Medicinal Chemistry at the University of Florida in 1980. With colleagues in other departments, she helped develop an interdisciplinary toxicology graduate program at the University of Florida. Dr. James' research interests are in the biotransformation pathways involved in the formation or detoxification of chemically reactive metabolites of xenobiotics. She is particularly interested in the bioavailability and biotransformation of environmental pollutants whose toxicity is linked to biotransformation. Her research is funded by NIEHS, the National Cancer Institute (NCI) and NIGMS, and she previously was Principal Investigator of a Superfund Basic Research Program at the University of Florida. Dr. James has served on the Environmental Health Sciences Review panel, National Institute of Environmental Health Sciences (1991-1995), the Toxics Advisory Committee, National Marine Fisheries Service, National Oceanic and Atmospheric Administration (1992 – 1994) and as an ad hoc member of the Xenobiotic and Nutrient Disposition Study Section of the National Institutes of Health (NIH) (2005, 2007). She served as elected secretary of the International Society for the Study of Xenobiotics (2000-2003) and chair of the Pharmaceutical Sciences section of the American Association for the Advancement of Science (2007). She is a member of the editorial boards of Chemico-Biological Interactions, Drug Metabolism and Disposition, and Aquatic Toxicology.

Kim,Nancy K.

Independent Consultant

Dr. Nancy Kim held several positions in the Center for Environmental Health in the New York State Health Department before retiring in April 2009, and continues there part-time post retirement, both as a volunteer and as a consultant, on several priority projects. She is an adjunct associate professor in the Department of Environmental Health Sciences in the School of Public Health at the State University of New York at Albany. Dr. Kim holds a B.A. in Chemistry from the University of Delaware, and an M.S. and Ph.D. in Chemistry from Northwestern University. Her primary professional interest is in chemical risk assessment and exposure assessment. Dr. Kim was Interim Director of the Center that provides environmental epidemiological, toxicological, and risk assessment expertise for environmental health programs; houses regulatory programs that include drinking water supplies, food safety, sanitation/fire safety, and radiation; and evaluates chemical and radiation exposures and recommends interventions. For most of her tenure at the Department of Health she was the Director of the Division of Environmental Health Assessment. Her recent panel memberships include: a) The National Academies, Committee on Assessment of the Health Implications of Exposure to Dioxins, b) The National Academies, Committee on Water System Security Research, c) The National Academies, Committee on the United States Geological Survey's National Water-Quality Assessment Program, and d) U.S. Environmental Protection Agency's Scientific Advisory Board, 2009-2015. Recent past funding came from the Centers for Disease Control (Environmental Public Health Tracking).

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Kissel,John

U. of Washington

Dr. John Kissel is currently Professor of Environmental and Occupational Health Sciences at the University of Washington in Seattle, where he has been a member of the faculty since 1990. He held a prior position in the School of Public and Environmental Affairs at Indiana University. Dr. Kissel holds a Ph.D. in Civil/Environmental Engineering from Stanford University, an S.M. in Environmental Engineering from Harvard University, and a B.S. in Civil Engineering from the University of Notre Dame. He is a registered Professional Engineer. Dr. Kissel's research interests generally involve human exposure assessment, with emphasis on exposures related to waste management, agricultural and residential use of pesticides, and consumer products. He is particularly interested in probabilistic prediction of aggregate exposure and reconciliation of model predictions with observed biomarker data. Dr. Kissel and his students have produced multiple papers describing human exposure to soil that are listed as "key studies" in US EPA's Exposure Factors Handbook and have conducted both in vitro and in vivo investigations of dermal exposures to chemicals. Dr. Kissel is a former President and Councilor of the International Society of Exposure Science and also served one term as chair of the Exposure Assessment Specialty Group within the Society for Risk Analysis. He was a member of a National Academy of Sciences Committee that evaluated Superfund-related remediation of mining and smelting related contamination in the Coeur d'Alene Basin in Idaho and is currently a member of an Institute of Medicine committee examining post-war exposures to dioxin residues in C-123 aircraft that had been used to spray Agent Orange in Vietnam. Dr. Kissel has served as an ad hoc member of US EPA's FIFRA Science Advisory Panel on multiple occasions and is currently a member of EPA's Human Studies Review Board. He was also a reviewer of the WHO environmental health criteria document on Dermal Exposure. His research activities have been funded by US EPA, US DOE, US DOD, NIOSH and the Washington State Departments of Ecology and Health.

Klaunig,James E.

Indiana University

Dr. James E Klaunig is Professor of Environmental Health at Indiana University, Bloomington. He received his BS in biology from Ursinus College, Collegeville PA, and a Ph.D in experimental pathology from the University of Maryland, Baltimore, MD. Previously he spent 20 years on the faculty as Robert Forney Professor and Director of Toxicology at Indiana University School of Medicine. His research has been devoted to understanding the mechanisms and human risk of environmental and pharmaceutical toxicants particularly their role in carcinogenesis. His research is supported by the NIH, DOD and non-federal sources of support. He is active in the Society of Toxicology having served on elected and appointed committees over the past 30 years. He serves as a member of National Academy of Sciences Committee on the Analysis of Cancer Risks in Populations near Nuclear Facilities and a Member of the Board of Directors of Toxicology Forum. He has received several awards for his academic and service work including the Kenneth P. DuBois Award from the Midwest SOT, the George H. Scott Award (Toxicology Forum), the Benjamin Trump Lectureship Award (Aspen Cancer Conference), and member of the Freehold HS Alumni Hall of Fame. From Indiana University, he has also received the Otis R. Bowen, M.D. Distinguished Leadership Award and the Indiana University Board of Trustees' Teaching Award. He received the Sagamore of the Wabash, the highest award given for service to the State of Indiana for his tenure as the State Toxicologist of Indiana . He is a former Associate Editor of Toxicological Sciences and Editor in Chief of Toxicologic Pathology. He is a Fellow in the Academy of Toxicological Sciences. He has published over 210 peer reviewed manuscripts and book chapters and has mentored over 50 MS, Ph.D., and postdoctoral fellows in Toxicology.

Langlois,Peter

Texas Department of State Health Services

Dr. Langlois received a master's in epidemiology from the University of Toronto, and a PhD in community health sciences from the University of Texas School of Public Health. He has worked as the environmental epidemiologist at the City of Toronto Department of Public Health and as an assistant professor at Queen's University in Canada. For the past 19 years, he has worked as the senior epidemiologist for the Birth Defects Epidemiology and Surveillance Branch, and is a co-principal investigator of the Texas Center for Birth Defects Research and Prevention. This Center is one of nine in the US that participate in the National Birth Defects Prevention Study (NBDPS), one of the largest studies of birth defects causes conducted to date. His research interests include environmental and occupational causes of birth defects. He has been lead- or co-author on over 75 articles. Several of those examined the association of maternal residential proximity to hazardous waste sites or Toxic Release Inventory sites with a variety of birth defects.

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Four others dealt with the association of different birth defects with occupational exposure to polycyclic aromatic hydrocarbons. For many years, he has served on various committees of the NBDPS including the Coordinating Council and the Data Sharing Committee. For the US EPA, he has reviewed a draft report on children's health and the environment, and has served on a promotion review panel. Otherwise he has little experience serving on advisory committees.

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 170 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 has served for several years as an Associate Editor for The Journal of Pharmacology and Experimental Therapeutics, Toxicology and Applied Pharmacology, and Pharmacology and Therapeutics, 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, and 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).

Levin,Edward

Duke University

Dr. Edward D. Levin is a Professor of Psychiatry and Behavioral Sciences at Duke University Medical Center. He has secondary appointments in the Department of Pharmacology and Cancer Biology, the Department of Psychology and Neuroscience and the Nicholas School of the Environment at Duke University. He directs the Neural and Behavioral Assessment and Training Cores of the Duke University Superfund Basic Research Program and is former Director of the Duke Integrated Toxicology Program. Dr. Levin earned his Ph.D. in Environmental Toxicology in 1984 at the University of Wisconsin. He was an NIH-sponsored Post-doctoral fellow in Psychopharmacology at the Psychology Department at University of California at Los Angeles and was a visiting scientist at Uppsala University in Sweden. Since 1989 he has conducted research and taught at Duke University. Dr. Levin's research interests concern the neurobehavioral pharmacology and toxicology. He investigates the neurobehavioral bases of addiction and cognitive function with a focus on the roles nicotinic receptor systems in drug abuse, cognitive function and developmental neurobehavioral toxicology in rats, mice and zebrafish. He has published 345 articles and chapters, edited four books and has been granted seven patents from 35 years of research. He is particularly concerned with addiction and toxicant and therapeutic drug effects on neurobehavioral function including learning, memory, attention, emotional function and sensorimotor modulation. His research is directed not only at determining the functional nature and persistence of impairment, but also the mechanisms of dysfunction and the therapeutic treatments to counteract the damage. He has served as president of Neurobehavioral Teratology Society as well as the Behavioral Toxicology Society. He is co-director of the Duke Center on Addiction and Behavior Change. He was recently elected president of the International Neurotoxicology Society.

Li,Abby A.

Exponent Incorporated

Dr. Abby A. Li is a Senior Managing Scientist in the Health Science Practice of Exponent Inc., an international scientific consulting firm. She holds a B.A. in Chemistry and a Ph.D. in Pharmacology and Physiology from the University of Chicago. Dr. Li's research interests include evaluating the neurotoxic potential of industrial and agricultural chemicals and applying quantitative risk assessment approaches to neurotoxicity endpoints. Her research has been funded by government grants and industry, most recently by the United Kingdom Department of Environment, Food and Rural Affairs (UK DEFRA). Dr. Li has served on international and national panels for workshops on integration of in vivo and in vitro screening methods and development of databases for prioritizing chemicals for further testing and regulatory decision-making. Prior to joining Exponent Inc., Dr. Li was Senior Science Fellow at Monsanto, providing expertise in toxicology/risk assessment. She led the neurotoxicology group at Monsanto's Environmental Health Laboratory where she conducted pharmacokinetic, toxicology and neurotoxicology studies for industrial chemicals, agricultural products, and pharmaceuticals. These studies included guideline, specialized mechanistic studies, as well as human and in vitro studies. Dr. Li served on the National Academy of Science's National Research Council Committee on Toxicity Testing and Assessment of Environmental Agents in the 21st century, the EPA's Science Advisory Board (SAB) Environmental Health Committee, and the EPA's SAB Risk and Technology Review Committee evaluating effects of industrial emissions of hazardous air pollutants on public health and the environment. She served on panels sponsored by the National Academies of Science and the State of California Environmental Protection Agency's Office of Environmental Health Hazard Assessment on application of computational toxicology and development of toxic information clearinghouse for green chemistry initiatives. She has been a member of several International Life Science Institute Committees on adult and developmental neurotoxicity testing (DNT), and toxicity testing strategies for pesticides. Dr. Li served on the U.S. expert teams to the Organization for Economic Cooperation and Development (OECD) for the development of international test guidelines for adult and developmental neurotoxicity testing. She has been a member of the Scientific Planning Committee for the Society of Toxicology, the International Neurotoxicology Association, and several international conferences on alternative (in vitro and non-mammalian) screening approaches for DNT.

Lichtveld,Maureen

Tulane University

Maureen Lichtveld, M.D., M.P.H has an over 30 year career in environmental public health and currently is Professor and Chair of the Department of Global Environmental Health Sciences, Tulane School of Public Health and Tropical Medicine. Her research interests include environmentally-induced disease such as asthma and cancer, health disparities, environmental health policy, disaster preparedness, and public health systems. She holds an endowed chair in environmental policy and serves as Associate Director, Population Sciences of the Louisiana Cancer Research Consortium. Dr. Lichtveld has a track record as an expert in community-based participatory research with a special emphasis on persistent environmental health threats affecting health disparate communities living in disaster prone areas. Prior to joining Tulane University, Dr. Lichtveld completed a successful 18 year career at the Centers for Disease Control and Prevention (CDC)'s Agency for Toxic Substances and Disease Registry (ATSDR) in several leadership capacities. She worked closely with the US EPA to conduct health assessments and studies in communities living near hazardous waste sites nation-wide. She also provided leadership in establishing the Environmental Justice and minority environmental health research programs while at CDC/ATSDR and was honored as CDC's Environmental Health Scientist of the Year. Dr. Lichtveld is a member and former Chair of the Science Board of the American Public Health Association, and current Chair of the Environmental and Occupational Health Council of the Association of Schools of Public Health, and Chair of the National Public Health Leadership Society. She serves as an expert consultant to the Institute of Medicine and on numerous editorial boards of globally recognized peer reviewed journals including the American Journal of Public Health, public health's most prestigious journal. Dr. Lichtveld is the Principal Investigator (PI) of three research consortia funded by the National Institutes of Health: the Head Off Environmental Asthma in Louisiana (HEAL) study, examined the relationship between exposure to Post-Katrina mold and exacerbation of Childhood asthma. She is the Co-PI of the Gulf Coast Trans disciplinary Research Center for Community Health, a multi-institutional collaborative center engaged in health disparities, disaster, and environmental health research. She is also PI of the Transdisciplinary Research Consortium for Gulf Resilience On Women's Health (GROWH), a research partnership between academia and community organizations formed to strengthen the health security and resilience of vulnerable pregnant women and women of reproductive age potentially affected by the Deep Water Horizon oil spill and at risk of future disasters. Dr. Lichtveld was recently awarded two Gulf Coast-wide

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projects to strengthen environmental health capacity and literacy. Key aspects of the programs include establishing an environmental medicine referral network, deploying a cadre of trained community health workers, and creating an emerging scholars program in environmental health science targeting upper level high school students and their teachers. Her recent sources of grants include NIH, the National Institute of Environmental Health Sciences, the National Institute on Minority Health and Health Disparities, CDC, and the Baton Rouge Area Foundation.

Marsit,Carmen

Dartmouth College

Dr. Carmen J. Marsit is Associate Professor in the Department of Pharmacology and Toxicology and Associate Professor in the Section of Epidemiology in the Department of Community and Family Medicine at the Geisel School of Medicine at Dartmouth. He received a B.S. in biochemistry, summa cum laude, from Lafayette College (Easton, PA) and a Ph.D. in the Biological Sciences in Public Health from Harvard University. After two and a half years of postdoctoral training in environmental molecular epidemiology at the Harvard School of Public Health, he joined the faculty of Brown University in the Department of Pathology and Laboratory Medicine, as an Assistant Professor. Dr. Marsit re-located to Dartmouth and was promoted to Associate Professor in 2011. His research program focuses on the impact of the environmental on human health, focusing on human cancer as well as children's health. Dr. Marsit's work is in human populations where he examines novel genomic and epigenomic biomarkers and their relationship with environmental exposures and health outcomes. Dr. Marsit serves as the co-Director of the Program in Cancer Epidemiology at the Norris Cotton Comprehensive Cancer Center at Dartmouth. He has served on a number of Study Review Groups for the National Institutes of Health as well as the Flight Attendants Medical Research Institute, and has or currently serves on the editorial boards of Environmental Toxicology, Frontiers in Toxicogenomics, and PLoS One. In 2011, Dr. Marsit received the National Institute of Mental Health, Biobehavioral Research Award for Innovative New Scientists. He has published over 140 peer reviewed manuscripts and maintains an active and well funded laboratory with support from the NIH National Institute of Mental Health, National Institute of Environmental Health Sciences, and the EPA.

McDonald,Jacob

Lovelace Respiratory Research Institute

Dr. McDonald currently is Scientist and Director of the Chemistry and Inhalation Exposure Program (CIEP). The CIEP program oversees key functional areas of chemistry (analytical/bioanalytical), pharmacokinetics, metabolism, and inhalation toxicology at LRRI. He trained in the environmental chemistry and toxicology field. Dr. McDonald collaborates with biotechnology and pharmaceutical researchers to develop products through proof of concept and to market. This includes characterization of dosimetry in animals and humans, assessment of pharmacokinetics and pharmacodynamics in animal models, and intervention studies in animal models of disease and injury. Dr. Jacob McDonald, PhD, received a BS in biology/environmental chemistry from the University of LaVerne (CA) in 1996 and a PhD in environmental chemistry and toxicology from the University of Nevada in 2000. Dr. McDonald has 10 years of as a study director and program manager. Dr. McDonald joined LBERI in 2000 and currently is Senior Scientist and Director of the Chemistry and Inhalation Exposure Program (CIEP). He is also Associate Director of Translational Science. The CIEP program oversees key functional areas of chemistry (analytical/bioanalytical), PK, and metabolism at LBERI. Also, Dr. McDonald has beensuccessfully managing it since 2004.Dr. McDonald is trained in both the analytical chemistry and toxicology fields, where his graduate work focused on developing and implementing analytical methods in gas chromatography (GC), high performance liquid chromatography (HPLC), and mass spectrometry (MS) (including structural elucidation). After he came to LBERI, he expanded his hands-on experience with training in LC-MS and a wide range of additional instrumentation that advanced his knowledge and skills in analytical and bioanalytical chemistry. Dr. McDonald also trained as a study director in toxicology, pharmacology, and PK. Dr. McDonald is Principal Investigator of the NIH National Toxicology Program(NTP) Contract on the Absorption, Distribution, Metabolism and Excretion (ADME) at LBERI. LBERI has supported the NTP through this contract since 2002, and has received excellent reviews for its support of PK and metabolism. Dr. McDonald has over 120 publications, 150 published abstracts and many presentations at technical meetings. Several of these include pharmacokinetic and analytical/bioanalytical methods for studies applied to pharmacology programs.

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McIntyre,Barry

NIEHS

Dr. Barry McIntyre is Senior Toxicologist, and Developmental and Reproductive Toxicology Group Leader in the Division of the National Toxicology Program (NTP) at the National Institute of Environmental Health Sciences. He received a BS in Biochemistry and Toxicology from Eastern Michigan University (Ypsilanti, MI) and earned a PhD from Washington State University in Pharmacology and Toxicology (Pullman, WA). After 3 years of post-doctoral research on the effects of endocrine active compounds on reproductive organ development at the Chemical Industry Institute of Toxicology (now the Hamner Institute for Health Sciences), he joined the Schering-Plough Research Institute (now Merck Research Laboratories) as a Reproductive Toxicologist in 2001. Here he identified and characterized potential reproductive and developmental toxicities of novel therapeutics to support drug development and registration of new pharmaceutical entities. Dr. McIntyre also represented Drug Safety on development teams, contributed to regulatory submissions, and addressed Health Authority questions regarding reproductive, developmental and pediatric issues. He left the pharmaceutical industry in 2010 as the US-Head of Reproductive Toxicology at Schering Plough to join the NTP. He is also a Diplomate of the American Board of Toxicology. Dr. McIntyre currently serves on the Society of Toxicology (SOT) Program Committee. He has served as a Panel Expert for the EPA workshop on Cumulative Risk Assessments of Phthalates, US Navy Provisional Submarine Atmosphere Limits for Mixed Gender Crews, NTP/NIEHS CERHR Review of Bisphenol A, and the NTP/NIEHS Special Emphasis Panel -Reproduction and Developmental Criteria Working Group. Dr. McIntyre served in the Presidential Chain of the Reproductive and Developmental Toxicology Specialty Section (SOT) and is a former Councilor of Middle Atlantic Reproduction and Teratology Association. Dr. McIntyre serves on the Editorial Board of Birth Defects Research Part B: Reproductive and Developmental Toxicology, and is a former Adjunct Associate Professor of Toxicology, University of Louisiana at Monroe.

Melnick,Ronald

Ron Melnick Consulting, LLC

Dr. Melnick is a Senior Toxicologist and Director of Special Programs in the Environmental Toxicology Program at the National Institute of Environmental Health Sciences (NIEHS), National Institutes of Health in Research Triangle Park, North Carolina. Prior to this position he was Group Leader of the Toxicokinetic and Biochemical Modeling Group in the Laboratory of Computational Biology and Risk Analysis at NIEHS. Dr. Melnick obtained his B.S. degree from Rutgers University and his Ph.D in food science/biochemistry from the University of Massachusetts at Amherst. He was a postdoctoral research fellow in the Department of Physiology-Anatomy at the University of California in Berkeley and then an assistant professor of life sciences at the Polytechnic Institute of New York. At NIEHS he has been involved in the design, monitoring and interpretation of NTP toxicity and carcinogenesis studies, as well as mechanistic studies to characterize the behavior of environmental carcinogens. He spent one year as an agency representative to the White House Office of Science and Technology Policy to work on interagency assessments of health risks of environmental agents and on risk assessment research needs in the Federal government. Dr. Melnick has organized several national and international symposiums and workshops on health risks associated with exposure to environmental and occupational toxicants. He has also served on numerous scientific review and advisory panels. Dr. Melnick has served on several committees at NIEHS, including Chair of the Toxicokinetic Faculty and member of the NIEHS review group for the NTP Report on Carcinogens. Dr. Melnick is a Fellow of the Collegium Ramazzini and is cited in Who's Who in America. As a federal employee, he does not receive any grant or contract support.

Moore,Martha

Environ

Dr. Martha Moore has more than 36 years of experience in toxicology with a focus on the ability of chemicals to cause genetic damage and the application of scientific data for regulatory decision making. She is an internationally recognized expert in the use of genetic toxicology data in both chemical hazard identification and mode-of-action, particularly as they relate to cancer risk assessment. She has 23 years of experience with the Environmental Protection Agency (EPA), Research Triangle Park, NC and 13 years as the Director of the Division of Genetic and Molecular Toxicology, National Center for Toxicological Research (NCTR), Food and Drug Administration (FDA), Jefferson, Arkansas. At FDA, she was credentialed as a member of the Senior Biomedical Research Service, an award reserved for only a few FDA scientists. Dr. Moore has served on numerous EPA, FDA and other governmental agency and nongovernmental advisory groups and committees, both national and international. She is an author/contributor to both

EPA and FDA test guidelines. She is currently a United States representative and member of the Organization of Economic Cooperation and Development (OECD) Expert Workgroup revising the genetic toxicology test guidelines. A published author in the areas of genetic toxicology, the characterization and use of the mouse lymphoma gene mutation assay, the use of genetic biomarkers in human studies, the use of genetic toxicology information in regulatory decision making, and the use of genetic toxicology information in mode-of-action assessments for cancer, Dr. Moore has more than 130 journal articles and book chapters. She has in-depth research experience and publications for several chemicals including ethylene oxide, trichloroethylene, benzo(a)pyrene, arsenic, acrylamide, acrylates and methacrylates. She has been a member of expert peer review workgroups for several EPA/NCEA documents including IRIS documents: (1) EPA/NCEA Strategy Document for the Use of Biomarkers to Assess Adverse Health Outcomes from Disinfection By-Products in Drinking Water, (2) EPA/NCEA/IRIS Document for Trichloroacetic Acid, (3) EPA/NCEA/IRIS Document for Dichloromethane, and (4) EPA/NCEA Strategy Document for the use of Transgenic Cancer Models for the Risk Assessment of Disinfection By-Products of Drinking Water. Her many awards include (1) an EPA Science and Technology achievement award for one of the state-of-the-science chapters written for the EPA/NCEA risk assessment of trichloroethylene, and (2) Society for Toxicology Risk Assessment Specialty Section best abstracts and best publications advancing the field of risk assessment (3) and the Genetic Toxicology Association 2011 Excellence in Science Award.

Moorthy,Bhagavatula

Baylor College of Medicine

Dr. Bhagavatula Moorthy is Professor of Pediatrics at Baylor College of Medicine, Houston, TX. He is also the director of the Neonatology Research Program at Baylor. He has B.S. in Biology from the Madras University, India, a M.S in Biochemistry from the Andhra University, India, and a Ph.D. in Bio-Organic Chemistry from the Indian Institute of Science, India. Prior to joining Pediatrics, he was a faculty member in the department of Pharmacology at Baylor where he worked on characterizing DNA adducts from benzo[a]pyrene (BaP) and other polycyclic aromatic hydrocarbons (PAHs) in vivo in animal models and also their role in carcinogenesis. He applied the highly sensitive 32P-postlabeling technique to study PAH-DNA adducts, which are important benchmarks for human risk assessment. His current research focuses on molecular mechanisms of carcinogenesis mediated by PAHs including BaP. He has published numerous peer-reviewed articles in the metabolism of PAHs in relation to carcinogenesis, and has multiple RO1 grants on the regulation of cytochrome P4501A enzymes by PAHs and hyperoxia. He has reviewed numerous papers in the area of PAH metabolism, and has served on numerous NIH panels that review grants related to PAHs. He has been reviewing NIEHS superfund grants for many years, and they routinely discuss risk assessment and research related to environmental toxicology. He is member of many professional societies including the Society of Toxicology, American Association for Cancer Research, Society for Pediatric Research, and American Society for Pharmacology and Experimental Therapeutics. He was President, Gulf Coast Regional Chapter of SOT, and he is now Vice-President elect of the Molecular Biology Specialty Section of the SOT. He has served on many Editorial Boards of Journals, including Environmental Health Perspectives; Toxicology Letters, Journal of Chromatography, and Journal of Carcinogenesis and mutagenesis. He is recipient of the AstraZeneca Travel lectureship award of the SOT.

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 served as 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. Prior to that, she was in the faculty of the School of Public Health at the University of Texas in Houston. Dr. Morandi's current research focus is 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, which have been applied by she and others to assess adults' and children's exposures in large population studies, including residents of disadvantaged communities. She has over fifty peer-reviewed publications on these methods and other exposure-related subjects. Dr. Morandi is a member of the Committee on Acute Exposure Guideline Levels of the Board on Environmental Studies and Toxicology of the

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National Research Council, National Academies of Science. She has served in multiple national-level committees and review panels, including EPA's Clean Air Scientific Advisory Committee Ozone and Lead Review Panels, and the Integrated Human Exposure/Health Effects Committee and the Research Strategies Advisory Committee of the EPA Science Advisory Board. Dr. Morandi also served in 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, where she still serves as ad-hoc consultant.

Nong, Andy

Health Canada

Dr. Andy Nong is a Research Scientist and leads the Computational Toxicology Laboratory at the Environmental Health Sciences and Research Bureau at Health Canada. He received his doctorate in Public Health from University of Montreal in 2006 and was a postdoctoral fellow and research investigator at The Hamner Institutes for Health Sciences from 2006-2009. Known for his expertise in Toxicology and Pharmacology, Dr Nong work's has been recognised in particular for pharmacokinetics and biological modeling approaches in risk assessment. As the leading computational toxicologist at Health Canada, his research program explores the use of biological computer models to simulate and interpret the fate and effects of chemical exposure. The approaches range from physiologically-based pharmacokinetic models, benchmark dosing, quantitative structure analysis relationship, or even system biology models. This research effort has led at deriving drinking water dose estimates for a series of volatile organic chemicals (including benzo[a]pyrene), predicting chemical mixture interactions, interpreting Canadian health survey measures with Biomonitoring Equivalents and reverse dosimetry methods, and investigating models for in vitro to in vivo extrapolation of toxicity screening approaches for human equivalent chemical exposures. It also have led in developing toxicokinetics tools to assess exposure of a variety chemicals such as inorganic and essential metals, pesticides, semi-volatile organic chemicals, bisphenol A, perfluorinated chemicals, phthalates and polybrominated esters. In addition to work at the Canadian government, Dr. Nong international involvements include partnering with the US EPA NCCT and ToxCastTM program, providing technical support for documents on PBPK modeling in risk assessment for the US EPA and WHO/IPCS, and being part of the expert panel for Genome Canada's Bioinformatics and Computational Biology roadmap. Dr. Nong is author/co-author of several publications including peer-reviewed articles and book chapters, and was on the Board of Editors of the Journal of Applied Toxicology.

Pennell, Michael

Ohio State University

Dr. Michael L. Pennell is an Associate Professor in the Division of Biostatistics in the College of Public Health at the Ohio State University. Dr. Pennell received his Ph.D. in Biostatistics in 2006 from the University of North Carolina at Chapel Hill where he was funded by a training grant in Environmental Biostatistics from the National Institute of Environmental Health Sciences. The primary focus of Dr. Pennell's graduate research was on the statistical analysis of environmental health data. In his Masters thesis, he performed a multivariate analysis of water quality data from the town of Chapel Hill in order to identify dates and locations with outlier concentrations of fecal coliform bacteria and total suspended solids. In his dissertation research, Dr. Pennell developed a Bayesian semiparametric method for analyzing data from studies of palpable tumors and a Bayesian nonparametric method for determining the Lowest Observed Adverse Effects Level (LOAEL) in a dose-response study; both papers were published in the journal Biometrics. At Ohio State, Dr. Pennell has remained engaged in environmental health in both his research and teaching. Since arriving at OSU, he has been a co-Investigator on a grant entitled "Threshold regression methodology for cancer risk assessment." Threshold regression is an alternative to the commonly used Cox proportional hazards model for survival data which models a subject's health using a latent stochastic process that fails once it hits a threshold value. Not only is it a biologically plausible model for modeling time to cancer-related death, but it also allows exposure effects to vary with time and can accommodate different exposure durations across subjects. Currently, Dr. Pennell is working on threshold regression models motivated by data from two year carcinogenicity studies performed by the National Toxicology Program and by data on diesel exhaust exposure of railroad workers. Dr. Pennell is also extending his dissertation research to develop a nonparametric Bayesian method for estimating the benchmark dose from quantal response data. The past three years, Dr. Pennell has provided guest lectures on dose response modeling in the environmental risk assessment course offered by the College of Public Health. He has also

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developed a course entitled "Statistical Methods in Toxicological Risk Assessment," which he hopes to teach in the near future.

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 University of Alabama in Birmingham, Montefiore Hospital in New York and Northwestern University. 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 endocrine effects of organochlorines. Currently, she is Principal Investigator and Co-Investigator of grants examining the effects of community-based interventions on morbidity from asthma and associations of PCBs, Dioxins and PBDEs with hormonal levels in consumers of Great Lakes fish. She is a past member of the National Institutes of Health (NIH) Infectious, Reproductive, Asthma and Pulmonary Conditions (IRAP) epidemiology study section and the Chicago Asthma Consortium Advisory Board and is a current member of the Board of Mobile C.A.R.E Foundation, the Cook County Lead Prevention Advisory Council and the Environmental Justice Journal Editorial Board. She is a member of the EPA Science Advisory Board reviewing the Draft Report "EPA's Reanalysis of Key Issues Related to Dioxin Toxicity and Response to NAS Comments"

Philbert, Martin

University of Michigan

Dr. Martin Philbert is Professor of Toxicology and Dean of the University of Michigan School of Public Health. He earned his Bachelor of Science degree from the College of Arts and Technology at Cambridge, and his doctorate from the London University Royal Postgraduate Medical School. He was awarded a postdoctoral fellowship in the Neurotoxicology Laboratories at Rutgers University. Dr. Philbert served as a research assistant professor at Rutgers' Neurotoxicology Laboratories until 1995 when he joined the faculty at the University of Michigan School of Public Health as an assistant professor of toxicology. He was promoted to associate professor in 2000 and to professor in 2004. He served as associate chair for research and development in the Department of Environmental Health Sciences from 2000-03. In 2004, Dr. Philbert was appointed senior associate dean for research of the School of Public Health, a position he held through 2010 when he was appointed as Dean. He also served as interim director of the Center for Risk Science and Communication from 2004-10. He has maintained a continuously federally funded portfolio of basic research activities throughout his career. His research focuses on the development of flexible polymer nanoplatforms for optical sensing of ions and small molecules and the early detection and treatment of brain tumors (funded by the National Institutes of Health and National Cancer Institute). Other research interests include the mitochondrial mechanisms of chemically-induced neuropathic states and the modulation of immune-gastrointestinal function by nanosilver (both projects funded by the National Institutes of Health). Dr. Philbert served as the Vice-Chair of the National Academies National Research Council (NCR) Committee for the Review of the Federal Strategy to Address Environmental, Health, and Safety Research Needs for Engineered Nanoscale Materials, and Chaired the U.S. Food and Drug Administration (USFDA) Science Board Committee on Bisphenol A. Dr. Philbert served on the National Advisory Environmental Health Council of the National Institute of Environmental Health Sciences and provides consultation to federal agencies on a variety of issues surrounding emerging nanotechnologies. He is a Standing Member of the US Food and Drug Administration Science Advisory Board and the past chair of the U.S. Environmental Protection Agency (U.S. EPA) Board of Scientific Counselors.

Phillips, Tracie

Texas Commission on Environmental Quality

Dr. Tracie Phillips received a bachelor's degree in Bioenvironmental Sciences with a minor in Environmental Soil Science in May 2001, and her Ph.D. in Toxicology in December 2006 from Texas A&M University. Her dissertation, entitled Genotoxicity of Complex Chemical Mixtures, focused on investigating the genotoxic and carcinogenic interactions of complex polycyclic aromatic hydrocarbon (PAH) mixtures. As a Senior Toxicologist for the Texas Commission on Environmental Quality, Dr. Phillips employs her toxicology background from a regulatory perspective. She develops Effects Screening Levels (ESLs), Reference Values (ReVs), and Unit Risk Factors (URFs) for ambient air in accordance with sound scientific principles and agency guidance. She also helps develop media-

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specific (soil, sediment, groundwater, etc.) cleanup levels and determine the adequacy of data collected for use in risk assessments. Dr. Phillips conducts advanced toxicological evaluations to determine potential health risks associated with exposure to environmental contaminants, including health effects reviews of ambient air monitoring data and risk assessments for site remediation. She communicates her findings with the public, industry representatives, advocacy groups, agency staff, representatives of governmental agencies, and the academic community and participates in public meetings. She coordinates in-house and external projects funded by the TCEQ. Dr. Phillips represents the TCEQ Toxicology Division on the TCEQ Surface Water Quality Standards Rule Team, the USEPA Office of Solid Waste and Emergency Response (OSWER) Human Health Regional Risk Assessor (HHRA) Forum's State Coordination Work Group, the Texas Toxic Substances Coordination Committee (TSCC) and the Human Health Workgroup (HHW) Subcommittee of the TSCC, and the Texas Environmental Health Institute (TEHI). She is a current member of the Society of Toxicology, the Gulf Coast Chapter of the Society of Toxicology, and the SOT Risk Assessment and Inhalation and Respiratory Specialty Sections.

Plunkett,Laura

Integrative Biostrategies, LLC

Dr. Laura Plunkett is a pharmacologist, toxicologist, regulatory specialist and principal of a consulting company known as Integrative Biostrategies, LLC. Integrative Biostrategies, based in Houston, Texas, is a consulting firm that works at the interface of biological science, regulatory affairs and business decisions to provide its clients with science-based solutions to issues associated with product development and stewardship. She holds a B.S. in Pharmacology from the University of Georgia, and a Ph.D. in Pharmacology from the University of Georgia. Dr. Plunkett is board-certified as a Diplomate of the American Board of Toxicology, and a member of several professional organizations. She has authored or co-authored numerous scientific publications, has over twenty years of experience in the areas of pharmacology and toxicology, and has worked in both government and academic research. Dr. Plunkett taught pharmacology and toxicology at the undergraduate and postgraduate levels. From June 1984 through August 1986, she was a Pharmacology Research Associate Training (PRAT) fellow at the National Institute of General Medical Sciences, Bethesda, Maryland, and worked in a neurosciences laboratory of the National Institute of Mental Health. From September 1986 to June 1989, Dr. Plunkett was an Assistant Professor of Pharmacology and Toxicology in the medical school at the University of Arkansas for Medical Sciences, where she performed basic research in the areas of neuropharmacology and toxicology as well as cardiovascular pharmacology and toxicology. She taught courses for both medical students and graduate students in pharmacology and toxicology as well as the neurosciences. After moving from Arkansas to Washington, D.C., Dr. Plunkett worked for ENVIRON Corporation from 1989 through 1997, first in the Arlington, Virginia office and then in the Houston, Texas office. During her consulting career, Dr. Plunkett has worked on a variety of projects dealing with the toxicology and human health risk assessment of chemicals and products regulated by agencies such as the U.S. Environmental Protection Agency, the Consumer Products Safety Commission, the Occupational Safety and Health Administration, the U.S. Food and Drug Administration, and the U.S. Department of Agriculture. She has expertise in pharmacokinetics and toxicokinetics. A tool common to all of Dr. Plunkett's work as a consultant has been risk assessment. During her academic research career, she received funding from the American Heart Association and the National Institutes of Health. During her consulting career, Dr. Plunkett's work has been supported by contractual sources of funding, including the American Chemistry Council, industrial clients who manufacture pesticides and chemicals, and a variety of other companies such a food companies, pharmaceutical companies, and medical device companies.

Poirier,Miriam

National Institutes of Health

Dr. Miriam C. Poirier, Head of the Carcinogen-DNA Interactions Section (LCBG, CCR, NCI, NIH), is an internationally-recognized leader in the field of human DNA adduct biomonitoring and its application in molecular cancer epidemiology. With a background in chemical carcinogenesis, she pioneered the development of antisera elicited against carcinogen- modified DNA, and the application of these methods to develop the first assays for measurement of polycyclic aromatic hydrocarbon (PAH)-DNA adducts in human tissues. Her subsequent research, much of which has been PAH-related, has been focused on elucidating the extent, persistence and biological consequences of DNA adduct formation, with the intention of applying the knowledge gained to elucidate mechanisms of cancer causation and approaches to cancer prevention in humans. Dr. Poirier's studies have demonstrated that PAH exposures result in formation of PAH-DNA adducts in many human tissue types, with concentration in epithelial cells. There is a broad inter-individual range (10- to 20-fold) for levels of PAH-DNA adducts in a single tissue from

individuals of a cohort, and levels of PAH-DNA adducts are reduced when the source of exposure is removed. In an attempt to validate human PAH-DNA adduct formation as a biomarker for human cancer risk, she demonstrated a direct link between PAH-DNA adduct formation and colorectal adenoma incidence, where the highest levels of leukocyte PAH-DNA adduct levels were associated with the highest colon adenoma risk. Dr. Poirier is first or co-author of >250 publications and >390 abstracts for meeting presentations. She has served on the editorial boards of Carcinogenesis, Cancer Letters, Mutagenesis and Mutation Research. She has served on the Council of the Environmental Mutagen and Genomics Society (EMGS, previously EMS) and she is Chair of the EMGS Molecular Epidemiology Special Interest Group. She is current President of the Society of Toxicology Carcinogenesis Specialty Section. Her advisory activities include multiple US Government agencies and the International Agency for Research on Cancer.

Portier,Kenneth M.

American Cancer Society, National Home Office

Dr. Kenneth M. Portier is Managing Director of the Statistics & Evaluation Center at the American Cancer Society (ACS) home office in Atlanta, GA, and is Affiliate Professor of Biostatistics in the School of Public Health, Emory University. A native of south Louisiana, Dr. Portier holds a B.S. in Mathematics from Nicholls State University in Thibodaux, Louisiana (1973), and an M.S. in Statistics (1975) and Ph.D. in Biostatistics (1979) from the University of North Carolina, Chapel Hill. With ACS since early 2006, he provides general statistical support on design and analysis of cross-sectional and longitudinal sample surveys, program evaluation and cancer modeling. Prior to ACS Dr. Portier spent 27 years as a statistical consultant to researchers in agriculture, natural resources and the environment and as a teacher of applied statistics at the graduate level at the University of Florida. He has coauthored over 150 publications in many of the premier journals in agriculture, natural resources and environmental sciences. Dr. Portier has received national recognition for his teaching and twice participated in U.S. Department of Agriculture (USDA)-funded teaching grants, one on new methods for teaching natural resources sampling and the other to develop a study abroad course in natural resources assessment with the Czech Republic. His collaborations with other researchers at UF resulted in 36 funded research grants from numerous agencies and private companies, with core research support being from the federal government (National Science Foundation (NSF), USDA, U.S. National Oceanic and Atmospheric Administration (NOAA), U.S. Environmental Protection Agency (EPA), and the U.S. Department of the Interior). Dr. Portier continues to collaborate with UF's Center for Environmental and Human Toxicology on statistical questions that arise in environmental sampling and risk assessments. He is currently chair of EPA's Federal Insecticide, Fungicide, and Rodenticide Act Science Advisory Panel (FIFRA-SAP) and has participated in over 60 FIFRA-SAP meetings over the last 12 years. Dr. Portier has served on expert and advisory panels for the National Institutes of Health (NIH) National Institute of Environmental Health Sciences (NIEHS), the National Toxicology Program (NTP), and the World Health Organization Food and Agriculture Organization (WHO/FAO). His research interests are wide, including the application of new statistical methodologies to cancer research and environmental health.

Ramesh,Aramandla

Meharry Medical College

Dr. Aramandla Ramesh is an Associate Professor in the Department of Biochemistry & Cancer Biology at Meharry Medical College in Nashville, TN. Dr. Ramesh earned his first Ph.D. in Marine Microbiology from Annamalai University, India in 1986. He earned his second Ph.D. in Environmental Toxicology from Ehime University, Japan in 1992. His areas of expertise are bioavailability, toxicokinetics, and biotransformation, acute and subchronic toxicity of polycyclic aromatic hydrocarbons (PAHs). Current research in Dr. Ramesh's laboratory focuses on colon cancer caused by benzo(a)pyrene (BaP), a fat-soluble, widely distributed environmental chemical that belongs to the PAH family of compounds. Studies in his laboratory have shown that exposure of rats and mice to BaP and other PAHs through saturated fat cause induction of cytochrome P450 (CYP) family of enzymes resulting in the formation and distribution of reactive metabolites which stay in target tissues for a longer time and cause enhanced DNA damage. Ongoing research in his laboratory will eventually address the issue of how environmental factors (exposure to toxicants) and dietary practices (excessive intake of animal meat and fat products tainted with BaP) contribute to colorectal cancer in African Americans (third leading cause of cancer related mortalities) relative to other racial/ethnic groups. Before joining the faculty at Meharry in 2001, Dr. Ramesh was a research specialist in the Departments of Family & Preventive Medicine, and Pharmacology at Meharry. His earlier research focused on acute and subchronic toxicity of PAHs found in hazardous waste sites that were in close proximity to minority communities. Dr. Ramesh's association with the Meharry Medical College-Vanderbilt University Environmental Health consortium allows him to

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combine his long standing research experience in classical PAH toxicology and work collaboratively with Vanderbilt colleagues from the Basic Sciences and Community Medicine departments to investigate the interplay between diet and environmental contaminant exposure using state-of-the-art analytical and molecular approaches. As a Robert Wood Johnson Health Policy Associate, his current research is focused on exposure of minority communities to environmental chemicals and health disparities.Dr. Ramesh has extensively published in environmental chemistry & toxicology (more than 50 peer-reviewed publications, and 6 book chapters). He completed 4 National Institutes of Health (NIH)-funded projects in toxicology & chemical carcinogenesis. Two more projects are in progress. Dr. Ramesh served as a consultant to the Common Wealth Foundation, UK, International Development Research Centre, Canada, and Natural Environment Research Council (NERC), UK. He is also serving as a reviewer for research proposals submitted to the NIH, Robert Wood Johnson Foundation, and NERC, UK. Dr. Ramesh also serves on the editorial boards of Toxicology Mechanisms & Methods, ISRN Toxicology, and Polycyclic Aromatic Compounds.

Ramos,Kenneth

University of Arizona

Dr. Kenneth Ramos is a member of the Arizona Respiratory Center and BIO5 Institute, and Professor of Medicine at University of Arizona. Dr. Ramos previously held the position of Distinguished University Professor of Biochemistry and Molecular Biology and Director of the Center for Environmental Genomics and Integrative Biology at the University of Louisville School of 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 preliminary training in Internal Medicine at the University of Louisville Health Sciences Center. He has 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 Center for Environmental Genomics and Integrative Biology, James Graham Brown Cancer Center, Center for Genetics and Molecular Medicine, Birth Defects Center, Gheens Center for Aging, and Center for Environmental and Regulatory Metabolomics. 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.

Rider,Cynthia

National Institute of Environmental Health Sciences

Cynthia V. Rider, PhD, DABT Narrative on qualifications for serving as a member of the Science Advisory Board Chemical Assessment Advisory Committee for the US EPA Toxicological Review of Benzo[a]pyrene in Support of Summary Information on the Integrated Risk Information System (IRIS) I am a toxicologist at the National Toxicology Program, National Institute of Environmental Sciences, and serve as the lead study scientist for a wide array of nominated test articles. In this role, I review existing literature on each test article, identify knowledge gaps, design studies to fill the identified gaps, evaluate resulting data, and present findings in comprehensive technical reports and/or peer-reviewed manuscripts. Through this process, I have gained significant experience relevant to serving successfully on the Chemical Assessment Advisory Committee for review of the US EPA draft Toxicological Review of Benzo[a]pyrene. I have experience evaluating data from diverse study types (e.g., cell-based, in vivo) and different target systems (e.g., developmental and reproductive toxicity, neurotoxicity, immunotoxicity) and I have a working knowledge of dose-response modeling concepts. Currently, I am the lead study scientist for the Polycyclic Aromatic Compound Mixtures Assessment Program (PAC-MAP). Over the past two years, I have critically evaluated PAC literature, including a significant number of benzo[a]pyrene studies, and designed a research program aimed at increasing our understanding of the toxicity of PACs and PAC-containing environmental mixtures. In this research program, in vitro, alternative animal, and in vivo mammalian models will be used to assess the toxicity of multiple individual PACs (e.g., benzo[a]pyrene), as well as complex mixtures. I have also initiated collaborations with government and academic PAC experts and organized seminars and a scientific session at the Society of Toxicology annual meeting on the topic of PAC toxicity. Lastly, I have served as a peer-reviewer for a number of research articles relating to PAC toxicity.

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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

Sahmel,Jennifer

Cardno ChemRisk

Ms. Sahmel is a certified industrial hygienist (CIH) and a certified safety professional (CSP) with 17 years of experience in human health risk assessment and workplace health and safety. Her areas of expertise include comprehensive exposure and risk assessment strategies, exposure reconstruction, qualitative and quantitative dermal exposure assessment methods, Bayesian decision analysis, U.S. EPA exposure assessment tools, OSHA regulatory issues, Proposition 65 health risk assessment, health risk decision making, industrial hygiene monitoring and data analysis, safety and occupational health management methods, and safety leadership. Ms. Sahmel has been involved in characterizing exposure to a variety of specific chemicals in both occupational and consumer product exposure scenarios, including asbestos, benzene, phthalates, lead, and vinyl chloride. She has also conducted exposure assessments and exposure reconstructions for paints/coatings, boiler water treatments, organic solvents, mercury, arsenic, and carbon monoxide. Ms. Sahmel has served as working group member and as conference co-chair for programs convened specifically to evaluate dermal exposure to occupational and environmental chemicals. She was a member of the advisory working group on Skin Notations and Dermal Exposure Issues for the National Institute for Occupational Safety and Health (NIOSH). This group was charged with assisting the agency in updating and expanding the NIOSH skin notations, and provides expert guidance to NIOSH on dermal exposure issues, 2005 - present. Ms. Sahmel is a member of the International Standards Organization (ISO) Technical Committee 146, Subcommittee 2, Workgroup 8, Air Quality – Workplace Atmospheres – Assessment of Contamination of Skin and Surfaces from Airborne Chemicals, 2006 - present. The primary objectives of this working group are to harmonize dermal exposure assessment terminology and to provide internationally standardized tools to assess dermal exposure. Ms. Sahmel Co-Chaired a 2007 conference on Occupational and Environmental Exposures of the Skin to Chemicals (OEESC) in which she lead discussions with occupational and environmental health professionals, dermatologists, policy-makers and others to address the science, knowledge gaps, future challenges, and policy opportunities related to occupational and environmental exposures of the skin to chemicals. The primary sponsors of the conference included NIOSH, U.S. EPA, and the American Industrial Hygienists association (AIHA).

Schlesinger,Richard

Pace University

Richard B. Schlesinger is Associate Dean for Academic Affairs and Research in the Dyson College of Arts and Sciences of Pace University, in New York, NY. He is also Professor of Biology and Environmental Science. Dr. Schlesinger has published extensively in the areas of respiratory toxicology of ambient air pollutants, especially related to the deposition of inhaled particles and the relationship of both particulate and gaseous air pollutant exposure to the pathogenesis of non-neoplastic pulmonary diseases. His research was supported by various sources, including NIEHS, USEPA, NIOSH, HEI, Electric Power Research Institute and NIOSH. He was recipient of the Society of Toxicology Inhalation Specialty Section Career Achievement Award, the ILSI Morgareidge Award for achievement in Inhalation Toxicology, and the Herbert Stokinger Award for contributions to the field of industrial and environmental toxicology. He has served on numerous National Academy of Science committees, including the Committee on Research Priorities for Airborne Particulate Matter, the Committee on Gulf War and Health III, and the Committee on Acute Exposure Guideline Levels. He has served as consultant to various governmental agencies, contributing to

USEPA Air Pollutant Criteria Documents, and WHO, to the Clean Air for Europe group air quality documents. He has served as a member of the USEPA CASAC Review Panel for NOx and SOx. He is an Associate Editor of the journal, Inhalation Toxicology, and a Fellow of the Academy of Toxicological Sciences.

Simon,Ted

University of Georgia

Dr. Ted Simon is an adjunct professor in Environmental Health Sciences at the University of Georgia School of Public Health. He has a bachelor's degree in Biology from Middlebury College and a Ph.D. in Neurobiology and Behavior from Georgia State University. Prior to his current role as adjunct professor and consultant, Dr. Simon was employed by EPA at the Region 4 office in Atlanta. There he served as the senior toxicologist in the Waste Division and the IRIS consensus reviewer. Currently, he provided scientific support to both public and private sector entities and has commented extensively on recent IRIS assessments.

Skoglund,Robert

3M Company

Dr. Skoglund is a toxicologist, environmental chemist, and industrial hygienist. He is presently 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.

Spencer,Peter

Oregon Health & Science University

Peter Spencer, PhD, FANA, FRCPath is senior scientist, Oregon Institute of Occupational Health Sciences and professor of Neurology, Oregon Health & Science University, where he was founding director of the Center for Research on Occupational and Environmental Toxicology and the Global Health Center. Dr. Spencer's more than 40 years of research has focused on cellular and molecular mechanisms of a wide range of substances with neurotoxic potential, animal and tissue culture models of human neurotoxic disease, and the role of manmade and natural chemicals in neurodegenerative disorders. He has wide local, national and international teaching experience, more than 200 papers in peer-reviewed journals, and a similar number of reviews, chapters and books. Dr. Spencer's federally supported research has been recognized with numerous national and international awards and named lectureships, and he holds honorary faculty appointments on three continents. .

Squibb,Katherine S.

University of Maryland School of Medicine

Katherine S. Squibb, PhD is a Professor in the Department of Medicine at the University of Maryland in Baltimore, and Co-Director of the University of Maryland System-Wide Graduate Program in Toxicology. Dr. Squibb received

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her PhD in biochemistry from Rutgers, the State University of New Jersey in 1977 and completed a postdoctoral fellowship at the National Institute of Environmental Health Sciences (NIEHS) in Research Triangle Park, NC in 1982. In addition to a basic research interest in cellular mechanisms of metal ion toxicity and carcinogenicity, Dr. Squibb's research involves the study of health effects of ambient air particles and the renal toxicity of heavy metals, with a current focus on human health effects of metals released from embedded metal fragments. Since 1994, Dr. Squibb has also worked in the risk assessment/public health field, providing technical support to citizen groups involved in the evaluation of health effects and remediation of hazardous waste sites in their communities.

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 Section Chief for Risk Assessment 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 University of Medicine and Dentistry of New Jersey-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. Dr. Stern was a member of the National Research Council/National Academy of Sciences Committee on the Toxicology of Methylmercury (1999-2000) and a member of the recent 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.

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van den Hurk,Peter

Clemson University

Dr. Peter van den Hurk is associate professor and program coordinator for the Graduate Program in Environmental Toxicology at Clemson University, SC. As an environmental toxicologist, he has worked on the toxicity of benzo[a]pyrene (BaP) since 1994, when he started his dissertation project on the interactive effects of BaP and cadmium in a model fish species (Fundulus heteroclitus) in the School of Marine Science at the College of William and Mary. He investigated these interactive effects at whole animal level, in isolated primary hepatocyte cultures and at subcellular biochemical level by measuring the spectrum of BaP metabolites. He also investigated if reactive BaP metabolites might interfere with the cadmium detoxification capability of metallothioneins. During his post-doctoral research period at the College of Pharmacy, University of Florida, he kept working with BaP as a model compound. For this project he was interested to investigate the effects that hydroxylated polychlorinated biphenyl compounds have on the conjugation of BaP metabolites by phase 2 enzymes. During his tenure as faculty member at Clemson University, he kept working on the toxicology of PAHs, with BaP as model compound. He conducted a variety of CYP1A induction studies and bile fluorescence analyses as biomarkers for BaP exposure and effects, both in field collected animals from polluted rivers in the upstate of South Caroline, and in controlled lab experiments. The main focus is to investigate species differences in PAH biotransformation pathways and to explain those differences as a reflection of evolutionary pathways. Dr. van den Hurk is an active reviewer for leading toxicological journals, is involved in NSF grant proposal reviews and is Associate Member of the Graduate Faculty of the Medical University of South Carolina, Charleston, SC.

Vorhees,Charles

Cincinnati Children's Research Foundation & Univ. of Cincinnati

Dr. Charles V. Vorhees is Professor of Pediatrics and Environmental Health at the University of Cincinnati College of Medicine in the Division of Neurology, Cincinnati Children's Research Foundation (CCRF) of the Cincinnati Children's Hospital Medical Center. He is Program Director of the Doctoral and Postdoctoral Training Program in Teratology and Co-Director of the CCRF Shared Facilities Animal Behavior Core. He received a BA in Psychology/Biology from the McMicken College of Arts and Sciences, University of Cincinnati and MA and PhD from Vanderbilt University in Neurobiology. After a two year postdoctoral fellowship in Neurotoxicology and Teratology, he joined the faculty of the University of Cincinnati in 1978. He has studied the neurodevelopmental effects of therapeutic and illicit drugs, metals, and pesticides on brain and behavior and genetic loss-of-function animal models of ADHD and depression-related phenotypes of neuropsychiatric disorders. Dr. Vorhees has served as Director and Director of Graduate Studies for the doctoral programs in Neuroscience and in Molecular and Developmental Biology at the University of Cincinnati. He served as Editor-in-Chief of the journal Neurotoxicology and Teratology for 9 years and as section editor for 12 years and section editor of the journal Teratology for four years. He has served on NRC, EPA, and FDA scientific advisory panels, on NIH grant review committees, been ad hoc grant reviewer for NSF, VA, Oak Ridge National Research Laboratory, March of Dimes, American Chemical Council, International Life Sciences Institute, and for granting agencies in the UK, Canada, New Zealand, Israel, and Ireland. He is a founding member and twice past-president of the Neurobehavioral Teratology Society and member of the Teratology Society, Society of Toxicology, Society for Neuroscience, and International Behavioral Neuroscience Society. His research has been supported by grants from NIH, NSF, FDA, DOD, and non-federal organizations for >35 years. His research has resulted in 290 peer-reviewed journal articles and book chapters. He was chosen as a Society for Neuroscience Grass Foundation Lecturer in 2002 and an Eli Lilly Distinguished Lecturer in 1990. He is an elected member of Sigma Xi. His current research is on the role of Pde1b in depression, Lphn3 in ADHD, Slc6A8 in Creatine Transporter Deficiency, SSRI's in Autism Spectrum Disorder, developmental neurotoxicity of manganese, long-term effects of developmental stress, effects of pyrethroids, and transgenerational epigenetic effects of PCBs.

Walter,Christi

University of Texas Health Science Center at San Antonio

Dr. Walter is Professor and Chair, in the Department of Cellular & Structural Biology at the University of Texas Health Science Center at San Antonio (UTHSCSA), and a Health System Scientist at the South Texas Veterans Health Care System, Audie Murphy Hospital. She obtained a B.S. degree in biology from Rockhurst College in Kansas City, MO, a Ph.D. from Florida State University in Tallahassee, FL, and completed a postdoctoral fellowship at University of Texas MD Anderson Cancer Center, Science Park, Research Division. She was appointed as an Assistant Professor

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at the UTHSCSA in 1990 and rose through the academic ranks to her current position as Professor and Chair of the Department. Dr. Walter is currently a member of the Internal Advisory Committee for the Cancer Therapy and Research Center at UTHSCSA, Chair, Geriatric Research, Education and Clinical Center (GRECC) Advisory Committee, Audie L. Murphy Memorial Veterans Hospital, San Antonio, TX, Member, Promotion Panel, South Texas Veterans Health Care System, Research and Development, Member, Barshop Institute for Longevity and Aging Studies Executive Advisory Committee, Member, Internal Advisory Committee for the Department of Laboratory Animal Resources, UTHSCSA Dr. Walter's background is in cell, molecular and developmental biology. Her expertise is in DNA repair and mutagenesis. Current research activities include studying germline mutagenesis from environmental genotoxins such as benzo[a]pyrene and bisphenol A, mechanisms by which antibiotics disrupt metabolism leading to fatty liver and insulin resistance, and studying the contribution of alkylation damage and repair in hepatocellular carcinoma. Her lab is developing approaches to study DNA repair and mutagenesis in spermatongonial stem cells.

Wells,Peter

University of Toronto

Dr. Peter G. Wells is a professor at the University of Toronto in the Division of Biomolecular Sciences in the Faculty of Pharmacy, and in the Department of Pharmacology & Toxicology in the Faculty of Medicine. His research interest is in the toxicology of reactive intermediates, particularly involving oxidative stress and DNA damage and repair in teratogenesis, neurodegeneration and carcinogenesis. He was a keynote speaker at the 11th International Congress of Toxicology at Montreal (2007), and at the Brain Awareness Week, University of Saskatchewan (2007). Grass Traveling Scientist Award, Saskatchewan Neuroscience Network (2007). Deichmann Nomination, Society of Toxicology of Canada (STC) (2005). Dr. Wells was the president of the Reproductive & Developmental Toxicology Specialty Section of the Society of Toxicology (SOT) (2001-2002). He has published highlighted research papers in Cancer (2009), Chemical Research in Toxicology (2013), The FASEB Journal (2011), Nature Medicine (1999) and Toxicological Sciences (2004, 2011). Dr. Wells was an invited speaker at over 110 international and national presentations, including symposium speaker at annual meetings of SOT, American Society for Pharmacology & Experimental Therapeutics, Teratology Society (USA), International Society for the Study of Xenobiotics, STC, International Union for Pharmacology and International Union for Toxicology. He has supervised 23 Ph.D. and 13 M.Sc. students and 7 postdoctoral fellows, with over 110 peer-reviewed publications. His grant support has included the Canadian Institutes of Health Research (CIHR), the National Institute of Environmental Health Sciences (NIH) and the Hospital for Sick Children Foundation in Toronto. Dr. Wells has served on grant review committees for CIHR (Pharmaceutical Sciences, Pharmacology & Toxicology, and University-Industry Panels), the National Cancer Institute (NIH) and the U.S. Environmental Protection Agency.

Wheeler,Matthew

National Institute for Occupational Safety and Health

Dr. Matthew Wheeler currently works for the National Institute for Occupational Safety and Health in the Risk analysis Branch. He has worked there since 2003. Since obtaining his Ph.D in Biostatistics from the University of North Carolina and Chapel Hill in 2013, his primary research interests and expertise is in statistical modeling and risk assessment. His current research includes work on nonparametric methods for benchmark dose estimation (for both continuous and non-continuous endpoints) and the development of novel statistical methodologies for non-chemical risk assessment (e.g., shift work and musculoskeletal disorders). Further, he is actively researching nonparametric Bayesian methodologies for QSAR mapping to dose response analysis for high throughput assays. His work on model averaging and semi-parametric methods has merited numerous awards including the CDC Charles C. Shepard award for scientific excellence.

Willett,Kristine

University of Mississippi

Dr. Kristine L. Willett is Professor of Pharmacology Department of Pharmacology, and Environmental Toxicology Research Program School of Pharmacy University. She is an environmental toxicologist with >20 years experience studying the effects of benzo[a]pyrene. For the last ten years, she has had continuous NIEHS support to study the mechanisms of BaP toxicity ranging from enzymes involved in BaP's metabolic activation to now the reproductive, developmental and multigenerational effects of BaP exposure. She has 28 publications that are directly related to BaP toxicity. While she has primarily used fish as in vivo models to study BaP's mechanisms of action, Dr. Willett also

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used human endometrial and prostate cell lines for chemoprevention work. Additionally, she has developed an analytical technique to more sensitively and quickly quatitate BaP metabolites (J. Chromatography). Most recently, she has discovered that a parental dietary exposure to BaP had developmental consequences out to the F2 generation of untreated offspring (Aquatic Tox) and BaP exposure affects DNA promoter methylation profiles during development (Comparative Biochemistry and Physiology, Part C). While Dr. Willett has not directly served on a similar advisory panel, she has extensive committee experience both in her School of Pharmacy (e.g. leading the curriculum reaccreditation team) and nationally within SOT (e.g. officer in the Molecular and Systems Biology Specialty Section since 2007). Notably, she has served on NIEHS's Environmental Health Sciences Standing Review Panel since Fall 2011.

Willhite,Calvin

Risk Sciences International

Dr. Calvin C. Willhite is a Senior Contract Toxicologist with Risk Sciences International, Washington, D.C. where he develops health risk assessments for man-made and naturally-occurring chemicals. Dr. Willhite has published primarily in developmental toxicology, and quantitative structure-activity relationships. His research has been supported by Hoffmann LaRoche, U.S. Department of Agriculture, National Research Council, National Science Foundation, National Institutes of Health, the States of California, Pennsylvania, and Arizona, U.S. Agency for International Development, International Association of Plumbing and Mechanical Officials and the March of Dimes. He serves on the editorial boards of Toxicology & Applied Pharmacology, the Journal of Toxicology and Environmental Health and Toxicology. Dr. Willhite has been a member of the National Academy's Committee on Toxicology, the U.S. EPA's National Advisory Committee, the National Toxicity Program's Scientific Advisory Committee on Alternative Toxicological Methods, International Life Sciences Institute's Structure-Activity Database Project, the National Research Council's Submarine Air Quality and Acute Exposure Guidelines Subcommittees, the National Sanitation Foundation Health Advisory Board, the American Conference of Governmental Industrial Hygienist's Committee on Threshold Limit Values, the International Agency for Research on Cancer Chemoprevention Panel and Cal/Occupational Safety and health Administration's Lead in Construction PEL Committee. He is a member of the Society of Toxicology and his biography appears in Who's Who in America , Who's Who in Science and Engineering and Who's Who in Medicine and Healthcare.

Wolff,Ronald

RK Wolff - Safety Consulting Inc

Dr. Ron Wolff is President of RK Wolff - Safety Consulting Inc. He is a former Executive Director of Preclinical Safety Assessment for Novartis, Senior Fellow in Toxicology at Nektar Therapeutics, Group Leader of Inhalation Toxicology at Eli Lilly, and Senior Scientist at Lovelace Inhalation Toxicology Research Institute. Dr. Wolff has experience in toxicology in environmental health and a wide range of therapeutic areas, including respiratory, oncology, endocrine, infectious disease, and biologics with special expertise in inhalation toxicology and pulmonary biology with applications to pharmaceuticals, and occupational and environmental health. Dr. Wolff has been at the forefront of using animal models for pharmacologic and toxicologic evaluations aiding drug development. He has published more than 140 articles on topics including inhalation toxicology, environmental toxicology, pharmaceutical aerosols, leachables and extractables, and oncology. He is a Diplomate of the American Board of Toxicology, a former member of the Board of Directors of the International Society of Aerosols in Medicine, and is a Past-President of the American Association for Aerosol Research. Dr. Wolff has served on EPA review panels for criteria documents on sulfur oxides and particulate matter, and also NIH grant reviews of health effects of environmental pollutants. He has also served as a reviewer of environmental health effects programs at the University of California Irvine. He is a consultant to many pharmaceutical companies. He is on the editorial boards of Inhalation Toxicology and the Journal of Aerosol Medicine and Pulmonary Drug Delivery. He is a Fellow of the American Association for Aerosol Research and is a recipient of the Thomas T Mercer Prize for career achievement in research on health effects of inhaled materials.

Wozniak,Ryan

WI Department of Health Services

Dr. Ryan Wozniak has worked for the Wisconsin Department of Health Services (DHS) since 2008, providing technical expertise and guidance in planning for, assessing and mitigating the human health risks posed by hazardous chemicals. He received a BS from the University of Notre Dame in 1997, an MPH in Environmental Health from

Columbia University in 1999 and a PhD in Pharmacology and Toxicology from the University of Arizona in 2006. As a Master's student, he worked at the New York City Department of Health, where he investigated the environmental causes of asthma mortality and the effects of occupational lead exposure on human reproduction. His doctoral and post-doctoral research focused on identifying molecular mechanisms underlying the development of breast cancer and the differentiation of hematopoietic stem cells, respectively. Ryan's research has resulted in the publication of numerous peer-reviewed journal articles and a book chapter, and has been presented at various national and international scientific conferences. Ryan currently serves as toxicologist and risk assessor for our agency's Cooperative Agreement Program with CDC's Agency for Toxic Substances and Disease Registry (ATSDR). His activities in this position include: identifying exposure pathways at contaminated sites; educating affected communities and local health professionals about site contamination and potential health effects; reviewing health outcome data to evaluate potential links between site contaminants and community health outcomes; and identifying, implementing, and coordinating public health interventions to reduce exposures to hazardous substances at levels of health concern. Prior to his work with the CDC/ATSDR Cooperative Agreement Program, he served as our agency's Chemical Preparedness Coordinator from 2008 to 2011, working closely with local, state and federal agencies on chemical emergency planning and response activities.

York,Raymond

R.G.York & Associates

Dr. York is a formally trained toxicologist with 30 years of research experience. He was board-certified as a Diplomate of the American Board of Toxicology in 1986 and has served on its Board of Directors. He is certified as a European Registered Toxicologist and as a Fellow of the Academy of Toxicological Sciences. He has served as a study director on over 700 safety evaluation studies. Dr. York has published over a 100 manuscripts, review articles, book chapters and abstracts, and has been an invited speaker at international conferences. Dr. York 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. Dr. York has been a member of the Society of Toxicology since 1985, and the American College of Toxicology since 1998. As a member of the Reproductive and Developmental Toxicology Specialty Section of SOT, he served on its Nominating Committee and currently is Vice President. He is on the Program Committee and is the current Past-President for the Middle-Atlantic Regional Section (MASOT). Dr. York has been a member of the Teratology Society since 1984, and has been a member and served as the President for both the Midwest Teratology Association (MTA; 1989) and the Mid- Atlantic Reproduction and Teratology Association (MARTA; 2004). Dr. York 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 is a peer consultant for assessment of the potential health-effect risks for a number of consulting firms and recently served on a GRAS Panel. Currently, he is also an adjunct professor teaching General Biology and Human Anatomy & Physiology.

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